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Animals in Stone

Indian Mammals Sculptured Through Time

by

Alexandra van der Geer

BRILL

Animals in Stone

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On the cover: Pairs of animals (sloth bears, human-faced lions, rhinoceroses, horses and guardians with dogs) flanking the steps leading towards the brick podium of the Nyata Poul or Siddhi Lakshmi temple at Bhaktapur, Nepal, 17th century. Photograph: courtesy Ron Layters.

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ACKNOWLEDGMENTS

As a veterinary medicine student, in 1985, my interest in Indian art and archaeology was strengthened during a bachelor course given at the Faculty for South Asian Languages and Cultures by Karel van Kooij. As a result of his great enthusiasm, it was that I decided to add as many art history lessons as possible to the curriculum of my secondary study, that of Indology. The rest of this curriculum was devoted to Sanskrit, in which I evidently finished my PhD. This classic language, had my interest, not only because of the inspiring lessons and admiration for classic literature of my teachers, the late Leendert van Daalen and Henk Bodewitz, for which I am very grateful, but also because it is the key to the understanding of Indian culture and religion. In the field, I learned to appreciate archaeological objects and to observe preserved details by Fabio Martini of the University of Sienna, Italy. Needless to say, my love for animals was well fed during my primary study, that of veterinary medicine. Later, it was John de Vos of Naturalis, Leiden, who learned me to see differences in external appearance of the various mammalian species. The late Paul Sondaar taught me the principles of zooarchaeology. The combination of art history, archaeology, literature, mythology and zoology finally culminated in this project, Animals in Stone.

I am particularly grateful to Janet Kamphorst for information on Rajasthan's history and folklore, especially concerning the horse-riding heroes, princely hunting and the mother goddesses. Next I would like to express my gratitude towards Stephen Nash (Stony Brook University, New York) for monkeys in art, Eleni Voultsiadou (Aristotle University of Thessaloniki, Greece) for fauna in Homer's time, George Lyras (University of Athens, Greece) for his expertise on living canids and for taking photographs for study at the Metropolitan Museum of Art (New York), Kurt Behrendt (Metropolitan Museum of Art, New York) for information on animals in the art of Gandhara, Michael Dermitzakis (National University of Athens, Greece) for the geological history of the Indian subcontinent, Arlo Griffiths (Kern Institute, Leiden University, the Netherlands) for dating of several Indian texts, and Susan Huntington for our discussion on the absence of the donkey from Indian lithic art.

This study necessarily included travels abroad to visit zoological gardens, natural history museums and their comparative collections, and

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In a more personal sphere, my gratitude and appreciation goes to my daughters Carmen and Anna, who patiently waited while I was far away from home, or got carried away behind my computer to finish yet another version of this book.

Alexandra van der Geer

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THE LANGUR OR HANUMAN MONKEY

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LIST OF ABBREVIATIONS

AitB	*Aittareya Brahmana*
AP	*Abhidhamma Pitaka*
Arth	*Arthasastra* of Kautilya
ASI	Archaeological Survey of India (CC Central Circle Series, DGA Director General Annual Report, FC Frontier Circle Series, IM Indian Museum List, IO Indian Office List, NC Northern Circle Series, SC Southern Circle Series, WC Western Circle Series)
BDCRI	*Bulletin of the Deccan College Research Institute*
JAOS	*Journal of the American Oriental Society*
JBNHS	*Journal of the Bombay Natural History Society*
Kir	*Kiratarjuniyam* of Bharavi
Mbh	*Mahabharata*
PNAS	*Proceedings of the National Academy of Sciences of the USA*
PRS	*Proceedings of the Royal Society, London*
RV	*Rig Veda*
ShB	*Shatapatha Brahmana*
TB	*Taittiriya Brahmana*

TIMETABLE OF MAJOR PERIODS AND DYNASTIES (STYLES) IN INDIAN ART HISTORY

Date (by rough estimation)	Period/Dynasty	Main influence	Example in Stone
8000–2500 B.C.E.	Neolithic	Entire subcontinent	Flint tools
2600–1750 B.C.E.	Harappa (Indus Valley culture; Bronze Age)	Indus Valley, Gujarat, Punjab, doab	Seals
1750–1200 B.C.E.	post-Harappan	Indus Valley, Gujarat, Punjab, doab	
1050–450 B.C.E.	Painted Grey Ware (Iron Age)	Pakistan, northern India	
800–200 B.C.E.	Northern Black Polished Ware (Iron Age)	Pakistan, northern India	Fortifications (e.g. Rajgir)
700–200 B.C.E.	Megalithic period (Iron Age)	Southern India	Megalithic tombs
326–185 B.C.E.	Maurya	Northern India	Free-standing pillars (e.g. Sarnath)
185–75 B.C.E.	Shunga	Madhya Pradesh, Bihar, West Bengal	Stupa railing at Bharhut
100 B.C.E.–50 C.E.	Shaka-Parthian	Ancient Gandhara (Bactria, Pakistan, NW India)	Double-headed Eagle shrine (Sirkap, Taxila)
225–400	Ikshvaku (Late Andhra)	Andhra Pradesh, Orissa	Stupa's (e.g. Nagarjunakonda)
100 B.C.E.–400 C.E.	Kushana, Gandhara style	Ancient Gandhara (Bactria, Pakistan)	Hellenistic Buddha images
0–300	Kushana, Mathura style	Uttar Pradesh	Stupa railings and gateways (Mathura district)

Table (*cont.*)

Date (by rough estimation)	Period/Dynasty	Main influence	Example in Stone
100 B.C.E.–200 C.E.	Satavahana (Early Andhra in A.P.)	Deccan, Madhya Pradesh, Andhra Pradesh	Great Stupa's (Amaravati, Sanchi), railing of Mahabodhi temple (Bodhgaya)
400–600	Gandhara	Swat Valley, Afghanistan	Portable shrines
300–800	Gupta, post-Gupta	North India	Dashavatara temple (Deogarh), Mahabodhi temple (Bodhgaya)
250–500	Vakataka	Central Deccan	Buddhist cave monasteries (Ajanta)
520–600	Kalachuri	Maharashtra, west Deccan	Shiva Cave (Elephanta Island)
550–728	Pallava	Tamil Nadu	Arjuna's Penance boulder (Mammalapuram)
600–850 and 850–1200	Pandya, early and late	Tamil Nadu	Meenakshi temple (Madurai)
500–800	Chalukya, early western	Karnataka	Rock-cut caves (Badami)
600–900	Chalukya, early eastern	Andhra Pradesh	Bhairavakonda Hill caves (Kottapalle)
800–1000	Nolamba	Karnataka	Bhoganandishvara temple (Nandi)
750–982	Rashtrakuta	Northern Deccan	Kailashanatha temple (Ellora)
736–11825	Tomar	Delhi	Sun temple (Surajkund)
300–600 and 625–1003	pre-Karkota and Karkota	Jammu and Kashmir	Sun temple (Martand)
300–850 and 850–1450	Lichchavi and post-Lichchavi	Nepal	Svayambhu stupa and Kashthamandapa (Kathmandu)
575–795	Panduvamsi, Nala	Orissa	Parashurameshvara temple (Bhubaneswar)
795–1000	Somavamsi	Orissa	Mukteshvara temple (Bhubaneshwar)

Table (*cont.*)

Date (by rough estimation)	Period/Dynasty	Main influence	Example in Stone
1077–1300	Ganga, eastern	Orissa	Surya temple (Konarak)
750–1200	Pala-Sena	Bihar, West Bengal, Bangladesh	Buddhist university (Nalanda)
730–1027	Gurjara-Pratihara	Madhya Pradesh, Uttar Pradesh, Gujarat, Rajasthan	Hindu temples (Osian)
925–1308	Chandella	Madhya Pradesh	Erotic sculptures (Khajuraho)
1000–1100	Paramara	Rajasthan	Mahanaleshvara temple (Menal)
950–1304	Solanki	Gujarat	Vimala-vasahi temple (Dilwara, Mount Abu)
862–1310	Chola	Tamil Nadu, Karnataka, Sri Lanka	Rajarajeshvara temple (Thanjavur)
900–1050	Ganga, western	Karnataka	Hindu temples (Talakad)
973–1189	Kalyani ("Chalukya")	Karnataka	Siddheshvara temple (Haveri)
900–1200	Chalukya, late eastern	Andhra Pradesh	Amareshvara temple (Amaravati)
1050–1325	Kakatiya	Andhra Pradesh	Hindu temples (Palampet)
1050–1346	Hoysala	Karnataka	Chennakeshava temple (Belur)
1336–1564	Vijayanagar (Sangama, Tuluva)	Tamil Nadu, Karnataka	Hazara Rama (Hampi)
1529–1736	Nayak	Tamil Nadu	Pudu Mandapa (Madurai)
1206–1526	Delhi Sultanate (Mamluk, Khalji, Tughlak, Sayyid and Lodi sultans)	Northern India	Qutb Minar, Red Fort (Old Delhi)
1480–1767	Malla	Nepal, Bengal	Jaggannatha dega (Kathmandu)
1498–1964	Portugese	Goa	Bom Jesus church (Velha Goa)

Table (*cont.*)

Date (by rough estimation)	Period/Dynasty	Main influence	Example in Stone
1526–1858	Mughal	Northern India	Taj Mahal (Agra)
1347–1686	Deccani Sultanate (Bahmani, Shahi)	Deccan	Ibrahim Adil Shah's tomb (Bijapur)
250 B.C.E.–459 C.E.	Anuradhapura, Early	Sri Lanka	Thuparama stupa (Anuradhapura)
459–993	Anuradhapura, Late	Sri Lanka	Abhayagiri Vehera (Anuradhapura)
1055–1270	Polonnaruwa	Sri Lanka	Potgul Vehera (Polonnaruwa)
1357–1815	Kandy	Sri Lanka	Temple of the Tooth (Kandy)
1613–1772 and 1772–1857	British trading centres and British East India Company	Surat, Chennai, Calcutta, Mumbai	Banquet Hall (Chennai)
1858–1947	British Raj	Entire subcontinent, except for Nepal	Victoria Terminus (Mumbai)
1948–present	Independency	Five independent states (India, Pakistan, Bangladesh, Sri Lanka, Nepal)	Sangath (Ahmedabad), Bahai Lotus temple (New Delhi)

INTRODUCTION

This book is written for indologists and art-historians to introduce them into the world of animal life and diversity in South Asia. It is at the same time written for zoologists to introduce them to the world of art and folklore of the same South Asia. The contact zone between the three disciplines—indology, art history and zoology—has been meagrely explored, which is regretful considering the potential impact of interdisciplinary knowledge. Stated in a more direct way, scholars from these three fields may learn from each other, but this is practically impossible due to the lack of sufficient reference material. The book tries to fill that gap by providing references for scholars working in various disciplines to make data available on South Asian mammals from the fields of zoology as well as art history (fig. 1).

The topics that are addressed in the book are based upon evidence from stone sculpture, in relation to what is known from texts—religious as well as literary—archaeological remains and, in some cases, other forms of the material culture. The main purpose is twofold. Firstly, to provide an overview of how Indian peoples of the past perceived their natural environment and the fauna of which humans are just another element. Secondly, to illustrate the evolution in time and the migration in space of these views. Written texts provide clues, but that is not enough. Visual arts are a valuable addition and that is the realm to which this book belongs. It illustrates the way Indian peoples from the remote past till roughly the colonial period perceived the animal kingdom around them (fig. 2).

The subject is limited to the South Asian subcontinent. But what makes this region so interesting for zoologists as well as for indologists and art historians? The answer lies in its long-term geological isolation, which resulted in a local evolution of animals, art and culture with now and then influxes from the east and the west. Once, the South Asian subcontinent was connected to what we now call Africa. Evidence for this are, amongst others, the dinosaur remains in the Deccan traps of Central India. Gradually, the South Asian landmass broke off. It formed an isolated continental island during the Mesozoic, drifting slowly towards the Palaearctic landmass in the North. The collision—which took place some forty million years ago—resulted in the formation of

Fig. 1. For the indologist, this is Nandi, the *vahana* of the Hindu god Shiva, as worshipped at Mysore in Karnataka. For the art-historian, this is a giant monolithic statue, dated to 1659–1672, carved at Mysore. For the zoologist, this is evidence of the role in religion of *Bos indicus*, the humped cattle of South Asia. For the geologist, this is an artefact made out of volcanic rocks, mainly composed of a black granite originating from the Chamundi Hills. Photograph: courtesy L. Meerson

the world's highest mountain range: the Himalayas. This uplift goes on, with a rate of about one cm per year, because the Indian plate continues to move towards the north with a speed of three to four cm per year.

The long-term isolation of South Asia, in the past by the surrounding oceans and later also by the relatively inaccessible Himalayas, resulted in a unique endemic fauna, originally with an African stamp, but with its own, isolated local evolution. Many species are restricted to this subcontinent and are not found in the wild elsewhere in the world. Famous examples are the Indian elephant, the blackbuck, the nilgai, the four-horned antelope, the spotted deer and the Indian rhinoceros. Disappearance from South Asia means disappearance from our planet. Put differently, information about these animals can be found only in South Asia. Not only the natural environment was shaped by the long-

Fig. 2. The role of animals in human society seen through the eyes of the artist and translated into a stone sculpture. Mammalapuram, Tamil Nadu, granite. Photograph: courtesy E. Sentner

term isolation. The same is valid for the human culture. The rather isolated position of the subcontinent, due to the Himalayan mountain chain and the oceans, provided the South Asian cultures an opportunity to develop relatively undisturbed. South Asia is so to speak the opposite of a melting pot. Local elements had the chance to be preserved and to evolve into a unique combination that is not seen elsewhere.

There is, however, more than the geological isolation which makes South Asia one of the most intriguing areas in the world. There is also its vastness. South Asia forms a subcontinent on its own and is known for its extreme variety of physical features. As a result, also its flora and fauna are immensely rich. Not only in number—quantity—, but also in variety—quality—. The same is valid for its human cultures, which adapted to local conditions and developed regional differences. The material culture and the social system of, for example, pastoralists from the Thar desert are not the same with those of the rice farmers of Tamil Nadu. Both are restricted to the local availability of materials and have a social system that fits their respective lifestyle best.

South Asia is used throughout this work in the geographical sense. It consists today of several nation states: India, Pakistan, Bangladesh, Nepal, Bhutan, Sikkim and Sri Lanka. Tibet belongs, zoologically and geologically speaking, to Central Asia and is therefore not included. The Nicobar and Andaman islands, though politically speaking part of India proper, are excluded as well, because they are geologically and zoologically related to the Pegu district of Myanmar—former Burma—. For convenience, I use the short term India regularly throughout this book instead of South Asia as can be inferred already from its subtitle.

Zoogeography

The natural border of the vast South Asian subcontinent consists of the Himalayas and related mountain chains in the north, northwest and northeast, and of the Indian ocean in the south, southwest and southeast. These borders make it difficult for land mammals to access. Access was only possible from the north and northwest along the few mountain passes, from the west along the desert terrains along the coastal route during the monsoons, when they are reasonably easy to cross, and from the east through the tropical evergreen forest belt along the coast.

Roughly speaking, the subcontinent can be divided into two main zoogeographic units:[1] on one side the West Himalayas and the arid western part—the Palaearctic section—, and on the other side the East Himalayas, the humid eastern part and the peninsula with Sri Lanka—the Oriental section—. Typical animals of the Palaearctic section, such as the ibex, the khur, the lion, the cheetah, the gazelle, the hangul or red deer and the bharal or blue sheep, entered India from the west and are found also in Central Asia and the Near East or even further. Typical animals of the Oriental section, such as the tiger, the muntjac, the hog deer, the sambar deer, the monkeys, the leopard and the red dog or dhole, entered from the east and are also found in Myanmar, Assam, southern China or further eastward. Apart from

[1] R. Pocock, *The fauna of British India including Ceylon and Burma. Mammalia—vol. 1, Primates and Carnivora (in part), Families Felidae and Viverridae* (The Hague: W. Junk, 1976; reprint of 1939, London: Taylor and Francis).

Fig. 3. The tropical thorn forests of the dry part of the Indo-Gangetic plain. Photograph: courtesy A. Kamphorst

the Palaearctic and Oriental elements, there are also exclusively Indian elements, which are not found outside India. These are, for example the blackbuck, the blue cow or nilgai, and the barasingha or swamp deer. The richest fauna in terms of biodiversity is found in the forests of the Western Ghats and the South Indian hills.

In reality of course, the picture is more complicated. South Asia south of the Himalayas can roughly be divided into four parts: west, east, north and south. The western part belongs to the Arabian-African desert range, which extends westward through Baluchistan and Iran to Iraq and Saudi Arabia. This is the dry part of the extensive Indo-Gangetic Plain, characterized by tropical thorn forests (fig. 3) and desert zones (fig. 4).

The eastern part forms the humid part of the Indo-Gangetic Plain and is element of the tropical evergreen forest belt of East Asia. In the deltas of the large river systems of the Ganges and the Brahmaputra, mangrove swamps and tidal islets make up the unique wet ecosystem of the Sundarbans.

The northern part consists of the alluvial plains of the three large rivers Indus, Ganges and Brahmaputra. These plains are enclosed by the Himalayas in the north and the Vindhya range and the rift of the

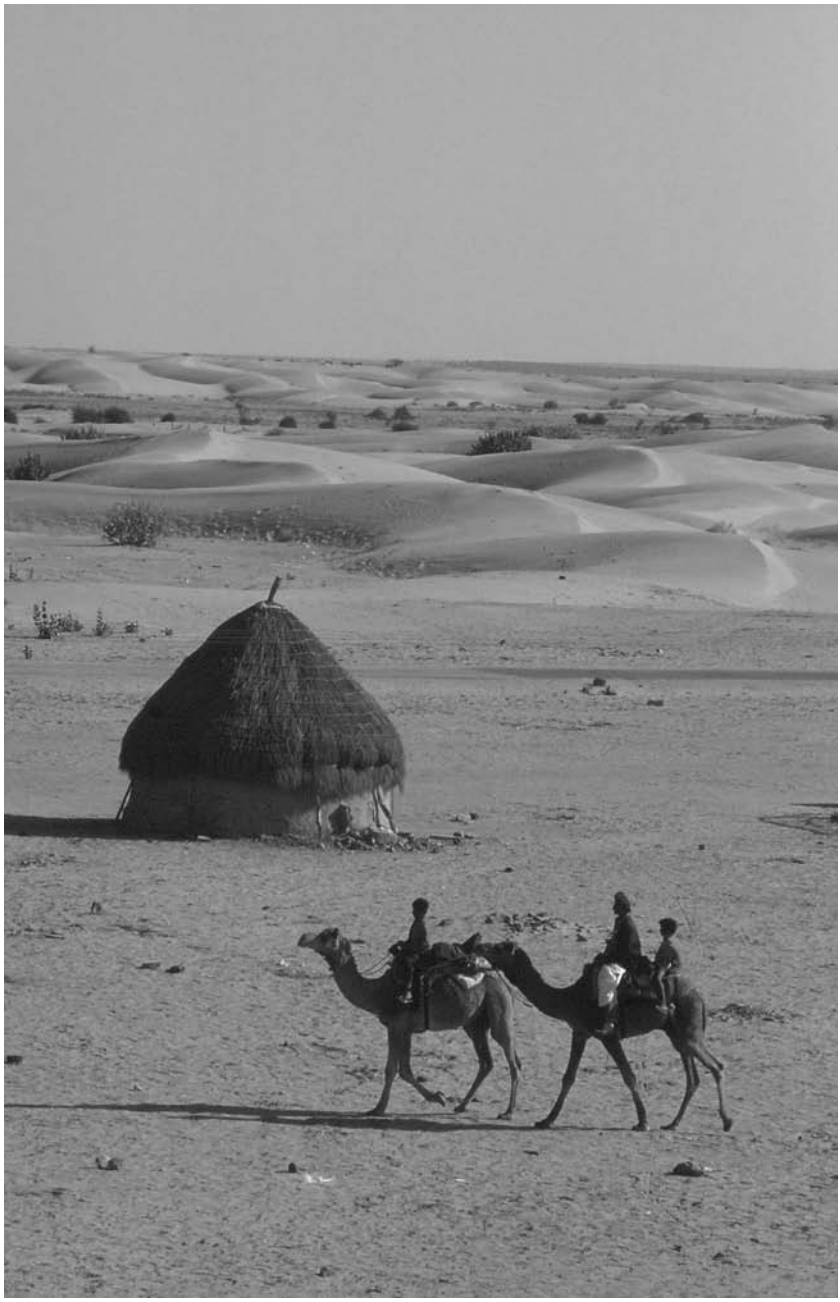

Fig. 4. The Thar desert of the dry part of the Indo-Gangetic plain. Photograph: courtesy A. Kamphorst

Fig. 5. The tropical dry evergreen forest of the Eastern Ghats. Photograph: A. van der Geer

Narbada river in the south. This part forms the transition between the arid zone of the west and the humid zone of the east. It is characterized by tropical moist deciduous forests, often consisting of sal trees, in its eastern half and tropical dry deciduous forests in its western half. This latter dry part continues into the Deccan tablelands of central India).

The southern part comprises the Eastern and Western Ghats along the eastern (Malabar) and western (Karnataka) coast respectively and the vast tableland in between. This tableland is characterised by hills and grass-covered plains, intersected everywhere by the tributaries of the six main rivers. Its climate is comparatively dry, due to the Western Ghats, which intercept the south-west monsoon so that most of its waters are released already on the seaward slopes in the form of exceptionally heavy rainfall. The ecology differs therefore as well: dense tropical wet forests with lofty evergreen trees and luxuriant growing bamboos on those seaward slopes of the Western Ghats, tropical dry deciduous forests, thorn forests and wide, open, grass-covered areas in the rest, intersected by forested gorges of the river systems, and tropical dry evergreen forests along the Eastern Ghats (fig. 5).

The Himalayas themselves contain a series of ecological habitats ranging from alpine, non-deciduous forests on the foothills (fig. 6) to

Fig. 6. The alpine forests of the Himalayan foothills. Shimla, The Mall below Barnes Court. Photograph: ASI, 1905–1915, courtesy Kern Institute, Leiden, the Netherlands

alpine meadows above the tree-line and bare rocks and permanent snow at high altitudes.

Sri Lanka belongs geologically and zoologically speaking to the southern part.[2] The separating Palk Strait was sometimes wider, sometimes smaller than it is today, based upon evidence from findings of fossils of marine species inland—coinciding with a wider strait—and of terrestrial species offshore—coinciding with a narrower strait—. Sri Lanka can roughly be divided into two parts. Firstly, a comparatively dry zone in the northern, eastern and south-eastern part, covered with jungle. Secondly, a moderately wet to wet zone in the centre and the south-western part, covered with forests and grasslands. The mammalian fauna of the first zone resembles that of the tableland of South India, whereas that of the second zone resembles more that of the Western Ghats. Their ancestors came from India, to which the island was con-

[2] C. Fernando, *Ecology and biogeography in Sri Lanka*, Monographiae Biologicae 57, ed. H. Dumont (The Hague: W. Junk, 1984).

nected at least twice in the geologically recent past by means of a land bridge: once during the last Ice Age (Pleistocene), and once much later during the Holocene. This latter connection may have lasted into the palaeolithic period. Since the end of the last connection, the fauna got isolated and evolved into the peculiar forms now characteristic for Sri Lanka. In general, Sinhalese mammals are up to 20% smaller than members of the same species on the mainland and are taxonomically often placed into subspecies on their own.

In all these parts of South Asia, a fauna is found that is adapted to the ecological needs of its region. The vegetation and with it the fauna ranges correspondingly from alpine through temperate up to tropical, and from arid desert through moist grasslands and deciduous forests up to wet evergreen jungles. In the western plains a large number of desert species is found. On the tablelands of the south, the savanna-loving species, like gazelles and antelopes, prevail. In the open, deciduous hill forests, deer, Indian bisons and dholes thrive. In the Sundarbans of the east, only water-loving animals can survive, such as swamp deer, tigers and crocodiles. The fauna of the Himalaya range is adapted to the strong winds and the extreme cold of high altitudes: all mammals bear a thick underfur to preserve their warmth. For example, the Himalayan tahr has long hairs all over its body and a heavy mane below the throat, whereas its sister taxon, the Nilgiri tahr, lacks all these. Arctic conditions prevail on the higher summits of the Himalayas, against tropical conditions below the foothills of the same Himalayas.

Environmental Change

South Asia no longer represents an unspoiled patchwork of various ecosystems. Here as well as elsewhere in the world, mankind adapted the landscape to its own needs and ideas, which resulted in a sometimes dramatic change including loss of original flora and fauna. The human impact starts with small villages which have hardly any influence on the natural environment. However, with the rise of large settlements, even in the seemingly empty desert zones (fig. 7), the human impact on the environment is enormous. This impact is especially clear when it comes to species which are at present on the brink of extinction. Once, cheetahs and lions were hunting gazelles and antelopes on large parts of the subcontinent. Nowadays, the cheetah is extinct in India and lions are restricted to natural reserves, such as the Gir Forest in

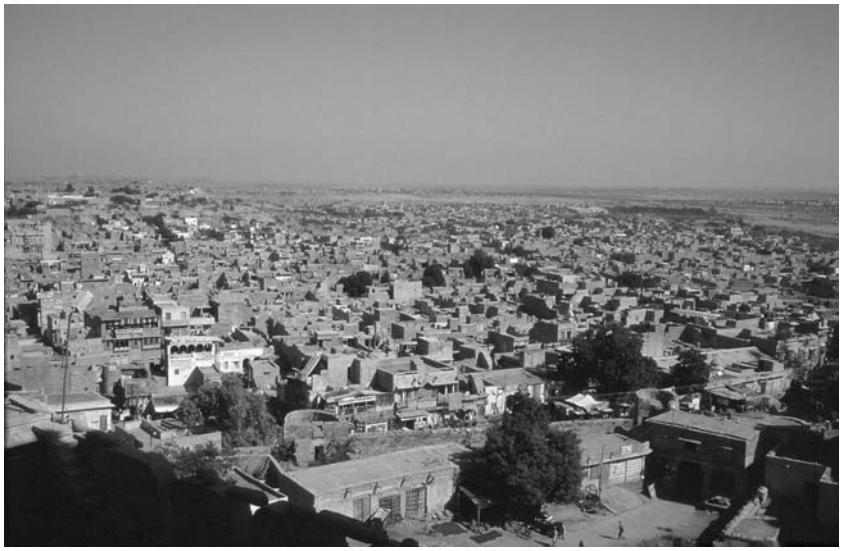

Fig. 7. The desert-town Jaisalmer, Rajasthan.
Photograph: courtesy A. Kamphorst

Gujarat. Though tigers and most wild herbivores are protected, it may even so be too late to save them from extinction. The once so common rhesus monkey needed special attention and protective laws to escape near-extinction (see section 28.1.3). Faunal diversity is steadily diminishing in front of our eyes. Sculptures from the past may thus represent a richer natural world.

Another reason for decrease in biodiversity lies in the climatic change over the past millennia. The clearest example of climate change and its impact on human culture is provided by the area including the Indus Valley of Pakistan and the western part of Rajasthan. Nowadays, less water is retained here than during the times of the Harappa culture of the Bronze Age. An indication of this is shown by some freshwater plants that grew in that region some 2,000 years B.C.E., but that are absent nowadays.[3] This means that the inhabitants of those settlements knew a larger variety of flora and fauna than is visible today. The impoverishing of the natural habit is only partly due to human-induced

[3] G. Singh, "The Indus Valley Culture. Seen in the context of postglacial climatic and ecological studies in North-West India," *Archaeology and Physical Anthropology in Oceania* 6 (1971), 177–189.

soil erosion and destruction of original vegetation. The major impact is ascribed to the climate. During the period between roughly 8,000 and 1,500 B.C.E., the region had three times more rainfall than it has today.[4] This coincides precisely with the period of the rise and growth of the Harappa culture. The increasingly drier climatic conditions in western Rajasthan and the Indus Valley were further accelerated by the rise of the Aravali hill chain and a westward shift of all rivers of the Sindh system.[5] As a side effect, lake levels started to drop in western Rajasthan around 2,000 B.C.E., eventually resulting in the salt lakes (*ranns*) of today.[6]

Notwithstanding the gradual decrease in biodiversity, the total richness of the vertebrate fauna of the South Asian subcontinent is still immense: about 365 mammal species, almost 1300 bird species, more than 400 reptile species and about 180 amphibian species are known to science today.

Domestication of animals

A very limited number of wild species—wild in the sense of living independently of human handling and control—have been domesticated worldwide. An even more limited number was originally domesticated in South Asia, such as the gayal or mithan. The majority comes from elsewhere, like the horse. The Indian elephant is indigenous to South Asia, but it cannot be considered domesticated in the proper sense.[7] Its breeding is often uncontrolled and wild partners are regularly involved. In the past, renewal and expansion of the herd was possible only through capture of wild elephants. The taming of this large animal is, however, done with success and Indian elephants are used on a large scale. Their occurrence outside South Asia is purely due to trade and

[4] G. Singh, R. Joshi, S. Chopra and A. Singh AB, "Late Quaternary history of vegetation and climate of Rajasthan desert, India," *Philosophical Transactions of the Royal Society, London* 267 B (1974), 467–501.

[5] Ibidem.

[6] M. Kajale and B. Deotare, "Late Quaternary environmental studies on salt lakes in western Rajasthan, India: a summarised view," *Journal of Quaternary Science* 12, 5 (1997), 405–412.

[7] J. Clutton-Brock, *Domesticated animals from early times* (London: Heinemann and The British Museum, 1981).

transport in the past. The tame Indian elephant formed one of India's export products.

In a number of cases, the relation between the wild and the domestic forms that we see nowadays in South Asia is clear: the wild water buffalo gave rise to the domestic buffalo, the gaur to the domestic gayal or mithan, and the yak to the domestic yak. For other domestic animals in South Asia, the relationship with their wild relatives is less evident. Domestic sheep and goats are not necessarily directly related to the wild sheep and goats of Pakistan, western India and the Himalayas. The zebu, or humped cattle, might have another ancestor than the aurochs from western Asia[8] as is commonly supposed. It may also have been a local, South Asian development, descending either from a close relative of the extinct *Bos namadicus* or from a variety of the banteng as is suggested by genetic studies. Wild boars may have been locally domesticated in South Asia, independent of southeastern Asia. Both the horse and the donkey were imported in early historical times; the first from Central Asia, the second—indirectly through the civilizations of western Asia—from Africa. However, they have a sister taxon in western and southern Asia, the khur or onager, and it is more than a hypothetical possibility that khurs were interbred with horses from time to time. Khurs are faster runners with a greater endurance than the imported horses. A hybrid would combine the good qualities of both, much like mules and hinnies, the hybrids of horse and donkey. The origin of the domestic dog was taken for granted for a long time, and the grey wolf was considered its direct and sole ancestor. At present, this is doubted by some, who suggest a role for the jackal in the dog's ancestry. An unproven, yet interesting and not unlikely hypothesis separates the dog from the other *Canis* species. In this view, the early dogs came on their own to human settlements, taking advantage of the waste without posing a threat to the inhabitants as wolves and jackals did. The behaviour of present-day pariah dogs of South Asia indeed seems to confirm this idea. The domestic cat might go back to the desert cat, but there are more small wild cats that could have stood at its origin. The camel and the dromedary are closely related to each other, but the question as to what extent and in what form is not answered to

[8] W. Herre and M. Röhrs, *Haustiere, zoologisch gesehen* (Stuttgart: Fischer, 1973); H. Epstein and I. Mason, "Cattle," in *Evolution of domestic animals*, ed. I. Mason (London and New York: Longman, 1984), 6–27.

date. Most likely, their domestication took place in Central and West Asia, from where they were imported to South Asia.

The domestication of the animals that are in use nowadays in South Asia took place already a long time ago, much earlier than the beginning of the historical period. This means that the only evidence comes from the fields of zooarchaeology, in the form of animal remains, and archaeology as representations of animals in the material culture. At present, the following dates and loci are generally accepted as providing the earliest records of the beginnings of the domestication process,[9] in chronological order. For sheep this is around 9,000 B.C.E. in northeastern Iraq, for goats at 8,000 B.C.E. in western Asia, for humped cattle at 8,000 B.C.E. in the Indus Valley, for pigs at 7,000 B.C.E. in southeastern as well as in western Asia, for taurine cattle at 6,400 B.C.E. in Turkey and northeastern Iran, for dogs at 5,000 B.C.E. in eastern Europe, for donkeys at 4,000 B.C.E. in Egypt, for horses at 2,500 B.C.E. in Ukraine and Turkestan, for camels at 2,500 B.C.E. in central Iran, and for the water buffalo possibly around 2,500 B.C.E. in the Indus Valley, or maybe already earlier in southern China. The first evidence of tame Indian elephants comes from the Greater Indus Valley in Pakistan at 2,350–1,750 B.C.E. These early records do not necessarily imply that these dates and places coincide with the first steps of domestication. On the contrary, the data represent nothing more than the oldest datable remains of presumably domestic animals. Zooarchaeological remains are scarce, reliable datings are often impossible, and the distinction between early domestic and wild forms of the same species is difficult to make. What emerges from the general picture is that sheep and goats were the first animals to be domesticated, followed by cattle, dogs, and donkeys, and that horses, camels and water buffaloes were the last ones. Possible explanations include a gradual shift from nomadic and pastoral cultures to more settled cultures, an increasing importance of transport of agricultural and other products, a increased availability of large amounts of fodder, the introduction of rice cultivation and the discovery of animal use in warfare.

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[9] Data compiled from F. Zeuner, *A History of Domesticated Animals* (London: Hutchinson, 1963); J. Clutton-Brock, "The mammalian remains from the Jericho Tell," *Proceeding of the prehistoric Society* 45 (1979), 135–158; Clutton-Brock, op. cit. (1981); I. Mason, ed., *Evolution of domestic animals* (London and New York: Longman, 1984); M. Felius, *Cattle breeds—an Encyclopedia* (Doetinchem: Misset, 1995).

Evidence of domestication processes on the subcontinent can be traced back as far as the pre-pottery Neolithic period of the seventh millennium B.C.E.[10] In this respect, the Indus Valley site of Mehrgarh in the Kachi Plain between the Kirthar and Suleiman mountain ranges of Baluchistan is especially important. Several levels of occupation have been excavated here, ranging from a sixth millennium B.C.E. pre-pottery Neolithic period through the mid-third millennium early Harappa period.[11] Six kilometres further, at the site of Nausharo, the occupation sequence can be followed. Here, the levels range from the beginning of Mehrgarh period VII until the mature Harappa period.[12] This continuous occupation of the Kachi Plain gives crucial insight into the early agricultural evolution in the northwestern edge of the subcontinent. The dates suggest a gradual import of either the technique of domestication or of the domestic animals themselves, or both, some two millennia later than in the regions to the west.

From the animal bones collected at Mehrgarh, it appears that in the beginning wild animals dominated the faunal remains, with only the goat as a possibly domestic form. Young goats were sometimes given as burial gift as is seen in the large cemetery of Mehrgarh III, dated to c. 6,000–5,500 B.C.E., for example grave no. 287 with no less than five complete goats.[13] For the younger layers till the early Harappa period, the opposite is the case and the bones belong almost exclu-

[10] R. Meadow, "Early Animal Domestication in South Asia: A First Report of the Faunal Remains from Mehrgarh, Pakistan," in *South Asian Archaeology 1979*, ed. H. Härtel (Berlin: Dietrich Reimer Verlag, 1981), 143–179; R. Meadow, "Faunal exploitation in the Greater Indus valley: a review of recent work to 1980," in *Studies in the archaeology of India and Pakistan*, ed. J. Jacobson (New Delhi: American Institute of Indian Studies, 1986), 43–64; J.-F. Jarrige, "Die frühesten Kulturen in Pakistan und ihre Entwicklung," in *Vergessene Städte am Indus. Frühe Kulturen in Pakistan vom 8. bis 2. Jahrtausend*, ed. Philipp Von Zabern (Mainz am Rhein: Von Zabern, 1987), 50–66.

[11] J.-F. Jarrige and M. Lechevallier, "Excavations at Mehrgarh, Baluchistan: Their Significance in the Prehistorical Context of the Indo-Pakistani Borderlands," in *South Asian Archaeology 1977*, ed. M. Taddei (Naples: Instituto Universitario Orientale, 1979), 463–535; J.-F. Jarrige and R. Meadow, "The Antecedents of Civilization in the Indus Valley," *Scientific American* 243, 2 (1980): 122–133; M. Lechevallier and G. Quivron, "The Neolithic in Baluchistan: New Evidences from Mehrgarh," in *South Asian Archaeology 1979*, 71–92; J.-F. Jarrige, "Economy and Society in the Early Chalcolithic/Bronze Age of Baluchistan: New Perspectives from Recent Excavations of Mehrgarh," in *South Asian Archaeology* 1979, 93–114.

[12] Jarrige, op. cit. (1987), 65.

[13] P. Sellier, "Mehrgarh: Grabstätten und Bestattungsritus," in *Vergessene Städte am Indus* (1987), 83–94, 85, fig. 62.

sively to domestic sheep, goat and cattle.[14] Gradually, cattle became more important than sheep and goat. The first figurine from Mehrgarh that can be identified as a representation of cattle is that of a humped bull from the early fourth millennium B.C.E.[15] It is not clear whether all cattle belonged to the humped cattle or whether the latter existed side by side with taurine cattle. The pre-Harappa assemblage from Balakot at the Windar River in the Indus Valley is dominated by the remains of cattle, sheep and goats, similar to what is seen at the younger pre-Harappa layers of Mehrgarh. Only few remains of wild animals, belonging only to gazelles, wild boars and khurs, are present among the animal remains. Three important additions are shown by the animal record of the following Harappa period: the water buffalo appears as part of the domestic stock, the large nilgai was hunted, and fish became an important dietary element.[16] From roughly contemporaneous mature Harappa period sites, it appears that young goats, though seemingly less important than in previous period, continued to be given as burial gifts, for example in one of the graves from Lothal at the Gulf of Cambay in Gujarat[17] and one from Harappa itself (fig. 8). Evidences for the next steps in the domestication process come from Pirak, east of Mehrgarh on the banks of the Nari River in the Indus valley. Pirak shows three major periods of occupation dating between the early second and early first millennium B.C.E.,[18] coinciding with the mature Harappa period and a post-Harappa period. From this site the first bones and figurines of camel and horse are known.

Apart from the Indus Valley, traces of early domestication are known from peninsular India as well. Evidence of prehistoric stock-breeding comes from inland Gujarat and Rajasthan, where bones of cattle, goats and/or sheep were found at the sites Langhnaj,[19] Adamgarh and Bagor;[20] the latter site is radiocarbon dated to 4,500 B.C.E.[21] The

[14] Meadow, op. cit. (1986).
[15] Jarrige and Lechevallier, op. cit. (1979), 486.
[16] Meadow, op. cit. (1986).
[17] M. Halim, "Die Friedhöfe von Harappa," in *Vergessene Städte am Indus* (1987), 206–214, 213.
[18] Jarrige and Lechevallier, op. cit. (1979).
[19] J. Clutton-Brock, *Excavations at Langhnaj: 1944–'63. Part II. The fauna* (Poona: Deccan College, 1965).
[20] V. Misra, "Two late Mesolithic settlements in Rajasthan. A brief review of investigations," *Journal of the University of Poona (Humanities)* 35 (1971), 59–79.
[21] D. Agrawal, S. Gupta and S. Kusumgar, "Tata Institute Radiocarbon Date List IX," *Radiocarbon* 13, 2 (1971), 442–449.

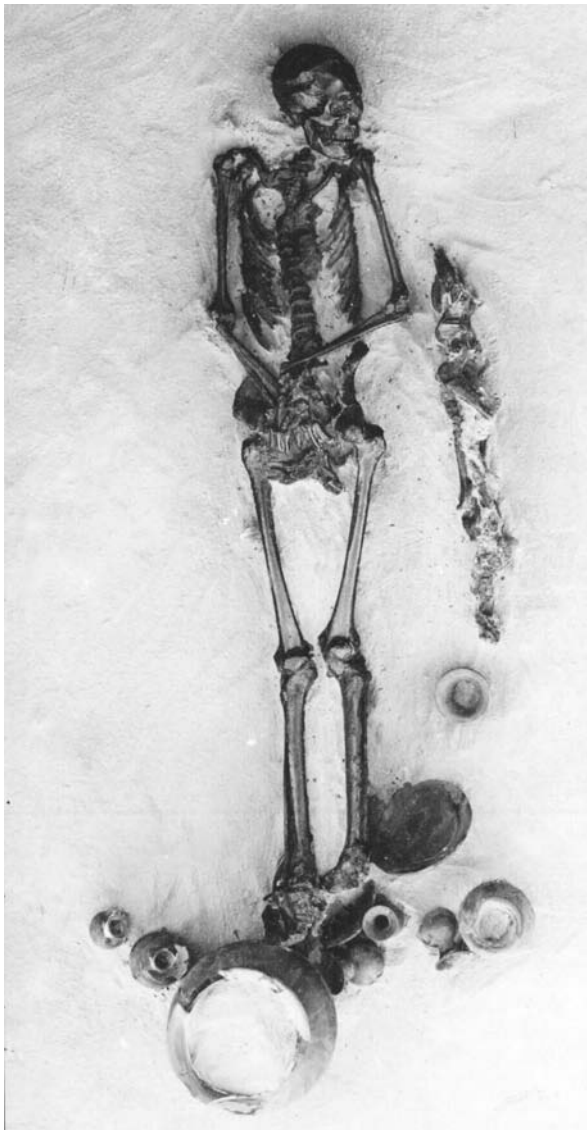

Fig. 8. Burial with a human, a goat and pottery. Harappa, Indus Valley, Pakistan, Harappa Period, c. 2,300–1,750 B.C.E., skeleton H 689. Photograph: ASI, 1933–35, courtesy Kern Institute, Leiden, the Netherlands

Neolithic sites with remains of domestic cattle, goats and sheep in the Belan valley in the Vindhya Range of Madhya Pradesh yielded dates between 4,500 B.C.E. and 6,500 B.C.E.[22] These dates from northwestern and central India are similar to those from the Indus Valley and are suggestive of a widespread agriculture, be it a pastoral-nomadic or a sedentary culture. The earliest evidence from the south comes from Kodekal in Karnataka, radiocarbon dated to about 2,300 B.C.E.,[23] which makes it contemporaneous with the mature Harappa period of the northern sites. Similar evidence and dates come from Assam and Nagaland in the east.[24] These younger dates from the south and east might indicate the development of agriculture at a later period in these regions, but lack of sufficient data makes such tempting conclusions hazardous and premature.

Attitude towards animals

South Asian peoples are commonly known to have a respectful attitude towards animals. This attitude is in fact part of a more general respect for nature and life in all its forms. The basis for this may lie in the notion of rebirths in the Indian religions—Hindu, Buddhist, Jain and Sikh—. In this cyclic system of rebirths (*samsara*) animals as well as humans take part. The system is complicated and falls well outside the scope of this book, yet some short remarks can be made for a basic understanding. The working principle of the cycle of rebirths is that one is reborn based upon the net outcome or fruit (*phala*) of the total of one's actions (*karma*). One may be reborn as a human or as an animal and the other way around, an animal may be reborn as an animal or as a human. Actions have to be seen in their broadest sense and range from all sorts of physical activities to attitude, speech, thoughts and so on. The rules on the morality of actions together form the concept of *dharma*, or the law. For more detailed information on *dharma* and rebirth as an animal, see the section Animals in Indian Religion below. As is

[22] G. Sharma, "Beginnings of agriculture: new light on transformation from hunting and food gathering to the domestication of plants and animals: India a primary and nuclear centre," *Journal of Central Asia* 6, 1 (1983), 51–64.

[23] K. Paddayya, "Radiocarbon dates of South Indian Neolithic culture," *Antiquity* 45 (1971), 134–138.

[24] A. Clason, *Wild and domestic animals in prehistoric and early historic India* (Lucknow: Ethnographic and Folk Culture Society, 1979).

evident, attitudes towards animals are often interwoven with or founded in religion. Therefore, what is discussed here and below under separate headings is in reality greatly connected to each other; any separation is perforce artificial. Under the present heading, attitudes are discussed that seem to have no basis at all in religion—such as hunting, that are only partly religious—such as dietary rules—, or those that may have roots in an earlier religious system and are thus not conceived anymore as necessarily religious—auspicious animals, bull games and the like—. Animal roles in society which have a strong basis in religion are dealt with under the next heading.

There is substantial evidence for hunting in South Asia in the past. In ancient literature, occasional references can be found to a game park, or *mrigavana*[25] in Sanskrit.[26] One such ancient park or forest might have been that of Ishipatana near Sarnath in Uttar Pradesh, where the Buddha is said to have held his First Sermon. Attracted by his speech, even the wild animals came to listen. In iconography, the event is sometimes indicated by a pair of antelopes, gazelles or deer flanking a wheel.[27] Most likely, such a *mrigavana* was not some sort of natural park for the preservation of deer, but more something like royal hunting premises, where the aristocracy hunted *mriga*, game, thus not just deer, but antelopes, gazelles and wild boar as well. This can be inferred from historical times, in which both Mughal rulers and Hindu rajahs held game parks in vogue, to which later also British officers were invited to participate in a hunt (*shikar*). The Mughal emperor Jahangir had such a hunting resort at Sheikhpura in Pakistan (fig. 9). Here, he had a hunting pavilion built for himself at the centre of an artificial lake, and a memorial tower for his favourite deer, which he called Mansaraj ('royal meat'). Actually, many natural parks of today were the hunting grounds of maharajahs and Mughal emperors of the past. Examples in Rajasthan are the Natural Reserves Ranthambhor and Sariska, Darrah Wildlife Park, and Keoladeo National Park, to name just a few. In historical times, royal hunting was a social event by means of which the ruler displayed his wealth, prestige, power and

[25] Generally, the word is translated as 'deer park', because the Sanskrit word *mriga* means both wild animal as well as more specifically deer. The term *vana* actually denotes forest rather than park.

[26] B. Bidari, "Forests and trees associated with Lord Buddha," *Ancient Nepal* 139 (1996), 11–24.

[27] See further sections 1.1.3 (antelopes), 2.1.3 (spotted deer), 7.1.2 (nilgai) and 22.1.3 (gazelles).

Fig. 9. Hunting resort of the Mughal emperor Jahangir (reign 1605–1627). Sheikhpura, Pakistan. Photograph: courtesy Sarfraz Hayat

authority.[28] It was expensive, because all sorts of hunting weapons, horses, dogs and elephants were needed in large numbers, apart from the large permanent staff of the hunting department of the court and the hundreds of recruited assistant employees for each hunt. The largest annual hunts corresponded to the Hindu Holi festival, probably in relation to the harvest: the grounds would be cleared from dangerous carnivores and the wild herbivores would not eat the full-grown plants. The killing of wild herbivores as we know now, in reality increases the potential danger of carnivores: they have to turn to domestic herbivores, and in the worst case, to humans. Princely hunting was abolished in 1962, but for many species this came too late.

That hunting was practiced and allowed under the Hindu and Mughal rulers is further evidenced by the many *shikar* paintings[29] and

[28] S. Welch, ed., *Gods, Kings and Tigers: The Art of Kotah* (New York and Cambridge: Asia Society Galleries and Harvard University Museums, 1997).

[29] See for example those of the Maharana of Mewar in Andrew Topsfield's book, *City Palace Museum, Udaipur: Paintings of Mewar Court Life* (Ahmedabad: Mapin Publishing, 1990).

other artworks, see for example an ivory palanquin leg from seventeenth century Orissa (fig. 10). A hunter with hunting dogs spears a running deer, while behind him a companion follows on horseback. The Hindu legal principles clearly accept hunting. The *dharma* books explicitly mention some wild animals that are edible, such as wild boars, gazelles, and deer. The ancient epics contain many references to hunting. For example in the *Mahabharata*, the Indian bison is hunted by the Kauravas and offered for breakfast [30]. In the *Ramayana*, Rama hunts a golden deer, pushed to do so by his wife Sita.[31] The *Manasollasa* written by king Bhulokamalla Someshvara of the twelfth century has a complete section on royal hunting,[32] which is not surprising because Hindu Rajputs are notorious for their hunting boar, deer and birds.[33] Islamic rules don't object against hunting either and especially hunting on horseback was popular. Even the khurs, close relatives of their own highly esteemed horses, were on their game list. The Persian king Bahram was surnamed Gor, because of the incredible amounts of khurs—*gor* in Persian—he hunted[34] and it is reasonable to assume that his Indian friends were not much different.[35] Despite the general approval of hunting, there were always people who were against hunting. In this respect, a story is told of emperor Akbar, who at the age of thirty-six banned the Mughal hunting technique known as *qamargah*. This technique included the enclosure of game animals within a circular stockade while beaters drove them towards the emperor, who was accompanied by hunters and trained cheetahs. In this way it was easy to kill a large amount of animals without much effort. Once, during such a *qamargah*, Akbar once had a mystic experience and got disgusted by the unfair slaughter.[36]

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[30] *Mbh* 3.229.10 and *Mbh* 3.251.12. respectively.

[31] *Ram*. 3.42 ff, S. Chaudhuri, "Concordance of the fauna in the Ramayana," *Indian Historical Quarterly* 28, 29, 30 (1952–1954). See also section 2.2.4, last paragraph.

[32] P. Arundhati, *Royal life in Manasollasa* (New Delhi: Sundeep Prakashan, 1994); P. Arundhati, *Games and pastimes in Manasollasa* (New Delhi: Sharada, 2004); R. Krottenthaler, *Die Jagd im alten Indien: unter Berucksichtigung des mrgayavinoda-Kapitels im Manasollasa* (Frankfurt and New York: P. Lang, 1996).

[33] J. Tod, *Annals and Antiquities of Rajasthan, or The Central and Western Rajput States of India*, 2 vols. (London: Routledge and Kegan Paul, 1972; reprint of 1892), vol. 1, 57.

[34] Ibidem, 190.

[35] Local guides in the Rann of Kutch, descendants of Gujarati Jhala Rajputs, relate that the khur was hunted there until 1950 (J. Kamphorst pers. comm. 16/07/2007).

[36] A. Wink, *Al-Hind; The Making of the Indo-Islamic World*, vol. 2, *The Slave Kings and the Islamic Conquest, 11th–13th Centuries* (Leiden-New York-Köln: Brill, 1997). The story brings to memory a similar experience of the Mauryan emperor Ashoka of the mid-

Fig. 10. Leg of an ivory palanquin with a hunting scene. Orissa, 17th century. Brooklyn Museum of Art, 1992.83, New York. Photograph: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

From the above, it might be concluded that hunting was a privilege for the royal class. However, the relative abundance of evidence of princely hunting is mainly responsible for this one-sided picture. Writing and painting was always done by and for the upper class—or, in the medieval context, elite—males. Information about hunting by rural and tribal people of today, but also of historical times, is readily available, and there is no reason to assume that their skills and techniques were invented no earlier than yesterday. Some casts are even traditionally associated with hunting, for example the Bagmari's, or tiger slayers, and most tribals live as hunter-gatherers. Tribals kill wild animals for two reasons: for food and to protect themselves. The number of hunting and catching techniques is vast[37] and falls beyond the scope of this book. I limit myself therefore to a single example, that of the pitfall and the goat. A huge round pit is dug, leaving a central pillar of earth untouched. On this pillar a goat is placed and the pit is concealed with a net and a layer of leaves. The bleating of the goat in the evening attracts the leopard or tiger, but just before attacking he will fall down into the pit with the net and the leaves. The cat is usually killed with spears which are thrown into the pit, or it is caught with the net, in case of cheetahs in the past. The method is widespread and practiced also today (fig. 11).

The attitude towards animals when edibility is at stake has been described to some detail in brahmanical texts. Since ancient times, strict rules have been formulated about what should be eaten by whom. These rules are mostly written down in the *dharma* handbooks.[38] There are various ancient brahmanical handbooks on dharma, dating from roughly the third century B.C.E. to the fourth century C.E. According

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third century B.C.E. After many wars, he saw the true nature of the massacre at the battlefields of Orissa and he decided to abstain further from warfare and killing living beings in general. He converted to Buddhism, a religion whose followers abstain from injuring and killing animals intentionally (*Patimokkha* 8.7.61).

[37] Described in detail by K. Kirkpatrick, "Aboriginal Methods employed in killing and capturing game," JBNHS 52, 2–3 (1955), 285–300 and S. Daver, "A novel method of destroying man-eaters and cattle-lifters without fire-arms," JBNHS 49, 1 (1950), 52–66.

[38] *Apastamba Dharmasutra* 1.17.14–39, *Gautama Dharmasutra* 17.22–38, *Baudhayana Dharmasutra* 1.12.1–15, *Vasistha Dharmasutra* 14.33–48, *Manava Dharmashastra* 5.4–26, *Yajnavalkya Smriti* 1.170–178, and *Vishnu Smriti* 51.21–42; cited from P. Olivelle, "Food for thought. Dietary rules and social organization in ancient India," Ninth Gonda lecture, held on 16 November 2001 on the premises of the Royal Netherlands Academy of Arts and Sciences (Amsterdam: Royal Netherlands Academy of Arts and Sciences, 2002).

Fig. 11. Tiger trap in Hazaribagh National Park, Jharkhand. Photograph: courtesy J. Kamphorst

to these, vegetables are the paradigmatic food with only very few dietary restrictions, such as garlic and red resins of trees. This is not the case for the animal kingdom: only very few may be eaten. The rules are complicated and different textbooks list different rules. For example, the *dharma* handbooks forbid all carnivorous animals as food. Medical texts on the contrary allow for it, describing the medical and dietary properties of each kind of carnivorous animal, the meat of which is considered as particularly nourishing.[39]

The medical texts classify animals based on habitat and ecology; this classification is meant to describe health effects. The *dharma* texts follow a completely different classification, based on morphological features of the animal; this classification defines edibility. Entire classes are forbidden to eat while others are allowed; exceptions are simply listed without explanation. The precise classification and rules about edibility are beyond the scope of this Introduction, but a few words have to be said to clarify the principles. The general rule is that if an animal falls in one of the forbidden classes, it is forbidden, even if it falls in several permitted classes as well.[40] An edible animal should thus not have a single inedible feature. Inedible features for mammals are: having incisors in both upper and lower jaw (*ubhayatodat*), being single-hoofed (*ekashapha*), having five nails (*panchanakha*), being a carnivore (*kravyad*), living in the village (*gramya*), living solitary (*ekacara*) and being unknown (*ajnata*). Edible features for mammals are more or less the opposite: lacking incisors in the upper jaw (*anyatodat*), being double-hoofed (*dvishapha*), living in a farm (*pashu*) or in the wild (*mriga, aranyaka*).

Exceptions exist, and the classic example is that of the five five-nailed animals (*pancha panchanakhas*). They are edible and are simply listed without further explanation (*shvavidh, shalyaka, shasha, kachchhapa, godha*); these are the porcupine/the hedgehog, the pangolin, the hare, the tortoise/the turtle/terrapin, and the monitor lizard.[41] Another case is the rhinoceros, which is often listed among the five-nailed animals.

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[39] See F. Zimmermann, *The Jungle and the Aroma of Meats: An Ecological Theme in Hindu Medicine* (Berkeley: University of California Press, 1987), 159–179 on the medical texts *Charaka Samhita* and *Sushruta Samhita.*

[40] Olivelle, op. cit. (2002), 20.

[41] The exact species are not unambiguous, because the words *shvaidh* and *shalyaka* both may refer to porcupine, hedgehog or pangolin (Zimmermann op. cit. (1987), 174). I hold that, at least in this rule, the porcupine and hedgehog are lumped together, based upon their spiky coat, just as the tortoise (terrestrial), turtle (aquatic, sea) and terrapin (aquatic, freshwater) are considered similar.

It is an odd-toed ungulate, closely related to the horse, but with three hooves on each foot instead of one. The Indian classification does not have an odd-toed class, but a one-toed class instead, so the rhinoceros cannot be classified properly. Although it falls in several prohibited classes (),[42] it is generally considered edible in the legal texts and listed together with the allowed five five-nailed animals.[43] The edibility rules in the Hindu *dharma* books seem thus rather ad hoc and certainly do not follow strict taxonomical rules.

Edibility of animals is a much less complicated matter in Buddhist textual sources. In principle, meat and fish eating is allowed, provided that the animal was not specifically killed for the follower of the Buddha. The meat of a few animals, apart from human flesh, is, however, strictly forbidden for monks: that of elephant, horse, dog, lion, tiger, leopard, bear, hyena and snakes.[44] The dog is commonly considered impure and disgusting, unfit to be eaten. The restrictions on eating the big cats, the bear, the hyena and the snakes are entirely based on personal safety, because the smell might stir the anger of their living fellows and instigate their attack. The elephant and the horse should not be eaten because they are linked to royalty. The dietary regulations seem thus not so much based upon (ritual) purity but on personal safety, except for the dog. The consumption of wild members of the dog family apparently is not considered a real threat: meat of wolves, jackals, and dholes is not prohibited.

Cows and bulls belong to the class of animals which may be considered particularly auspicious. The first evidence in South Asia for this is found on the seals, terracotta and pottery from the Indus Valley in Pakistan and produced in large quantities during the Harappa period (late third early second millennium B.C.E.). Since the script remains undeciphered till date,[45] it is impossible to say something definite about the depicted animals, although some tentative statements can be made.

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[42] Being five-nailed (*panchanakha*), living solitary (*ekacara*), and having incisors in both upper and lower jaw (*ubhayatodat*).

[43] S. Jamison, "Rhinoceros Toes, *Manu* v. 17–18, and the Development of the Dharma System," JAOS 118 (1998), 249–256.

[44] *Suttavibhanga* 1.218–219.

[45] Although numerous decipherments have been proposed, especially the last twenty years, none has been generally accepted by the scientific community. The biggest obstacles are the unidentified substrate language, the short average length of the inscriptions—less than five signs—, and the absence of a bilingual text—a 'Rosetta stone'—.

First of all, it is striking that such a broad range of (male) animals, wild as well as domestic, was depicted,[46] whereas at the same time the vast majority seems limited to the large bovid bulls only. This indicates that bulls had a special status, be it sacrificial or divine or both, probably not unlike its status more to the west in Asia Minor and around the Mediterranean, where the bull sacrifice was of major importance.[47] One of the Indus Valley seals seems to combine the three different species of bull into one, resulting in a three-headed bull (see section 4.2). Another interesting seal depicts a man wearing a mask with two bull horns. He sits in a yogic posture on a throne or seat, surrounded by animals (fig. 12). The animals can be identified as a wild water buffalo, an elephant, an ibex, a tiger, and an Indian rhinoceros.[48] The figure is commonly interpreted as Lord of Beasts (Pashupati), an epithet that has also been used for the Vedic god Rudra and his Hindu counterpart Shiva. The proposed continuity between these figures is, however, only based upon speculation and observed similarities, but without the decipherment of the script, such statements cannot be proven with certainty, though they are very evocative.

Auspicious animals in early Buddhist art appear to be the lion, elephant, bull and horse, which possibly were considered guardians of the four wind directions, respectively north, east, west, and south. This is at least the impression one gets when visiting the stupas (*cetiyas*) of Sri Lanka, where the pillars of the side platforms (*vahaldakas*) are crowned with these four animals. The same four animals walk on the border of moonstones at the entrances of Sri Lankan monasteries, for example at Anuradhapura (fifth century). Three of these animals figure as capitals of emperor Ashoka's pillars (third century B.C.E.), spread throughout northern India;[49] the horse capital seems missing. The abacuses of these same pillars are adorned as well with the same four animals; here, the

[46] These are the zebu, the Indian bison, the aurochs or an early taurine breed, the water buffalo, the urial, the ibex, the markhor, the blackbuck, the Indian rhinoceros, the Indian elephant, the tiger, the lion, the domestic dog and the hare.

[47] S. Athanassopoulou and Y. Tzedakis, *The Bull in the Mediterranean World; Myths & Cults* (Athens: Hellenic Ministry of Culture, 2003). Today, this once widespread sacrifice is limited to a few places only, for example the Tauros Hill near Agios Paraskevi on the island of Lesvos (Greece), where a decorated bull is sacrificed every year on July 26th.

[48] See further sections 8.2.1 (buffalo), 12.2 (ibexes), 17.2.1 (elephant), 35.2.1 (tiger), and 37.2.1 (rhinoceros).

[49] The lion at Rampurva, Lauriya Nandangarh, Basarh, Sarnath and Sanchi, the elephant at Sankisha, the bull at Rampurva and Salempur.

Fig. 12. The so-called 'Pashupati' seal (DK 5828) with an ascetic figure, wearing a horned mask and surrounded by several animals. Mohenjo-daro, Indus Valley, Pakistan, Harappa Period, c. 2,300–1,750 B.C.E., steatite. Photograph: ASI, 1928–29, courtesy Kern Institute, Leiden, the Netherlands

horse is not lacking. The exact interpretation of these auspicious four is still unclear. Apart from being linked to the wind directions, it has been suggested that these four animals represent the eternal cycle of rebirths (*samsara*) and the escape from it (*nirvana*), in which the elephant symbolizes birth, the bull decay, the lion illness, and the horse death.[50]

[50] N. Wijesekera, *Sculpture*, Archaeological Department Centenary (1890–1990) Commemorative Series 4 (1990), 75; quoting Vitana. The idea seems to be confirmed by moonstones bearing depictions of only the elephant and the horse, for example at the Vatadage of Polonnaruwa (figured in J. Boisselier, *Ceylon, Sri Lanka* (Geneva: Nagel Verlag, 1979), pl. 102). A related symbolism might be found at Kathmandu in Nepal,

Another explanation for the auspicious four animals is that they are based upon an earlier worship of sun and moon, with the elephant as the vehicle of Indra/Aditya, the lion as the symbol in the sun god's banner, the horse as the vehicle of the sun, and the bull as both symbol of the sun and vehicle of the moon.[51] A straightforward interpretation is that they simply represent royal symbols: the lion to claim royalty, the elephant to destroy the enemies, the horse to expand and conquer, and the bull to fertilize the kingdom. After all, Buddhism always flourished under royal patronage and the Buddha himself was a prince and heir to the throne. The auspicious four are then not necessarily part of a religious framework.

More or less the same auspicious animals are found on the stupa itself as decorative bands consisting of rows of four-footed animals (*chatushpada pamti*) and of geese (*hamsa pamti*).

The use of rows of identical animals as auspicious decoration[52] is very widespread and found from the earliest till the latest religious architecture. It is not limited to the stupa,[53] nor to Buddhist architecture. Alternating rows of walking geese, elephants, horses and lions, mythical or more naturalistic, with and without riders, abundantly decorate the Hindu temples of the Hoysala dynasty of Karnataka (fig. 13). Apparently, the auspiciousness of the same set of animals (elephants, lions, horses, geese, but not bulls)[54] is not limited to a certain period, region or religion. These animals simply *are* auspicious in India.

The ancient sacrificial value may lie behind the most well-known aspect of Indian attitude towards animals: that of the Hindu taboo on

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where the pedestal of a giant sculpture of a thunderbolt (*dorje*) is adorned with twelve animals walking in procession, much like the auspicious four, but now with eight more animals. They represent the twelve zodiac signs, and thus stand for the annual cycle of seasons, the inevitable rebirth, prospering, flowering and death of nature.

[51] Wijesekera, op. cit. (1990), 75. In Asia Minor and around the Mediterranean, bull and lion indeed were linked to the moon—night, winter, darkness—and sun—day, summer, light—respectively, especially so in myths in which the lion killed the bull; see Athanassopoulou and Tzedakis, op. cit. (2003). The horse, pulling the sun god's chariot along the celestial path is related to the sun as well; the role of the elephant, however, remains unexplained.

[52] E. Fisher, *Buddhist Art and Architecture* (London: Thames & Hudson, 2002, rev. ed.; first ed. 1993).

[53] Also the throne or Seat of Enlightenment at Bodh Gaya and the abacus of Ashoka's pillar at Lauriya Nandangarh, both in Bihar, are decorated with rows of geese, similar to those of the stupas and the inner circle of moonstones.

[54] Why the bull is left out of these more than just decorative bands is unclear, but probably its ancient sacrificial value stands in the way.

Fig. 13. Detail of a plinth with three animal series. Keshava temple, Belur, Karnataka, 12th century, soapstone. Photograph: courtesy A. Moorjani

killing cattle. Until at least the fourth century, the cow and bull were still listed among the permitted animals by the *dharma* texts.[55] By the early eleventh century, this seems not to have been the case anymore according to Alberuni's observations. In the period before, a change in attitude must have taken place and especially the cow was raised in status. The poet Bharavi of the sixth century describes cows as fond mothers and even as mothers of the earth.[56] Nowadays, cows and their calves are allowed to roam freely through the village in search for (the scarce) food. Old and miserable cattle are sometimes taken special care of in so-called *gosadans* or *gupsalas*, of which there are about a thousand in India. The Kappiliyan tribe of Madurai in southern Tamil Nadu breeds a very small kind of zebu, of which they use the oxen as fast runners. Their cows are not milked and when an animal dies, it is

[55] P. Olivelle, "Abhaksya and abhojya: An Exploration in Dietary Language," JAOS 122, 2 (2002), 345–354; Olivelle, "Food for thought" op. cit. (2002).
[56] *Kir.* 4.10, 4.31–32.

Fig. 14. Cows often have to find their own food, including garbage and plastic bags. Jodhpur, Rajasthan. Photograph: courtesy J. Kamphorst

buried as a whole.[57] In the past, there was even a holy herd (*devaru api*) of this Kappiliyan breed. The bull, called the king bull (*palladu aou*), had his own caretaker and was treated like a deity. In Nepal, calves are dedicated to Shiva and released after the death of a wealthy Hindu. These cows (*sandhi*) and bulls (*sandhe*) are well fed; bulls roam freely through the villages, cows usually disappear in one of the herds.

The taboo on killing cattle has, unfortunately, other aspects as well. Grass is rare and not enough to sustain all cattle. Many cattle have thus to feed on household garbage and whatever they find in the streets (fig. 14) or on refuse dumps. Calves are often underfed, because the milk of their mothers is used for human consumption. In some areas where there are too many non-productive cows, they are bound and die from hunger. In spite of the fact that the females are esteemed and worshipped, the bull calves are the ones which get all their mother's milk, whereas the cow calves get only half of it; normally, young bulls are raised with care and trained, while young cows are left on their own. As a result, many cows are underfed and are more like skin over bone. This is the more amazing upon further reading of the poet Bharavi:

[57] W. Gunn, "Cattle of Southern India," *Bulletin of the Department of Agriculture, Madras* 3, 60 (1909).

the ox, in contrast to the cow, is a model of low position, being devoid of all sense of shame and having no control over its sense organs[58] and the bull is arrogance incarnate.[59]

In the ancient Mediterranean world, bull fighting had a religious meaning. The bull fighting, ending with the death of the bull, was replaced by another form of sport, in which the bull survived, for example the bull leaping of the Minoans of Crete (Greece). The bull teasing in southern India might be explained in a similar light. In some regions this is still a popular amusement of an innocent nature. For example in Allanganallur near Mellur, the bulls are decorated with colours and ornaments and their horns are painted. Trumpets are blown to encourage the bulls to run. The aim is to catch the bull by its horns or hunch as a proof of strength and courage; if the bull escapes, the prize goes to the owner.[60]

Animals in Indian Religion

The most obvious role of animals in religion is that of sacrificial animal (fig. 15). Rules on animal sacrifices are complicated and not easy to unravel. It is said that animal sacrifice arose out of food habits: whatever one eats is ceremoniously offered to the deity and then consumed by the participants, and thus all human food consists of divine leftovers.[61]

In principle, all kinds of animals, domestic as well as wild, can be sacrificed, but it seems that this was done only in the context of the horse sacrifice (*ashvamedha*; see section 18.1.4.3), the most important sacrifice of all. The text promises that by offering all kinds of animals along with the horse both worlds—the observable world and the other world—are obtained by the sacrificer.[62] This was, however, an exceptional sacrifice and as a rule victims were chosen from a much more limited list.

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[58] *Kv.* 11.33.

[59] *Kv.* 4.11.

[60] Other examples are the *jallikattu* ("jellicut" in colonial English) and the *mattuppongal* in southern Tamil Nadu. A colourful cloth with coins was put between and around the horns of a young bull, which had to be taken off by the participants, as described by Gunn, op. cit. (1909) and W. Crooke, "Bull-Baiting, Bull-Racing, Bull-Fights," Folklore 28, 2 (1917), 141–163.

[61] W. O'Flaherty, *Tales of sex and violence: folklore, sacrifice and danger in the Jaiminiya Brahmana* (Chicago: University Press, 1985), 36.

[62] *TB* 3.9.3.1.

Fig. 15. A goat sacrifice in a courtyard. Photograph: ASI, 1910–1930, courtesy Kern Institute, Leiden, the Netherlands

Wild animals were as a rule excluded: to kill a wild animal in sacrifice would destroy the sacrifice.[63] Even for the *ashvamedha* the wild animals were not killed, but eventually released after the fire was carried around them. The allowed animals are all domestic or farm animals (*pashu*). Among these, there is a hierarchical order, which is as follows: human, horse, bull, ram and goat;[64] the human victim is thus the highest of all possible victims and considered a domestic animal as well.

Goats and sheep had a special ritual status in ancient India as they are most close to the prolific creator god Prajapati, in that 'they bear young three times a year and produce two [offspring] three times [per year]'.[65] Although goats have been accorded a lowly position in hierarchical listings of animals, they are the most common sacrificial animals till the present day.

Apart from the prescribed animals in the above mentioned brahmanical texts, there are different permitted animals in other texts. For example, the water buffalo is allowed in the Hindu text *Tantrasara*.[66] The brahmanical system was mainly meant to establish the role and position of the uppermost class, that of the priestly Brahmins who controlled the sacrifices, and it is thus very likely that different sacrificial rules were in vogue in other layers of the society, and certainly with people outside the Vedic society: outcasts, tribals, pastoralists. For Buddhists, animal sacrifice was clearly prohibited.[67]

As mentioned above, the Indian religions all accept the principle of the eternal cycle of rebirths (*samsara*), to which not only humans but also animals and gods are subject. Only by doing the right deeds one can escape this cycle and attain liberation (*nirvana*) or merge with Brahma. The rules on how to behave are known as *dharma*, the law. In the brahmanical texts on *dharma*, the majority of rules in which animals are involved have to do with sacrificeability (*medhya*) and edibility (*bhakshya*) of animals. Buddhist ideas on the *dharma* (*dhamma* in Pali), dealing with human-animal relationships are found in their canonical

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[63] *Ibidem* 3.9.1.2–4.

[64] B. Smith and W. Doniger, "Sacrifice and Substitution: Ritual Mystification and Mythical Demystification," *Numen* 36, 2 (1989), 189–224. Ibidem, 220, footnote 31 for references on human sacrifice. See also *ShB* 6.2.1.18.

[65] *ShB* 4.5.5.6, 9 and 5.2.1.24; cited from B. Smith, "Classifying animals and humans in ancient India," *Man* (London) 26, 3 (1991), 527–548; see, however, section 32.1.3.

[66] P. Pal, *Hindu religion and iconology, according to the Tantrasara* (Los Angeles: Vichitra Press, 1981). The *Tantrasara* was written around 1000 by Abhinavagupta in Kashmir.

[67] *AP* 2.42, 4.151, *Matakabhatta Jataka*, for the story, see section 32.2.5.

texts, the *Tripitaka*[68] or Three Baskets. These texts explicitly mention the type of animal, but not so much the precise species, in case of rebirth as an animal due to bad *karma* (*kamma* in Pali). For example, those who creep or slink along in their present life, such as robbers, are most likely reborn as creeping or slithering creatures, such as a snake, a scorpion, a centipede, a mongoose, a cat, a mouse, an owl, or the like.[69]

A significant part of the Buddhist rules deals with proper conduct towards animals, all within the context of morality (*shila*), which falls in the three parts of right speech, right action and right livelihood. They are often illustrated with a story or tale, for example that of the ox Nandivishala.[70] According to this story, once, a Brahmin, the owner of the ox, put a bet with a merchant that his ox can pull a hundred carts tied together. At the contest, the Brahmin shouted at his ox, calling it a hornless rascal. In response, the ox made no effort to pull. The Brahmin, grieving about his loss of money, was approached by his ox, which asks him why he had used bad language. The ox suggested renewal of the contest but this time without insulting words. The Brahmin agreed and now encouraged his ox with friendly words. This time, Nandivishala pulled the heavy load for its master and thus brought him wealth.

Another source for views on *dharma* originates from the Buddhist emperor Ashoka (reign 273–232 B.C.E.) of the Maurya dynasty of North India. He let some principles of the law be recorded on stone pillars and rock boulders, so as to make it everlasting. His fifth pillar edict orders for the protection of the animals and prohibits the slaughtering of pregnant cattle, goats and sheep, goats, sheep and pigs which are with young or lactating, and young animals in general up to the age of six months. He also dictated that an animal must not be fed with another animal. From his text it can be concluded that the wild mammals that were to be preserved are bats, porcupines or hedgehogs, squirrels, deer, bison, khurs, and further a vague rest category, comprising all other four-footed animals which are not utilised nor eaten.[71]

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[68] Consisting of three parts, being the *Sutta Pitaka*, the *Vinaya Pitaka* and the *Abhidhamma Pitaka.*

[69] *AP* 5.289, cited in McDermott, op. cit. (1989), 269.

[70] Told in the *Suttavibhanga* 4.5 of the *Vinaya pitaka*; cited from McDermott, 1989: 271, op. cit. The story is repeated in the Pali *Jataka* 28.

[71] Prater, S.H., 1971. The book of Indian animals. Bombay: Natural History Society (3rd revised edition, 1st ed. 1948).

Loosely related to *dharma* is the system of undertaking vows, self-imposed rules that differ from the standard rules. A vow is generally undertaken as an expiatory punishment or to attain a desired goal (e.g. heaven, immortality, a boon). A vow can be anything, for example, abstaining from cutting one's finger nails or from using one's speech, walking on one leg, sleeping with the head downwards and so on. An interesting type of such vows is that of behaving like an animal, having their forms, wearing their hides, horns, and so on. In the literature, these have specific names, such as *kukkuruvratika* and *govratika*, one who behaves like a dog and a bull respectively.[72] The Buddhist text is not very positive about such behaviour, because the Buddha remarks that, if successful, such a vow makes you a dog or bull and you will be reborn as a dog or a bull; if unsuccessful, you go to hell. The Hindu view on animal vows is quite different, as appears from the epic *Mahabharata*. A *govratika*, who lies anywhere and eats and wears anything, wins the heaven and becomes immortal.[73] The vow does not necessarily have to be undertaken for a life time: Bhishma speaks of taking the bull-vow for three days and nights only, followed by a stay of one day along with the cattle themselves.[74]

Animals and Indian gods

A number of major and minor deities have permanent animal features, apart from instances of metamorphosis into an animal form and back as occurs in several myths. The majority of these are the zoocephalic forms—forms with a human body and an animal head—. Why the head and not the body is not clear, but it might be related to the sacrificial value of the head. In many sacrifices, only the head is used for further ritual and not the decapitated body; see, for example section 8.1.2.2 on the buffalo heads offered to Bhadra Kali in Nepal.

The most famous zoocephalic deity is the elephant-headed Hindu god Ganesha (see section 17.2.15; fig. 16), one of the most popular South Asian deities today. Some other Hindu zoocephalic deities are

[72] Described, for example, in the Buddhist text *Kukkuravatikasutta* of the *Majjhimanikaya*. See also G. Thite, "Animalism in ancient India," *Journal of the Oriental Institute* 21 (1971–1972), 191–209.

[73] *Mbh* 5.97.13–14 and *Mbh* 1.86.17, respectively.

[74] *Mbh* 13.75.19.

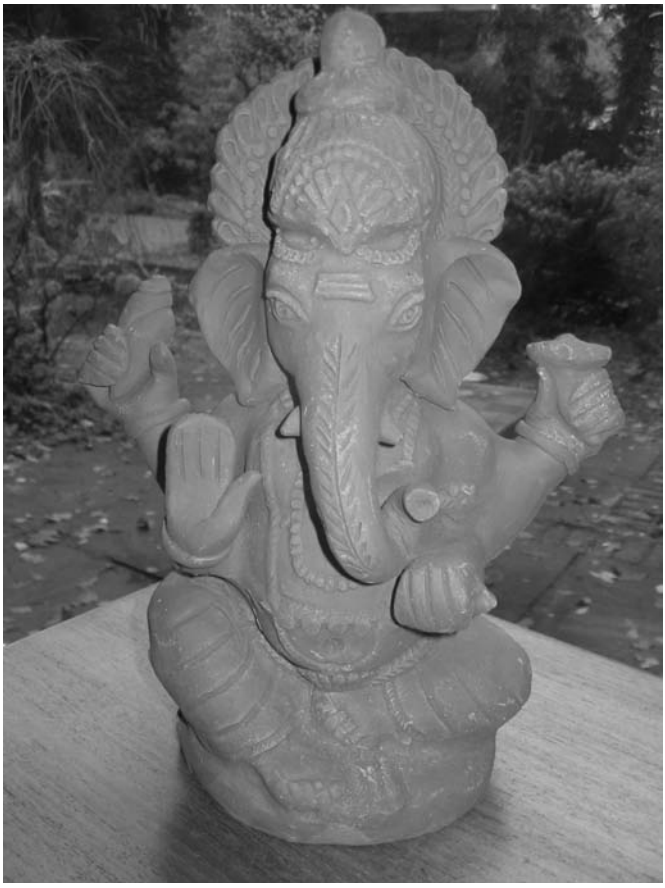

Fig. 16. The elephant-headed Hindu god Ganesha. New Delhi, 20th century, terra cotta. Private collection. Photograph: courtesy J. Kamphorst

the lion-headed Narasimha, the horse-headed Hayashiras and Hayagriva, the boar-headed Varaha, the jackal-headed Shivaduti, and the sow-headed Varahi.[75] Animal heads are also characteristic of some of the protector deities of Tibetan Buddhism, such as the buffalo-headed Yamantaka,[76] the horse-headed Hayagriva, and the eight Tibetan Buddhist female deities of the afterdeath *bardo*. The protector deities

[75] See sections 33.2.6 (Narasimha sculptures), 18.1.4.3 (Hayashiras and Hayagriva in religion), 39.1.3 (Varaha myth), 39.2.2 (Varaha sculptures), 39.2.3 (Varahi sculptures), and 11.2.2 (Shivaduti sculpture) respectively.

[76] See sections 8.1.2.2 (Yamantaka myth) and 8.2.3 (buffalo-headed Yama sculptures).

of the city gates of Kathmandu in Nepal are equally animal-headed: the horse-headed Hayashya (eastern gate), the sow-headed Sukarasya (southern gate), the dog-headed Shvanasya (western gate) and the lion-headed Simbasya (northern gate).

Mythical snakes (male *naga*, female *nagini*) are worshipped all over rural South Asia. They are either represented as humans with a five- or seven-headed snake-hood or as five- or seven-headed snakes. Other complete animal forms, apart from these snakes, are extremely rare. Only one such zoomorphic deity is widely popular: Hanuman, the Hindu monkey god (fig. 17). Hanuman, son of the god of the wind, plays a crucial role in the epic Ramayana as rescuer of Sita, the wife of Rama, who was abducted and kept in the palace of Ravana on Sri Lanka.[77] Varaha, the boar incarnation of the Hindu god Vishnu is sometimes entirely zoomorphic as well. Commonly, he is only boar-headed, but there are a few early depictions in which also his body is that of a boar.[78] Matsya and Kurma—Vishnu's fish and turtle incarnation respectively—are always wholly zoomorphic. These two cold-blooded incarnations are rarely depicted and were never very popular.

A major role played by animals in Indian religion is that of divine vehicle or mount (*vahana*) to carry the various deities. For this role not only the obvious riding animals are chosen, such as the horse, the bull, and the tortoise (fig. 18) but also the seemingly unfit as far as size or strength is concerned, such as the bandicoot rat. The majority of Hindu and Vedic deities each have their own personal vehicle. Several of the Jain tirthankaras are also associated with a personal vehicle, and a few of the Buddhist bodhisattvas and protective gods ride an animal vehicle, too. The earliest surviving examples of such divine vehicles are seen on the railing pillars of a now vanished Buddhist stupa at Bharhut in Madhya Pradesh, dated c. 100 B.C.E.. Here, benevolent male and female ogres—male *yaksha*, female *yakshi* or *yakshini*—are depicted, each standing on an animal, a human figure or a dwarf. The most well-known animal vehicles are Shiva's bull calf Nandi or Vrishan, and Vishnu's eagle Garuda.[79] These vehicles have a personal name and may even be portrayed independent of their masters and worshipped on their own. The independent status of Nandi might be explained by the special

[77] See further sections 38.1.3 (Hanuman myth) and 38.2.2, 38.2.3 (Hanuman sculptures).

[78] See further section 39.2.2.1.

[79] Garuda is also the vehicle of the transcendent Buddha Amoghasiddhi.

Fig. 17. The Hindu monkey god Hanuman. Modern concrete statue (20th century) along the trail up to the Hanuman temple (16th century) in the Tirumala hills of Tirupati, Andhra Pradesh. Photograph: courtesy S. Harsha

Fig. 18. The river goddess Yamuna standing on her tortoise. Northern India, 10th–11th century, reddish sandstone. Linden Museum, SA 36796 S, Stuttgart, Germany. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart

role of bulls since ancient times in sacrifice (see also above) and fertility rituals. The same holds for Garuda, who is connected with the serpent lore[80] and plays a crucial role in the ancient belief in the *nagas* as their antagonist.[81] Until recent, and likely still today, people in South India daily say an evening prayer to Garuda to ward off snakebites.[82] A few other vehicles have personal names too, such as Indra's elephant Airavata.[83] The majority of vehicles, however, have no name. Neither do they have a parallel in other religions, with the exception of the sun god Surya. He rides a chariot drawn by seven horses, like the sun gods of other ancient civilizations.[84]

In one case an animal functions as the vehicle of a non-mythological being. In the Karni Mata temple at Deshnok, Rajasthan, rats are believed to be the vehicles of the souls of departed devotees of the folk-goddess (*sagati*) Karni, waiting to be reborn.[85] As such, they are fed and given milk, sweets (Plate 6) and shelter; it is forbidden to kill, injure or disturb them. This situation is, however, unique and seems to have no parallel, not in India or elsewhere.

Animals in Stone

The aim of this book is to present an overview as complete as possible at the present stage of knowledge, of the way in which Indian mammals were depicted throughout the centuries and throughout the subcontinent. I compare the sculptures with the living animal and with each other and based on these comparisons, I'll describe the sculptures, focussing on how naturalistic, stylistic or erroneous the animal figure is, and which other sculptures it resembles. The animal sculptures are described in their context, including the role of the animal in society,

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[80] Known as *Garudavidya* or *Vishaharividya*.

[81] S. Dangle, *Legends in the Mahabharata with A brief survey of folk-tales* (Delhi: Motilal Banarsidass, 1969).

[82] J. Dubois, *Hindoo Manners, Customs, and Ceremonies*, transl. H. Beauchamp (Oxford: Clarendon Press, 1906; first ed. (in French), 1825), 250.

[83] This originally Vedic major god was degraded in Hinduism to the status of a minor god, as guardian of the east and lord of the rain, and with him his elephant. See further sections 17.1.2.3 (Airavata myth) and 17.2.14 (Airavata sculptures).

[84] See further section 18.1.4.3.

[85] J. Kamphorst, "In Praise of Death. History and Poetry in Medieval Marwar (South Asia)," Ph.D. thesis Leiden University. Leiden: University Press, 2008. See further sections 3.1.3 (Karni Mata legend) and 3.2.2 (Deshnok sculptures of rats).

because the context may have played a role in the depiction and vice versa, the depiction informs about the context. Regarding the vast geographic area and the immense amount of stone sculptures, the reader should not expect a complete listing of all occurrences. Many art pieces had to be excluded in order to present a clear picture. Pieces that are more or less the same do not contribute much to a better understanding, nor do pieces that are too badly eroded, unless crucial features are still visible. Yet, notwithstanding the inevitable gaps, this book contributes not only to our knowledge of animal depiction in Indian stone sculpture, but also to our knowledge of the perception of Indian people of the various animals and to our knowledge of past distribution of Indian animals.

As we will see, the depiction of animals in stone sculpture covers a large time span, beginning with the famous steatite seals found in the Indus Valley of Pakistan, roughly dating from the mid-third to the mid-second millennium B.C.E. These seals are supposed to have been used in trade[86] and perhaps in ritual. The majority of the seals bears the image of an animal, either realistic or mythical. Despite their miniature size, the animal figures are impressively realistic and clearly show that the sculptors had a good eye for the animals around them. Another proof of that the artists recorded accurately what they saw are the seals with the rhinoceroses.[87] The typical folded skin with prominent knobs is copied with precision on the small seals. Zebu bulls, bison bulls and elephants form the main theme, followed by rhinoceroses, tigers, water buffaloes and occasionally, markhors, crocodiles and lions. Horses are lacking all together. A large number seems to depict some kind of unicorn, but this is in my view a misunderstanding. The image is better interpreted as an aurochs in profile with its typically long, forward curving horn.[88] Another remarkable animal image is that of a three-headed bull, which in my view expresses the idea of the three known *Bos*-bulls (zebu, bison and aurochs) all combined in one.[89] Not all images on seals can be explained, like, for example, a seal with a long-necked animal with spots all over its body which appears to resemble a giraffe

[86] U. Franke-Vogt, "Die Glyptik der Harappa-Kultur," in *Vergessene Städte am Indus* (1987), 193; S. Atre, "Harappan seal motifs and the animal retinue," BDCRI 49 (1990): 43–51, 43.

[87] See further section 37.2.1.

[88] See further section 6.2 for examples and discussion.

[89] See further section 4.2.

but there is no evidence of contact with sub-Saharan Africa.[90] Another puzzling seal is that with a strange yaklike animal with a long hairy coat, upward curved horns and a long proboscis reaching the ground. Hairy elephants—not mammoths—could theoretically still have lived in the Himalayas some 4,000 years ago, but horns were never borne by elephants. A yak bound by a thick cord attached to the muzzle could theoretically be a possibility, but as far as I know, such a cord has not been depicted on other seals.

After the Indus Valley period, there is an archaeological silence of about a millennium as far as animal sculptures are concerned. There are some scattered post-Harappa ruins, but seals are absent. After about 800 B.C.E. a new urbanisation phase seems to have taken place, judging from the archaeological remains of settlements and fortifications, but no animals in stone sculpture have been found there, yet. The first sculpted animals coincide with the Mauryan dynasty, who gave shape to the first large-scale Indian empire, ranging from what is today Afghanistan into peninsular India; only the south was not under their control. The animal sculptures are mainly in the form of pillar capitals and abacuses. One such capital—the famous quadruple lion-capital of Sarnath in Uttar Pradesh of the mid-third century B.C.E.—figures today as the official emblem of the Republic of India.[91] The domestic animals of this period—zebu bulls, horses and elephants—were carved with great care and some indicate a deep affection of the sculptor towards the animal. The lions are different: static and artificial, in great contrast with, for example, the lively swift running horse on one of the abacuses.[92]

From that time on, more and more cultural remains have survived, ranging from decorative reliefs to freestanding independent statues as we will see. Animals play a role as auspicious beings on ornamental parts, as vehicles to carry their divine masters, sometimes independent of their masters, as hero or side-figure in narrative reliefs, as mere attributes to indicate a setting, as proof of royal power, as door guardians to palaces and temples, or to carry an architectural unit. The majority of sculpted animals is anonymous; only very few are based on a real, historical animal. The best examples of the depiction of historical

[90] See Chapter 23 for discussion of import of giraffes in historical times.
[91] See section 33.2.2.1 for description and similar lion capitals.
[92] See section 18.2.2 for description.

animals are given by the hero stones (*devalis*) scattered throughout the Great Indian Desert in Rajasthan.[93] Rajput heroes or great leaders who died for a 'noble' course, such as winning back stolen cattle, and fights with other clans over water wells are immortalised and deified on memorial stones on which they are depicted as riding their faithful horse and sometimes, depending on the circumstances of their death, with cattle or a dromedary.[94] Their wife or wives may be depicted on the same stone as well, as in the case when they were burnt alive on the funeral pyre of their husband to become a *sati* (literally: good wife) but also sometimes female cattle keepers[95] are depicted as accompanying heroes. In other cases, a sun and a moon are depicted above the horse rider.[96] Most of these warrior heroes or folk gods are known by name, and so are their horses, for example, the hero Pabuji and his mare Kalmi or Kesar (fig. 19).[97]

In some regions a profusion of animal sculptures strikes the eye, or at least during certain times, whereas in other regions animal motifs were only sparingly used. Examples of an animal invasion into stone sculpture are the railings and gateways around the Buddhist stupas at Sanchi in Madhya Pradesh of the first two centuries, and the splendid Hindu rock-cut caves, boulders and statues at Mammalapuram in Tamil Nadu of the seventh and eighth century. A great variety of mammals, realistic as well as mythical, are sculptured on these monuments as silent proofs of the skilfulness of the artists of Sanchi and Mammalapuram alike. This appears to be much less so in the case of the stupa railings of Amaravati in Andhra Pradesh of the second and third centuries. No doubt the art of Amaravati is unsurpassed and its stupa complex must have been a world wonder in its time, but as we will see, the human figures easily outnumber those of the animals. The few carved mammals are now more often than not of a mythical nature. Also the Buddhist architecture on Sri Lanka from before the tenth century is not particularly rich in animal sculpture. Some of these

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[93] See section 18.2.7 for examples of these hero stones.

[94] J. Kamphorst, "The deification of South Asian Epic Heroes: Methodological Implications," in *Epic Adventures. Heroic Narrative in the Oral Performance Traditions of Four Continents*, ed. J. Jansen and H. Maier (Muenster: LIT Verlag, 2004), 89–98.

[95] Charani *sagatis*, see further glossary.

[96] Some Rajput lineages claim descendancy from the moon, others from the sun.

[97] J. Kamphorst, "The Warrior-hero Pabuji," in *Devotional Literature in South Asia; Current Research 1997–2000*, ed. W. Callewaert and D. Taillieu (New Delhi: Manohar, 2002), chapter 18.

Fig. 19. A herostone for Pabuji Dhamdhal Rathaur riding his mare Kalmi or Kesar. Koli temple, Koli, Rajasthan, c. 17th century, yellow sandstone. Photograph: courtesy J. Kamphorst

sculpted animals, however, are portrayed with extraordinary skill and emotion and are almost alive, such as the bathing elephants of Naga Pokuna at Isurumuni of the second half of the first millennium.[98] Quite different is the situation in India during the Islamic period, between roughly the twelfth and the eighteenth century, during which period animal sculptures are remarkably rare. Despite the passion and scientific interest in nature in all its forms in the Islam, which is evident from the minutely painted miniatures, manuscript illustrations, mosaics and inlays,[99] animal sculptures are extremely rare and seem mainly limited to elephant statues at gates.[100] Decoration of their architecture in India is mainly restricted to the two-dimensional plane. In the mean time, Hindu patrons continued commissioning monumental sculptures, on which animals often flourished. They are sometimes full of life with round shapes and almost bulging out of their stony prisons on the Hindu temples of Tamil Nadu of the sixteenth and seventeenth century. In other cases they are more static, plump and grotesque, such as the freestanding life-sized horse and elephant statues at Konarak's Sun temple in Orissa of the thirteenth century.[101]

Bound to the limitations of skill and experience, the wishes and demands of the commissioner, the prevalent opinions and not to forget the limitations of the material itself, including available space, the artists depicted the animals from amazingly naturalistic to highly stylized or completely erroneous. In the latter case one may wonder whether the artist ever saw the creature he had to depict. This is often the case with the lion, an animal belonging to the fantastic realm in the imagination of the common people, only seen by the happy few in most regions. Erroneous details of many lions are, for example, large bulging eyes, rows of blunt, herbivorous teeth, and even hornlike structures (fig. 20). Zebu bulls and cows, on the contrary, were familiar to everybody and practically all zebu sculptures are naturalistic, in the sense that the animal has been depicted accurate in all its details. Realistic details of zebus are, for example, the densely wrinkled dewlap, the almond-shaped

[98] See section 17.2.3 for description and similar examples.

[99] See, for example, R. Nath, "Depiction of animate motifs at the tomb of I'timad-ud-Daulah at Agra," *Islamic Culture* 47, 4 (1973), 289–300; S. Parihar, "Depiction of animate motifs on the Muslim monuments of the (East) Punjab & Haryana—a survey," *Journal of the Pakistan Historical Society* 40, 3 (1992), 185–193.

[100] See section 17.2.10 for some examples.

[101] See section 17.2.8 and fig. 270 for the elephant statues and section 18.2.2 and fig. 317 for the horse statues.

Fig. 20. An unrealistic lion with bulging eyes, blunt teeth and horns. Architectural relief, style of Bhumara, post-Gupta Period, 6th–7th century, red sandstone Brooklyn Museum of Art, 78.195.2, anonymous gift, New York. Photograph: courtesy The Brooklyn Museum of Art, New York

eyes and the typical hump. In principle each animal, whether familiar to the artist or not, may sometimes be reproduced in a highly stylized way. In such cases, there is nothing artificial about the animal and the details that are carved are accurate, yet, the animal could not have lived as such. The outlines are often schematic and many details are left out to stress the basic shape or desired features of the animal.

The animal motifs evolve as time passes by and follow the general patterns of stylistic developments. Changes in depiction—trends—of animals through the centuries can be expected and are indeed observed in, for example, the horse sculptures. The small, plump and large-headed horse of the centuries before the Common Era is replaced by a larger, more elegant and small-headed horse in the early second millennium. This trend is visible in all regions but not everywhere at the same time. The question is addressed whether this trend can be entirely attributed to change and evolution in style or not. The degree in which the horse itself changed throughout the centuries obscures the picture and different peoples appeared to have favoured a different horse breed. In many cases, trends are even less clear, or not visible at all, due to the limited amount of available stone sculptures. This is the case with the rhinoceros. Rhinoceros sculptures are practically limited to the Indus Valley of the mid-third to the mid-second millennium B.C.E. and to Nepal. The total absence from later periods and other regions makes it impossible to define a trend. For other animals, the situation is somewhat better, but still their rareness in stone may mislead us. Where only few sculptures are known, it is rather easy to discern a 'trend', but where numerous specimens are known, the picture often becomes confused and more than one trend may be observed, or the earlier observed trend loses its validity. This is the case for the almost overdepicted animals like the lion and the elephant. There appear to be so many sculptures, all different to some extent, that general statements are difficult to make. The only trend that might be present in the lion sculptures is that they become more fantastic and more mythical through time, possibly as a result of their dwindling numbers but also due to an increasing urbanization, which enlarges the distance between the people and wildlife.

Sculptures and Stones

The type of stone used for carving differs greatly from region to region. This implies that limitations which are due to the nature of the material also differ between regions. Some types are found in larger areas, whereas others are more limited in distribution. The most important rocks and the areas where they are quarried or used in situ are given below. The list is not complete, but represents the bulk of animal sculptures and architecture mentioned in this book.

Rocks are classified into three main classes: sedimentary rocks, igneous rocks and metamorphic rocks. Sedimentary rocks are formed of layers of sediments that are either the leftovers when the water evaporates or are settled down wind-blown particles. Examples of sedimentary rocks are sandstone[102] and limestone.[103] Sandstone is formed out of layers of sand as the name already suggests. Limestone consists of fine layers of millions of microscopic exoskeletons of micro-organisms that once lived in the sea. Sedimentary rocks are ideal for sculptures, although they may dissolve under influence of weather conditions. Igneous rocks are of a volcanic origin and are formed when magma or lava hardens. The velocity of the cooling down determines the grain size of the crystals that are formed within the rock. Examples of igneous rocks are basalt,[104] andesite and granite.[105] Basalt is very fine-grained, whereas andesite and granite are coarse-grained with larger crystals. Igneous rocks are very hard or even glasslike and are ideal for a long-lasting sculpture, but not particularly easy to carve. The large crystals in granite make the carving of minute details impossible. Metamorphic rocks finally, are either sedimentary or igneous rocks that have undergone textural or structural changes due to extreme pressure and/or heat. The type of rock that is produced depends on the original rock and the conditions

[102] Sandstones: buff or yellowish brown in Rajasthan, Uttar Pradesh, Madhya Pradesh, Punjab, Haryana and Bihar, red in Madhya Pradesh and Uttar Pradesh (mottled red around Mathura), grey in Madhya Pradesh, cream and tan in Rajasthan, Pakistan and Uttar Pradesh, and cream-coloured in Madhya Pradesh.

[103] Limestones: greenish white and white in the coastal region of Andhra Pradesh, white in Pakistan, crystalline (dolomite) in Sri Lanka, grey in Rajasthan, and cream and tan in Pakistan.

[104] Basalts: black in Orissa, Bihar, West Bengal and Bangladesh, dark grey-green in Bihar and Bengal.

[105] Granites: Madhya Pradesh, Maharashtra, Tamil Nadu, Andhra Pradesh and Karnataka.

of the pressure and temperature. There are many types of metamorphic rocks and they all have very different characteristics: slates and phyllites, schists, gneisses, soapstones—steatite, serpentinite and potstone—, and marbles. Slates and phyllites are fine-grained, but easily split into thin parallel layers and thus not favoured for sculptures.[106] Schists are coarse grained, more firm and recognized by flakes of mica, chlorite or other minerals.[107] They are rather easy to carve and do not split easily. Gneisses are coarse grained, too, but more massive and banded; they do not split in layers, but in blocks.[108] Mica and other flakes, such as chlorite, are missing. This makes gneiss even better for sculpture, although it is almost as hard as basalt, which makes carving time-consuming. Soapstones are fibrous metamorphic products from the Earth's core and one step before falling apart into talcs.[109] They are homogenous and soft, lack any extraneous crystals and are of appealing colours; they are extremely easy to carve, but damage easily. Also marble is a homogenous metamorphic rock, but much harder; its parent rock is limestone and not core material.[110] Marble is ideal for sculpture, not too hard, without crystals or flakes. As with limestone, it however dissolves under influence of weather conditions (acid rain). To all rocks applies that mineral contents, either as flakes, crystals or diffuse, may influence the final colour, for example, the mineral chlorite makes a rock green. The addition 'chloritic' is then added to the name: chloritic schist, chloritic basalt.

Notes to the reader

Diacritics have been omitted, because this book is meant for a wider audience than for Indologists and other initiates. For Indian names of persons, texts and divinities, the English pronunciation is followed, thus Shiva rather than Siva. The modern transliteration is hereby followed, thus abandoning earlier fashions of using u for a and ee for i: *sati*, not

[106] Slate (black) and phyllites: Bihar, Bengal and Bangladesh.
[107] Schist: blueish grey and grey in Afghanistan, Pakistan, Punjab, Rajasthan, Bihar, West Bengal, Bangladesh, Haryana, Uttar Pradesh and Himachal Pradesh, green in Rajasthan, Maharashtra, Andhra Pradesh and Karnataka.
[108] Gneiss: Tamil Nadu, Sri Lanka and Orissa.
[109] Soapstone (steatite): Pakistan, Karnataka.
[110] Marble (white): Rajasthan and Gujarat.

suttee. For the cerebral r, the combination ri is used, thus *matrika* and Krishna, not *matrka* and Krsna. The spelling of geographical names conforms to the accepted norms in Roman script, thus Sri Lanka and not Shri Lanka. In cases where the geographical name has changed, the modern name is given throughout the text, thus Chennai for Madras and Mumbai for Bombay. Cities and sites are located in the present-day states.

The animal species mentioned in this book are referred to by both their vernacular or common name and their formal or scientific name, consisting of a genus name and a species name (binominal name). For this, I follow the formal names as used in Walker's Mammals of the World.[111] This implies that, for example, the name *Bubalus bubalis* is used for both the wild and the domestic water buffalo, instead of reserving that name for the domestic form and *Bubalus arnee* for the wild form.[112] Zoological information on Indian mammals is mainly derived from Walker's, Pocock and Prater.[113]

Further, this book is not an art historical book. Therefore, references to periods and styles are not given (for an overview of the various periods and styles, see the Time Table at the end of the book). Works of art are accompanied by a date only, according to the Common Era (B.C.E. and C.E.; the latter addition is omitted unless there is ambiguity). These dates are compiled from widely accepted and available general art historical works,[114] and more specific works on Buddhist

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[111] R. Nowak, *Walker's Mammals of the World*, 2 vols. (Baltimore and London: The Johns Hopkins University Press, 1999, sixth ed.).

[112] There is in general no agreement about the exact relation of domestic and wild species. Most scientific names are based upon the domestic species and according to some, should thus exclusively be used for these species. Their wild relatives then have to be named differently. Although I certainly see the value of such a distinction, I agree with Walker and most others that the morphological and especially the genetic difference between the wild and the domestic species is too small to justify a specific status. The only accepted exceptions are that of the dog (*Canis familiaris*) and the cat (*Felis catus*), whose direct ancestors are not known with certainty.

[113] R. Pocock, *The fauna of British India including Ceylon and Burma. Mammalia—vol. 1, Primates and Carnivora (in part), Families Felidae and Viverridae* (The Hague: W. Junk, 1976; reprint of London: Taylor and Francis, 1939); S. Prater, *The book of Indian animals* (Bombay: Natural History Society, 1971, third rev. ed., first ed. 1948).

[114] J. Harle, *The Art and Architecture of the Indian subcontinent* (Harmondsworth, Middlesex: Penguin Books, 1987; reprinted with corrections (first ed. 1986); V. Dehejia, *Indian Art* (New York and London: Phaidon Press, 1997); F. Asher, ed., *Art of India: Prehistory to the Present* (New Delhi: Encyclopedia Britannica India, 2003). Iconographic features of Indian deities are taken from T. Rao, *Elements of Hindu Iconography*, 4 vols.

and Hindu art and architecture.[115] Apart from a date, art works are also specified with their geographical location, monument name and, where relevant, their place on the monument. In the case of loose sculptures, their place of origin is given. In two cases, an additional geographical location is given because they have a status on their own and are widely known as such.

The first case is that of the Indus Valley. From here an important, large-scaled Bronze Age culture is known, generally referred to as the Harappa Period (see above). The flourishing period of this Indus Valley culture is not sharply defined and started roughly at the beginning of the third millennium B.C.E. and ended in the middle of the second millennium B.C.E. Precise dates are scarce. The architectural remains are famous and consist mainly of large, well-planned cities with efficient drainage systems and a grid pattern of roads. The brick settlements are found over a vast area spanning more than a million square kilometres in the Indus Valley in its broadest sense, which runs from the highlands of Afghanistan to the coast of Gujarat and the Jumna (Yamuna) river in Uttar Pradesh. The most famous settlements are Mohenjo-daro and Harappa in Pakistan and Lothal in Gujarat. The art works found in the Indus Valley comprise thousands of steatite seals with animal figures, many ringstones, vast quantities of terracotta (women, animals and phallic emblems, toys), jewellery, a few bronze figures, and very few stone sculptures. Till date, there is no consensus on the decipherment of the script, written on seals.

The cities in the Indus Valley, known as Melukkha by the Sumerians and Akkadians, were part of a lively trade route with lower Mesopotamia (present-day Iraq), especially because of the carnelian (tin) from the Gujarat peninsula;[116] tin is an essential component for the production of bronze. The city culture vanished rather suddenly in the middle of the second millennium B.C.E., likely because of a shift in the river system, which resulted in flooding of some cities and drought around others.

(Varanasi: Indological Book House, 1971; reprint of 1914–1916) and from F. Bunce, *An encyclopaedia of Hindu deities, demi-gods, godlings, demons and heroes*, 3 vols (New Delhi: D.K. Printworld, 2000).

[115] R. Fisher, op. cit. (2002) and G. Michell, *Hindu Art and Architecture* (New York: Thames and Hudson, 2000).

[116] M. Astour, "Overland trade routes in ancient Western Asia," in *Civilizations of the Ancient Near East*, ed. J. Sasson (London: Hendrickson, 1995), vol. 1, 1401–1420.

What happened next to the inhabitants is unknown. The older theory of a massive invasion of horseback riding tribes who called themselves Aryan, or "Noble Ones", who spoke a form of early Sanskrit, cannot be proven as contributing to the fall of the Indus Valley culture. Instead, current archaeological data indicate that an indigenous cultural development took place within the area with a fundamental restructuring of society from within and the rise of a social elite which referred to itself as Aryan.[117] If this proves to be true, links between animal forms in Indus Valley objects and similar ones in later Indian culture might be present indeed. One of the most cited possible link is that between a male figure in yogic posture surrounded by animals, depicted on an Indus Valley seal and the later Hindu god Shiva in his aspect of lord of the beasts.[118]

The second case is that of Greater Gandhara. The region includes the easternmost ancient Persian province Gandhara, which area extends from roughly the Khyber Pass area of the Afghanistan-Pakistan frontier to the Peshawar region and Taxila in Pakistan. The Swat valley and Buner in Pakistan form also part of Greater Gandhara. It formed an art historical entity roughly between the second century B.C.E. to the seventh or eighth century C.E.[119] In the first centuries of the Common Era, Gandhara formed part of the international trade route between Gujarat and the Roman world and the Red Sea area; ivory, silk, onyx, agate etc. were exchanged for gold, silver and iron.[120]

The surviving Gandhara sculpture is remarkably homogeneous in style, although regional variations and a gradual development can be discerned.[121] The overwhelming majority consists of Buddhist cult objects in the form of statues and figures of Buddhas and Bodhisattvas, votive

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[117] Wink, op. cit. (1997) and references therein; G. Possehl, *The Indus Civilization: A contemporary perspective* (Walnut Creek: Altamira Press, 2002).

[118] On the ground of the presence of five species of wild animals (a water buffalo, an elephant, a tiger, a rhinoceros and a pair of ibexes), the figure is generally referred to as Pashupati or lord of the beasts, a possible forerunner of an early Rudra-Shiva form; see section 8.2.1. The scene is also sometimes compared to a somewhat similar setting of the teaching Buddha on his seat below which a pair of antelopes or deer (*mriga*) sit (see sections 1.2.1 and 2.3.3).

[119] K. Behrendt, The Buddhist Architecture of Gandhâra, Handbook of Oriental Studies, Section 2, South Asia 17 (Leiden and Boston: Brill, 2004).

[120] V. Begley and R. De Puma, ed., *Rome and India: The Ancient Sea Trade* (Madison: University of Wisconsin Press, 1991).

[121] See for an overview and discussion, Behrendt, op. cit. (2004). The Gandhara sculptures are mainly of a blue-grey schist, with only a few sculptures of green phyllite, stucco or terracotta.

(miniature) stupas and reliquaries, narrative reliefs,[122] and architectural ornaments for Buddhist monasteries and stupas. Many themes and ornaments are derived from classical Greco-Roman examples: garland bearing *putti*, atlantes, tritons and dragons, acanthus and vine leaves, wrestler-types (*bravi*) in a Roman lower garment (*subjaculum*). Scenes from Greek mythology occur on toilet trays and box lids: Aphrodite beating Eros with her slipper, and Herakles fighting the Nemean lion. Naturally, Indian and western Asian motifs abound, too, for example the lion heads, Indian costumes and lotus petals to mention just a few, but it was the classical Greco-Roman—or Hellenistic-influenced—stamp that initially attracted the British in the 1860s.

[122] K. Behrendt, "Narrative Sequences in the Buddhist Reliefs from Gandhara," in *South Asian Archaeology 2001: Proceedings of the Sixteenth International Conference of the European Association of South Asian Archaeologists 2*, ed. C. Jarrige and V. Lefevre (Paris: Éditions Recherche sur les Civilisations, 2005), 383–392.

Plate 1. The blackbuck or Indian antelope (*Antilope cervicapra*). Diorama of the Field Museum for Natural History, Chicago. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

Plate 2. A mother-goddess dancing on a blackbuck. Mukteshvara temple, Bhubaneshwar, Orissa, 10th century. She might be somehow linked to the martial goddesses of victory Korravai (Tamil Nadu) and Karni Mata (Rajasthan). Photograph: courtesy Rita Willaert

Plate 3. A hunting scene below the ceiling of the upper storey. Rani Nur Cave, Udayagiri Hill, Bhubaneshwar, Orissa, 2nd century, granite. The escaping animal to the right resembles a winged blackbuck. Photograph: courtesy Rita Willaert

Plate 4. Heramba, a five-headed manifestation of the elephant-headed god Ganesha standing on two rats. Funeral ghats of Bhaktapur, Nepal. Photograph: courtesy Ron Layters

Plate 5. Ganesha and his rat bflanked by two fly-whisk bearers. Green Gate (Ganesha Pol), Jaipur City Palace, Rajastan, 18th century, marble. Photograph: courtesy J. Kamphorst

Plate 6. Rats are protected and taken care of as the vehicles of souls of Charan devotees. Karni Mata temple, Deshnok, Rajasthan. Photograph: courtesy Paul Veltman and Antje Brunt

Plate 7. Common house rats running along a plinth as sculpted on the same Karni Mata temple at Deshnok, early 20th century, white marble. Photograph: courtesy Edvar van Daalen

Plate 8. Giant monolithic statue of Nandi, the bull mount of the Hindu god Shiva. Chamundi Hills, Mysore, Karnataka, 1659-1672, granite. Photograph: courtesy Paul Billinger

Plate 9. Yama, the god of death, with his buffalo standing in one of the numerous niches of the Chandella temples at Khajuraho, Madhya Pradesh, 10th-11th century, sandstone. Photograph: courtesy Dingeman Steijn

Plate 10. Durga rides towards the buffalo-headed demon. Cave 16 or Kailashanatha temple, Ellora, Maharashtra, 8th-9th century, basalt. Photograph: courtesy Arup Kumar Datta

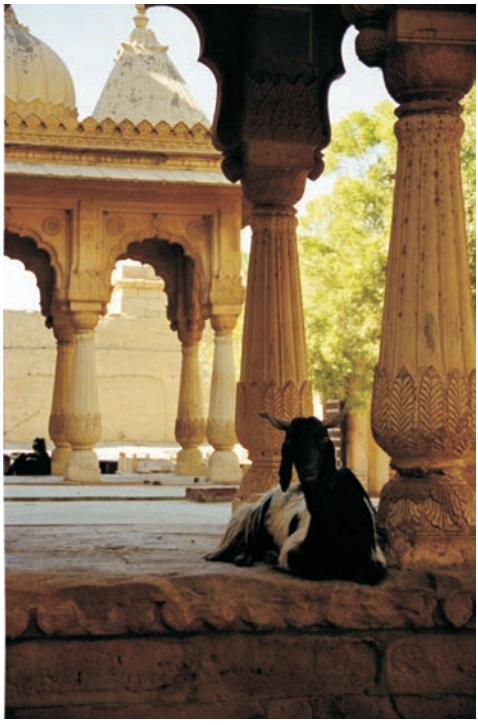

Plate 11. Domestic goats are found all over South Asia, but especially so in the north. Female long-haired goat with mixed colours taking advantage of the shadow of a complex of buildings around a desert well, Jaisalmer, Rajasthan. Photograph: courtesy J. Kamphorst

Plate 12. Pair of goats with riders at the junction of the central architrave with the vertical post. Gateway to the Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy Manu Narayan

Plate 13. Body-grasping war elephantsamidst erotic scenes on several plinths of the Chandella temples at Khajuraho, Madhya Pradesh, 10th-11th century, sandstone. Photograph: courtesy Dingeman Steijn.

Plate 14. Fighting elephant bulls as decoration on the walls of Udaipur Palace, Rajasthan, late 16th century, greyish-white marble. Photograph: courtesy Dingeman Steijn

Plate 15. An elephant and a mythical water monster (*makara*) as balustrade decoration of the steps towards the Airavateshvara temple at Darasuram, Tamil Nadu, mid-12th century. Photograph: courtesy Antje Brunt and Paul Veltman

Plate 16. Elephant 'caryatids' at the Karni Mata temple at Deshnok, Rajasthan, early 20th century, marble. Photograph: courtesy Edvar van Daalen

Plate 17. A pair of elephant-attacking lions (*gajasimhas*) on the Sun Temple at Konarak, Orissa, 11th century, khondalite. Photograph: courtesy Rita Willaert

Plate 18. Riding an elephant. Northern gateway of the Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy A. Kamphorst

Plate 19. Dancing Ganesha on the Chennakeshava temple at Belur, Karnataka, 12th century, soapstone. Photograph: courtesy Sriram Lakshminarayanan

Plate 20. Shiva Killing the Elephant Demon at Belur, Karnataka, 12th century, soapstone.
Photograph: courtesy Sriram Lakshminarayanan

Plate 21. Indra and Sachi on their elephant are fighting for Parijata. Western hall of the Lakshminarasimha temple at Nuggihalla, Karnataka, c. 1246, soapstone. Photograph: courtesy Sriram Lakshminarayanan

Plate 22. An elephant sprays water over its back. Railing medallion of the northeast quadrant, Small Stupa or Stupa 2, Sanchi, Madhya Pradesh, c. 100 BCE, sandstone. Photograph: courtesy Patrik M. Loeff

Plate 23. Relief of a horse-rider on the Keshava temple at Somnathpur, Karnataka, c. 1268. Photograph: courtesy Matthew Logelin

Plate 24. Hero stones, scattered through the Thar desert of Rajasthan and dedicated to folk-heroes like Devanarayan, Rupnath and Pabuji, sandstone, 17th-18th century. Photograph: courtesy A. Kamphorst

Plate 25. Hero stones dedicated to Pabuji in a small shrine at Kolu, Rajasthan, on the occasion of Navaratri, 17th-18th century, yellow sandstone and white marble. Photograph: courtesy J. Kamphorst

Plate 26. Unassociated hero stones dedicated to Pabuji at Malunga, Rajasthan, 16th-18th century, sandstone. Photograph: courtesy J. Kamphorst

Plate 27. Great Departure of the Buddha. Greater Gandhara, northern Pakistan, 2nd-3rd century, schist. Linden Museum, SA 38184, Stuttgart, Germany. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart, Germany

Plate 28. A small group of Indian khurs or wild asses (*Equus hemionus*), close relatives of the domestic horse. Little Rann of Kutch, Gujarat. Photograph: courtesy A. Kamphorst

Plate 29. The five-striped Indian palm squirrel (*Funambulus pennanti*), Jodhpur, Rajasthan. Photograph: courtesy Paul Billinger

Plate 30. Panel with so-called foreign delegation with a giraffe on the platform of the *jagamohana*, south side, upper series. Sun Temple, Konarak, Orissa, c. 1238-1258. The strange, long-necked animal to the right is, however, best explained as a young dromedary. Dromedaries were exotic animals at that period in south-eastern India. Photograph: courtesy JamesThomas Allen

Plate 31. Portrait of an Indian lion (*Panthera leo*), showing the rosette pattern of its coat. Nandankanan Zoo, Orissa. Photograph: courtesy Arup Datta

Plate 32. A pair of winged lions on the vertical post of the western gateway. Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: Patrik M. Loeff

Plate 33. Lion capitals as decoration of the southern gateway of the Great Stupa at Sanchi, Madhya Pradesh. General outer view, c. 50-25 BCE, sandstone. Photograph: courtesy A. Kamphorst

Plate 34. Panel with a depiction of a stupa with surrounding railing, gateway and pillars with lion capitals. Amaravati, Andhra Pradesh, 3rd-4th century, limestone. Government Museum, Chennai. Photograph: courtesy Soham Pablo

Plate 35. The lion of Dionysus in a Bacchanalian scene from Greater Gandhara, Pakistan, 2nd-3rd century, schist. Linden Museum, SA.31527, Stuttgart. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart

Plate 36. Statue of Vishnu's Man-Lion incarnation (Lakshmi-Narasimha or Ugra-Narasimha) wearing a yogic belt around his knees. Hampi, Karnataka, c. 1528, granite. Photograph: courtesy Paul Veltman and Antje Brunt

Plate 37. Statue of a sleeping lion outside the Karni Mata temple at Deshnok, Rajasthan, early 20th century, white marble. Photograph: courtesy Steve Brown

Plate 38. Sala fighting the lion. Paired doorway statue at the Keshava temple, Belur, Karnataka, c. 1117, soapstone. Photograph: courtesy Anita Moorjani

Plate 39. The great Indian one-horned rhinoceros (*Rhinoceros unicornis*). Amersfoort Zoo, the Netherlands. Photograph: courtesy Arjan Haverkamp

Plate 40. Pairs of animals (sloth bears, human-faced lions, rhinoceroses, horses and guardians with dogs) flanking the steps leading towards the brick podium of the Nyata Poul or Siddhi Lakshmi temple at Bhaktapur, Nepal, 17th century. Photograph: courtesy Ron Layters

Plate 41. A family group of common langurs or Hanuman monkeys (*Semnopithecus entellus*) at Mandor, Rajasthan. Photograph: courtesy Antje Brunt and Paul Veltman

Plate 42. A *Ramayana* episode: Hanuman goes to Lanka. Hampi, Karnataka, 16th century, granite. Photograph: courtesy Brad Herman

Plate 43. Rural steles in honour of Hanuman in a small shrine at Sajjangarh, Maharashtra, unknown date, painted stone. Only the long tail reveals that this is the monkey god Hanuman. Photograph: courtesy Maitreya Borayin Larios

Plate 44. Rural stele with Hanuman along the road at Dholpur, Rajasthan. Photograph: courtesy Ed Sentner

Plate 45. A family group of wild boars searching for food on the coast of Daman, north-western India. Photograph: courtesy Skot!

Plate 46. Vishnu in his Boar Incarnation Rescuing the Earth. Mamallapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: courtesy Gunther Groenewege

Plate 47. Vishnu in his Boar Incarnation Rescuing the Earth. Stele at Khajuraho, Madhya Pradesh, 11th century, beige sandstone. Photograph: courtesy Dingeman Steijn

Plate 48. Vishnu and His Avatars, Eastern India, 11th century, black schist. Brooklyn Museum of Art, 1991.244, Gift of Dr. David R. Nalin, New York. Photograph: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

Plate 49. Stele of the boar-headed Buddhist goddess of dawn Marichi or Vajravarahi on her boar chariot from West Bengal or Bangladesh, 11th century, chlorit-graphit schist. Staatliches Museum für Völkerkunde, L115, Munich. Above: detail of the pedestal, showing the boars. Below: overview. Photographs: A. van der Geer

CHAPTER ONE

ANTILOPE CERVICAPRA, THE BLACKBUCK

1.1 The Living Animal

1.1.1 *Zoology*

The blackbuck (Plate 1) or Indian antelope, is a graceful and elegant medium-sized antelope with a shoulder height of about 0.8 m. The buck has long, backwards swept horns with a maximum length of about 0.5 m (North India) or even 0.65 m (South India); females are usually hornless. The horns of adult males are marked with prominent rings and are spiralled (fig. 21); the horns of yearling bucks are without spiral while those of two-years-old bucks form a large open spiral.

Blackbucks have a vertical slit below the eyes consisting of black skin under which a large face gland is found; the secretion functions as a means of communication. They usually live in herds of twenty to thirty individuals but in the past, herds of up to 400 or even 500 animals were not uncommon in Rajasthan and Punjab. When alarmed, the herd typically flees in a series of leaps and bounds, which evolves into a gallop. Barely escaped, they often stop running within fifty metres or so and look back, but they never look back while still running.

Blackbucks are found on the open plains, grasslands and open forests with grass expanses. The original distribution of the blackbuck was practically the entire subcontinent except along the Indian west coast, southward from Surat in Gujarat, where tropical semi- and wet evergreen forests prevail. Remains of blackbuck have been recovered from archaeological sites of the Indus Valley in Pakistan, e.g. Mehrgarh.[1] The large herds gradually reduced in number and size due to extensive hunting and agricultural development. At present, the species is near-threatened,[2] and blackbucks are currently confined to natural reserves

[1] Neolithic period; Meadow, op. cit. (1986), 49.
[2] D. Mallon, "*Antilope cervicapra*," in *2007 IUCN Red List of Threatened Species*, internet <www.iucnredlist.org>, downloaded on 25 January 2008.

and desert zones.[3] In Pakistan, they were practically extinct around 1960 and specimens had to be imported from Texas (USA), where they are bred in large herds on special farms.[4] They are extinct in Nepal and Bangladesh. Ironically, the blackbuck was once the most common ungulate of South Asia but at present it are Texas and Argentina who count the largest numbers of this beautiful antelope.

1.1.2 *Related Species*

One other medium-sized antelope occurs on the subcontinent: the chiru or Tibetan antelope (*Pantholops hodgsoni*), which is related to the saiga of the Russian steppes. The chiru is as large as the blackbuck and its horns usually range between 0.6 and 0.65 m. The chiru is easily recognized by its broad, swollen muzzle, especially in the male. This saiga-like snout is an adaptation for life at high altitudes, where the air is thin and extremely dry and cold. The chiru further has high set eyes and dense woolly hair. The long, ridged horns, which stand almost vertical on the head, diverge towards the tips and curve slightly forward; females are hornless. The position, curvature and size of the horn of the chiru may have contributed to the unicorn fable.[5] The male finally bears striking black markings on its forehead and legs. Chirus lived in vast herds on the Tibetan Plateau.[6] The only region of the Indian subcontinent where chiru may occur, is northern Ladakh and adjacent areas. Once they were the most common wild ungulates on the Tibetan Plateau but at present they are an endangered species as a result of commercial hunting for their underfur.[7] To obtain this wool, the animals are killed and skinned, not shaven or plucked.

1.1.3 *Role of Antelopes in Society*

Blackbucks were hunted already in prehistoric times for their meat, skins and horns. In medieval times and later, they became the favou-

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[3] Gujarat, Rajasthan, and Pakistan.

[4] Blackbucks are a strictly South Asian species and their occurrence elsewhere is entirely due to human interference.

[5] Prater, op. cit. (1971).

[6] G. Schaller, *Wildlife of the Tibetan Steppe* (Chicago and London: University of Chicago Press, 1998).

[7] D. Mallon, "*Pantholops hodgsonii*," in *2007 IUCN Red List of Threatened Species*, op. cit.

rite game animals of the higher classes and elite, which eventually led them to near extinction. The dark, almost black coat of the buck and its spiralled long horns make it not only easy to recognise but also a desired trophy. The maharajas had private herds on which they released captured cheetahs or dogs as amusement. Blackbucks were the most preferred game animal for hunting with cheetahs because of the even terrain; gazelles often occupy undulating terrain which is unfit for the cheetah's burst of speed.[8] At present, blackbucks are fully protected by law, though they are shot illegally.

Blackbucks are wild animals that were only occasionally kept captive, for example by Mughal rulers for fighting purposes, by setting two bucks against each other. Emperor Akbar is said to have owned at least one hundred blackbucks.[9] They were trained and taken great care of. Though the does could become tame enough to be milked, there is no evidence that they were ever bred in captivity in large numbers.

The most wanted part of the blackbuck for religious purposes is its hide (*krishnajina*). It is a precious coat to sit on, however, its allowed use is restricted to brahmins, wise men (*sadhus, yogis*), forest-dwellers and mendicants (*bhikshus*). Deities depicted as *sadhu* or *bhikshu* may be shown sitting on a blackbuck skin. The blackbuck hide is considered identical to or symbolic for Brahma,[10] the highest deity in Vedism and Hinduism. The hide is elsewhere equated with sacrifice itself.[11] Apparently, the hide stands here for the entire animal since the sacrifice is also described as running away from the gods by taking the form of a blackbuck.[12] The skin commonly includes the complete legs and head with horns.

In Tamil Nadu, the blackbuck with its twisted horns is the vehicle of Korravai, the Hindu goddess of victory in war or Glory; she is further accompanied by two male devotees who cut off their head.[13]

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[8] C. Divyabhanusinh, *The End of a Trail: The Cheetah in India* (Delhi: Banyan Books, 1995).

[9] Clutton-Brock, op. cit. (1981), 184. An example of a tame blackbuck male in art is provided by a miniature painting of a full-grown buck with its keeper (London: Victoria and Albert Museum; figured in ibidem, 18.8).

[10] *KB* 4.11; cited from Thite, op. cit. (1973), 204.

[11] *ShB* 3.2.1.28.

[12] *ShB* 1.1.4.1.

[13] J. Harle, "Durga, Goddess of Victory," *Artibus Asiae* 26, 3–4 (1963), 237–246. Korravai may instead stand on a buffalo head, in which form she got identified with Durga slaying the buffalo demon and linked to Shiva; see further sections 8.1.2.2 (Korravai myth) and 8.2.4.4 (Korravai in sculptures).

In Rajasthan, the martial folk-goddess (*sagati*) Karni Mata is believed to protect blackbucks. Furthermore, several Rajput lineages claim descendancy from the moon and venerate the blackbuck; they have as a symbol a blackbuck lying in the moon crescent as seen for example on a silver tableau at the Karni Mata temple at Deshnok, Rajasthan (early twentieth century). These links between the blackbuck and a martial class or deity suggests a wider spread idea. Finally, a strictly vegetarian sect—the Vaishnos—protects blackbucks and trees.

Antelopes play no direct role in Buddhism and are often put on a par with deer. Antelopes, deer and gazelle are all grouped under the broad term *mriga*, game. Game animals are symbolic for the first sermon of the Buddha because he taught his disciples for the first time in the game park (*mrigavana*) Ishipatana at Sarnath in Uttar Pradesh. The event is known as the Turning of the Wheel of the Law (*dharmachakra*) and is indicated in some depictions by a wheel only and in other depictions by a wheel flanked by a pair of deer, antelopes or gazelles.[14] The concept of a wheel flanked by two game animals is shared with Jainism, where the motif symbolizes the last instead of the first sermon of the Jinas in the universal assembly.

The chiru, finally, is especially wanted for its luxurious wool known as shahtoosh[15] but also for its meat[16] and its horns for traditional Tibetan medicine;[17] in all these cases the animal is killed. The wool has been traded for centuries and transported on yaks from Tibet, Ladakh and Nepal, using amongst others the millennia old Silk Route. The animal may therefore have been well-known in the whole region around the Silk Road.

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[14] See also sections 2.1.3 (spotted deer as *mriga*), 7.1.2 (nilgai as *mriga*) and 22.1.3 (gazelles as *mriga*).

[15] G. Schaller, "In a High and Sacred Realm," *National Geographic Magazine* 184, 2 (1993), 62–87.

[16] G. Schaller, "Illegal Trade in Tibet," *Wildlife Conservation Society 'Hotline'* (1993, May/June).

[17] H. Wong, "Massacre of the Tibetan Antelope," *Tibetan Environment and Development News*, Washington, D.C., Issue 22 (1997).

1.2 Blackbucks in Stone

1.2.1 *Blackbucks and the Wheel*

Probably the best example of blackbucks attending Buddha's first sermon is found on a domeslab from stupa 2 at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 22). We see here a very realistic depiction of blackbuck males with their wavy horns. These horns are typical of blackbuck males and are not found in any other South Asian bovid.

Seen from the side, the horns of a blackbuck give the impression of being spiralled. This explains several other depictions of antelopes with spiralled instead of wavy horns, such as the one on a panel from Goli, Andhra Pradesh (third century; fig. 23). This panel represents the First Sermon of the Buddha in its aniconic stage, indicated only by the symbols of an empty throne with two antelopes below it; or, as in the view the Huntingtons,[18] it represents the pilgrimage to the place where the sermon once took place. The horns of the antelopes are spirally grooved. For a gazelle (*Gazella*), the horns are too massive and the ridges should not have been spirally grooved, but circular; the same applies to the Nilgiri tahr (*Hemitragus*).

Another example of the First Sermon with antelopes, but this time with Buddha and his disciples being present, comes from nearby Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 24). The deeply wrinkled horns remind those of the tahrs but they are far too long and, in addition, these animals are restricted to the Himalayas and the Nilgiri Hills in Kerala. A blackbuck must therefore have been intended. There is further a vague indication of some coat pattern in the individual to Buddha's left, suggesting a different colour for the animal's back. A northern example decorates the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 25). A group of men proceeds towards the wheel to worship it. They are accompanied by blackbucks, likely as an indication of the setting: the *mrigavana*. The Buddha nor

[18] J. Huntington, "The Origin of the Buddha Image: Early Image Traditions and the Concept of Buddhadarsanapunya," in *Studies of Buddhist Art of South Asia*, ed. A. Narain (New Delhi: Kanak, 1985), 23–58; S. Huntington, *The Art of Ancient India* (New York: John Weatherhill, 1985); S. Huntington, "Early Buddhist art and the theory of aniconism," *Art Journal* 49, 4 (1990), 401–408.

his disciples are present, and the scene might thus represent the actual worship of the place where once the Buddha held his first sermon.

The typically tightly spiralled and twisted horns are seen on a pedestal of a Tirthankara stele from Uttar Pradesh as well (tenth to thirteenth century; fig. 26). Here, the bucks flank the wheel, in a way similar to scenes of Buddha's First Sermon, but this time to indicate the Jina's Last Sermon. The depicted horns are spiralled as in a blackbuck seen in front from a distance. A beard is missing, which excludes a markhor.[19] The body is far from elegant and is massive as a cow's; this might indicate a season with abundant young grasses. The ears are as large as they should be for a blackbuck.

Another example of twisted horns is provided by a panel illustrating Buddha's First Sermon from Rajgir, Bihar (seventh century, sandstone).[20] Here, two blackbucks with slightly twisted horns flank a wheel. Their bodies are very rounded and well-fed, this may indicate the season of plenty grass, pseudo-domestic game animals or, less likely, deer as Doniger suggests.[21]

1.2.2 *The Blackbuck as Divine Vehicle*

At the Mukteshvara temple at Bhubhaneshwar in Orissa, a goddess is depicted dancing on a blackbuck (tenth century; Plate 2). The sculpture itself might be older, or originating from another region, because the stele fits somewhat awkwardly in its niche. The antelope has spiralled horns, carefully rendered tail and double hooves. The animal holds its head down and gives the impression that it can hardly carry the goddess' weight. The goddess dances frantically on the antelope's back. She is somewhat reminiscent of the southern Korravai and the Rajasthani Karni Mata, both martial goddesses.

An example of Korravai with a blackbuck is found at Mammalapuram, Tamil Nadu (seventh to mid-eight century; fig. 27). Her blackbuck stands behind her, and is recognized by its twisted horns. The goddess is generally found depicted standing on a severed buffalo head

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[19] The markhor (*Capra falconeri*) is a wild goat with spiralled horns; see further section 14.1.2, second paragraph.

[20] Nalanda: Archaeological Museum; figured in S. Snead, ed., *Animals in Four Worlds, sculptures from India* (Chicago and London: University of Chicago Press, 1989), pl. 132.

[21] W. Doniger, "The four worlds," in Snead, *Animals in Four Worlds* (1989), 3–24, 19.

and not with an antelope.[22] This carving seems to be a rare exception, though on the other hand, carvings of Korravai with an antelope may have been overlooked sofar since she is a poorly known and understood goddess.

1.2.3 *The Blackbuck Skin*

A realistic depiction of the use of a blackbuck skin is provided by a bodhisattva torso from Sanchi, Madhya Pradesh (c. 900; fig. 28), popularly known as the Sanchi Torso. The bodhisattva wears the typical antelope skin over his left shoulder. The horns are clearly those of a blackbuck and the stripes fit to the black-and-white pattern of the male, although the number of stripes is exaggerated here: more realistic would have been four stripes on the body and two on each leg.

An earlier, but much less realistic example is the skin worn by the seer Narayana, son of Ahimsa as depicted on the right half of a Nara-narayana panel on the Dashavatara or Vishnu temple at Deogarh, also in Madhya Pradesh (sixth century; fig. 29). The ears are drooping as in domestic goats and sheep and the horns are too tightly spiralled.

1.2.4 *Running Antelopes as Decoration*

A series of running wild animals, including an antelope, decorates a panel from stupa 2 at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 30). These three running animals occur regularly in the sculpture of the Andhra Period. To the left runs a realistic lion, in the middle a leogryph-like mythical animal as known, amongst others, in Classical Greek Art, and to the left a massive goat-like animal. Its coat pattern is indicated with dotted incised lines, giving the impression of vertical bands or stripes from a distance. In reality, the coat pattern of a male blackbuck follows rather horizontal lines. The horns are grooved and long.

A pair of running antelopes decorates a stone halo of a bodhisattva statue from Greater Gandhara, possibly Pakistan (first to fourth century; fig. 31). The horns are very massive and long, with the one to the left being split, indicating a pair of closely-set horns. This, in addition to the length and straightness of the horn, is evidence for a chiru, the

[22] See further footnote 13 of this Chapter.

Tibetan antelope, with its extremely long horns. The animal to the left has the characteristic backwards turned head. The antelopes might be symbolic for the specific bodhisattva.

1.2.5 *Blackbucks in Narrative Reliefs*

A realistic and very nice depiction of a male blackbuck originates from Pitalkhora, Maharashtra (second century B.C.E., trap rock).[23] It probably was part of a narrative frieze. The buck has long wavy horns, clearly split hooves, and a drooping non-bushy tail. It is bending forward as if grazing. Its body and head are a bit too massive for the gracile blackbuck, yet the wavy horns cannot be mistaken for those of any other species. After the rain seasons, blackbucks have the tendency to become (very) fat after eating the young, nutritious grasses. The Pitalkhora image seems to be a depiction of such a well-fed stage.

An early depiction of a hunting scene involving winged blackbucks can be seen on a frieze just below the ceiling of the upper storey of the Rani Nur Cave or Rani Gumpha at Udayagiri Hill near Bhubaneshwar, Orissa (second century; Plate 3). The two escaping winged animals have been interpreted as deer,[24] but they have tightly screwed horns without branching and they turn their heads backward while running off, a convention noted already earlier for antelopes,[25] though not based on reality. The ears are large and round. The wings are likely an interpretation of their incredible speed, possibly combined with their bouncing jumps. The scene might be an illustration of the Story of the Winged Deer,[26] in which a king goes hunting on horseback, eager to shoot a particular beautiful legendary antelope or deer. In the end, the animal teaches the Buddhist message to the king, who on the spot converts to Buddhism.

Blackbucks also play a role in an illustration of the story of the Buddha visiting a *naga* in his resort in the Himalayas as illustrated on a panel from stupa 2 at nearby Nagarjunakonda, Andhra Pradesh (third to

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[23] Figured in S. Gorakshkar, ed., *Animal in Indian art: catalogue of the exhibition held at the Prince of Wales Museum of Western India, Bombay, from 30 Sept. to 21 Oct. 1977* (Bombay: Prince of Wales Museum of Western India, 1979), fig. 30.

[24] L. Bachhofer, *Early Indian Sculpture* (New York: Hacker Art Books, 1972; reprint of New York: Pegasus Press, 1929).

[25] S. Atre, "Harappan seal motifs and the animal retinue," BDCRI 49 (1990), 43–51.

[26] *Sharabha Jataka*, Pali *Jataka* 483.

fourth century; fig. 32). Several wild animals populate the setting, which is supposed to be the rocky Himalayas. The blackbucks are portrayed as fleeing away in a jumping gallop,[27] which is more appropriate for the plains. The horns show the same spiralled grooves as seen in the Goli panel of Buddha's First Sermon (fig. 23). The other wild animals, on the other hand, do belong to the Himalayan ecosystem: the sleeping bear and the tree-uprooting elephant; also the profusion of rocks is what one expects for the Himalayas.

A rather complicated scene on a frieze at Khajuraho, Madhya Pradesh (eleventh century, sandstone) involves blackbucks.[28] To the left, a man is seen with a huge knife or sword behind a zebu bull and a helper below who holds the cord tied to a calf or a young antelope. To the right four blackbucks are depicted, obviously being hunted, seeing the large arrow head in one of them. The horns are spiralled and especially the horns of the one at the top (centre) are spiralled in a natural way. The tails are held upright as antelopes sometimes do.

A southern example of blackbucks figuring in a narrative relief is provided by a panel with Krishna playing the flute on the Hoysaleshvara temple at Halebid, Karnataka (c. 1121; fig. 33). The horns are spiralled in the males but lacking in the females, which is indeed correct. The animals are, however, for the rest not depicted realistically at all, and seem merely to represent the general category of *mriga*, or game.

1.3 Concluding Remarks

Blackbucks are generally depicted in pairs, either flanking the Wheel of the Law (*dharmachakra*) in illustrations of Buddha's First Sermon or Jina's Last Sermon or escaping in a bouncing gallop with turned head. The horns vary greatly, even within the same region and period, from straight to spiralled or gently curved, and are either spirally grooved or smooth. Sculptures depicting the use of a blackbuck skin are very rare; some examples are found in Madhya Pradesh.

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[27] Fleeing antelopes are also present on a frieze illustrating the story of the Buddha visiting the Shakyas on a railing pillar of the stupa of Amaravati, Andhra Pradesh (second to third century; Chennai: Government Museum). The horns of these antelopes are straight and long, and lack grooves or spirals. The animals are not particularly realistically depicted.

[28] Figured in Snead, op. cit. (1989), pl. 71, "hunting scene with deer".

CHAPTER TWO

AXIS AXIS, THE SPOTTED DEER

2.1 The Living Animal

2.1.1 *Zoology*

Spotted deer—also known as chital—are small deer with a shoulder height of only 0.9 m. The coat is finely spotted in adults as well as in fawns. They are even-toed ruminants, distinguished by the presence of deciduous antlers in the males as in the majority of deer species. The antler of spotted deer is very simple, with one long brow tine and a forked main beam with a length of about 0.85 m (fig. 34). These antlers consist of solid bone, growing on extensions of the skull, called the pedicles; only the growing antler is covered by skin and very soft hair, known as the velvet. The side-toes are more fully developed in deer than in similar sized bovids, such as antelopes, sheep and goats.

Throughout the year, spotted deer live in mixed herds comprising both hinds and stags (fig. 35). These herds generally number ten to thirty individuals but may sometimes contain several hundreds of animals. When alarmed, they utter an alarm call as all deer do, sometimes preceded by stamping with the feet. Of all Indian deer, spotted deer are the least shy; they do not avoid villages and cultivated areas. They are also frequently seen in the company of other forest animals, especially monkeys.

Spotted deer live on the edges of forests and jungles from the foothill range of the Himalayas throughout the entire subcontinent, including Sri Lanka and the mangrove forests of the Sundarbans. Spotted deer are not found in the arid regions of the Punjab, Rajasthan, and Sind. Remains of *Axis axis* have been recovered from the mature Harappa site of Lothal at the Gulf of Cambay, Gujarat,[1] which indicates that the region was forested at that time.

[1] B. Nath, "Advances in the study of prehistoric and ancient animal remains in India. A review," *Records of the Zoological Survey of India* 1–2, 61 (1968), 1–63; Y. Chitalwala

2.1.2 *Related Species*

The sister taxon of the spotted deer is the hog-deer (*Axis porcinus*; fig. 36). This is a much smaller deer with a shoulder height of barely 0.6 m; its antler is relatively shorter with a main beam length of 0.3 m. The antlers are set on very long bony pedicles, almost straight and as simple as those of spotted deer. Its body shape is reminiscent of that of a swine—hog—, carrying a rather long body on short legs. The coat is spotted in fawns and during the summer in adult hinds and young stags. When frightened, a hog-deer runs away with its head held down, more in the manner of wild boars, in contrast to the typical way of deer and antelopes which bounce off. Hog-deer are solitary creatures and live at most in pairs, which explains why they are hardly seen. They live in grass jungles, scrub jungles and dense grasslands along rivers, in river deltas and on the plains of north India from Sind and the Punjab to Assam, but also on Sri Lanka. Hog-deer do not occur in peninsular India.

A distant relative of the spotted deer and the hog-deer is the Indian spotted mouse-deer (*Moschiola nemmina*).[2] It gives the impression of a miniature chital with its spotted coat but lacks an antler and has a relatively more rounded trunk and long limbs, thin as a pencil (fig. 37) with fully developed side toes. Adult males have small tusk-like canines. The throat bears three white stripes. Mouse deer are very shy and live in the thick jungles of South India and Sri Lanka. Consequently, they are hardly ever seen.

2.1.3 *Role of Spotted Deer in Society*

Spotted deer have always been a favourite game animal, much like the blackbuck and the gazelle. They are hunted for their meat, hide and antlers. Antlers provide perfect raw material to make all sorts of tools and the hide can be made into clothing and used as a seat. In general, the blackbuck hide (*krishnajina*) is considered a worthy seat for Brahmins, ascetics and so on,[3] though it seems that a deer skin is equally good. Sadhus in Nepal may sit on a chital skin (fig. 38), probably because in

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and P. Thomas, "Faunal remains from Khanpur and their bearing on the culture, economy, and environment," BDCRI 37 (1977–1978), 11–14.

[2] The Indian spotted mouse-deer is often attributed to the genus *Tragulus*, to which the other Asiatic mouse-deer belong.

[3] See further section 1.1.3.

Nepal blackbucks do not thrive. Spotted deer were never domesticated, though trade in living spotted deer takes place on the Andaman Islands, where they are transported by boats without much difficulty.[4]

Deer have a symbolic meaning in Indian religions, where deer—especially so young deer—are considered the very symbol of peace, righteousness, wisdom, and an essential element of a peaceful hermitage (*ashram*). The presence of deer in narrative scenes may have no other purpose than to indicate such a setting.

Deer belong to the broader category of *mriga* (game animals), together with antelopes and gazelles. These animals can be depicted indiscriminately. For Buddhists, *mrigas* are one of the symbols for the first sermon of the Buddha. After he reached enlightenment under the bodhi tree in Bodh Gaya, in what is now western Bihar, the Buddha taught his former five disciples. This first lesson, or sermon for that matter, was held in the game park (*mrigavana*) Ishipatana, just outside the town of Sarnath in present-day Uttar Pradesh, not far away from Varanasi along the Ganges. The event is known as the turning or setting into motion of the Wheel of the Law (*dharmachakra*), indicated in earlier depictions by a wheel only and in later depictions also by a wheel flanked by a pair of deer, antelopes or gazelles. The animals play no active role in the story but merely indicate the setting. The park then is a metaphor for a peaceful, calm place with the deer as symbols of dharma. Naturally, such a *mrigavana* was not some sort of wildlife reserve but royal hunting ground, where the upper class hunted *mriga*: deer, antelopes, gazelles, boar and so on. The wheel flanked by two *mriga* is not restricted to Buddhist iconography,[5] but is a frequently used symbol of some Jina sculptures as well, possibly in imitation of Buddhist images or vice versa. The motif then symbolizes the last sermon of the Jinas in the universal assembly.

In Hinduism, a *mriga*, again either translated as a deer or an antelope, is associated with certain manifestations or aspects of the god Shiva. Typically, in his manifestation as Great Lord (Mahesha), Shiva has a *mriga* as attribute; the same is valid for his manifestation as Tryambaka, Mritunjaya, Dakshinamurti and Bhikshatanamurti. This *mriga* can theoretically be a young antelope, a young chital or a mouse-deer; in

[4] Figured in Clutton-Brock, op. cit. (1981), fig. 18.6.

[5] See also sections 1.1.3 (antelope as *mriga*), 7.1.2 (nilgai as *mriga*) and 22.1.3 (gazelles as *mriga*).

stone sculptures, as we will see, preference seems to have been given to the mouse-deer, possibly related to both its shy and timid character as well as the three conspicious white stripes on its throat. The link between a *mriga* and Shiva is also obvious from his function of patron deity for the Chola hunting festival (*mriga yatra*) in South India in his manifestation as Kirata or as Tripurantaka.[6]

Deer are further the vehicle of the wind gods. Originally, these were the Maruts, the Vedic twin gods of the wind; later, they were replaced by Vayu, the god of the wind and guardian of the north-western direction (*dikpala*) until today.

2.2 Spotted Deer in Stone

2.2.1 *Spotted Deer as Shiva's* mriga

Deer as a type of *mriga* (game) are associated with several forms of the Hindu god Shiva in stone sculptures in Tamil Nadu. For example, the *mriga* depicted on a stele of Shiva in his form of Dakshinamurti at the Panchanadeshvara temple at Tiruvadi (late tenth century; fig. 39, left) seems to be a young spotted deer. Typical characteristics like the spots and the simple antler lack, but considering the small size, a young spotted deer seems likely. The deer is small, at least compared to the size of the cobra and the rat. This means that it is too small for the deer of the genus *Cervus* and could thus either be a young spotted deer or an adult spotted mouse-deer. The size could suggest a hog deer as well, but these do not occur in peninsular India. Muntjacs can be excluded because the characteristic heavy bony ridges on the skull are lacking.

A very similar setting of Shiva Dakshinamurti is found on the Somnateshvara temple at Melpadi (c. 1014, built by Rajaraja Chola I). Here, too, the setting of an *ashram* is indicated by a cobra (to his right), a pair of young antlerless *mrigas* (centre), and a mouse or rat (to his left), all sitting peacefully together. The pair of *mrigas* lacks characteristic details and both individuals have a too long neck, but based on the similarities

[6] According to a text about hunting (*Mrigendragama*), either Sukhasana Shiva or other deities could be used to protect the hunt; if none is available, Shiva sitting together with his wife and son (Somaskandamurti) can be used. See I. Nakacami, *Facets of South Indian art and architecture* (New Delhi: Aryan Books International, 2003).

with the version seen at Tiruvadi and their relative size, they most likely represent young spotted deer. An earlier version of the same iconography of Shiva Dakshinamurti is provided by a stele from Kaveripakkam (seventh to mid-eighth century).[7] Here, the cobra sits to Shiva's right, and the two young *mrigas* to his left. They are cute and chubby and likely represent mouse deer instead of young spotted deer. Much less cute and also larger is the *mriga* below Shiva Dakshinamurti's right foot on the Koranganatha temple at Srinivasanallur (tenth century, granite or gneiss);[8] this could very well be a young spotted deer.

Shiva in his form of Bhikshatanamurti, the wandering monk, is associated with a small *mriga* as well. An early sculpture is part of the imperial Rajarajeshvara or Brihadishvara temple at Thanjavur (c. 1010; fig. 39, right). Here, Shiva feeds a tiny deer-like animal, which jumps to reach the hand of its protector. Its size is that of either a young chital or an adult mouse deer. From the same period and the same commissioner (king Rajaraja Chola I) originates a relief with Shiva Chandeshanugrahamurti, or Shiva garlanding the saint Chanesha. It is found on the Brihadishvara temple at Gangaikondacolapuram (c. 1025; fig. 40). The leaping *mriga*, now on top of his left upper arm and between Shiva and his wife, is a mere copy of that seen with Bhikshatanamurti on the imperial temple at Thanjavur.

Another similar *mriga* jumps to Shiva Bhikshatanamurti's hand on a bracket in the Minakshi-Sundareshvara complex at Madurai (seventeenth century). The *mriga* is, again, very small and resembles a mouse deer most. The time gap between these two so similar Bhikshatana's, the one from Thanjavur and the one from Madurai, is six centuries, but the *mriga* remained exactly the same. The iconography seems to have been quite popular, considering the many Bhikshatanamurti brackets on collonades in the area; see for example also the more naive representation in the tortoise *mandapa* of the nearby Arulmigu Vedhagireshvarar temple at Tirukkalikundram (seventeenth to eighteenth century; fig. 42). The same iconography is also seen at the Virabhadra temple at Lepakshi, Andhra Pradesh (sixteenth century; fig. 41); the only major difference is that here the *mriga* jumps towards its master instead of away.

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[7] Chennai: Government Museum, cat. no. 71/37. The date is uncertain, see Harle, op. cit. (1987), 291.

[8] Figured in ibidem, fig. 235.

The leaping *mriga* on top of Shiva's upper left hand belongs also to the iconography of his form as Lingotbhava, in which he emerges from a linga. An example with this *mriga* is provided by a stele in a niche of the Patteshvaram Shiva Temple some six kilometres to the southwest of Kumbakonam (sixteenth century; fig. 43).

An indication that Shiva's *mriga* might alternatively represent a spotted deer instead of a mouse deer, at least in some instances, is provided by a modern wooden panel of Shiva Bhikshatanamurti from Thanjavur, Tamil Nadu (nineteenth century; fig. 44). The animal jumps in the same way to reach the leaf that Shiva holds out for him. Here, however, it is adorned with spots over its entire body and an antler on its head, leaving no doubt about its identification as a spotted deer. This suggests that Shiva's *mriga* in some other sculptures might be an adult spotted deer as well. It may be that his *mriga* in the early depictions often was a mouse-deer which much later got confused with the spotted antlered deer due to the similar spotted coat. This change may reflect a decreasing wildlife but also a greater distance of humans to wildlife in general. An original link between Shiva and the tiny mouse deer is favoured by its conspicious three white stripes in the neck.

2.2.2 *Spotted Deer as Peace-Indicators*

The peaceful setting of the Story of the Conversion to Buddhism of the Kasyapa Brothers, as illustrated on a pedestal from Greater Gandhara (first to fourth century; fig. 45), is indicated by the presence of, amongst others, deer. It is not clear what species of deer is depicted, because details lack or are eroded, but the size and the elegance strongly indicate spotted deer. The setting is that of an ashram, inhabited by ascetics and wild animals, such as deer, monkeys and peacocks, all peacefully living together. At the right side, a fawn drinks its mother's milk and at the left side a deer is scratching its eye with a hind leg. The latter posture has been repeated several times, see for example the large deer (Chapter 15).

Another instance of deer indicating a peaceful setting is provided by a panel with the Story of the Hare on the Moon[9] at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 366). The pair of deer play

[9] *Shasha Jataka*, *Shashapandita Jataka*, Pali *Jataka* 87; for the story and depiction, see section 26.2.

no active role in the story itself, but seem to have been added merely to indicate the setting of a peaceful hermitage. Their small size, the long gracile neck and the simple antler of the male are typical of spotted deer, though spots or any other coat pattern are missing. The hog-deer can be excluded on the ground of its absence from peninsular India. Muntjacs can be excluded as well, with their more triangular head, a different antler and an 'angry look' due to the ridges formed by the long, skin-covered pedicles.

From the same region and period comes another example of deer in their role of peace indicators in the form of an *ayaka* frieze from Goli (third century; fig. 46). The frieze illustrates the Story of Vessantara,[10] a prince who gave away all his possessions, including his wife and children. The animals play no role in the story but are used here to create the right atmosphere and setting. No doubt the artist had a spotted deer in mind, when carving this animal with its simple antler, its many tiny spots and rather long and bushy tail. The only minor flaw lies in the straightness of the antler beam, most likely due to the nature of the material. Straight beams are seen in the hog deer, but the latter deer is smaller, less elegant, lacks the spots, and most important, does not occur in peninsular India. A leaping gazelle with a straight, unbranched and smooth horn is present on the same frieze.[11] The spotted deer is accompanied by a partner, as most other animals on the frieze. The animal to the left represents the stag with its long antler and the animal to the right the doe, which lacks an antler.

2.2.3 *Spotted deer and the Wheel*

Deer figuring as *mrigas* in depictions of the Buddha's First Sermon in the game park Ishipatana are extremely rare. One such example comes from Sarnath, Uttar Pradesh (sixth to eighth century; fig. 47). The deer on this relief are massive and plump; both carry a simple forked antler, typical of spotted deer and sambars. Their small size favours the first species, though the latter species cannot be excluded with certainty. The deer seem to be modelled upon some example or prescription rather than upon a living deer, because their muzzles end in a flat disc as is typical of swine.

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[10] *Vishwantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.

[11] See section 22.2.2 for description of the gazelles on this frieze: two pairs are shown, one below the seat and one in jumping gallop behind a hut.

A much earlier relief with a related scene is found on the railing of the stupa of Bharhut, Madhya Pradesh (c. 100 B.C.E., sandstone).[12] The scene either illustrates an episode of the life of the Buddha, whose presence is then indicated by an empty throne (aniconic or symbolic representation)[13] or alternatively, the act of worship of the spot where the Buddha once had attained enlightenment.[14] The deer form a small herd or family group, consisting of three stags and three hinds. They are gathered around an empty throne or seat, one stag and two hinds to the right of the throne and two stags and one hind to the left. Behind the throne is a tree, indicating the enlightenment of the Buddha. The deer are depicted in a splendidly naturalistic way with rows of spots along their body, a simple forked antler with a short brow tine, elongated ears, and finely carved dew claws. Even their mouths, noses and eyes are rendered precise. They all display a different posture, which strongly suggests that the artist was well-acquainted with deer and their behaviour.

2.2.4 *Spotted Deer in Other Narrative Reliefs*

A wise deer is praised in the Story of the Two Deer.[15] The story is told as follows,

> In a forest close to Magadha country a stag headed a herd of one thousand deer. The stag had two sons: Lakkhana and Kala. He grew old and one day he decided to make each of his sons leader of half the herd. Harvest time was coming and the people protected their crops with pitfalls, stakes, stone traps. The old deer thus advised his sons to spend the harvest season safe in the mountains. Kala was rash and haughty and without precautions rushed to the mountains. The people shot and killed most of his followers before they could reach the mountain. Lakkhana was more serious and prudent, travelling only in the night, and so reached the mountains safely with all his followers. After four months, at the end of the harvest season, both leaders returned, one with his complete share and the other with just a few deer left. The old deer praised Lakkhana for his wisdom.

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[12] Figured in Snead, op. cit. (1989), pl. 130.

[13] Y. Krishan, *The Buddha Image; Its Origin and Development* (New Delhi: The New Book Depot, 1995), ix.

[14] J. Huntington, op. cit. (1985); S. Huntington, op. cit. (1985, 1990).

[15] *Lakkhana-miga Jataka*, Pali *Jataka* 11, *Dhammapada Atthakatha* 1.120.

A depiction of this story can be found on a coping stone from Uttar Pradesh (first to third century; fig. 48). The antlers of the stag resemble the spiralled horns of the blackbuck. The vague patterns on their coats, however, clearly indicate spotted deer; furthermore, the tails are long and drooping. Spotted deer are known for their large herds, consisting of hundreds of individuals.

The eagerness to capture and hunt deer for their beauty underlies the Story of Rama and the Golden Deer as told in Valmiki's *Ramayana* epic.[16] According to the story, the demon (*rakshasa*) Ravana wanted to kidnap Sita, the beautiful wife of the hero Rama, who is in exile with his brother Lakshmana in the forests of Panchavati. He calls for the help of the magician Maricha:[17]

> Maricha agrees and disguises himself as a golden deer and roams the forest. Sita sees the deer and asks Rama to chase it for her. Rama first refuses, because the deer is suspiciously perfect. Finally he gives up his fear and follows the deer deep into the forest. When shot, Maricha calls Lakshmana for help, imitating Rama's voice. Lakshmana abandons Sita in order to help Rama. Ravana then seizes this opportunity and carries Sita away in his flying chariot to his kingdom on Lanka.

An example of a stone sculpture of this *Ramayana* episode can be found on the railing of the pillar hall of the Amriteshvara temple at Amritapura, some ten km from Tarikere, Karnataka (1196; fig. 49). The antlers of the deer on this panel are merely straight beams with many small spikes instead of branches. This may be due to the impossibility to sculpture long and narrow structures. Spots can not be discerned, though the size of the deer strongly suggests a spotted deer. Similar examples are found at Hampi, Karnataka (Hazara Ramaswami temple, eleventh century) and Halebid (Hoysaleshvara temple, mid-twelfth century), both in Karnataka.

2.3 Concluding Remarks

The *mriga* of Shiva in stone sculptures from Tamil Nadu appears to be either an antlerless young spotted deer or an adult spotted mouse deer. Shiva sitting together with his wife Uma and son Skanda (Shiva

[16] *The Ramayana of Valmiki*, transl. H. Shastri (London: Shanti Sadan, 1962).
[17] *Ram*. 3.42 ff.

Somaskandamurti) is recognised by a leaping *mriga* at his upper-left hand; the same is, amongst others, valid for Shiva Lingotbhavamurti and Chandeshanugrahamurti. Shiva as the wandering monk (Shiva Bhikshatanamurti) has the same leaping *mriga*, but now leaping from the ground towards Shiva's lower-right hand. The depictions of the *mriga* of Shiva in his forms of Somaskandamurti, Bhikshatanamurti, Lingotbhavamurti and so on are invariably very small and without any significant detail. A modern wooden panel of Shiva Bhikshatanamurti from Thanjavur, Tamil Nadu, unmistakably shows a spotted deer with clear spots and a small, simple antler. The most likely option is that Shiva's *mriga* initially represented a spotted mouse deer, which in some instances got replaced by a young spotted deer. The *mrigas* of Shiva in his teaching form (Dakshinamurti) are different; they are much larger than the leaping *mriga* and sit in a pair below Shiva's feet. These *mrigas* are most likely antlerless young spotted deer.

Spotted deer hardly play an active role in narrative reliefs; rare exceptions are the Story of the Two Deer and the Story of Rama Hunting the Golden Deer as told in the epic Ramayana. The majority of deer sculptures merely indicate a peaceful setting, in which case they are commonly represented as a pair. The same is actually true for the pair of spotted deer below the seat of the teaching Buddha in representations of his First Sermon. The presence of spotted deer in reliefs figuring the First Sermon is, however rare; more often antelopes or gazelles are seen.

CHAPTER THREE

BANDICOTA INDICA, THE BANDICOOT RAT

3.1 The Living Animal

3.1.1 *Zoology*

Rats and mice (family Muridae) are the most common and well-known rodents, not only of the fields, cultivated areas, gardens, and storage places but especially so of the houses. Though there are many genera and species, their general appearance is pretty the same. Rats are on average twice as large as mice (see Chapter 31).

The bandicoot is the largest rat on the Indian subcontinent, with a body and head length of 30–40 cm and an equally long tail; this is twice as large as the black rat or common house rat (see section 3.1.2 below). This large size immediately distinguishes the bandicoot from other rats. Bandicoots have a robust form, a rounded head, large rounded or oval ears, and a short, broad muzzle. Their long and naked scaly tail is typical of practically all rats and mice. Bandicoots erect their piles of long hairs and grunt when excited.

Bandicoots are found practically on the whole of the subcontinent from the Himalayas to Cape Comorin, including Sri Lanka, but they are not found in the deserts and the semi-arid zones of north-west India. Here, they are replaced by a related species, the short-tailed bandicoot (see section 3.1.2 below).

The bandicoot is essentially parasitic on man, living in or about human dwellings. They cause a lot of damage to grounds and floorings because of their burrowing habits; they also dig tunnels through bricks and masonry. Their large burrows and piles of fresh earth resembling large molehills are a good indication of their presence. Like most other rats they are omnivorous and feed on household refuse, on grain and vegetables, eggs, and occasionally attack poultry. It is said that hungry rats attack larger animals and may even gnaw the feet of captive elephants. Bandicoots have underground store rooms, which are often dug up by people for these hoards of food.

3.1.2 *Related Species*

Closely related to the bandicoot are the Indian mole-rat (*Bandicota bengalensis*; fig. 50), and the short-tailed bandicoot (*Nesokia indica*). Both are half the size of the bandicoot; the latter has in addition a relatively short tail, shorter than its body length. The short-tailed bandicoot has a brownish or golden coat, sometimes coarse and spiky as that of the bandicoot, sometimes long and soft. Its muzzle is broad and short, as in the bandicoot. The short-tailed bandicoot is restricted to the water places in the desert and semi-arid zones of north-west India.[1] The Indian mole-rat is the common rat in Calcutta, where it forms about 98% of the total rodent population and is notoriously destructive to crops and cultivation.[2]

Other rats that can be found in cultivation and towns are the black rat, or common house rat (*Rattus rattus*), and the brown rat (*Rattus norvegicus*; fig. 51). Bush and wood rats, such as the Indian bush rat (*Golunda ellioti*) and the white-tailed wood rat (*Rattus blanfordi*), live mainly in scrub and forest and cause thus considerable less damage to crops and cultivation.

The common house rat has its origin in the tropics of India and Myanmar, from where it spread to the rest of the world. It cannot survive in the cold and is therefore largely limited to sheltered places outside the tropics. There are many colour varieties and only very few are black indeed, despite its common designation of black rat.

The brown rat originates from the temperate regions of Central Asia and is thus more successful in cooler climates. Brown rats are typically rats that live outside the house, whereas the black or common rat prefers the house and its direct environment.

In India, the common house rat is common indeed, contrary to the brown rat, which is limited largely to seaports and larger towns and cities. There, they live chiefly in drains and sewers, because they can only survive the tropics in association with water.

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[1] Its distribution over the arid zones from Egypt to the Far East is, in my view, suggestive of a passive transport of the species along the Silk Road; it cannot travel on its own from water well to water well. At present, it is an endangered species.

[2] Prater, op. cit. (1971), 206.

The differences between the black and the brown rat are small: the former is smaller and more gracile than the latter, has a longer tail and large, round ears. The tail of the brown rat is shorter than the body and its ears are small and somewhat angular. The diet differs, too: the black rat is entirely vegetarian, but the brown rat has also eggs, insects and even carrion on its menu. The black rat further prefers a dry environment, whereas the brown rat stays in the vicinity of water. This makes the black rat suitable to live in the (semi-)arid zones of north-western India, where both the brown rat and the bandicoot cannot live, though the short-tailed bandicoot can do so. The thousands of rats at the Karni Mata temple at Deshnok, Rajasthan (see section 3.1.3 below) are black rats of a black-brownish colour variety.

Not related to rats and mice in the biological sense is the common grey musk shrew (*Suncus murinus*), which is commonly called musk rat. Shrews are insect-eaters and thus more closely related to hedgehogs and moles than to rodents, to which order rats and mice belong. The grey musk shrew is large, with a head and body length of about 15 cm and a short tail of about 8 cm. It has a long, pointed snout, tiny eyes, rounded ears and a soft-furred body. The strong smell of musk and the resemblance to rats make people abhor it and kill it when they see it. Grey musk shrews have the habit of entering houses at dusk and running through the rooms seeking insects and are thus ideal pest-controllers. In addition, musk shrews generally chase rats away.

3.1.3 *Role of Rats in Society*

The damage caused by rats and mice to agriculture in India is immense. Their size and the amount of food needed are very small, but their total number is incredibly high. They live under practically all circumstances and have a high rate of breeding. In addition, with their droppings and urine they spoil more food than they eat. Black rats, not the other rats, are considered to spread the bubonic plague, the pneumonic plague and typhus by means of their fleas.

Yet, rats lack the profound negative stamp they have elsewhere in the world. The basis for this different attitude seems to be the fact that a rat functions as the vehicle or mount for one of the most popular Hindu gods, Ganesha. He is the god of wisdom and learning and the remover of obstacles. Ganesha's rat is the bandicoot.

In Rajasthan, at the Karni Mata temple of Deshnok, black rats live a comfortable life under absolute protection (Plate 6).[3] Despite the damage that rats in general may cause, these particular rats are considered vehicles of the souls of departed devotees of the Charani goddess (*sagati*) Karni Mata.[4] Thousands of rats inhabit the temple and cover the courtyard as ants. Amazingly, the rats do not fight as much as could be expected from their population density. Most probably this is because of the inexhaustible amount of food. It is believed that once Karni had an argument with Yama, the lord of the dead, about the return of the soul of a deceased child of a devotee of the local Charan clan. Yama did not cooperate and the desperate Karni had no other choice than to use the body of a rat to store the soul temporarily before the soul would have gone too far away to return from Yama's abode. Since that moment, the souls of Charan devotees wait to be reborn in rat bodies (*kabha*) to safeguard themselves from the clutches of Yama. The *kabhas* are offered sweetmeats and milk by Karni's devotees, but are not worshipped themselves.[5]

The deep-rooted respect for the rats made the Maharaja of Jaipur refuse their destruction when the plaque became a serious problem in November 1912.[6] It is firmly believed that these *kabhas* do not spread diseases and are not true rats.

The common grey musk shrew plays a role in Rajasthani lore. Legend[7] has it that the armies of the Dhamdhal and the Bhati clans once clashed at the Gunjave well. The goddess Deval took the form of a musk rat and with her sharp teeth, she cut the bowstrings of the soldiers in both armies. In this way, the soldiers had no other option than to take up their swords and lacerate each other, what was exactly what Deval wanted. And thus it happened: all soldiers died by the sword.

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[3] The black rats of Deshnok are considered auspicious, but the few white mice that live in the temple are even more auspicious (see section 31.1.2).

[4] See for details, J. Kamphorst, "The Goddess of War. A study of martial, marital and religious metaphors," *Second International Conference on Religions and Cultures in the Indic Civilisation 2005* (New Delhi: Centre for the Study of Developing Societies, 2007) and J. Kamphorst, "In Praise of Death. History and Poetry in Medieval Marwar (South Asia)," PhD. thesis (Leiden: University Press, 2008).

[5] Kamphorst, 2008, op. cit.

[6] Lord Hardinge of Penshurst, *On Hill and Plain* (London: John Murray 1933).

[7] Described in detail by Kamphorst, op. cit. (2008), Chapter 8.

3.2 Rats in Stone

3.2.1 *Ganesha's Rat*

Steles, statues and other stone sculptures of Ganesha are numerous, but his vehicle, the rat, is present only in some of these. Below are a number of examples of such sculptures; for sculptures of Ganesha himself, see section 17.2.15).

An example of a stele with Ganesha dancing on his bandicoot rat comes from West Bengal (eleventh century; fig. 52). The bandicoot is adorned with dots all over its body, indicating the insertion points of the bristly hairs. The bandicoot looks upwards to his master, which obliges him to turn in a seemingly inconvenient twist. Another pedestal of a dancing Ganesha from the same period, either from West Bengal or from Bihar, figures a bristly rat, too.[8] The rat looks to the right as well and has a short, massive muzzle, medium-sized tail, large, round ears and bristles all over its body; all features that indicate a bandicoot. A southern example in stone of Ganesha dancing on his rat of about the same period is part of the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 53). The bandicoot is large and seems fit to carry its equally heavy master. Its feet are splayed and brush-like, not unlike what we see in lions of the same region and same period (see section 33.2).

Ganesha not always rides his vehicle. The rat may also be found depicted independent next to the god or on the pedestal. Such is the case on a stele with a dancing Ganesha from Uttar Pradesh (eighth century; figs. 54, 55). As seen in the stele from Berlin (fig. 52), the bandicoot turns in a twist to look up to his master. Another example is provided by a pedestal of a sitting Heramba, the five-headed form of Ganesha, from Orissa (eleventh to thirteenth century; fig. 56). Here, the bandicoot is very cute with its round shape and round ears, resembling a mouse more than a rat. Compared to the tiny figure next to it, however, this mouse-like shape is misleading, and its size must be large. The rat closely resembles the rat of the Rockefeller Ganesha from Uttar Pradesh.

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[8] British Museum: Stuart-Bridge collection, no. 61; figured in R. Chanda, *Medieval Indian sculpture in the British Museum* (London: Kegan Paul, Trench and Trubner, 1936), pl. 21.

A chubby rat attends a dancing Ganesha on the pedestal of a stele from Gangarampur, West Bengal (fig. 57). The body is rounded, the muzzle somewhat pointed. The animal looks upwards to its divine master. The configuration of the rat is very similar as seen on four other Ganesha steles from northern India; one possibly from north-east Madhya Pradesh (ninth to twelfth century; fig. 58), one from Bodhgaya, Bihar (sixth to eighth century, sandstone),[9] another one from Bihar (tenth century; fig. 294), and one from Rajasthan,[10] where the tail is as long as the body, excluding the short-tailed bandicoot. The main difference between the four pedestals is found in the orientation and position of the rats. Those on the Gangarampur and the Rajasthan steles look to the left, while those on the Bihar steles look to the right; those on the Bengal and Bihar steles sit at the side, while those on the Chandella and Rajasthan steles sit at the centre.

The rat on a detached Ganesha image, inserted into a niche of a later brick temple at Kaupur, Orissa (late ninth or early tenth century) is realistically depicted.[11] The animal is walking, and has a pointed snout, short tail, and a rounded 'piggish' body as typical of a bandicoot. A similar rat with a short, massive snout and oval ears is the company of Ganesha on another detached image, probably belonging to the same period, found in the Mahishamardini compound at Shergarh, also in Orissa.[12] According to Donaldson,[13] it is like 'an oversized mouse', based upon the rat's relative size compared to the kneeling attendant opposite the rat. This strongly suggest a bandicoot.

Ganesha's rat is eagerly eating the sweets (*modakas*), stacked on a pedestal, on a relief of the Madhukeshvara temple at Mukhalingam, Andhra Pradesh, just across the border of Orissa (second half of the eighth century, khondalite).[14] The motif of the eating rat seems to become standard on most ninth century images in Orissa; the first occasion might be that at Ganesha Gumpha Cave at Udayagiri hill

[9] Calcutta: Indian Museum, IM List 1900 70.

[10] London: Oriental Art Gallery, red sandstone.

[11] Figured in T. Donaldson, Hindu temple art in Orissa, vol. 3, Studies in South Asian Culture 12, ed. Janice Stargardth (Leiden: Brill, 1987), fig. 2946.

[12] Ibidem, fig. 2950.

[13] Ibidem, fig. 1241.

[14] Ibidem, fig. 3302. Mukhalingam was once the dynastic capital, called Kalinganagara, of the Eastern Gangas of Kalinga, ancient Orissa. At present, it is a Hindu pilgrimage centre.

near Cuttack (late eight century, sandstone).[15] Commonly, it is Ganesha himself who eats from a bowl with sweets in one of his hands.

The concept of the eating rat is not restricted to Orissa. A southern example is provided by a pedestal below a dancing Ganesha of the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 59). People bring the bandicoot food, which it consumes with obvious delight. The rat is round and very large, and as could be expected, similar to the one on which Ganesha dances from the same temple (fig. 53). The size, shape and short muzzle is typical of the bandicoot.

Perhaps the most ungainly carved rat comes from Polonnaruwa in Sri Lanka (late tenth-eleventh century; fig. 60). The rat is adorned with a kind of harness, and dressed up as a horse or elephant; the function as mount of Ganesha seems to have been taken literally here. The tail is either short or broken-off, the mouth is small, and the posture, especially that of the front limbs, is more bovid-like than rodent-like. Seen the overall roundish appearance, a bandicoot seems the most likely candidate. Interestingly, this Sinhalese bandicoot sculpture has a simile of a comparable date in the form of Ganesha's rat in a niche of the Brihadishvara temple at Thanjavur, Tamil Nadu (c. 1010; fig. 61). Apart from the saddle cloth, it wears a bell around its neck, reminiscent of Nandi sculptures.

A much later example of a caparisoned rat of Ganesha is found on the Minakshi temple at Madurai, Tamil Nadu (seventeenth century; fig. 62); even the bridles and rug on its back are similar to those of the Sinhalese statuette. This rat has a much shorter muzzle than the rat on the Brihadishvara temple. Another relief with a caparisoned rat figures on the Virabhadra temple at Lepakshi, Andhra Pradesh (mid-sixteenth century; fig. 63). The rat has a plump, thick body, broad cheeks, a middle-long tail, and small round ears. It bears a saddle-cloth and has a harness around its snout. As such, it shares some similarities with the Polonnaruwa and Madurai examples.

Ganesha's rat on the Green Gate of the Jaipur's City Palace (Rajasthan, eighteenth century), finally, is clearly a black rat, as evidenced by its long, pointed muzzle and long tail (Plate 5). Taking its provenance into consideration, a region where the Indian bandicoot does not thrive, this is not striking. Black rats are especially venerated and protected in Jaipur and other regions of Rajasthan, because they are considered to be the vehicles of Charan devotees (see section above).

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[15] Ibidem, fig. 1054.

Heramba, Ganesha's five-headed form, is depicted as standing on two rats instead of one at the funeral ghats of Bhaktapur, Nepal (Plate 4). The two rats face opposite, and are carved in not much detail. Their bodies are barrel-shaped and they sit somewhat akward, being pressed down by the weight of their divine master. Their tails are thick and rather short.

3.2.2 *Other Rats in Reliefs*

A rat is part of a more general animal setting on an *ayaka* frieze from Goli, Andhra Pradesh (third century; fig. 46), illustrating the Story of Vessantara[16] about a generous prince who gives everything away he owns to the first one who asks for it. This includes even his wife and sons. On this frieze, many animals are depicted to illustrate the setting of a forest retreat. The rat's large size, compared with the other animals, indicates a bandicoot. The head is broad with a triangular muzzle, yielding the typically cute expression of a bandicoot.

On a narrative relief from nearby Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 64), a rat is depicted somewhere at the top. The story was earlier interpreted either as that of the Man in the Well[17] or the Conversion of *yaksha* Alavaka[18] but actually represents the Story of Mandhatu about a king who ruled the lands of the mortals but desired more: the abode of the thirty-three gods, theTrayastrimsa Heaven.[19] In order to do so, he first had to seize the first defence, that of the *nagas* in the water as depicted on top. The rat above or behind the wall is very large. Its large, triangular shape indicates the bandicoot but further details are missing. The rat plays no active role in the story.

The function of a rat on the pedestal of Shiva Dakshinamurti on the Somanatheshvara temple at Melpadi near Ambedkar, Tamil Nadu (c. 1014, built by Rajaraja Cola I) is not clear. The rat sits upright in a casual way as if by coincidence present at the scene. Its muzzle is rather pointed, and the ears are small and round, indicating a common house rat. The other animals have a clear connection to Shiva

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[16] *Vishvantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.

[17] J.-Ph. Vogel, *Buddhist art in India, Ceylon and Java*, transl. A. Barnouw (Oxford: The Clarendon press, 1936).

[18] A. Longhurst, "The Buddhist Antiquities of Nagarjunakonda, Madras Presidency," *Memoirs of the Archaeological Survey of India* 54 (1938), pl. 49b.

[19] *Mandhatu Jataka*, *Mandhaturaja Jataka*, Pali *Jataka* 258. See B. Subrahmanyan, *Jatakas in South Indian Art* (Delhi: Bharatiya Kala Prakashan, 2005).

in his manifestation as Dakshinamurti: a snake and two young deer,[20] while the rat is more difficult to place, unless it refers here to Shiva's son Ganesha.

A pair of common house rats figures on a decorative panel at the Karni Mata temple at Deshnok, Rajasthan (early twentieth century; fig. 65). The rats are depicted realistic, busy with eating as rats do. Their ears are large and round, but their tails are rather short, more characteristic for a brown than a black rat. Considering the provenance of the panel, a temple in which black rats live a comfortable life under full protection, it is not likely to assume that brown rats were intended here. More reliefs with rats are present at this temple, for example a series of rats walking along a plinth (Plate 7). The rats are realistic with their large, round ears, elongated muzzle and carefully incised hairs. They differ from the two rats of the previous panel, indicating a different sculptor. The tails are, again, rather short.

3.3 Concluding Remarks

As far as stone sculptures are concerned, Ganesha's rat is a bandicoot, recognised by its large size, massive body, rounded or triangular muzzle and sometimes an indication of bristly hairs. The rat is often portrayed as a cute animal, sometimes eating sweets. Sculptures from southern Bangladesh and those from the desert zones of Rajasthan and Gujarat may represent respectively the Indian mole-rat and the short-tailed bandicoot instead of a bandicoot, but I could find no conclusive evidence for this.

Common as they may be, rats are rarely depicted in stone, other than Ganesha's mount. Exceptions figure as part of a more general animal scenery as for example in the case of the Story of Vessantara; the role of the rat attending Shiva Dakshinamurti from Tamil Nadu is unclear. An exception is formed by the Karni Mata temple at Deshnok, Rajasthan. This modern temple is profusely decorated with rat sculptures, which is explained by the special status that black rats enjoy in this particular temple.

[20] *Mrigas*, see further section 2.2.1 for Shiva Dakshinamurti and young deer.

CHAPTER FOUR

BOS GAURUS, THE GAUR

4.1 The Living Animal

4.1.1 *Zoology*

The gaur or Indian bison is a really impressive bovid, much larger than the zebu. It is the largest of all wild bovids living today with a shoulder height of 1.65 to 2.2 m and a maximum body weight of a ton; females are only about one-fifth smaller (fig. 66). As all bovids, gaurs are even-toed ruminants and thus lack incisors in the upper jaw. Gaurs have a huge head, a deep massive body and sturdy limbs. Mature bulls have a large muscular ridge or hump over the shoulders till the middle of the back. This high dorsal ridge gives especially the bull its imposing stature. The horns of the bull are massive, curved and relatively short—between 0.6 and 1.15 m—compared to the size of the animal; cows have smaller and less sturdy horns. The gaur is black or reddish black with white lower limbs; the tuft of the tail is white as well.

The gaur is a shy animal. When startled, it crashes off through the jungle at high speed, though occasionally they ambush and kill persons that pursue it.[1] They live in small herds of usually about eight to eleven and at most forty individuals. During the mating season males compete and spar with one another, but serious fighting is not observed; dominance seems to be based primarily on size. The gaur requires water for drinking and bathing but seems not to wallow. Its only natural enemy is the tiger.

The gaur occurs all over the Indian subcontinent in forested hills and associated grassy clearings up to elevations of 1.8 km. Nowadays it is an endangered species due to hunting, habitat alteration and exposure to the diseases of domestic cattle. As a result, it is found only in scattered

[1] B. Lekagul and J. McNeely, *Mammals of Thailand* (Bangkok: Darnsutha Press, 1988).

areas and some protected areas in Karnataka, Tamil Nadu, Madhya Pradesh and Nepal.[2]

4.1.2 *Related Species*

A possibly semi-domestic form of the gaur is known as gayal or mithan (methne).[3] The gayal is very similar to the gaur, but smaller in every aspect and more docile in behaviour. The horns are less strongly curved. Gayals are found only in Bhutan, Assam, Nepal and the Chittagong Hills.

4.1.3 *Role of Gaurs in Society*

The gaur cannot be domesticated; its only contribution to the domestic stock is sporadic interbreeding with domestic zebus of the hill tribes of Assam and the Chittagong Hills.

Gaurs are primarily hunted for their meat, but not by Hindus, who consider it equal to the zebu, *Bos indicus*. This taboo, however, might be relatively recent, because in the epic *Mahabharata*,[4] a gaur (*gavayas*) is offered for breakfast. The setting of this part of the epic is the forest, and thus most likely a wild gaur was intended; the only other option is a gayal (mithan) but also that animal falls nowadays under the same taboo.

In the hills of Assam, gayals are lured to the village by keeping salt and water supplies at fixed places.[5] They are not eaten nor milked, but kept for sacrificial purposes only. The gayals are sacrificed on all sorts of occasions: weddings, burials, to please the gods and as a thanksgiving. Gayals are also used in trade between villages and as part of a bride price. Hybrids between gayals and zebus are used as draught animals in Bhutan; their meat is eaten only in sacrifice, and their horns are used as

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[2] Bandipur Reserve, Mudumalai Reserve, Kanha National Park, and Chitwan Park, respectively.

[3] The gayal is considered by some authorities as a distinct species, *B. frontalis*, e.g. R. Nowak in *Walker's Mammals of the World* (1999). The exact relation between the gaur and the gayal is, however, not clear. Interbreeding occurs as well as between gayal or gaur bulls and zebu cows, but there is no documentary evidence for the fertility of their offsprings.

[4] *Mbh.* 3.251.12 (*Aranyakaparvan*).

[5] J. Simmoons, *A ceremonial ox of India. The mithan in nature, culture, and history* (Wisconsin: University of Wisconsin Press, 1968). The following information about the use of the gayal in eastern India is summarised from his work.

drinking vessels. Simmoons[6] holds the opinion that gayals were kept by the people of the Indus Valley. It is perceivable that indeed wild gaurs or gayals were once used as sacrificial bulls during the period of the Indus Valley civilization, attracted to the settlements by salt supplies.

4.2 Gaurs in Stone

Impressive gaur bulls figure on several steatite seals from Mohenjo-daro in the Indus Valley, Pakistan (2,300–1,750 B.C.E.; fig. 67). The deep skin foldings and muscle scars characterise the animal's massive forepart. The horns are strongly curved as seen in the gaur, in contrast to the more straight horns of the gayal. The seals are not unique; several hundreds of similar seals with a gaur bull were unearthed in the Indus Valley. The abundant representation of bulls indicate their special status, be it in religion or in economy. The gaur bulls form a minor part of the bull seals; the majority is dedicated to other large bulls (see Chapters 5 and 6).

On another seal from Mohenjo-daro (2,300–1,750 B.C.E.; fig. 68, left), we see a hybrid representation of three types of large bovid bulls, of which the one to the right is a gaur. The head is held low, the appearance is massive, and the horns are short. The other bulls might then represent a zebu—to the left—and an aurochs or an early taurine bull—in the centre—. Other large bovids did not exist in South Asia at that time, which limits the possibilities.[7] The possibility that mythical animals are depicted on this seal cannot be ruled out with certainty, although, some other depicted animals that were once considered mythical, are better explained as existing animals. For example, the so-called unicorn is likely just an aurochs or early taurine bull seen in profile (see Chapter 6). In this case with the three-headed bull, a similar artistic principle may have been applied, with this time three different bulls in profile and overlapping. If so, then the three bulls merely represent the three different large Indian bulls. Very similar, but with the zebu bull missing, is the hybrid bull on another seal from Mohenjo-daro (2,300–1,750 B.C.E.; fig. 68, right).

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[6] Ibidem.

[7] The nilgai (see Chapter 7) is the fourth large bull of the subcontinent, but can be excluded on the ground of its extremely short horns and more horse-like appearance.

From Mohenjo-daro a white steatite image of a bull (c. 2,350–2,000 B.C.E.) has been described.[8] The holes in the head and below the torso were meant for the attachment of separately made ears, horns and legs. The massive appearance resembles that of the gaur most closely. Other options are a gayal, an aurochs or an early domestic taurine form; this cannot be verified as the horns are lacking. The bull wears a kind of collar around the neck, which is not seen on the seals. An extremely similar figurine of baked clay (2,100–1,750 B.C.E.; fig. 69) shows exactly the same characteristics as the steatite figurine, including the collar around the neck.

A much later possible stone carving of gaurs is provided by a decorative animal series ornament on the railing of the Buddhist Mahabodhi temple at Bodhgaya, Bihar (first century B.C.E. or later, sandstone). The dating of the railing is unsure, because the whole temple complex has been renovated several times during its long-term use; it may be as old as the first century B.C.E.[9] It is not clear which animals are represented here, because details are missing and the style is simple. The animal in front has rather straight horns, more like those of a gayal, whereas the animal behind has the upward curved horns of a gaur or even a water buffalo. The very massive shoulder hump resembles that of a gaur.

4.3 Concluding Remarks

Despite its impressive appearance, its wide-spread occurrence all over the subcontinent, and its high esteem by the Hindus, depictions of the gaur are extremely limited. This might be explained by its wild state and the fact that it plays at present no special role in religion, legends or myths. The semi-domestic form, the gayal, on the contrary, has an important role in sacrifice, but this practice is limited to the northernmost part of the Indian subcontinent. Theoretically, such a sacrificial role, either with the gaur itself or with the smaller gayal, may have

[8] NMK cat. no. 50.863 DK 8910; for depiction and description, see E. Mackay, *Further Excavations at Mohenjo-dero* (New Delhi: Government of India, 1937–1938), 284, 288, pl. lxxix, 24, and more recently, A. Ardeleanu-Jansen, "Aspekte der plastischen Kunst der Harappa-Kultur," in *Vergessene Städte am Indus* (1987), 178, pl. 149.

[9] K. Chakravarty, *Early Buddhist Art of Bodh-Gaya* (New Delhi: Munshiram Manoharlal, 1997), 58.

been in vogue in the Indus Valley of four thousand years ago as well, regarding the frequent depiction of bison-like bulls on steatite seals. The depictions on the Indus Valley seals are in favour of the gaur, unless early gayals still had gaur-like horns.

CHAPTER FIVE

BOS INDICUS, THE ZEBU

5.1 The Living Animal

5.1.1 *Zoology*

Zebus or humped cattle are the typical cattle of the South Asian subcontinent. They share most characteristics with their closest relative, the Eurasian or taurine domestic cattle (*Bos taurus*), which are a large size, a massive body, stout limbs, and a long tail which is tufted at the tip. Both sexes bear hollow horns, which are larger in males. Zebus differ essentially from the other Eurasian cattle by a number of unique features, most probably related to the tropical climate in which they live. These features are a distinct hump over the shoulder, an elongated head, elongated eyes, large pendulous ears, and a large dewlap (fig. 70). In males, the prepuce or the skin sheath covering the penis, hangs free from the belly over its larger part, forming a triangular skin flap (fig. 71). All this additional skin helps the zebu to maintain its body temperature. The body is usually covered with short hair for the same reason. As all large herbivores, zebus graze approximately eight hours a day; the remaining time is spent resting or chewing the cud.

Domestication of the zebu may have begun between 8,000 and 6,000 year B.C.E. in the Indus Valley of Pakistan. It is not entirely clear whether the zebu has been domesticated independently[1] of *Bos taurus* or not,[2] though genetic analyses strongly suggest the first option.

[1] G. Corbet and J. Hill, *The mammals of the Indomalayan region: a systematic review* (Oxford: Oxford University, 1992); R. Loftus, D. MacHugh, D. Bradley, P. Sharp and P. Cunningham, "Evidence for two independent domestications of cattle," PNAS 91 (1994), 2757–2761; D. MacHugh, M. Shriver, R. Loftus, P. Cunningham and D. Bradley, "Microsatellite DNA variation and the evolution, domestication and phylogeography of taurine and zebu cattle (*Bos taurus* and *Bos indicus*)," in *Genetics* 146 (1997), 1071–1086.

[2] H. Epstein and I. Mason, "Cattle," in *Evolution of domestic animals*, ed. I. Mason (London: Longman, 1984), 6–27.

The wild banteng (*B. banteng*) or some nearly allied extinct type is mentioned as a possible ancestor or contributor. The zebu may further be a descendant of an Indian form of aurochs (*B. namadicus*),[3] or may have interbred with the Indian aurochs to a considerable extent as was the case in Europe.[4] The zebu is easily distinguished from taurine cattle not only by its exterior appearance—hump, dewlap, elegant and slender built—, by their markedly different physiology—resistance to heat, ticks and insects—, and by some osteological differences in the backbones[5] and the skull.[6]

The zebu is distributed over the entire subcontinent, except for the Himalayas above two km of altitude. The zebu is endemic to the subcontinent in the broad sense, including Pakistan and Afghanistan, but is nowhere known in the wild state. Azerbaijan (Iran) is the westernmost region where pure-bred zebus occur, which are very similar to the mountain breeds of Afghanistan and northern Pakistan. Zebus have been exported to Africa already since the seventh century; in recent times it was also introduced into the New World. Hybrids of zebus with local cattle are sometimes called zeboid.[7]

5.1.2 *Zebu Breeds*

At present, there are thirty or more zebu breeds in India. The recognized breeds differ mainly in the shape and firmness of the hump, horn size, ranging from long-horned to very short-horned or even almost rudimentary horns, and horn shape, ranging from lyre-shaped

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[3] J. Clutton-Brock, op. cit. (1981), 64; C. Grigson, "Size and sex: evidence for the domestication of cattle in the Near East," in *The Beginnings of Agriculture*, ed. A. Milles, D. Williams and N. Gardner, *British Archaeological Reports* 496 (Oxford, 1989), 77–109.

[4] A. Götherström, C. Anderung, L. Hellborg, R. Elburg, C. Smith, D. Bradley and H. Ellegren, "Cattle domestication in the Near East was followed by hybridization with aurochs bulls in Europe," PRS B 272 (2005), 2345–2351.

[5] The thoracic vertebrae after the hump have a distinctively cleft dorsal spine, as described by S. Olsen, "Post-Cranial Skeletal Characters of *Bison* and *Bos*," *Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University* 35, 4 (1960), 1–61. This, however, occurs occasionally in *Bos taurus* breeds as well.

[6] C. Grigson, "The Comparative Craniology of *Bos taurus* L., *B. indicus* L., *B. primigenius* Boj., and *B. namadicus* Falc.," Ph.D. thesis (London University, 1973).

[7] H. Epstein and I. Mason, "Cattle," in *Evolution of domestic animals*, 6–27. Zeboid cattle are found in South East Asia, for example, the Southern Chinese and the Indo-Chinese zebu type.

through backward and upward swept to straight. The main types are summarised below.[8]

5.1.2.1 *The bulging-forehead type*

Zebus with a heavy, stocky built with typical bulging forehead, varying from only slightly till extremely bulging, short to very short horns, which are primarily selected for milk production. They are found in Pakistan and northern India.[9] The Gir is the most remarkable of this type, because it was originally selected and bred for fighting on Kathiawar peninsula of Gujarat (fig. 72). Apart from long, drooping ears, it has short and massive curved horns and a somewhat sleepy look.

5.1.2.2 *The grey-white short-horned type*

Zebus with an elongated skull with minimally bulging forehead and short to very short horns, a greyish white colour, which are primarily selected for work and less so for milk (fig. 73).[10] The Hariana is the most wide-spread breed of northern India and its oxen are used all over the subcontinent.

5.1.2.3 *The lyre-shaped horned type*

Zebus with a deep built with lyre-shaped horns and a broad, slightly hollow forehead, and of a greyish white colour. They are selected for both work and milk, and are found in northern India and southwards until the Deccan. The horns typically point outwards, upwards and then outwards again or backwards (fig. 74).[11] The most remarkable breed is the Kenkatha, which includes not only a hornless variety, known

[8] Data are compiled from M. Felius, *Cattle breeds—an Encyclopedia* (Doetinchem: Misset, 1995) and I. Mason, *A World Dictionary of Livestock Breeds, Types and Varieties* (Wallingford: C.A.B. International, 1996, 4th ed.).

[9] Examples of bulging-forehead breeds are the Red Sindhi, the original cattle of the Maldar, the brown-coloured Sahiwal of the Punjab, the Gir with its long, drooping ears, and the Cholistani with its very large dewlap and prepuce.

[10] Examples of grey-white short-horned breeds are the large Bhagnari of Pakistan, the long-legged Nagori of Rajasthan, the very short-horned Hariana of entire northern India, the milk-rich Rathi of the Thar, and the long-legged Ongole of Andhra Pradesh with its round ball-shaped hump.

[11] Examples of lyre-shaped horned breeds are the Tharparkar or the White Sindh of Sindh, Kutch and the Thar region, the fiery Kankrej of northern Gujarat, the Malvi of Madhya Pradesh, the Kherigarh of Uttar Pradesh and the Kenkatha of Uttar and Madhya Pradesh.

as Bagondh, but also an aggressive variety specially bred for fighting purposes, the Patha; young fighting bulls are called *amchars*.

5.1.2.4 *The Mysore-type*

Zebus with a compact and muscular built with tight skin without free-hanging prepuce but with a heavy wrinkled dewlap. They have an elongated head with hardly projecting eye sockets, small and pointy ears, small, elongated eyes which are often bloodshot, and long, thin and sharp pointed horns curving backwards and than upwards (fig. 75). They are found in southern India, and are primarily selected for (fast) transport.[12] The most important breed is the Hallikar, which is at present the most common breed of southern India. Their endurance is remarkable: a pair of oxen can drag a heavy loaded cart over sixty km per day. The horns of the Umblachery bulls and oxen are removed and the ears are partly cut, hence its common name Tanjore Polled.

5.1.2.5 *The* pahari*-type*

Zebus of the northern hill zones with a small and light built, short horns and a more forward placed hump or no hump at all, and a more coarse coat (fig. 76). They often carry their head low as taurine cattle do, and are selected for work and milk.[13] Some of them are actually hybrids between humpless Turano-Mongolian cattle and North Indian zebus. The most remarkable breed is the Nepali with its high, pyramidal hump. This breed is used for hybridization with yaks. Especially selected cows (*sandhi*) and bulls (*sandhe*) are dedicated to Shiva and allowed to roam free.

5.1.2.6 *The* deshi*-type*

Zebus of a small built, sometimes even dwarfish, short horns, hardly or no prepuce in the bulls, and of all colours, but mainly white, grey, yellowish brown or dark brown (fig. 77). They are not selected for a particular use. The majority of the South Asian zebu stock belongs to this *deshi* or *nadudana* type, which are no real breeds but rather varieties.

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[12] Examples of Mysore breeds are the large-humped Khillari of Maharashtra, the strong Hallikar of Karnataka, the Amritmahal or former palace cattle of Mysore, the red-white dwarf breed Bargur, and the polled Umblachery of Thanjavur.

[13] Examples of *pahari* breeds are the black or red Ladakhi of Kashmir, the rather wild Kumauni of northern Uttar Pradesh, the lyre-horned Ponwar of the Indian-Nepalese border, the dwarf Accham of western Nepal and the high-humped Nepali of eastern Nepal.

Depending on the region, these village cattle show the typical features of a certain breed to some extend.[14] They are invariably small, because it is not possible to keep large breeds under circumstances of poverty. The most remarkable *deshi* variety is the Punganur. With its withers height between 0.6–1.0 m, it possibly is the world's smallest breed. It has very short legs, a large dewlap, a bulging forehead and horns that first bent downwards and backwards and then upwards. A legendary variety is the Kappiliyam. In the past, a holy herd was kept, of which the bull was treated as a god. The Kappiliyam is a variety of the Jallikattu of Tamil Nadu, which until today plays a role in annual festivities (see Introduction).

Local cattle herds can be of a very high quality, due to the shared use of a first-class bull for breeding. This bull, the *brahmani* or *pol*, is dedicated to the protective deity of the village. It is selected with great care as part of the cremation ritual of a wealthy villager by his close relatives. After branding and dedication, the bull is released into the village. As a result, local breeds are often genetically relatively uniform and therefore easily distinguished. The term *brahmani* bull may by extension be applied to any outstanding bull, as is done e.g. by Atre for the zebu on the Harappa seals.[15] This, however, does not inform us about the breeding and selecting habits of the people of Harappa, how tempting it may be to seek for parallels between the present and the past.

5.1.3 *Role of Cattle in Society*

5.1.3.1 *Use of zebus*

Zebus were in first instance used as draught animal to draw a cart or plough and less so for their products. This practice is still in use today, usually with oxen (castrated bulls). They can be yoked single, with a beam at either side (see fig. 70) or as a couple, with a beam in between them (see fig. 73). Useful products of cattle are, in random order, dung for fuel, building material, and as manure, the bones and horns (tools,

[14] Examples of *deshi* varieties are the Bengali with short, forward bent horns, the very small and lyre-horned Goomsur of Orissa, the dwarf zebus of Madhya Pradesh, the dwarf Punganur of Andhra Pradesh, the almost taurine Malnad Gidda of Malabar, the holy Kappiliyan of Madurai and the broad-muzzled Sinhala of Sri Lanka.

[15] S. Atre, "Harappan seal motifs and the animal retinue," BDCRI 49 (1990), 43–51. See further section 5.2.1.

weapons, jewellery), hide (clothing, bags), fat (tallow), hooves (gelatine, glue), and meat.[16]

After the introduction of the horse as draught and riding animal, the emphasis shifted towards the products of cattle, to which at some time milk was added. The first evidence of milking comes from the fourth millennium B.C.E. (Egypt, Mesopotamia), from where the practice likely has spread, possibly also to South Asia, but certainly not further eastwards, where until today domestic cattle are not milked. The Romans nor the Greeks of classical times milked their cattle, which possibly underlies the high percentage of people today with lactose (milk sugar) intolerance in Greece and southern Italy. Some coastal areas of India and Sri Lanka show a high percentage of lactose intolerant inhabitants as well, combined with the absence of a milking tradition.[17] It is tempting to assume that this is a relict of the Roman and Greek colonizers of the first centuries, but further evidence is needed to confirm this. For Buddhists, milk is one of the five allowed products of the cow to trade and sell, whereas meat is not.[18]

In Hinduism, there is a taboo on eating zebu meat as already observed by Alberuni in the early eleventh century.[19] This was not always the case, because in the fourth century, the cow and bull were still listed among the permitted animals in the *dharma* texts.[20] It seems that in the meantime a change in attitude had taken place. By the sixth century, the poet Bharavi describes cows as fond mothers and even as mothers of the earth,[21] indicating that at least the cow was raised in status, although this says nothing about a possible taboo. The ox, in contrast to the cow, was for the same poet Bharavi a model of low position, being devoid of all sense of shame and having no control over its sense-organs but the bull was not judged better: he is arrogance incarnate.[22] It seems that by the sixth century, the once so high religious status of

[16] Clutton-Brock, op. cit. (1981), 62.

[17] F. Simmoons, "Dairying, milk use and lactose malabsorption in Eurasia: a problem in culture history," *Anthropos* 74 (1979), 61–80.

[18] *Majjhima* Commentary, cited from J. McDermott, op. cit. (1989), 276.

[19] *Alberuni's India, an account of the religion, philosophy, literature of India about 1030 A.D.*, transl. E. Sachau (London: Routledge and Kegan Paul, 1910; reprint of 1888).

[20] Olivelle, *Food for thought* (2002), and "Abhaksya and abhojya," *JAOS* 122, 2 (2002), 345–354.

[21] *Kir.* 4.10 and *Kir.* 4.32, respectively.

[22] *Kir.* 11.33 and *Kir.* 4.11, respectively.

the bull was not recognized anymore. A shift in favour of the cow had taken place.

An indication of the importance of herding zebus is given by the thousands of hero stones in Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Gujarat, Himachal Pradesh and Rajasthan, erected in memory of heroes who rescued cattle and died in the fight thereupon.[23] On a few of these stones small figures of cows or bulls are portrayed along with the folk-hero. A somewhat related type are the boundary stones (*sim no khambho*) in Gujarat with the depiction of a cow to mark village grazing grounds (*gauchar*).[24]

5.1.3.2 *Domestication of zebus*

Domestication of cattle (*Bos*) took place in Western Asia already around 6,500 B.C.E.[25] On the South Asian subcontinent, there is some evidence dating back to the sixth millennium B.C.E., based upon subfossil remains discovered at the site of Mehrgarh in Baluchistan, Pakistan.[26] The oldest image of a zebu from the subcontinent is of a mere two millennia later, in the form of a terracotta figure, found in early fourth millennium B.C.E. deposits of Mehrgarh;[27] this is a clearer evidence of the domestication of *Bos* in South Asia. From about the late third millennium B.C.E. onwards, many depictions of the zebu type are known from the greater Indus region. The earliest images are all terracotta figurines, most of which are recognized as toys (mid-third millennium B.C.E.; fig. 78).

Depictions of zebus are also found further westward as far as Mesopotamia, where it is known as the Damascus-type of cattle. Its presence there in art is most likely the result of continuous commercial connections between South Asia and the west from about 2,350 B.C.E. onwards. For example, on the eastern stairway of the hall of

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[23] I. Nakacami, *Facets of South Indian art and architecture* (New Delhi, 2003); J. Kamphorst, "The Warrior-hero Pabuji," in *Devotional Literature in South Asia* (2002). These hero stones are known under various names, such as *nadukal, devali, virakal, paliya*, or *khamba.*

[24] P. Maddock, "Sorathi Paliya: Traditional and Contemporary, Forms and Functions," in *Twentieth-century Indian sculpture: the last two decades*, ed. S. Panikkar, *Marg* 52, 1 (2000), 88–99.

[25] Grigson, op. cit. (1989).

[26] R. Meadow, "Faunal exploitation in the Greater Indus valley," in *Studies in the archaeology of India and Pakistan* (New Delhi, 1986), 43–64.

[27] J.-F. Jarrige and M. Lechevallier, "Excavations at Mehrgarh, Baluchistan," in *South Asian Archaeology 1977* (1979), 463–535, 486.

audience of the palace at Persepolis, foreigners are depicted bringing tribute to the king, among others a zebu bull, probably coming from Gandhara in Pakistan. The bull has a distinct and high hump, short and upward directed horns. Details as blood vessels and side-toes are rendered with great precision, obviously modelled upon a living animal. Another example is provided by a Hittite silver drinking vessel, possibly dedicated to the storm god and shaped in the form of a zebu bull.[28] It is dated to the fifteenth to thirteenth century B.C.E. and originates from Turkey. From Chogha Zanbil, Iran, a faience reclining zebu bull is known, dated to the fourteenth century B.C.E. when the Elamites ruled the region.[29] The figure once belonged to a temple dedicated to the storm god. From Iran several more zebu figures and zebu vases are known from the fifteenth to ninth century B.C.E.[30] A charming baked clay figurine (300–150 B.C.E.) of Europa being taken away by Zeus in the form of a bull from Iraq —probably from Babylon—shows a clear round hump and a wrinkled dewlap.[31]

5.1.3.3 *Zebus in religion*

The bull likely played a significant role in prehistoric South Asian religion, regarding the many depictions of bulls on objects from the Indus Valley, Pakistan, dated to the late third to early second millennium B.C.E. The bull sacrifice was of major importance in Asia Minor and around the Mediterranean of that period, and continued to be so until well into the first centuries. Mithra, for example, killed the holy white bull of the heavens as an act of creation: from the dead body all plants arose, from its seed all animals while its blood transformed into wine. A Roman marble sculpture of this episode is dated as late as the second century B.C.E.[32] Today, bull sacrifices are extremely limited; one such sacrifice takes place on a yearly basis (July 26th) on the Tauros Hill near Agios Paraskevi on Lesvos island, Greece.[33] Bull sacrifices seem to have played a role in early South Asia as well. A vague remnant might be

[28] New York: Metropolitan Museum of Art.

[29] Paris: Musée du Louvre, cat. no. SB 5127; figured in S. Athanassopoulou and Y. Tzedakis, *The Bull in the Mediterranean World* (Athens, 2003), 167, fig. 41.

[30] Paris: Musée du Louvre; London: British Museum; Oxford: Ashmolean Museum.

[31] London: British Museum cat. no. ANE 91782; figured in Athanassopoulou and Tzedakis (2003), 160, fig. 26.

[32] Felius, op. cit. (1995).

[33] Today, an orthodox-catholic blessing is added to the ritual, but in essence it is a relict of the pre-Christian past.

found in the bull games that are held until today, such as the *jallikattu* (*jellicut*) and the *mattuppongal* in southern Tamil Nadu. The goal is either to remove a cloth from between the horns or to catch the bull by the horns.[34] It reminds of the bull-leaping games of prehistoric Crete and of the *course landaise* of southern France today.

The bull is an auspicious animal in early Buddhist art as far as pillar capitals and moonstones are concerned, in combination with the lion, the elephant, and the horse. An explanation for this quartet might be found in the protection or guarding of the four wind directions, in which the bull guards the West. Another view holds that the quartet represents the eternal cycle of rebirths (*samsara*), in which the bull symbolizes decay. A third theory explains the quartet in the sense of an ancient sun and moon worship, with the bull as vehicle of the moon.[35] In Asia Minor and around the Mediterranean, the bull and the lion are linked to the moon—night, winter, darkness—and sun—day, summer, light—respectively, especially so in representations of the lion killing the bull.[36]

There are several links between cattle and divinities. First of all, a zebu bull calf is the divine vehicle of the Hindu god Shiva. This calf, Nandi or Vrishan by name, has a rather independent status, in the sense that it may be portrayed independently of its master and worshipped on its own. This might be explained by the special significance of bulls in ancient times. In this respect it is interesting to note that Shiva's bull is not (anymore) the ferocious and fertile bull, but a sweet and juvenile calf. The calf figures especially in episodes in which Shiva's happy and harmonious family life with his wife—Parvati or Uma—and sons—Skanda-Karttikeya and Ganesha—is depicted.

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[34] W. Gunn, *Cattle of Southern India* (Madras, 1909); W. Crooke, "Bull-Baiting, Bull-Racing, Bull-Fights," (1917).

[35] Wijesekera, op. cit. (1990), 75.

[36] Athanassopoulou and Tzedakis, op. cit. (2003). The myth of the bull-killing lion is wider spread, see for example a Rajasthani Charan origin myth: In the beginning, Shiva created Bhat shepherds to herd his bull Nandi, and protect him against lions. The Bhat, however, failed to protect Nandi from the lions, and Shiva had to regenerate Nandi over and over again. Shiva then created Charan guards who were more valiant. Later, in the nineteenth century, the bull symbolized justice and the lion savage violence (J. Malcolm, *A Memoir of Central India, Including Malwa, and adjoining Provinces with the History and Copious Illustrations of the Past and Present Condition of that Country*, 2 Vols. (New Delhi: Sagar Publications, 1970), II, 108; Kamphorst, op. cit. (2008).

Karttikeya, son of Shiva, occasionally rides a bull, although his usual vehicle is the peacock. Ishana, Isha or Ishvara, one of the guardians of the cardinal directions (*dikpalas*) and lord of creatures, rides a bull, too. He reminds of Shiva in his original aspect of the Vedic Rudra, and is sometimes considered synonymous with Shiva or Mahesha. His attribute is, like Shiva's, a trident.

Another role of cattle in Hinduism is that in connection with the paramount shepherd, the god Krishna, one of Vishnu's ten incarnations (*avatars*). Krishna is said to have been raised incognito in a village as a shepherd. He is commonly portrayed as being surrounded by cows and female cattle keepers (*gopis*). In one of the Krishna myth episodes, known as Krishna Govardhanadhara, he lifts up a large mountain to shelter the cattle against the torrential rainfalls.

In Jainism, the Jina Rishabhanatha or Vrishabhanatha has the bull as emblem. Rishabhanatha is considered the founder of Jainism and therefore also named Adinatha, the first lord. Like Shiva, he has matted hair, indicating his ascetic powers. In Buddhism, Yamantaka, one of the protector deities, has either the head of a bull or of a buffalo.

5.2 Zebus in Stone

5.2.1 *Early Evidence*

The earliest depiction of a zebu in stone is in the form of a steatite seal from Mohenjo-daro in the Indus Valley of Pakistan (2,300–1,750 B.C.E.; fig. 79). Similar seals were found by the thousands, and the greater part depicts such a bull.

There are, however, only a few seals with such an exceptionally carefully carved zebu bull. Its massive dewlap, high pyramidal hump, slightly bulging forehead, the skin of the prepuce and its long, backward and then upward curved thin horns with sharp points are so realistically depicted as if the bull could walk away any moment. The ears are particularly small; theoretically, they might have been cut as in the Tanjore Polled today, but any evidence for such a practice elsewhere is lacking. The attention for minute detail is rare and is seen repeated only during the period of the Maurya dynasty of the fourth to second century B.C.E. on pillar capitals (see section 5.2.3).

The very large and deeply wrinkled dewlap of the bull on the Indus Valley seal brings to mind the Cholistani breed of Pakistan and northern

India of today. However, this modern breed has very short horns, which is definitely not the case with the bull on the seal. At present, the Nimari breed of south-western Madhya Pradesh is a type with bulging forehead and lyre-shaped horns, but not with such a dewlap. The bull on the seal shares the forward placed hump with some *pahari*-types of the hill states, but these are small with a light build. The various breeds of Pakistan and north-western India today are either massive types with bulging forehead and short to very short horns or more gracile types with lyre-shape horns. Only the Mysore types from South India have such long backwards and then upwards sweeping thin and sharply pointed hors and slightly bulging forehead, but the present-day breeds lack the superfluous skin of the bull on the seal. It seems that the body of the seal bull is very similar to that of a mixture of modern northern breeds, but that its horns are very similar to those of the southern breeds, which then have preserved the original form.

A zebu figurine from the Indus Valley of the same period (2,600–1,900 B.C.E., serpentine) shows marked skin folds on shoulder and forelimbs but only a minimal hump, which seem to have been intended as attachment place for a cord.[37] The bull is elegant and gracile, and bears no resemblance with the impressive seal bull. The upright position of the head is typical of a zebu, especially for calves. In my opinion, the figurine represents a bull calf. It is tempting to see a link with Shiva's bull calf of some two and a half thousand years later, but for this any evidence lacks. The sharply incised circular folds around the eye seem to have been borrowed or inspired by depictions of gaurs, such as seen in seal DK 8910. On the place of the ears and the horns are holes for suspension or for inserting ears and horns of another material, similar to the figurines of gaurs (see Chapter 4). The absence of ears and horns offers no clue as to why the ears are missing in the seal bull. The figure may have been used as a pendant of some kind.

5.2.2 *The Zebu as Divine Vehicle*

Stone sculptures of the zebu calf Nandi or Vrishan, the mount of the Hindu god Shiva, are found all over India. They date back to about the sixth century, but the majority is not older than the tenth century. It seems that there is a tendency in sculptures to make Shiva's bull more

[37] New York: Metropolitan Museum of Art, cat. no. 1986.280.

and more cute and calf-like, including a bell around his neck. Calves are characterized by extremely small or not yet present horns, a small, almost perfectly round hump, and no significant dewlap as in mature bulls (fig. 81). Shiva's bull-calf is certainly not an aggressive creature. Nandi's hump sometimes shows an internal folding as we will see. It might be that this is a misunderstood projection of the upper shoulder bone onto the hump (fig. 80). The folding somewhat resembles a rolling wave, breaking on the sea-shore.

An early carving of Nandi is part of a relief of Shiva and Parvati sitting together, sculpted as a panel in the rock-cut Dhumar Lena or Cave 29 at Ellora, Maharashtra (late sixth century; fig. 83).[38] The divine couple is engaged in a game of dice, while below them a group of *ganas* plays with Nandi. The calf is well fed and has short horns, large ears and a large, round hump; the dewlap cannot be seen behind the *ganas*. In another sixth-century cave of the complex, the Rameshvara or Cave 21, a more sophisticated version of the panel can be found. Here, one can wonder whether the *ganas* amuse the calf or themselves, because one of them bites in Nandi's tail while another climbs its head. The calf is similar to that of Cave 29, but with a much larger hump, expanding well over its neck.

On a pedestal of Shiva and Parvati playing dice of eight centuries later, originating from Central India (c. twelfth century; fig. 84), there are no teasing *ganas* anymore. This Nandi is more lucky: three female figures come to feed it. The garlanded Nandi has small horns, a small hump and a small dewlap as its earlier cousins.

Another early carving of Nandi is part of an isolated stele of Shiva and Parvati sitting together, possibly from Bodh Gaya in Bihar (sixth to eighth century; fig. 82), where Nandi looks towards his master. Here, Nandi has a really massive, almost pig-like head and short horns, a wrinkled dewlap and a round hump. The posture and shape are reminiscent of the deer depicted on a panel with Buddha's first sermon from Sarnath, Uttar Pradesh, from the same period;[39] the only differences are that the deer from Sarnath have a tiny split in the horn as to make it an antler, and lack a hump and dewlap. For the rest they are so similar, even in having the foreleg bent in exactly the same manner,

[38] The Dhumar Lena is dedicated to Shiva and follows partly the same sculptural plan as that of the cave-temple on the off-shore Elephanta island opposite Mumbai, Maharashtra, of the same century.

[39] See section 2.3.3 and fig. 47.

that it is to be doubted whether this is coincidence indeed. More likely, their prototype was the same and their places of origin were not too far from each other; the distance between Sarnath and Bodh Gaya is about 200 km.

A similar piggish Nandi with small massive horns and a round hump looking up towards its master is seen on a stele with a ten-armed Shiva from Govindapur in West Bengal (eighth to twelfth century; fig. 85). The detached stele was found near a Shiva temple. Nothing can be said with certainty about its exact provenance and age, though the weaponry, the garland of skulls and the presence of a Chamunda to his right (upper figure) points to an esoteric environment. Shiva's bull is standing, twisting its head awkwardly to see its master. Apart from the different posture, the bull is very similar to that from Bodh Gaya and to the deer from Sarnath. Also here the head is too massive and ends in a broad, flattened muzzle, suggesting an origin not too far away in time or region. However, two differences are present. First, the dewlap is missing. Second, the calf has a decoration around the basis of the hump, which is lacking in all other Nandi carvings as far as I could check. The only other instance of a decorated band or cord around a hump, this time around a camel's hump, is seen on a stele of the Buddhist goddess of the winter, Hemantadevi, from Bairhatta in Bangladesh (eighth to twelfth century).[40]

In cases where Shiva is not presented as the head of a lovely family, his bull is depicted in the same cute way. An example is seen on the pedestal of a stele of Shiva in his manifestation as Mrityunjaya, the Conqueror of Death, from West Bengal or Bangladesh (twelfth century).[41] Another example is provided by the pedestal of a stele of Shiva in his manifestation as Sadashiva, his Omnipresent form, from West Bengal (c. eleventh century; fig. 86). In both cases, Nandi is particularly cute and calf-like. In another manifestation of Shiva, that of killing the elephant demon as sculptured on the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century, soapstone).[42] Nandi is, again, calf-like, with its short horns with massive onset. Its hump is much larger than seen in the reliefs from Bengal.

[40] See section 9.2.1.
[41] New York: Metropolitan Museum of Art, cat. no. 1991.421.
[42] See section 17.2.5.

Nandi is not always accompanying its master on the same sculpture. More often than not, Nandi has been given a more independent status as a statue on its own. Without much variation, Nandi is in such cases portrayed as a reclining bull. Examples of these bull-calf statues are extremely numerous and nearly each of the thousands of temples in peninsular India has one, sometimes inside the temple compound, sometimes in its own private shrine (*nandimandapa*). Below are just a few typical examples, because a complete overview falls well beyond the scope of this book. Differences are most likely based on differences between the local breeds or varieties.

One of the earliest independent Nandi statues is a simple and unadorned statue at Mammalapuram in Tamil Nadu (seventh to mid-eighth century; fig. 87). This Nandi has a wrinkled dewlap, medium-sized ears below broad horn stumps, a round hump, no decoration, and has its left front leg bent. The calf is very realistic and resembles the Mysore type of today, except for its small horn butts. The relaxed posture has been captured marvellously.

The reclining Nandi in the *nandimandapa* in front of the Kailashanatha temple at Kanchipuram, Tamil Nadu (eighth century) also bends its left front leg, has a hump with internal folding, and a broad-folded dewlap.[43] It is furnished with a saddle cloth and a bell. The much smaller Nandi's in the courtyard of the same temple have both legs bent. The dewlap folds are reproduced only superficially.

A Nandi from the nearby Ekambaranatha or Ekambareshvara temple (sixteenth to seventeenth century; fig. 88) is sculpted even more superficially: here, the dewlap is smooth, without any wrinkles or folds. The hump is very small and round, without interior folding. The ear is small, pointed and set high. It seems that there was a gradual loss of precision, resulting in a more formalized and rather mannered calf, not particularly appealing and not very realistic.

A detached statue, originating from Tamil Nadu (thirteenth to fifteenth century; fig. 89) has a smooth dewlap, small ears, a hump with internal folding, garlands and a bell, and has both its front legs bent. A later statue, either from the Deccan or South India (sixteenth to seventeenth century),[44] follows the same principle, with a smooth dewlap, garlands and a bell, but is much more lively. The ears are now realistic,

[43] Figured in S.Vaidyanathan, *Temples of South India* (2002), 38, left.
[44] Oxford: Ashmolean Museum, cat. no. O.S.77.

they are large and low-set. This sculptor was able to capture the spirit of the animal. Nandi has here a hump with internal folding and has his right front leg bent.

Giant monolithic reclining Nandi's are much more rare, but follow the same iconography as their more modest counterparts. A typical example is the colossus at Lepakshi in Andhra Pradesh (sixteenth century; fig. 90). With its 9.15 m length, it is perhaps the largest of its kind. It has a small, round hump, a bent left front leg and very short and broad horns. Garlands take the place of the dewlap wrinkles. In front view, the animal is flattened and has a too broad basis as a sagged pudding.

Another giant monolithic Nandi lies on the Chamundi Hills of Mysore in Karnataka (1659–1672; Plate 8). It is 'only' some five metres long, about half the size of the Lepakshi statue. Again, a multitude of garlands with bells hides the dewlap wrinkles. The low-set ears are medium-sized, while the horns are short and very broad; the main difference with the Lepakshi monolith is that now the right front leg is bent. The statue is impressive, but not particularly elegant or touching.

The bull as mount of Ishana, lord of creatures, is present on the north-east corner of the tower (*deul*) of the Chateshvara temple at Kisenpur, Orissa (c. 1220).[45] Here, the god is seated in a relaxed posture on his animal vehicle. The bull has a heavily wrinkled dewlap and a small hump with internal folding. The hooves, however, are strange; they are flattened like those of a camel. Such hooves originate from lack of abrasion, typically in environments with a too soft substrate for hooves; it also occurs in animals that suffer from lack of exercise. Another explanation, naturally, is that the pathological hooves are just an artistic flaw.

In stone sculpture, the Jina Rishabhanatha, or Vrishabhanatha or Adinatha, is recognized by the presence of a bull on the pedestal, such as seen on a stele from Saheth-Maheth, the ancient Sravasti near Gonda, Uttar Pradesh (twelfth century; fig. 421).[46] A very tiny bull sits half upright below the Jina and in between the two lions of the lion-throne. Despite its size, typical details are accurately reproduced: it has a round hump, middle-sized horns and large, upright ears. The horns are straight and point more backwards than upwards. Another statue

[45] Figured in T. Donaldson, *Hindu temple art in Orissa*, vol. 2 (Leiden: Brill, 1986), fig. 1255.

[46] See also section 33.2.4.

of Rishabhanatha with a bull was carved into the rock along the path towards the fort of Gwalior, Madhya Pradesh (fifteenth century; fig. 91). A tiny bull with a clear, round hump lies in a small frame of its own below the feet of the colossal Jina, flanked by two roaring lions, lifting up one of their front legs. The bull has an ungainly, massive body. To the left, a buffalo-headed figure stands guard, reminiscent of Yama in his buffalo-headed form (see section 8.2.3). The setting of a buffalo-headed male figure as part of a lion-throne or pedestal is also seen at a pedestal from Deogarh, Madhya Pradesh, of an unknown deity.

5.2.3 *The Auspicious Bull*

In early Buddhist art, the zebu bull appears to form a standard auspicious group together with the lion, the horse and the elephant. They decorate pillars and moonstones. Their function is not clear and the bull may, amongst others, stand for decay in the cycle of existence, for the sun in a relict of a sun and moon worship, for the protection of the West or simply for virility.[47]

The earliest carving of the zebu as part of the auspicious four seems to come from Sarnath, Uttar Pradesh (third century B.C.E.; fig. 92). Here, a zebu bull walks clockwise on the abacus of a free-standing pillar, in procession with the other three animals. The pillar is crowned by four lions.[48] The zebu bull is profoundly wrinkled, not only as far as its dewlap is concerned, but also on its neck and head. The detailed sculpted hump is large and shows internal folding. The skull bones are visible, giving the impression of an emaciated animal. On the other hand, the rest of the animal is round and shows no sign of lack of food. The horns are strong and directed upwards, the ears are large and set low, the forehead is slightly bulging, the free-hanging prepuce fold is lacking, and the legs are short. It resembles most closely the bull as shown in figure 70 from present-day Bihar; even the folding in the hump is present in this bull. A minor flaw is the sloping back; normally, the back is straight in domestic cattle, and sloping only in wild cattle such as the Indian bison. It might be an artistic invention to stress the powerful front part of the animal.

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[47] See also sections 5.1.3.3 (above), 18.1.4.3, last paragraph (horse), 17.2.11 (elephant), 33.2.2.2 (lion), and the Introduction, paragraph on Animals in Religion.

[48] See fig. 280 for the elephant, fig. 302 for the horse and fig. 412 for the crowning lion quartet.

From the same region and period comes another free-standing pillar, now with the zebu bull as crowning element. It was found at Rampurva, Bihar (third century B.C.E.; fig. 93). The dewlap is minimally indicated and partly broken off. The hump is large, round as a balloon and smooth without signs of folding. The horns are broken off; the ears are large and pointed. It is one of the very rare examples that the bull's testicles are depicted so prominent and naturalistic; this may be partly due to the fact that most draught animals known to sculptors are oxen, which are castrated. The deeply incised wrinkles and skin folds of the Sarnath abacus are not represented here. The animal as a whole gives a more realistic impression. It may lack the prominent virile power of the Sarnath bull, but it gains in liveliness and serene majesty. The legs are also longer and the back is straight, adding to its credibility. It is without doubt one of the best portraits in stone of a zebu bull ever made.

Zebu bull capitals were in vogue on Sri Lanka as well as evidenced by a capital from the southern extension (*vahaldaka*) of the Kantakachetiya stupa at Mihintale (second to first century B.C.E.; fig. 94). The most obvious difference with the Rampurva capital is that now the bull is reclining, with its left front limb bent, not unlike the later Indian Nandi statues. The hump is small, round and smooth, without folds. Other details are missing, due to erosion, but the head seems massive and with slightly bulgy forehead. It resembles the Sinhala breed of today, characterized, amongst others, by a broad muzzle and a small hump in the bulls. Reclining zebus are seen in northern India as well, some five centuries or more later, for example as the pilaster capitals from Svamighat near Mathura, Uttar Pradesh (c. 430–460).[49] The zebus here have an even larger and rounder, balloon-like hump, compared to the earlier Rampurva capital.

On Sri Lanka, the series of four walking animals is mainly found on moonstones, the hemi-circular stones found at the entrances to monastic buildings. One such moonstone comes from a further unspecified Buddhist monastery at Anuradhapura (sixth to seventh century; fig. 95). The zebu bull, walking in procession with an elephant, horse, lion and bull, has a long body with short limbs, a large and massive head with backwards directed ears and short, broad horns, a small hump with internal folding, and a minimal dewlap. The broad muzzle, the short

[49] Figured in J. Williams, *The Art of Gupta India, Empire and Province* (Princeton: Princeton University Press, 1982), pl. 71.

horns, the small hump and the lack of a free-hanging prepuce are typical of the Sinhala variety of the *deshi* cattle of today and similar to the Mihintale capital of the earlier period. This would imply that the local cattle stock did not change much over roughly the last two thousand years.

The bull functions in other decorative reliefs as well, presumably again for its auspiciousness but not necessarily so. A decorative band from North India (c. second century B.C.E., sandstone) shows a zebu bull walking in procession in between a male goat and a winged lion; in front of them a fourth animal is partly preserved, possibly a deer.[50] The bull holds its head very low, almost to the ground. The dewlap is minimal, the horns are moderately long, the ears are pointed and upright. The hump is extremely high and shows internal folds. In type, the bull is most close to the *pahari*-type of today, such as the Kumauni of northern Uttar Pradesh with its very low-held head.

From a slightly later period are the animal couples that adorn the junctions between the vertical posts and the horizontal architraves of the gateways to the Great Stupa at Sanchi, Madhya Pradesh. On the inside of the southern gateway, the couples at the central and upper junction with the right vertical post consists of zebus (c. 50–25 B.C.E.; fig. 96). They belong to a zebu type with massive, long, lyre-shaped horns, very similar to the one shown in fig. 74, in which the horns go sideward, upwards and then backwards. Lyre-shaped breeds of today of the region around Sanchi and in the nearby regions of Gujarat and Rajasthan are the Malvi, the Kankrej and the Kenkatha. Details of the hump and the dewlap are not shown in this sculpture. The zebu couple is repeated several times on the gateways to the Great Stupa, for example on the eastern gateway (outside, upper pair) and on the northern gateway (outside, lower pair).

A supposed *brahmani* zebu bull decorates a box lid from Greater Gandhara, Pakistan (fifth century, schist),[51] possibly just for decoration. The animal is in a very good shape, not to say fat, and is of a short-horned type. The hooves are carefully reproduced and the dewlap is minimal. The head is short and massive, almost doggish. The forehead is bulging and so seem the eyes. The size of the hump cannot be estimated due to damage to that part; the only aspect that can be seen is that its caudal part is round and smooth. The relative proportions are

[50] New York: Metropolitan Museum of Art, cat. no. L.2000.8.
[51] New York: Metropolitan Museum of Art, cat. no. 1987.142.120.

out of balance; its left legs are much broader and more massive than its right legs and the head is too small compared to the body. Heavy and compact built zebus with bulging forehead and short horns are found also today in Pakistan and the depicted zebu may have belonged to a similar breed.

5.2.4 *Zebus in Narrative Reliefs*

In only very few stories, bulls play an active role. An early example is the Story of the Bull and the Wolf[52] as present on a railing medallion at Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 175). Here, the bull stands in the water. The horns are massive, rather long and pointed upwards, the ears are large and drooping, the hump is large and perfectly round, but the dewlap small. The bull is not exactly well-fed as the ribs are visible. A very similar bull figures in yet another narrative relief from Bharhut, now on a coping stone (c. 100 B.C.E.; fig. 97). The relief illustrates the Story of Sujata,[53] about a landowner whose father spent all his time offering flowers at the grave of his grandfather. Wishing to cure him, Sujata feigned madness and gave grass and water to a dead ox. After several days of trying to make it eat and drink, his father hurried to the spot. He understood the message and gave up his deep grief. In the relief, Sujata is feeding the dead ox, while his father is standing behind him. The posture of the ox is that of resting, only the firmly closed eyes indicate that it must be dead. The ox has massive and not too short, upright horns, large, drooping ears, a large round hump, which extends onto its neck as typical of some *pahari*-type of breeds of today, and a hardly visible dewlap. The ribs are visible as in the railing medallion with the Story of the Bull and the Wolf.

A couple of draught oxen can be seen on the Ajatashatru railing pillar, also from Bharhut (c. 100 B.C.E.; fig. 99). The depicted story is that of the Jetavana Purchase, where the Jetavana forest is given to the monastic order to built a monastery. The oxen play no role in the

[52] *Tripitaka* story 377. The story line seems to be lost; see A. Cunningham, *The Stupa of Bharhut: a Buddhist monument ornamented with numerous sculptures illustrated of Buddhist legend and history in the third century B.C.* (Varanasi: Indological Book House, 1962; reprint of London: W.H. Allen and Co., 1879).

[53] *Sujata Gohuto Jataka*, Pali *Jataka* 352.

story itself. They are small, short-horned and have a small hump. They are yoked with a single beam to the cart.[54]

On a cross-bar of the reconstructed outer railing of the stupa of Amaravati, Andhra Pradesh, a zebu bull takes part in an undetermined scene (first century B.C.E.-second century C.E.; fig. 98). A man seems to try to capture wild animals, being a humped bull and a winged unicorn horse.[55] The bull has short horns, a large round hump, no dewlap but conspicuous skin wrinkles. Wild zebus do not occur on the subcontinent, but feral zebus may have. The zebu bull may also represent a fighting breed like the ones that exist until today, such as the Gir of Gujarat and the Patha of central India. Both breeds are, however, unlike the depicted bull. The scene may also indicate a bull-catching game, similar to the *jallikattu* and *mattuppongal* of Tamil Nadu today; in that case the unicorn horse still remains unexplained.

The third *ayaka* frieze from stupa 9 at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 100) figures a herd of zebus. The frieze illustrates an episode from the Story of Champeyya about a virtuous *naga* king.[56] This episode shows the snake charmer trying to catch the *naga* king in his bowl. The *naga* lies meditating on an ant hill in the world of men, indicated by the presence of domestic cattle. The herd is accompanied by two cowherds. The herd plays no active role in the story, but functions merely as indicator of the setting. The breed is characterized by long and curved horns, a clear and round hump, a large dewlap, and a straight profile of the muzzle. The folds of the dewlap are only schematically indicated with parallel lines. The horns sweep backwards, upwards and then possibly again backwards. This shape resembles most that of the Mysore-type of today.

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[54] According to C. Varma, this medallion illustrates the *Nandivishala Jataka* (Pali *Jataka* 28) about the ox who refused to drag a heavy cart in a wage between his master and a merchant because his master used harsh words against him. The ox advised his master to place the bet again, but now with the use of friendly words. So said, so done, and the master won a lot of money. However, regarding the presence of two oxen and of two places at the beam, this interpretation is not very likely. C. Varma, "The Illustrated Jataka & Other Stories of the Buddha," Indira Gandhi National Centre for the Arts, internet <ignca.nic.in>, accessed July 2007.

[55] See section 19.2, last paragraph.

[56] *Champeyya Jataka*; B. Subrahmanyan, *Jatakas in South Indian Art* (Delhi: Bharatiya Kala Prakashan, 2005), 44.

A draught bull, definitely not an ox, figures on a narrative *ayaka* frieze illustrating the Story of Vessantara[57] from Goli, Andhra Pradesh (third century; fig. 46). The bull plays no active role in the story. It belongs to a breed with short horns, a heavy wrinkled dewlap, a bulging forehead, long legs and a distinct, round hump. It is not clear whether the bull has a companion, but this seems likely as the traction beam is not present on its visible side, although systems with asymmetrical yoking do exist. The bull resembles the short-horned Ongole breed of Andhra Pradesh today, which has a bulging forehead, long legs, a narrow nose and a perfectly round hump.

A life-sized illustration in stone of the episode of the Krishna myth in which he lifts up the mountain to shelter the cattle against the torrential rains, known as Krishna Govardhanadhara, is part of the wall of the Krishna Cave at Mammalapuram, Tamil Nadu, in which the artist included a milking scene (seventh-mid eighth century; fig. 101). The cowherd sits next to Krishna, who lifts up the mountain to serve as a huge umbrella. The scene is truly touching, with the mother licking her calf. The cow belongs to a breed with long, backward swept and undulating horns with a massive onset. Both cow and calf lack a hump and the dewlap is minimally represented.

A much later version can be seen on the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 102). Krishna is surrounded at both sides by cows and bulls with above them, or more likely behind them, the cowherds, all closely packed together under the shadow of the mountain. The landscape on the mountain is intricately sculpted, including an exuberant flora and fauna. Even a hunter in action, seemingly unaware of what is going on below, is hidden in the centre between the trees, aiming at a small deer. To the right a monkey climbs a tree. The zebus are rendered in not much detail. They have thick, short horns, pointing backwards, small dewlaps with a few wrinkles, small and round humps, and short legs. The most prominent feature are their elongated skulls, typical of the Mysore-type of cattle of today.

The omnipresent village cattle are watching an act of worship on an inscribed stele at the Amriteshvara temple at Amritapura near Tarikere, Karnataka (1196; fig. 103). Offerings are brought to a linga, symbol of the Hindu god Shiva, by a brahman priest and a second person, both

[57] *Vishvantara Jataka, Vessantara Jataka*, Pali *Jataka* 547.

with the matted hairs of ascetics, while a third figure blows a conch. To the right lies a garlanded zebu bull with short, massive horns and a small, round hump with internal folding; its left leg is bent. The dew lap folds are stylized and are more like garlands. Regarding its position facing the linga, it most likely represents a Nandi statue instead of a living bull. To the left, a cow with calf attends the scene. The cow has long, slightly curved and pointed horns with a massive onset, a bulging forehead but lacks a hump. The dewlap is small and nicely wrinkled. The horns of the cow are like those of the Mysore-type of today. It may be that the cow represents a hump-less Mysore-type, such as the present-day Malnad Gidda of the Malabar coast. The bull's horns are the typical broad and short stumps of most Nandi statues.

5.2.5 *Zebus as Hybrid Animals*

The earliest sculptures of a zebu as part of a hybrid or mixed animal are the seals with a two or three-headed bull from Mohenjo-daro, Pakistan (see Section 4.2). The principle, however, is not restricted to this protohistoric period. A much later hybrid zebu bull is present at Badami, Karnataka, where it decorates a rock-cut Buddhist temple (Cave 3, sixth century; fig. 104). In this case the hybrid animal has two bodies and one head, in contrast to the multi-headed forms of Mohenjo-daro. The animal to the right is a zebu bull with hump, the animal to the left an elephant. The trunk of the elephant coincides with the hump of the bull. Another example of a zebu bull sharing its head with an elephant is found at the Airavateshvara temple at Darasuram, Tamil Nadu (c. 1146–1173; fig. 105). A third example of a hybrid zebu is, again, a multi-headed form with one body, but this time a cow forms the subject, not a bull. This three-headed zebu cow is seen at Lepakshi, Andhra Pradesh (sixteenth century; fig. 106). The three heads are each involved in a different action: one is looking backwards, one is bent to lick her calf and one is looking forewards. The scene seems a tribute to the cow as symbol of motherhood.

5.3 Concluding Remarks

The earliest carving of a zebu bull dates back to a mere four thousand years ago in the Indus Valley, Pakistan. The bull resembles some present-day northern breeds to a large extent, however, in combination with

the long, thin and pointed horns of the present-day southern breeds. The horns of the latter may represent the original shape, but may also be a later and independent development. The loss of the long horns in northern breeds likely is the result of selective breeding.

The great majority of zebu sculptures has the bull Nandi or Vrishan as subject, the personal vehicle of the Hindu god Shiva. The bull is invariably depicted as a young calf. This is especially clear in cases where Nandi figures as part of the divine family. The same paedomorphic trend is observed in the many independent statues of Shiva's bull in reclining posture. All these Nandi's are portrayed as young bulls with a round, well-fed body, roundish head with a broad muzzle, extremely short horns with broad basis, a small round hump, sometimes with a stylized internal fold in the hump, and with a insignificant or smooth dewlap. The bull-calf may further be caparisoned with garlands, bands, chains and hung with bells, but this is not always the case. Examples of statues of the reclining bull-calf are extremely numerous and nearly half of the temples in peninsular India has one. Some of these statues are truly gigantic, ranging between five and slightly more than nine metres in length.

The rest of the zebu sculptures is devoted either to auspicious bulls or to cattle in various narrative reliefs; the majority of the latter has no other function than indicating the setting. The depiction of cattle in stone indicates that several breeds of today did already exist in more or less the same form in the past, even as far backwards as the first centuries. Features of the modern Mysore-type, types with bulging forehead, *pahari*-types and *deshi*-types can be traced back to sculptures. This implies that the modern breeds are well adapted to their specific environment and can thus not be replaced or interchanged so easily.

CHAPTER SIX

BOS PRIMIGENIUS, THE AUROCHS

6.1 The Living Animal

6.1.1 *Zoology*

The aurochs (plural: aurochsen) is an extinct member of the genus *Bos* and the ancestor of the domestic cattle. It had disappeared from the Indian subcontinent already by about 2,000 years ago if not earlier, but it survived in western and central Europe until the Middle Ages. Its decline was likely due to a combination of habitat alteration and hunting. At present, there are some retro-bred aurochsen in zoos (fig. 107), descendants of the so-called Heck cattle. The latter were created around 1920 by Heinz Heck at the Hellabrunn Zoological Gardens of Munich, Germany and further developed by his brother Lutz Heck at the Berlin Zoological Gardens, supported by the Nazis who needed the aurochsen to promote an idyllic history of an original Aryan nation. From these retro-bred aurochsen some cautious conclusions can be drawn about their appearance, behaviour and biology. Furthermore, a portrait painting after a living aurochs has been preserved, made in Poland in 1627,[1] in addition to the prehistoric cave paintings from Southern France (fig. 108).

The aurochs was in any case a large animal with a shoulder height of about 1.8 m in bulls. The body must have been massive and impressive, weighing up to 1,000 kg, with stout though rather long limbs, a straight back, and a long, tufted tail. The front part of the animal was more massive than the hindquarters as in the Indian bison (*Bos gaurus*). The head was slender and bore cylindrical, hollow horns in both sexes, which were larger in bulls than in cows. The pointed, sturdy horns were as long as 0.8 m and curved anteriorly and upwards in a typical way. Aurochsen lived in the open forests and on meadows.

[1] The painting was discovered in 1827 by H. Smith in an antiquities shop; see M. Hilzheimer, "Wie hat der Ur ausgesehen?," *Jahrbuch Wiss. Prakt. Tierzucht* 5 (1910), 42–93.

The aurochs of India is sometimes considered to be a different species (*Bos namadicus*), of which fossils are found in Pleistocene deposits in India, and which is considered by some scholars as ancestral to the domestic zebu.[2]

6.1.2 *Role of Aurochsen in Society*

Not much can be said with certainty about the relation between aurochsen and Indian peoples, because of the disappearance of the first from the subcontinent already long time ago, most likely even before the historical period. This relation is much better known for Europe, where it was depicted over a vast time span, ranging from the prehistoric cave paintings to the seventeenth century and described since the early historical period. The aurochs was an important game animal as is evident from their representation in art and from available texts. Most likely, the aurochs was hunted in South Asia as well.

In addition, the aurochs may have had a religious importance. It has been suggested that the sacrificial aurochsen were lured to the village by putting salt supplies as a bait.[3] Their natural craving for salt encourages the animals to come to the village, where they get used to human presence. Such a practice has been described for the wild mithans (gayals) in the Assam hills;[4] the villagers use the mithans for sacrifice only and do not eat or milk them. Rituals around bull sacrifice and the use of its blood therein are known from ancient cultures in western Asia and around the Mediterranean.[5]

6.2 Aurochsen in Stone

A large number of steatite seals from the Indus Valley, Pakistan, depict a large male bovid with a typically curved horn, e.g. from Mohenjo-daro (2,300–1,750 B.C.E.; fig. 109, above and below, left), from Chanhu-daro (2,600–1,900 B.C.E.),[6] and from Harappa (2,300–1,750 B.C.E.; fig. 109,

[2] Clutton-Brock, op. cit. (1981), 64; Grigson, "Size and sex: evidence for the domestication of cattle in the Near East," (1989), 77–109. See further Chapter 5.
[3] Clutton-Brock, op. cit. (1981), 67.
[4] J. Simmoons, *A ceremonial ox of India* (Wisconsin, 1968). See further Chapter 4.
[5] See also section 5.1.3.3.
[6] New York: Metropolitan Museum of Art, cat. no. 49.40.1.

below right). The animal is always depicted in profile, which led several scholars to assume that it represents a unicorn.[7] The long and sigmoid curved horns, ending with a sharp, upward-directed point, the heavy shoulder part and the bushy tail tip indicate, however, an aurochs bull. Another option is that the bull represents a domestic derivative of the aurochs: taurine or hump-less cattle (*Bos taurus*). The horns are sculptured in profile so that only one horn is visible.

Variations on the theme are many, which strongly indicates a wild and thus relatively rare animal. The horn may be depicted either smooth as in aurochsen and zebus (fig. 109, above and the specimen from Chanhu-daro) or grooved as in ibexes and antelopes (fig. 109, below). The neck may be full of wrinkles and folds as in bisons and bantengs (fig. 109, above, right) or smooth as in domestic cattle (fig. 109, above, left and below). The head may be heavily wrinkled or with long hairs (fig. 109, below) or hardly so (fig. 109, above, left) or be smooth (fig. 109, above, right, and the specimen from Chanhu-daro). These features are not restricted to a certain site, but are found together. The heart-shaped pattern on the shoulder part is, however, present on all aurochs-seals and most likely indicates either a coat pattern or a stylized muscle pattern. The pattern might theoretically also stand for a piece of cloth as part of a ritual preparation. In front of the animal, an hitherto unidentified object is always present (see below).

According to some scholars, the Indus Valley 'unicorn' is a composite or hybrid animal motif,[8] belonging to the so-called mythical deer/antelope/goat theme, in which these three related animals are deliberately mixed up.[9] Another theory holds that it is a misrepresented Mesopotamian form.[10] The animal is, however, depicted very naturalistic

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[7] The seals are generally called 'Unicorn' seals since E. Mackay, *Further Excavations at Mohenjo-dero*, vol. 1 (1937) gave that interpretation. A similar depiction on Harappa seal DK 10799 was considered to represent the chinkara or Indian gazelle by Mackay (1937) but the heavy built and centrally placed male organ are in contradiction with this. DK 10799 is a 'unicorn' seal as well.

[8] S. Atre, *The Archetypal Mother: A systematic Approach to Harappan Religion* (Pune: Ravish, 1987), 90–95, and "Harappan seal motifs and the animal retinue," BDCRI 49 (1990), 43–51; S. Ratnagar, "Ideology and the nature of political consolidation and expansion: an archaeological case," in *Ideology and the formation of early states*, ed. H. Claessen and J. Oosten, *Studies in Human Society* 11 (Leiden and New York: E.J. Brill, 1995), 170–186, 179.

[9] S. Atre, "The Harappan riddle of the 'unicorn'," BDCRI 44 (1985), 1–10.

[10] E. During Caspers, "The Indus Valley 'Unicorn': A Near Eastern Connection?," *Journal of the Economic and Social History of the Orient* 34, 4 (1991), 312–350.

and its horn strongly brings to mind the horns of the aurochs cave paintings of southern France. Wild aurochsen may have been used in limited numbers or for special occasions as is vaguely suggested by the collar around the neck of about one third of all depicted aurochsen. An unidentified bipartite object stands in front of the aurochs on most seals, whereas this object is missing on seals with other animals. This strange object has been explained as a manger or food container,[11] a device to obtain a ritual spirit,[12] an incense burner or a sacred brazier.[13] Rituals around bull sacrifice and the use of its blood therein are known from contemporaneous cultures,[14] which makes it more likely a kind of ritual object for a specific use during blood sacrifices.

6.3 Concluding Remarks

Stone sculptures of aurochsen seem to be limited in time and space to the Indus Valley of Pakistan of the late third to early second millennium B.C.E. They figure on steatite seals, the so-called unicorn seals, of which the precise function is still unknown. Regarding the numerous steatite seals portraying an aurochs bull, we may assume that this animal played a role in society. At the time, wild aurochsen still roamed the westernmost part of the subcontinent in large numbers. Though the aurochs was domesticated about 6,000 years B.C.E., the peoples of the Indus Valley may have used wild aurochsen nevertheless for special purposes, such as sacrifices much in the same way tribal peoples still do today with the feral gayal. The carved aurochsen sometimes bear a collar around the neck and always have a bipartite object in front of them, which is best explained as a ritual object used at some stage of a blood sacrifice.

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[11] Atre, op. cit. (1990), 43–51.

[12] I. Mahadevan, "The Cult Objects on Unicorn Seals: A Sacred Filter?," *Puratattva* 13–14 (1984), 165–186. He calls the structure a 'filter' and sees echoes of a '*soma* process'; *soma* is the spirit used in the Vedic ritual. It has been suggested that *soma* was in reality an extract of the plant *Ephedra sinica*, which contains a high level of the precursor for the stimulant ephedrine. *Ephedra* juice is used in China as a drink of longevity. See further S. Mahdihassan, *The History and Natural History of* Ephedra *as Soma* (Islamabad: Pakistan Science Foundation, 1987) and "Soma of the Rigveda and an attempt to identify it," *American Journal of Chinese Medicine* 17, 1–2 (1989), 1–8.

[13] Ratnagar, op. cit. (1995), 170–186.

[14] See section 5.1.3.3.

CHAPTER SEVEN

BOSELAPHUS TRAGOCAMELUS, THE NILGAI

7.1 The Living Animal

7.1.1 *Zoology*

The nilgai, or blue bull, is a large, dark-coated antelope-like bovid with a shoulder height of 1.2–1.5 m (fig. 110). It is a plump animal with small horns, borne only by the males, very high shoulders, and steep hips. The nilgai holds its head high up, has a small mane like a horse, and a beard below the throat in the males. Seen from a distance, it is reminiscent of a giraffe because of its sloping back, longer front than hind limbs and the high, upright neck, especially when browsing the high tree branches or fleeing away. It also resembles a horse with its beautiful mane and high shoulders. The nilgai seems thus to have been composed out of several species; this is reflected in its scientific name: *bos* = cattle, *elaphus* = deer, *trago* = goat, *camelus* = camel. Despite its plump appearance, it is a swift runner and easily catches up with a horse. As its common name tells, its coat colour is bluish grey in the males. The females, however, are light brown. Both sexes have white socks with a horizontal black ring in the middle; this 'alarm pattern' is easily recognised from a distance. Nilgai are distinguished from true antelopes by, among others, a different kind of horns: they are keeled and smooth.[1] They are social animals and live in herds. Nilgai are further tamed easily and are rather docile.

The nilgai is found in the open forests and the grass jungles on the lower hills and occasionally on the open plains of Eastern Pakistan, India and Nepal, but recently disappeared from Bangladesh. Deserted villages and cultivation, which are usually covered with long grass, low shrubs and bushes are seldom without a herd of nilgai. Nilgai are never found very far from cultivation, which they visit regularly at dawn and

[1] Their only living relative is the chowsingha or four-horned antelope, *Tetracerus quadricornis* (Chapter 41).

dusk (fig. 111). They are fond of fruits and sugar cane, which makes them agricultural pests.

Remains of *Boselaphus tragocamelus* are recovered from the archaeological site of Lothal, Gujarat (2,300–1,750 B.C.E).[2] It was a common species on the subcontinent until about 1900, after which it gradually declined in numbers due to habitat decrease and hunting by the Europeans. In Rajasthan and Gujarat, however, it is still the commonest large wild animal.

7.1.2 *Role of Nilgai in Society*

Antelopes and deer are the commonest game animals in India, but the nilgai seems to escape this fate partly. The orthodox Hindus do not hunt it, because they consider it a close relative of the cow. Indeed, its overall impression is cattle-like, hence its scientific name *Bos-elaphus*, meaning cattle-deer, although zoologically speaking, the cow and the blue bull are only very distantly related. Muslims do not hunt it either, because they consider it a worthless game and prefer the more impressive Indian bison. Exceptions are formed by tribals, such as the Sahariya of Rajasthan, who hunt nilgai. In the past, hunting nilgai was much more common as is evidenced by a miniature painting of maharaja Dhiraj Singh of Raghogarh hunting nilgai on horseback (late seventeenth-early eighteenth century). Although nilgai are not hunted, they are sometimes shot when considered an agricultural pest.

Nilgai seem not to play any particular role in religion. It seems, however, that they are considered equal to antelopes in regard to the game animals (*mriga*) in Buddhism. These *mriga* can be either deer, gazelles or antelopes, including the nilgai. After his enlightenment, the Buddha held his first sermon or teaching to his disciples in a game park (*mrigavana*), which is generally translated as deer park.[3] In narrative reliefs of this event, all types of *mriga* can be depicted. A further indication for this event is the presence of a wheel (*dharmachakra*) between the pair of *mriga*.

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[2] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

[3] See further sections 1.1.3 (antelopes as *mriga*), 2.1.3 (spotted deer as *mriga*), and 22.1.3 (gazelles as *mriga*).

7.2 Nilgai in Stone

7.2.1 *Nilgai in Narrative Reliefs*

A nilgai plays a heroic role in narrative relief on a railing pillar from the stupa at Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 112). The relief illustrates the Story of the Woodpecker, the Turtle and the Deer[4] about three friends who lived together at a lake in a forest: a woodpecker, a turtle, and a *mriga* (antelope or deer). The story is told as follows,

> One night, the *mriga* was caught in a snare. To set it free, the turtle bite the snare while the woodpecker tried to keep the hunter in its hut by uttering cries of ill-omen. The *mriga* escaped, but the turtle was too exhausted and got caught by the hunter. The *mriga* on its turn drew the attention of the hunter towards itself and lured him into the forest so that the turtle could escape.

On this railing pillar, the *mriga* is a nilgai. It is reproduced realistically with its upright neck, short horns, and a plump appearance. The nilgai is large as it should, compared to the man, but the tortoise is too large. The relief represents the moment the tortoise gnaws the snare. A very similar nilgai figures on an another narrative relief on a coping stone at Bharhut.[5] Here, the nilgai stands next to a man, possibly a hunter. The nilgai is large and plump, and bears a pair of short and strong horns.

7.2.2 *Nilgai and the Wheel*

On an early depiction of Buddha's First Sermon from Loriyan Tangai in Greater Gandhara, Pakistan (c. 50–250; fig. 113), a pillar with a lotus on top is flanked by two antelope-like animals. Their bodies are plump, their horns are small and upright, the head is held high, a clear mane is present in the animal to the right, and maybe a beard below the throat as well. There can be no doubt that here a pair of nilgai figures as *mriga*. The fact that nilgai frequent inhabited places and are not afraid of humans, makes them suitable candidates to come to listen to the Buddha. The nilgai and the pillar are in front of Buddha's seat.

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[4] *Kurumgamiga Jataka*, Pali *Jataka* 206.

[5] Figured in B. Barua, Barhut, 3 vols. (Patna: Indological Book Corporation, 1979; reprint of Calcutta: Indian Research Institute, 1934–37), pl. 70, no. 88.

Another scene with nilgai and the wheel decorates a tympanum from the region of Mathura, Uttar Pradesh, on which a pair of nilgai proceeds towards a pillar with a wheel on top (first century; fig. 114). The nilgai are characterized by their large, pointed head, large plump cow-like body, small upright horns in the first animal, high held neck and steep hindquarters. Regarding the absence of horns in the second animal, this likely represents a female nilgai.

7.3 Concluding Remarks

Nilgai are not afraid of humans and approach their settlements. It is thus not surprising that they come to listen to the Buddha at the occasion of his first public lesson and that they come to pay homage to a *dharmachakra* pillar. What is the more surprising however, is their total absence from stone sculptures after the fourth century. This cannot be explained by their dwelling numbers, because that did not take place before the nineteenth century. The most likely explanation for their absence is that nilgai play no role in religion or folklore.

CHAPTER EIGHT

BUBALUS BUBALIS, THE WATER BUFFALO

8.1 The Living Animal

8.1.1 *Zoology*

The wild water buffalo or Asian buffalo is a large and robust bovid with a shoulder height of 1.5–1.9 m; it is the only bovid which is closely associated with water (fig. 115). The pair of horns, borne by both sexes, is impressive and resembles a crescent moon in frontal view. The spread of the horns exceeds that of any other living bovid: they may measure up to two metres along the outer edge. The horns are heavy at the base, triangular in cross-section—not oval as in *Bos*—and are conspicuously marked with ridges. Seen from above, the muzzle is laterally compressed in the middle, much more than is present in other cattle. The ears are large and pendulous. The hooves are large and widely splayed as an adaptation to walk on soft and muddy substrates. The buffalo's body is covered with moderately long, coarse and sparse hair of a black or intense dark brown colour; the lower part of the legs may be whitish. The tail ends in a bushy tip.

Domestic water buffaloes are considerably smaller and less robust: whereas the wild animals have a weight between 700 and 1,200 kg, the domestic buffaloes weigh less than half, ranging between 250 and 550 kg. The domestic buffalo differs little from the wild buffalo in other respects, except for its much smaller horns and less aggressive and more docile behaviour. The horn shape varies between the domestic breeds. In some breeds, they are very small and strongly curved, practically touching the head with the tips (fig. 116), while in others they are long and sweep backwards (fig. 117).

The water buffalo wallows in mud a great part of the day as a means of protection against irritating swarms of insects. The mud dries and forms a thick layer of cake through which insects cannot penetrate. Sometimes the buffaloes submerge completely, with only their nostrils exposed. The wild water buffalo lives in herds of ten to twenty individuals.

Wild water buffaloes are the boldest and most savage of the Indian bovids. Especially bulls and cows with calf may attack seemingly without provocation and kill humans. Water buffaloes, wild as well as domestic, may even face a tiger, which is their only enemy apart from humans, and in many such cases the tiger loses. Wild buffaloes are no welcome guests to villages as they damage crops and not infrequently wild bulls kill a domestic bull in order to breed with the cows. The resulting calves are less docile, too large to fit the agricultural implements, and often too large to be born without obstetrical problems.

In South Asia, the wild water buffalo originally lived in the tropical to subtropical riverine forests, wet grasslands, marshes and swamps from southern Nepal to Central India and Sri Lanka. Nowadays, truly wild populations are restricted to the marshy grass- and reedlands of Assam and Orissa, the Bastar forests of Chhatisgarh and Madhya Pradesh, and the grass jungles (*terai*) of Nepal. Their number has dropped drastically to a mere 3,500 in India.[1] The species is at present endangered, due to habitat loss, hunting, interbreeding with domestic and feral buffaloes, competition for food and water with domestic buffalo, and infections with pathogens from domestic populations.[2]

8.1.2 *Role of Buffaloes in Society*

8.1.2.1 *The Use and Domestication of Buffaloes*

Domestic water buffaloes are mainly used as draught animals to pull carts and ploughs. They are strong but not fast. Without water buffaloes, rice cultivation would be considerably more laborious. In addition, they are used for their highly nutritious milk and their meat, but not their dung. Wild buffaloes are hunted only for their meat.

Evidence for the use of the water buffalo is found in association with human settlements from the time of the Indus Valley civilization onwards, roughly 4,300 years ago. In Gujarat, remains have been excavated at Lothal[3] from Mature Harappan levels and at Rangpur[4] from post-Harappan levels. Its most western frontier may have been

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[1] A. Choudhury, "The decline of the wild water buffalo in northeast India," *Oryx* 28 (1994), 70.

[2] S. Hedges, *Bubalus bubalis*, in 2007 IUCN Red List of Threatened Species.

[3] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

[4] B. Nath, "Animal remains from Rangpur," *Ancient India* 18–19 (1963), 153–160.

the Euphrates river as is indicated by archaeological evidence from Iraq of about 1,000 B.C.E. The earliest domestication is supposed to have begun in China or Indo-China in association with the cultivation of rice.[5] Two different forms of domestic buffaloes are known to date: the river breeds of South Asia and the swamp breeds of East Asia.[6] The South Asian breeds usually have less straight horns; the horns may even be tightly curled. The horns of the East Asian breeds are more like those of the wild form. In the past, however, the difference might have been much less.

The first mention of the water buffalo in ancient texts is in the *Rigveda*.[7] The *dharma* handbooks already treat the water buffalo as a common animal. They mention it as one of the two-hoofed animals whose flesh can be eaten. It is only the first milk, produced during the first ten days after calving, that is prohibited; after that period, the milk may be drunk.[8] From this it can be inferred that milking buffaloes was common usage. Today, and likely so in the past as well, a kind of net is put around the calf's muzzle to prevent it from drinking its mother's milk. For members of the highest class, that of the priests (brahmins), the rearing of she-buffaloes for livelihood is mentioned as a minor sin;[9] generally, the rearing of animals is restricted to the lower classes.

8.1.2.2 *Buffaloes in Religion*

In Hinduism, the water buffalo is the vehicle of Yama, the god of the death, originally a Vedic god but reduced to the status of a minor god in Hinduism. Apart from riding the buffalo, he may also be characterised by a buffalo head, especially so in the Buddhist tradition, which absorbed this ancient Vedic god as a protector deity of Buddhism. According to a popular Buddhist version of Yama's origin,[10] he was originally a holy man who was told that if he would spent fifty years meditating in a cave, he would reach enlightenment. However,

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[5] W. Cockrill, "The Water Buffalo," *Scientific American* 217 (1967), 118–25, and "Water buffalo," in *Evolution of domesticated animals*, ed. I. Mason (Harlow: Longman Group, 1984).

[6] Clutton-Brock, op. cit. (1981), 140.

[7] As *mahisha* in *RV* 6.17.11, 8.17.10, and 9.87.7.

[8] *Baudhayana Dharmasutra* 1.12.6, 2.2.5.

[9] *Matsyapurana* 118.58.

[10] M. Singh, *Himalayan Art*, UNESCO Art Books Series (New York: Graphic Society/ UNESCO, 1969).

> Just before reaching that moment, two robbers came into his cave with a stolen buffalo whose head they cut off. When they discovered the old ascetic, they cut off his head as well because he had witnessed their act. In vain, because he put the buffalo's head on his beheaded body and assumed the form of Yama. He killed the robbers and drank their blood from their own skulls; after that, he started to kill the common people. The Bodhisattva Manjushri calmed him down in his manifestation as Yamantaka by adopting Yama's form but multiplied into infinity with many heads, including a buffalo-head, many arms and legs. Frightened by his own multiplied appearance, Yama gave up and became a protector of Buddhism.

The water buffalo is also the vehicle of one of the Hindu mother-goddesses, the boar-headed Varahi. Another mother-goddess, Maheshvari, has a buffalo head. Maheshvari is linked to Maheshvara, a manifestation of the Hindu god Shiva. The Gujarati folk-goddess Verai Mata or Verat rides a black buffalo.

The water buffalo is not among the sacrificial animals (*pashu*) of the brahmanical texts. However, in the *Tantrasara*, a tantric Hindu text from Nepal, its sacrifice is allowed and is said to increase one's wealth and prosperity.[11] Nowadays, the offering of a severed buffalo head to the Hindu goddess Kali, spouse of Shiva, still takes place on a regular basis at the Bhadra Kali temple in Kathmandu, Nepal (fig. 118). The buffalo sacrifice is not restricted to Nepal nor to tantric spheres alone, because there is mention that Rajasthani Charan women drank the blood of sacrificed buffaloes. The tradition vanished completely, at least officially, after the colonial and later India administrators forbade it. The Charans themselves deem it unseemly.[12] The custom has been traced to the region of Sindh, but may have had a much wider distribution in the past; its origin may be linked to a Shiva worship[13] though, the offering is also said to have symbolized the slaying of the buffalo demon by Durga as is remembered in Jodhpur. The present-day custom in Kathmandu strongly suggests so, too. Buffaloes were also sacrificed by the Rajputs, and by the Bhils, a tribal people of Rajasthan, who abandoned the habit in the sixties or seventies of the past century. It

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[11] P. Pal, *Hindu religion and iconology, according to the Tantrasâra* (Los Angeles: Vichitra Press, 1981).

[12] J. Kamphorst, "The Goddess of War. A study of martial, marital and religious metaphors," (2007).

[13] S. Westphal-Hellbusch and H. Westphal, *Hinduistische Viehzüchter im nord-westlichen Indien. 2. Die Bharvad und die Charan* (Berlin: Duncker und Humblot, 1976), 176.

certainly was not a daily sacrifice, but only performed when a rich patron paid for the sacrifice.

Durga is one of the manifestations of the spouse (*shakti*) of the Hindu god Shiva. In a destructive form, known as Mahishasuramardini, the goddess slays a demon who assumed the form of a water buffalo and lived in the Vindhya mountains of Central India. The demon was a serious threat to mankind. To slay the demon, the gods created the goddess Durga. Her creation and the way she kills the demon differ between the ancient texts.[14] She is a ferocious goddess, who is fond of flesh and wine, wears a garland of skulls and a tiger skin and rides a lion. A wild water buffalo is equally ferocious and with its unpredictable aggressive attacks makes a good disguise for a demon.

The scene was already popular in North India during the first centuries, considering the numerous examples, and is known in several iconographic varieties.[15] During the first four centuries, Durga is represented killing the buffalo with her bare hands,[16] later, she starts to use a trident. The iconography also became part of the tradition of the folk-goddess (*sagati*) Karni Mata of the Charans of Rajasthan: she is depicted with a trident in her left hand and the head of the buffalo demon Mahishasur in the right.[17] The attribution of the slaying of a buffalo to Karni Mata might refer to the myth of Karni's victory over Yama, god of the dead who rides a buffalo.[18] The link with severed

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[14] Durga was either created by the three main gods, Brahma, Vishnu and Shiva (*Matsya Purana*), by all gods (*Markandeya Purana*) or she was the sister of Krishna (*Harivamsha* of the *Mahabharata*). She killed the demon by simply pressing him below her foot to suffocate him (*Abhilasitartha-Chintamani*) or by chopping his head off (*Agni Purana*). These differences can be explained by assuming an assimilation process of several buffalo-killing goddesses with Durga; see for an exhaustive study of this assimilation Y. Yokochi, *The rise of the warrior goddess in ancient India: a study of the myth cycle of Kausiki-Vindhyavasini in the Skandapurana*, PhD thesis (University of Groningen, 2005).

[15] For a detailed study on the various iconographies of North India—Kushana type, Gupta type and Medieval type—, see Yokochi, op. cit. (2005).

[16] G. Von Mitterwallner, "The Kusana Type of the Goddess Mahisamardini as Compared to the Gupta and Mediaeval Types," in *German Scholars on India*, ed. by the Cultural Department of the Embassy of the Federal Republic of Germany, New Delhi, vol. 2 (Bombay: Nachiketa Publications, 1976), 196–213, 205.

[17] Kamphorst, op. cit. (2007). In other depictions, medieval as well as contemporaneous, however, Karni Mata is depicted as an ascetic figure, sitting in yogic posture, carrying a trident and wearing a black woollen shawl as is common among cattle-rearing women folk.

[18] For the story, see section 3.1.3. Theoretically, but for this I found no conclusive evidence, Durga's victory might also represent a victory over Yama, symbolising that souls of devotees are spared from Yama's clutches and can be reborn again. The promise of rebirth, like that of heaven, is one of the pillars of success of a new religious

buffalo heads and Durga or Karni Mata may also be based upon the manifestation of Durga as goddess of victory in war. As such, she is known as Korravai[19] and worshipped in Tamil Nadu, but the idea of virgin war-goddesses is wider spread.[20] Korravai has a deer or antelope (*mriga*) as attribute, stands on a severed buffalo head and is accompanied by two male devotees who behead themselves.[21] An ancient Tamil text makes mention of a head of a black forest buffalo on which the goddess stands though, alternatively, she may also stand on top of the twisted horned blackbuck.[22] Buffaloes are further somehow related to the spirits (*bhutas*) in southern Kannada.[23]

Buffaloes are considered slow and stubborn by the Hindus, hence the Hindi proverb *bhaims barabar*—literally: like a buffalo = difficult to deal with—. In reality, domestic buffaloes are usually gentle animals that can even be managed by a child. In a Buddhist tale, the domestic water buffalo is indeed associated with patience and forbearance, whereas the wild one is easily irritated. The Story of the Buffalo[24] explains the virtue of forbearance as follows.

> Once, a gentle buffalo endured the constant teasing of a monkey, without ever punishing the monkey or making it stop, simply because it didn't want to inflict pain on other beings. One day, however, a wild buffalo came and stood on the same spot. The monkey, in the illusion it was the gentle buffalo, jumped on its back and started the usual teasing. The wild buffalo, however, became angry and killed the monkey.

In another version, likely a later variety, the buffalo finally awakens the monkey's natural goodness by demonstrating the strength of patience.

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practice. Victory over the buffalo and thus over death seems also to underlie the funerary rites of some tribes, such as the Kondh of the Eastern Ghats and the Naga of north-eastern India. At the ritual, buffaloes are speared to death and cut into pieces in order to avoid calamities and to calm down the spirit of the deceased.

[19] Originally, Korravai was the mother of the pastoral god Murugan. Later, in the fusion process with orthodox Hinduism, Korravai became identical to Durga and Murugan on his turn to Skanda or Karttikeya.

[20] Cf. H. Tambs-lyche, *Power, profit and poetry. Traditional society in Kathiawar, Western India* (Delhi: Manohar 1997) on the martial folk-goddesses (*sagatis*) of Gujarat. The *sagati* Verai Mata rides a black buffalo; her name sounds somewhat similar to that of Korravai.

[21] J. Harle, "Durga, Goddess of Victory," *Artibus Asiae* 26, 3–4 (1963), 237–246.

[22] *Cilappatikaram* 12.8.2 and 12.9.2, respectively.

[23] M. Carrin and H. Tambs-lyche, "You don't joke with these fellows.' Power and ritual in South Canara, India," *Social Anthropology* 11, 1 (2003), 23–42.

[24] *Mahisha Jataka*, Pali *Jataka* 278, *Jatakamala* 33.

8.2 Buffaloes in Stone

8.2.1 *Earliest evidence in stone*

The earliest carving of a water buffalo in stone is part of the so-called Pashupati-seal from Mohenjo-daro in the Indus Valley, Pakistan (2,300–1,750 B.C.E.; fig. 12). The main figure of the seal is a male figure, sitting in a kind of yogi-posture on a low seat or throne. He wears a horned mask, resembling buffalo horns and is surrounded by four animals: a rhinoceros, an elephant, a tiger and a water buffalo.[25] Two ibexes stand below his seat or throne. On the ground of the five species of wild animals, the figure is generally referred to as Pashupati or lord of the beasts, a possible fore-runner of an early Rudra-Shiva form. Regarding the buffalo, the size of the very large, wide-spreading and semicircular horns and the muscular body are strongly suggestive of a wild buffalo.

A very similar buffalo, but now with a kind of container in front such as seen also on the 'unicorn' seals,[26] figures on another seal from the same period and region. Here, the horns are somewhat more semi-circular. The presence of the object in front of the animal might indicate an early domestic form, in contrast to the buffalo on the Pashupati-seal, which is accompanied by three wild animals; another explanation is that the wild or feral buffalo was used for a sacrifice. Today, buffaloes are sacrificed during funeral rites by several tribes of India and Asia, which may be a relict of a remote past.

8.2.2 *The buffalo as divine vehicle*

Stone sculptures of Yama, god of the dead, with his buffalo are not common. An early relief with Yama and his spouse Yami riding their buffalo is found on a lintel of the Tarappa Gudi or Tarabasappa temple at Aihole in Karnataka (seventh to eighth century; fig. 119). The buffalo has very long horns: they sweep backwards and cover the complete shoulder area of the animal. A kind of saddle cloth covers its back. The buffalo runs in a fast jumping gallop. The animal resembles most closely the wild buffalo with its impressive horns.

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[25] See further sections 12.2 (ibexes), 17.2.1 (elephant), 35.2.1 (tiger), and 37.2.1 (rhinoceros).

[26] See section 6.2 for the 'unicorn' seals.

Another early but much cruder Yama sculpture is provided by a stele from Madhya Pradesh (sixth to eighth century; fig. 120). Yama's buffalo stands rather awkward here, half hidden behind its master. The buffalo is not sculptured in much detail but what can be seen are the rather short and upright horns. If this depiction was based upon a living buffalo, it surely was not a wild one.

Yama's buffalo looks in admiration towards its master on one of the Chandella temples of Khajuraho, Madhya Pradesh (tenth to eleventh century; Plate 9). The buffalo is realistic with its long, backward-swept horns, a long muzzle and prominent orbits. The grooves on its horns are, however, not reproduced. The buffalo's size is very small compared to that of Yama.

Two realistic examples of Yama's buffalo are found on temple reliefs from Konarak in Orissa. One originates from the Sun Temple (Surya Deul, c. 1238–1258), the other is still attached to the Gangeshvari temple at nearby Beyalisbati (c. 1260).[27] The buffaloes are practically the same, which was to be expected, because the temples are close to each other in style, geographical distance and time.

A beautiful, early carving of the buffalo of the mother-goddess Varahi originates from northern India (sixth to eighth century; fig. 121). The artist managed to capture the typical buffalo features very well in this lively and almost swinging depiction of the mother-goddess. The buffalo has a massive head with a squarish muzzle. The horns are short and curved inward as in the river breeds of today.

A large, individual stele with Varahi and her buffalo comes from Jajpur in Orissa (c. mid-tenth to late thirteenth century; fig. 122). The buffalo lies comfortably below the goddess' throne. It has a massive muzzle, backward-swept ridged horns and pendulous ears. The broad hooves are reproduced in detail. The shape of the horns is reminiscent of the swamp breeds of present-day eastern Asia, but were most likely inspired by those of wild female water buffaloes, which once must have abounded in the water-rich river deltas of Orissa, though the presence of a now extinct swamp breed cannot be excluded.

Most sculptures of Varahi with her buffalo form part of *saptamatrika* friezes or series, such as a frieze with dancing mother-goddesses from

[27] Figured in Donaldson, *Hindu temple art in Orissa*, vol. 2 (1986), fig. 1363 and fig. 1429 respectively. The first relief is currently in Konarak Museum.

Central India (ninth century; fig. 123). The animals are rendered without much attention or space for detail. The massive, squarish face and backwards swept horns indicate that the animal of the boar-headed goddess, standing at the second place from the right, is a water buffalo. The same applies to a larger panel with the seven mother-goddesses at the Siddheshvara temple at Haveri, Karnataka (mid-eleventh century; fig. 170). This buffalo misses the large body mass so typical of a buffalo, but the horns form a nice semi-circle and the muzzle is short and broad.

The divine seer Nara, son of Dharma, the Hindu god of justice, is depicted in combination with water buffaloes on a panel of the Vishnu temple at Deogarh, Madhya Pradesh (sixth century; fig. 124), one of earliest surviving Hindu temples. The panel is devoted to the couple Naranarayana, in which Nara sits to the left. The animals accompanying Nara have a heavy, massive body, relative short limbs, massive and flattened horns, which sweep backwards. They are reminiscent of the minimally depicted water buffalo of Varahi on the mother-goddesses relief from Central India (fig. 123).

8.2.3 *Buffalo-headed Deities*

Sculptures of the mother-goddess Maheshvari with a recognizable buffalo head are limited. A very interesting example originates from Satna, Madhya Pradesh (eighth to early eleventh century; fig. 125). Here, the short-horned Maheshvari is closely related to Durga, for the child she carries is the elephant-headed Ganesha, son of Shiva and Durga or Uma. Like the ferocious Durga, Maheshvari carries a staff with a skull and rides a lion. The combination of Durga and a buffalo head may thus be more complicated than the myth of slaying the buffalo demon, because this stele suggests that Durga may be buffalo-headed herself as well just as Yama sometimes (see below). A link with the Yama image on an isolated pedestal from Deogarh (see below) is provided by the lions, which are of the same style, with an uplifted leg, a turned head and a 'laughing' roar.[28]

[28] See also section 33.2.4 for 'laughing' lions as throne legs.

The majority of carvings of the buffalo-headed goddess Maheshvari, however, forms part of the friezes with all seven mother-goddesses (*saptamatrikas*) in a row. There are many of such friezes, but generally details were omitted because of the small size. The diagnostic features of the buffalo-headed Maheshvari are thus not easily recognised.

A rare example in stone of a buffalo-headed Yama is seen at the right side of an isolated Tirthankara pedestal from Deogarh, Madhya Pradesh (sixth century; fig. 419). The figure certainly does not represent the goddess Maheshvari because the torso is definitely male and his attributes are similar to those hold by Yama as sculpted at Khajuraho (Plate 9). In addition, the pedestal most likely belonged to a Jain Tirthankara statue as can be inferred from the presence of a wheel in between the lions. The buffalo horns of this Yama are very short and curved inwards as common in present-day northern river breeds. Yama sits on a further undefined mass, probably nothing else than an incomplete stage of the buffalo. Another buffalo-headed Yama decorates one of the Chandella temples at Khajuraho (tenth to eleventh century; fig. 126). His attributes and hand gesture are similar to those of the 'normal'-headed Yama at the same temple complex; only his head differs, and his vehicle. A severed buffalo head lies to his left, possibly referring to the Durga myth and thus providing a link between the buffalo demon Mahisha and the god of death, Yama.

8.2.4 *Durga Slaying the Buffalo*

Sculptures of the Hindu goddess Durga slaying the buffalo demon—Durga Mahishasuramardini—are particularly popular and are found in several iconographic varieties. The goddess may stand with one foot on the demon and the other on the ground or on her lion, may hold the buffalo's tail, may have a hand on its muzzle, may bind her hair in the meantime, or may ride on her chariot or on her lion towards the scene of action. However, the features of the buffalo itself in the various representations and how the goddess grasps or holds it, are more interesting for the present purpose. The buffalo is either portrayed as a complete buffalo, as a decapitated buffalo with the demon in human form emerging from the opened neck, as a buffalo-headed human form, or as an isolated buffalo head on which the goddess stands. In the latter case, the setting is always peaceful and the goddess friendly and beautiful. In these cases she represents Korravai, the Tamil war goddess of victory. Below follow a few typical examples of the various iconographies; a complete overview is beyond the scope of this book.

8.2.4.1 *Zoomorphic buffalo, complete*

One of the earliest, if not the earliest, depiction of a complete buffalo demon is found on a Durga stele from Midhauli near Mathura in Uttar Pradesh (first to third century; fig. 127). It is a naive representation and the buffalo is not more than a miniature version, trampled by the goddess' left foot. Details such as the horns are not visible. The buffalo is tiny and looks to the left. Durga's right foot is resting on an equally tiny lion. In the centre an archer is ready to help her.[29] The sculpture is not very realistic and resembles tribal art of today.

The next step in evolution of the episode is evidenced by a stele from the same Mathura region (c. 300; fig. 128). The goddess stands now not on but behind the buffalo, which is drastically increased in size, while she binds her hair above her head. She grasps the buffalo, which is facing to the right, around the neck in an attempt to break its neck, while with another arm she holds its flank. The technique looks like a judo seizure. Both the goddess and the buffalo stand on her lion and on a beaked animal (a leogryph?). A tiny helper figure seems to be present to the right. The relief is not very realistic and looks naive, though not so much as the Midhauli stele. Similar in iconography is another contemporaneous stele from nearby Rajakhera (c. 300).[30]

A different iconography is followed on another early but much eroded Mathura-style stele (third to fourth century; fig. 129).[31] Here, Durga stands relaxed next to the buffalo, which she holds upside down by its tail with a left hand, while binding her hair with another pair of arms. Details are difficult to judge due to the heavy erosion, but the main difference with the other Mathura steles is that the buffalo is mirrored here, thus facing the left, and held by the tail. The helper figure seems lacking. This stele is much more realistic than the other two.

A two centuries later example in the Udayagiri caves, Madhya Pradesh (early fifth century; fig. 130) follows the same iconography but is much more lively and dramatic. The goddess again holds the buffalo upside down by its tail with a left hand, while binding her hair, but now plunges her trident with one of her right arms in the buffalo's

[29] This could theoretically be her brother Krishna as described in the *Harivamsha* (see section 8.1.2.2); the provenance confirms this. The same applies to a stele from Bhumara, Madhya Pradesh (fig. 131).

[30] Munich: Staatliches Museum für Völkerkunde, Sammlung Gedong cat. no. MU 199; figured in C. Mallebrein, *Skulpturen aus Indien, Bedeutung und Form* (München: Staatliches Museum für Völkerkunde, 1984), fig. 10. See also her fig. 11 for a similar stele.

[31] A similar, very eroded stele is found in the south at Nagarjunakonda, Andhra Pradesh (third to fourth century, grey limestone), at present in the Site Museum.

back. She stands with her right leg on its head. The buffalo faces to the left. The helper figure is not present. A similar iconography but in a complete different style is seen in a stele from roughly the same age and region, coming from Bhumara, Madhya Pradesh (fourth to sixth century; fig. 131). The setting is the same but the goddess is not binding her hair. She is a lady here, not a fierce goddess, and seems to have killed the demon without the slightest effort, using her trident. An interesting detail is again the presence of the side figure or assistant to her right, who might be her brother Krishna. The side figure is as relaxed as the goddess.

The same iconography is again followed in the rock-cut Cave 1 temple at Badami in Karnataka (late sixth century; fig. 132). The goddess holds the buffalo at its tail but now while stabbing the pointed end of an upside-down held trident through its neck, while ganas are dancing below. The goddess does not step on its back but stands somehow awkwardly with her right leg bent as if stepping on something. A comparable but much later example comes from Central India (c. 800, grey gneiss).[32] The goddess holds the buffalo by its tail with a left hand and stabs the spear through its neck, standing with her right foot on its head. An elaboration of this iconography, but not with much success is found on a possibly later stele from Uttar Pradesh (eighth to early eleventh century; fig. 133). The goddess plunges her trident effectively into the vulnerable belly of the buffalo using two hands while stepping with her right leg on its throat and holding her victim at its hind legs upside down. The way she holds the legs is reminiscent of the way in which goats, sheep and smaller animals are normally hold. Her jumping tiny lion supports her attack. The whole image is not very realistic and is somewhat naive.

Another iconography dates from roughly the same period. A stele from Madhya Pradesh (sixth century; fig. 134) shows a mirrored composition, which makes it resemble the earlier example from Uttar Pradesh, now in Berlin-Dahlem. Here, the goddess stands with her left foot on the buffalo while stabbing it with her spear hold in one of her right arms. She does not hold the buffalo by its tail; the buffalo looks up and its highest part is now its nose. Though the posture of the buffalo is

[32] Berlin-Dahlem: Staatliche Kunstsammlungen, Indische Kunstabteilung cat. no. MIKI 27; figured in H. Härtel, *Indische Skulpturen* I (Berlin: Museum für Völkerkunde, 1960).

reminiscent of that seen in the Berlin-Dahlem stele, it makes no sense here because the goddess is not using any kind of forceful grip.

A similar relief of the same age originates from the rock-cut cave temple on Elephanta island off Mumbai, Maharashtra (late sixth century; fig. 135). This carving is, compared to the former stele, much more lively and full of action. The goddess now actively holds the buffalo, firmly grasping its lower jaw, possibly in an attempt to break its neck by pushing up its head. Her right foot is placed on the buffalo's back. The buffalo looks to the right and its nose is its highest part. A less vivid and more naive version of exactly the same iconography is part of the rock-cut Rameshvara temple or Cave 21 at Ellora, also in Maharashtra (late sixth century; fig. 136). The goddess holds her hand very loosely on the buffalo's muzzle and not firmly at its lower jaw. It seems that the sculptor missed the meaning of the grasp. To break the demon's neck the posture is certainly not effective.

The same setting was also sculpted on the south wall of the nearby Ravana ka Khai or Cave 14 (early seventh century; fig. 137). The goddess holds the buffalo's muzzle and steps with her right foot on its back. The composition is more stiff than seen at Elephanta. An important addition is the lion, firmly biting the buffalo's hindquarters. This is possibly the oldest surviving representation of the lion as active assistant in this iconography. A sculpture at the Durga temple at Aihole, Karnataka (early eighth century; fig. 138) is a lively interpretation of this iconography. The goddess steps with her left foot on the buffalo's back, which turns its head towards her while she plunges her spear in its neck. This is one of the rare examples in which the semi-circular horns are fully shown. The muzzle is compressed in the middle, and the horns are deeply grooved. The goddess' lion stands next to her, lifting up its paw ready to attack but obviously too late, for the demon is already speared. The buffalo is now directed to the left, being hold to the ground by the goddess' left foot.

A later example from the south is provided by a panel at the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 139). The buffalo has been conquered, and is firmly pressed down by the goddess' left foot on its back. No spear is plunged into its body and its tail hangs loosely between its legs. The scene seems to capture the conclusion of the act, not the act itself. In fact, this iconography is close to the early stele from Midhauli, Madhya Pradesh, but mirrored. The lion is eager to help, but in vain. The side figure is not a helper, but the transformation of the demon, who just left the buffalo's lifeless body.

A panel of a century later from the Lakshminarayana temple at Hosaholalu, also in Karnataka (thirteenth century; fig. 140) repeats the iconography, though the buffalo's position is mirrored. Here, the buffalo is obviously exhausted after the fight, with its tongue out of its mouth, its joints bent and its tail between the legs as a sign of defeat; this last feature is common for dogs but not for bovids. The artist succeeded well in transferring the mood and condition of the slain victim.

Examples from the Himalayan regions are completely different. On a pedestal of a Durga stele from Svaim in Kashmir (seventh to mid-ninth century; fig. 141), it are the goddess' two lions who do the killing.[33] A small figure is sitting above the fighting scene. The same iconography is followed on another stele from Kashmir (ninth to tenth century; fig. 142), where the buffalo has fallen on its knees, being bitten in the shoulder. A helper figure sits at the side of the tail. The lions are held at cords by a driver figure much like Aruna holding the reigns of the horses of Surya's chariot; the cords resemble those held by Durga on the Midhauli stele. One of the lions is just in time to catch the escaping transformed demon. Both these sculptures are very realistic and full of action.

This is not the case in two later Himalayan examples, in which the goddess stands on the subdued demon in triumph, for example on a stele from Verinaga, Kashmir (tenth to twelfth century; fig. 144). The goddess simply stands on the subdued buffalo as if on a vehicle; the lions are reduced to throne legs. The only hint that the buffalo has been slain, is the fact that it lies down with a side-figure pulling the demon at its tail and that a demon emerges somewhere to the right, who is about to be stabbed with the goddess' trident. The buffalo has short horns—not unlike those of rams encircling the ear—and has a zebu-like dewlap. The scene lacks any violence or ferocity. Even more simplified, but thereby gaining in dramatic effect, is a small stele from the region of Kulu-Kangra-Chamba, Himachal Pradesh (fourteenth to sixteenth century; fig. 143). The goddess stands with both legs on the buffalo, plunges her spear with a right hand in the completely flattened buffalo, seemingly to finish it off.

[33] See section 33.2.9.4 for sculptures of Durga's lion in action.

8.2.4.2 *Transforming zoomorphic buffalo*

There are many stone sculptures of Durga slaying the buffalo demon in which the demon emerges in human form from the beheaded buffalo. One of the earliest examples may be provided by a stele from North India (seventh century).[34] The severed head of the buffalo lies on the ground with the tongue hanging from its mouth. The eight-armed goddess stands with her left foot on the buffalo's decapitated body and grasps the demon, who emerges from the neck, by the hair while plunging her trident into his chest. A similar, but later stele comes from Majhauli, Uttar Pradesh (eighth to early eleventh century; fig. 145). The most obvious difference with the earlier stele is that now the demon climbs actively out of the dead buffalo's neck. Quite similar but more vivid is the stele from Sun temple 3 at Osian, Rajasthan (ninth century).[35] The trident plays a central role here, and is about to sink in the buffalo's shoulders. The severed head shows no tongue.

Of about the same time is a stele from the Basheshar Mahadeva temple at Bajaura, Himachal Pradesh (early ninth century; fig. 146). Here, the demon emerges in stages, once halfway the neck, once at the right of the scene and once in the centre above the beheaded body with a trident in his chest. The buffalo's body is a mere hump without much detail. The whole composition is of an inferior quality and the buffalo can be hardly recognized as such.

Slightly later is a stele from Central India (tenth century; fig. 147), which is more elaborate and full of action. While the demon climbs out of the neck, he grasps the trident, which has already been stuck in his breast in an attempt to escape certain death. The eight-armed goddess immobilizes the demon by putting her right foot on the buffalo's back and a left hand on the head of the emerging demon, resembling the Maharashtra examples of the sixth century representing the complete buffalo (see previous section). The severed head lies below the buffalo, not showing signs of agony, but rather a calm sleep. The lion plays an active role and bites vigorously in the buffalo's buttocks.

[34] London: British Museum, Stuart-Bridge collection cat. no. 72; figured in R. Chanda, *Medieval Indian sculpture in the British Museum* (London, 1936), pl. 17.

[35] Figured in Snead, op. cit. (1989), pl. 146.

A contemporaneous stele from Puruliya in West Bengal (late eleventh to twelfth century; fig. 148) is mirrored. The buffalo looks now to the centre of the piece so that the demon emerges centrally, attracting full attention in this way. The ten-armed goddess stands with her left foot on the buffalo's back and with her right foot on her lion as seen in the very early stele from Midhauli, Uttar Pradesh. The scene is rather static here, and the goddess smiles, certain of her victory. The demon is almost completely emerged with only a foot stuck in the buffalo's neck, but the trident already entered his chest and the lion got hold of his arm. The severed buffalo head shows no tongue and has but very small horns. Very similar is a small sculpture, either from West Bengal or Bangladesh (twelfth century, argillite) but this scene is full of vigorous action and intricately incised details as if it was sculpted only yesterday.[36] The goddess has no less than sixteen arms, carrying an arsenal of weaponry. This surely is a masterpiece of a quality rarely met with.

The same iconography is known in South India as is evidenced by a stele from Karnataka (eleventh to mid-fourteenth century; fig. 149). Except for the very different style typical of the region, the iconography is the same as the steles from the west. The tongue hangs, again, out of the buffalo's mouth. The vigorous action of the eight-armed goddess is transformed into a majestic dance. The main difference with the western steles is that the setting has been moved: the complete buffalo sits in the centre and the demon emerges at the left side instead of centrally. The goddess herself is now in the spotlights, and space was created for the helper figure to the right; the lion is missing. A variation on the theme comes from the Mysore region, Karnataka (early thirteenth century, potstone).[37] The goddess plunges the trident in the belly of the demon, who emerges from the shoulder of the still intact buffalo, and not from the beheaded neck. Also here the lion is replaced by a helper figure.

8.2.4.3 *Buffalo-headed demon*

In only few illustrations in stone of Durga slaying the buffalo demon, the demon is portrayed in a human form with a buffalo head. An

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[36] New York: Metropolitan Museum of Art, cat. no. 1993.7; figured in S. Kossak, *The Arts of South and Southeast Asia*, reprinted from *The Metropolitan Museum of Art Bulletin* (New York, 1994), fig. 34.

[37] London: Victoria & Albert Museum, cat. no. IS 77–1965.

early example, and at the same time maybe the most dramatic depiction of the episode, can be seen in the rock-cut Varaha cave temple at Mammalapuram, Tamil Nadu (seventh to mid-eighth century; fig. 150). The goddess, assisted by an army of dwarfs (*ganas*), rides on her lion towards the awaiting buffalo-demon. He plays with his club self-assured, not realizing yet the power of the goddess. The expression of his posture is extremely strong and lively. Almost exactly the same scene forms part of the rock-cut Kailashanatha temple or Cave 16 at Ellora, Maharashtra (eighth to ninth century; Plate 10) though of a much lower quality, giving the impression that this is a copy. The feeling for drama is totally lacking here.

A stele from Mukhed in West Bengal or Bangladesh (tenth to thirteenth century; fig. 151) depicts the scene in a very different way. Here, the demon is already subdued. The goddess pushes his head firmly down with her left hand, while stepping on his thigh with her right foot. The trident sinks into his breast. A somewhat different stele in a niche at the north side of the tower of the Vaital Deul at Bhubaneshwar, Orissa (c. eighth century) depicts the goddess stepping on the shoulder of the subdued buffalo-headed demon, while plunging her spear into the same shoulder.

8.2.4.4 *Zoomorphic buffalo, head only*

In a few sculptures of Durga from Tamil Nadu, the buffalo is reduced to a mere head. She represents in this form Korravai, the Tamil martial goddess of victory, or Glory. She became identified with Durga and her son Murugan with Karttikeya (Skanda). An early, if not the earliest, example of Durga/Korravai standing on a severed buffalo head is provided by a panel in a niche to the right of the entrance to the rock-cut Trimurti temple at Mammalapuram (seventh to mid-eighth century; fig. 152, above). The goddess stands relaxed on the massive head with huge horns of the buffalo. She has eight arms, holds several weapons and a conch. The buffalo's part of the sculpture lacks detail, and it is not clear whether part of the buffalo's body is present as well or not. The scene lacks any violent action, and the goddess shows the fear-not hand gesture (*abhayamudra*).

Another, more elaborate relief with Korravai is part of the rock-cut Adipurishvara temple, also at Mammalapuram (seventh to mid-eighth century; fig. 152, below, much enhanced photograph). The goddess stands again very relaxed on the buffalo's head. She is more gracile now and resembles a heavenly maiden (*surasundari*) . Two kneeling male

devotees or attendants, two female warriors or door-guardians (*dvara-palikas*) and two flying putti surround the goddess in a symmetrical way. High in the sky there is a lion-head to the left and a bull's head to the right.[38] The buffalo head is characterized by the pendulous ears and the large, flat horns. As in the Trimurti relief, the *mriga* is missing and the goddess is eight-armed, holds weapons and a conch, but in contrast to the Trimurti relief, the two male devotees are present.

A panel from Pakkam (ninth to twelfth century; fig. 153, left) is more naive or stylized. The head of the buffalo is massive, and its horns are huge. The tongue hangs out off its mouth, symbolising its defeat by the goddess. Interesting detail is that the carving of the tongue proceeds into the lower border; either this is a playful touch or a miscalculation of space. A more realistic, but otherwise similar stele is present at Pasupatikovil (ninth to twelfth century).[39] The tongue is, however, not represented here, and all details of the buffalo's head are lacking. The horns are very large and resemble those of wild buffaloes. The same buffalo head, but even more stylized, figures on a stele from Polonnaruwa in Sri Lanka (993–1070; fig. 153, right). The horns are huge; the tongue and other details are missing. The head is nothing more than an outline.

A very interesting statuette of Durga in a peaceful manifestation, not unlike the Tamil Korravai, originates from the ancient kingdom of Kashmir (late ninth century).[40] The goddess holds a severed bovid head in her upper left hand. The horns nicely encircle the ears, reminiscent of those of a domestic ram. However, since rams are not directly associated with Durga, it is more likely to assume that the head belongs to a water buffalo, and that we are misled by the confused scale. River breeds of buffalo do indeed have such small and tightly curved horns. The goddess is further accompanied by two male figures, reminding of the two devotees as seen together with Korravai in Tamil Nadu and

[38] The lion and the bull may symbolise the personal vehicles of herself as Durga and of her spouse Shiva, but may also hint at the fight between the bull and the lion. In Asia Minor and around the Mediterranean, the bull and the lion are linked to the moon (night, winter, darkness) and sun (day, summer, light) respectively, especially so in representations of the lion killing the bull (Athanassopoulou and Tzedakis, op. cit., 2003). Tales about the lion-bull fight are also known from Rajasthan.

[39] Figured in C. Sivaramamurti, *Birds and animals in Indian sculpture* (New Delhi: National Museum, 1974), fig. 32.

[40] New York: Metropolitan Museum, cat. no. 1984.488.

the two Bhairons of the Charani *sagati* Karni Mata of Rajasthan. The two Bhairons, however, are commonly represented as traditional Bhil archers, whereas these two attendants carry books.

8.2.5 *The Buffalo in Narrative Reliefs*

A narrative relief figuring a herd of water buffaloes decorates the south pillar of the eastern gateway of the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.). The relief narrates the episode of the Miracle of Sravasti where the followers of Kasyapa take water to extinguish the presumed fire in the *naga* temple. The pond from which they take water is indicated by regular wavy lines, ducks and some buffaloes. Their horns are moderately long an curved. Water buffaloes figure in another narrative relief on the same gateway (c. 50–25 B.C.E.; fig. 155). Here, a herd of water buffaloes with a calf pays homage to the Buddha or the place where he reached enlightenment. The buffaloes are very naturalistically depicted with their stocky build and moon-shaped and backwards swept horns. They are not alone, but joined by some lions and human-faced lions with ram's horns. Most likely, this combination of the innocent and the ferocious underlines the peacefulness of the setting.

Water buffaloes play the role of draught animal in a panel illustrating an episode of the epic *Mahabharata* on the Amriteshvara temple at Amritapura, Karnataka (c. 1196; fig. 156). In this scene, the hero Bhima approaches his enemy Bakasura by buffalo cart. The setting is supposed to be Kurukshetra in the Siwalik Hill Range of the Himalayas as is indicated by rocks and wild animals in the distance, like the decor of a theatrical play. Epic war chariots were unknown at that time and in that region, and are usually modelled after wooden temple chariots as used in processions[41] or after transport carts, such as the local buffalo carts as in this case. The buffaloes are easily recognized by their ridged and curved horns, their pendulous ears and their broad muzzles.

[41] J. Deloche, *Military technology in Hoysala Sculpture (Twelfth and Thirteenth century)* (New Delhi: Sitaram Bhartia Institute of Scientific Research, 1989).

8.3 Concluding Remarks

In almost all depictions of buffaloes, the animal is rendered with great care for its exterior characteristics as horn shape, massive and broad muzzle which is laterally compressed in the middle, split and broad hooves, long smooth tail with bushy tip, and pendulous ears. This is valid for naturalistically depicted buffaloes (e.g. at Sanchi, Elephanta, Hosaholalu) which form the majority, but also for the more naive depictions (e.g. at early Mathura) or more stylized forms (e.g. at Pakkam). This underlines the omnipresence of the water buffalo on the subcontinent. It are actually only the high regions, above 2.8 km elevation, where the buffalo cannot live. Yet, most reliefs from the Himalayan region figure a realistic buffalo; an exception is a stele from Verinaga on which the buffalo is more like a hybrid between a zebu and a ram. It seems that this sculptor never saw a real buffalo. The same might be said for a extremely reduced depiction of the buffalo's head at Polonnaruwa in Sri Lanka, in sharp contrast to the realistic depiction of the goddess.

In narratives reliefs, buffaloes hardly ever play an active role. They either indicate the presence of water or figure as draught animal.

The iconography of Durga slaying the buffalo varies greatly. Among the vast amount of representations of this myth, it seems that the sculptures can be classified in the following way. Three main types are discerned: a complete buffalo, a decapitated buffalo with emerging demon and a buffalo-headed demon; a fourth and somewhat different type is Durga/Korravai standing on an isolated buffalo head. In the latter case, which is restricted to Tamil Nadu and Sri Lanka, she is depicted as youthful and benevolent, while in the other cases she is generally a ferocious goddess.

Regarding the complete buffalo, several different iconographies can be discerned, starting with a naive representation of the episode figuring a miniature buffalo being trampled by the goddess' left foot of the first to third century. The second iconography, again seen in naive representations from before the fourth century, represents a normal-sized buffalo, which is embraced by the goddess in a forceful grip as to break its neck with her bare hands. From the same time a third iconography is known, which is much more realistic and lively. Here, the goddess holds the buffalo triumphantly upside down by its tail, stepping with one foot on its head after having killed him seemingly without the use of her weapons. An elaboration of this representation is found a few centuries later; now the goddess plunges a spear in the buffalo's back. Overlapping

partly in time is a fourth iconography, in which the goddess does not hold the buffalo by the tail but has her hand on its head, which looks upwards. As in the third iconographic scheme, the goddess has one foot on its head and plunges her spear in the buffalo; an elaboration of this iconography shows the buffalo turning its head and looking upwards. The earliest iconographic programme seems to have been followed in medieval temple reliefs from the south in which the goddess stands with one foot on the subdued buffalo, which holds its head low to the ground and has no spear or trident plunged into its neck or body. A fifth iconography seems limited to the Himalayan kingdoms and shows the lions killing the buffalo, whereas the goddess herself has no part in the killing. From the same region an iconography is known in which the goddess stands passively with both feet on the subdued victim, in the way gods stand on their personal vehicle; an elaboration shows the goddess plunging her spear into the buffalo's body.

The buffalo-headed demon figures only in very few stone sculptures. Examples are seen in Tamil Nadu and Maharashtra of the eighth century and in West Bengal or Bangladesh of the tenth to thirteenth century. This iconography obviously never became as popular as the others.

Sculptures with the decapitated buffalo and emerging demon, on the other hand, are rather common, although not as widespread as those with a complete buffalo. Roughly two types can be discerned. In the earlier sculptures, the buffalo is oriented towards the right, while in the later sculptures this seems to have been mirrored. In most sculptures, the goddess grasps the demon at the hair while stabbing him in the chest or shoulders with her trident. In most sculptures, the buffalo and the emerging demon play a central role; only in the southern examples the goddess does so.

Examples of Durga standing on a severed buffalo head are restricted to Tamil Nadu and nearby Sri Lanka. Durga is not engaged in any combat in these sculptures, but merely stands as a beautiful maiden on the buffalo head. As such, she represents Korravai, the martial goddess of victory, or Glory.

CHAPTER NINE

CAMELUS BACTRIANUS, THE BACTRIAN CAMEL

9.1 The Living Animal

9.1.1 *Zoology*

Together with the dromedary and the South American llamas, the Bactrian camel (fig. 157) belongs to an order of its own: that of the tylopods, or camels in the broad sense. Camels have an exceptionally great water efficiency and extreme heat tolerance. The humps of the Bactrian camel and the dromedary are not water reservoirs but fat reserves, which almost disappear in times of starvation. The accumulation of the body fat in one single area facilitates dissipation of heat. Camels are among the most derived mammal species in terms of adaptation to the environment. Their physiology makes it possible to withstand extreme heat and extreme aridity.

Camels have long-curved necks, a deep-narrow chest, long thin legs, a relatively small head, large eyes with long eye lashes, slit-like nostrils, a split upper lip, massive and pointed canine teeth, a much less developed hindquarter and a long, tufted tail. They are even-toed with a soft pad below their almost square feet and a web between the two toes. The black skin forms horny pads at the sternum, elbows, carpals, tarsals and stifles. The teeth are very different from those of ruminants—bovids and deer—. The central incisors are missing in the upper jaw, just as in ruminants, but the lateral incisor is present, being sharp and pointed. An upper canine is also present as in deer; immediately behind it is another canine-like tooth, which is in reality a transformed premolar. Thus it looks as if there are three canines at either side of the upper jaw.

The Bactrian camel is the two-humped species and lives in cold, alpine regions, in the arid and semi-arid deserts. It is a heavy and large animal with a shoulder height of 1.85 m and a stocky built. Wild Bactrian camels,[1] nowadays restricted to the Gobi desert of Mongolia,

[1] Generally referred to as *Camelus ferus*.

are a little larger than the domestic Bactrian camels and have larger humps. To stand very low temperatures, Bactrian camels develop a long, woolly pelage, which becomes shaggy in the winter. In the summer, when temperatures can be high, they shed part of this coat. Bactrian camels and dromedaries (fig. 158) can interbreed and produce fertile female offspring; male offspring is usually sterile.

9.1.2 *Role of Bactrian Camels in Society*

Hunting wild camels is not known to have had any importance in historical times in South Asia, and it is not likely that it ever had, regarding the unlikely distribution of wild camels in India. As domestic animal, the Bactrian camel is mainly used as pack animal, for its extremely dry dung which is ideal as fuel for fires and less so for its milk, meat, and wool.

Bactrian camels have been used and bred for several thousands of years. The earliest evidence comes from central Iran, where camel dung has been dated to c. 2,600 B.C.E.[2] Remains of wild and domestic camels are hard to tell apart because there has been little selective breeding. This makes it extremely difficult to trace the process of domestication. Only artistic representations, camel dung and juvenile bones provide some evidence. At Pirak in Pakistan, small two-humped camel figurines were found in deposits dated c. 1,700–750 B.C.E.,[3] but the recovered bones seem not to have been studied in detail.[4] In the Indus Valley, camel bones—including a complete skeleton of a juvenile—were found at Mohenjo-daro[5] and Harappa.[6] They were initially attributed to the dromedary but probably belonged to the two-humped variety, as is shown by the figurines of Pirak and the remains found in deposits

[2] B. Compagnoni and M. Tosi, "The Camel: Its Distribution and State of Domestication in the Middle East during the Third Millenium B.C. in Light of Finds from Shahr-i Sokhta," in *Approaches to Faunal Analysis in the Middle East*, ed. R. Meadow and M. Zeder, Peabody Museum Bulletin 2 (1978), 91–103.

[3] J.-F. Jarrige, "Étude generale," in *Fouilles de Pirak*, vol. 1, ed. J.-F. Jarrige, J. Enault and M. Santoni (Paris: Diffusion De Boccard, 1979), 3–102.

[4] R. Meadow, "A Preliminary Note on the Faunal Remains from Pirak," in *Fouilles de Pirak*, op. cit., vol. 1, 334.

[5] R. Sewell, "Zoological Remains," in *Mohenjodaro and the Indus civilization*, ed. J. Marshall (London: Arthur Probsthain, 1931); Meadow, op. cit. (1986), 43–64.

[6] B. Prashad, *Animal Remains from Harappa*, Memoirs of the Archaeological Survey of India (1936) 51.

dated to the third millennium B.C.E. in eastern Iraq[7] and further to the west in contemporaneous Turkmenia.[8]

The role of the Bactrian camel in South Asian religions is extremely limited, likely related to its equally limited distribution. The only instance I could find was as the animal vehicle of the goddess Hemantadevi, the Buddhist goddess of the winter.

9.2 Bactrian Camels in Stone

9.2.1 *The Bactrian Camel as Divine Vehicle*

A stone sculpture of the Buddhist winter goddess Hemantadevi sitting on her vehicle originates from Bairhatta, Bangladesh (eighth to twelfth century; fig. 159). The camel has two humps and wears a rug over both humps. To keep the rug in its place, a cord has been wrapped around the front hump. The camel lacks a woolly coat, and looks rather smooth instead. It might be that a summer coat was intended, although the long hairs below the throat persist also after shedding. Another possibility is that the wool was sheared; camel wool is widely used. A third possibility is that a dromedary stood model for this sculpture.

The association between a female figure, be it a tree-goddess (*yakshi*), the goddess Hemantadevi, or merely a mortal woman, and a Bactrian camel, depicted on a ringstone from Mathura, Uttar Pradesh (first to third century; fig. 160) is not clear. It may be that the camel is meant to represent her vehicle; other options are that the camel figures in a narrative, or has a purely decorative function. The hairs below its throat are well depicted and its two humps are relatively large.

9.2.2 *Bactrian Camels in Other Reliefs*

The oldest surviving evidence of a stone sculpture of a Bactrian camel seems to be found on the eastern gateway to the Great Stupa

[7] Compagnoni and Tosi, op. cit. (1978), 91–103.

[8] V. Masson and V. Sarianidi, *Central Asia: Turkmenia before the Achaemenids* (London: Thames and Hudson, 1972); N. Ermelova, "Kostnye ostatki mlekopitajushchih iz poselenij epohi eneolita i bronzy Juzhnogo Turkmenistana (Mammal Bone Remains from Eneolithic and Bronze Age Sites of Southern Turkmenistan)," *Karakumskie Drevnosti* 1 (1968), 48–53; Ermelova, "Novye materialy po izucheniju ostatkov mlekopitajushchih iz drevnih poselenij Turkmenii (New Data from the Study of Mammal Remains from Ancient Turkmenian Sites)," *Karakumskie Drevnosti* 3 (1970), 205–232.

at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.). At every junction of each architrave with a vertical post, a pair of animals is depicted with riders. The central pair consists of Bactrian camels with their riders (fig. 161).[9] The camels are portrayed realistically, with long and woolly hairs on the throat, neck and joints. The camels sit down on folded knees; only camels and dromedaries can sit in this way. The animals are depicted in every detail, and are definitely the work of a talented artist. This is without doubt a masterpiece.

Slightly younger in age are a number of friezes from Greater Gandhara illustrating the Transport of the Relics of the Buddha after his cremation. Typical examples are two narrative friezes from Sahri-Bahlol, Pakistan (fourth to fifth century; fig. 162, above). The first shows the camel walking between horses. It is damaged, yet the two humps and the hairs below its throat can still be observed. On the second, a camel, a horse and a bull pass a gateway. The camel clearly has two humps and hairs below the throat. A slightly different example comes from Sikri, Pakistan (mid-first to fourth century; fig. 162, below); here, the Bactrian camel is accompanied by a horse only, and—in further contrast to the Sahri-Bahlol friezes—the camel is being ridden by a man holding an ash container with the ashes of the Buddha.

9.3 Concluding Remarks

The distribution of the Bactrian camel is very restricted on the subcontinent, and this is true for its representation in sculpture as well. Stone carvings with a camel are limited to the north, although this includes regions where Bactrian camels are not expected: Bangladesh and Madhya Pradesh. Contacts with the Himalayan regions and foothills on the other hand were frequent. Sanchi in Madhya Pradesh for example, was strategically situated at crossroads between major trade routes. The carvings of Bactrian camels are very realistic, except maybe for a relief from Bangladesh in which a woolly coat is missing. Bactrian camels generally figure in narrative reliefs as transport means.

[9] The corresponding architrave illustrates a scene of homage paid to the Bodhi tree and the seat below it by the animals. The lower and upper pairs of animals on the same vertical posts are sheep and lions respectively.

CHAPTER TEN

CAMELUS DROMEDARIUS, THE DROMEDARY

10.1 The Living Animal

10.1.1 *Zoology*

The dromedary, or the Arabian camel, is closely related to the Bactrian camel. Dromedaries share all typical camel features with the latter species but differ in a number of aspects, the most obvious of which is its one-humpedness.[1] Dromedaries are tall animals; males stand 1.8–2 m at the shoulder. Unlike the Bactrian camel, they have a short pelage. Their feet are adapted to walking in a sandy desert (fig. 158) but they are unsuitable for slippery or muddy conditions and are easily injured by sharp stones. Dromedaries are browsers mainly on shrubs and forbs but also on higher trees (fig. 351). Their teeth are like those of the Bactrian camel and thus also the dromedary gives the false impression of bearing no less than six canines in the upper jaw, three at each side. The mouth of a dromedary presents a chaotic mass of teeth in front of the neat row of grinding molars. Dromedaries are not very aggressive in their behaviour, compared to the Bactrian camel. The exception is formed by males in the breeding season, when they do not tolerate other males near their herd and will fight them to the death. For this reason, there can be only one adult male in the herd, the others have to be castrated or kept together in a bachelor herd.

In South Asia, the dromedary is restricted to the arid and semi-arid regions of western India and Pakistan. Its south- and eastward distribution is determined by the degree of humidity, its northern distribution by the average winter temperature; the dromedary is sensitive to cold and humidity and can survive only in regions with a long dry season and a short rainy season. Muslim armies introduced the dromedary in South India in the twelfth century, but the local climate made it difficult, if not impossible, to keep them healthy for a longer time. Like

[1] For additional description of the dromedary, see section 9.1.1.

horses, they had to be imported regularly. The dromedary overlaps in distribution with the Bactrian camel in the areas of Afghanistan, Pakistan, and Southwest Asia. The dromedary got extinct in the wild about 2,000 years ago.

Dromedaries and Bactrian camels can interbreed, but usually only the female offspring is fertile.

10.1.2 *Role of Dromedaries in Society*

Dromedaries are used as pack and draught animal (fig. 163), for riding, for their meat, milk and dung. They are also used as protective shields in sand storms. In the past, they played a role in warfare as well. Today, there are two general types of dromedaries among the many breeds. The first type has been selectively bred as a strong pack and draught animal; the second type as a long-legged riding and racing camel such as the Mahri of Pakistan.

Dromedaries are indispensable animals in the desert. Actually, thanks to dromedaries life is possible for humans in the extreme desert (fig. 164). They need only small quantities of food and can survive on two kilos of dry matter per day for an extended period. The same is valid for water: they can sustain ten to fifteen days without water at temperatures between 30°C and 50°C. Their milk—and to a lesser extent their meat—provides food and their dry dung serves as fuel for cooking. The long lactation period of 9–18 months ensures a year-long production of milk. Stealing a dromedary in the desert regions is therefore a major sin and valuable objects were priced in dromedaries, not in gold. Dromedaries were also crucial in desert warfare, which had a decisive impact on the course of history, see for example the Arab conquest of Sind.[2] With dromedaries it is possible to cover great distances in a short time without the need for supplies, whereas a horse cannot go one day without water and food. Another strong point of dromedaries in warfare is that the horses of the enemy will bolt away if they are not used to the sight and smell of dromedaries. Dromedaries are also fit for ploughing. They are often harnessed together with oxen, although one dromedary is supposed to be more efficient than a pair of oxen. The milk of a dromedary is valued positively, and is ascribed certain

[2] A. Wink, *Al-Hind; The Making of the Indo-Islamic World, vol. 1: Early Medieval India and the Expansion of Islam, 7th–11th centuries* (Leiden, Brill, 1990).

therapeutic effects. It is used to cure jaundice, spleen troubles, dropsy, tuberculosis and asthma.[3]

It has been suggested that the dromedary is actually derived from the Bactrian camel or a close relative and lost one of the humps in the process of domestication.[4] This is contradicted by rock-drawings from the Arabian peninsula of about 1,000 B.C.E. with a depiction of wild dromedaries being hunted by men on horses.[5] Archaeologists think that the domestication of the dromedary took place in the middle or southern part of the Arabian Peninsula during the third millennium B.C.E. as evidenced by remains found on the island off the coast at Abu Dhabi,[6] from where they were brought to other parts of the Middle East. It is assumed that in later times the dromedaries were hybridized with Bactrian camels for the purpose of caravan trade.[7] As far as South Asia is concerned, the first evidence of a dromedary is a depiction on a copper plate from Mohenjo-daro in the Indus Valley, Pakistan.[8] The depicted animal has one large hump. The figure seems a rare exception as this is the only one among the impressive amount of archaeological objects found in the area. It may equally well have originated from a disturbed layer and thus be younger than the bulk of the material. The camel is mentioned in Panini's grammar (c. fourth century B.C.E.) as a beast of burden,[9] possibly also already as a war animal;[10] others follow the opinion that this last use did not occur before medieval times with the Rajputs.[11] Sanskrit knows only one word for both the camel and

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[3] K. Knoess, "The milk dromedary," in *The camelid, an all purpose-animal*, ed. W. Cockrill (Uppsala: The Scandinavian Institute for African Studies, 1984), 176–198.

[4] The idea is that a single hump offered a smaller surface area for water loss by perspiration, which is favourable under desert conditions. See F. Al-Ani, *Camel; Management and Diseases* (Amman: Dar Ammar Book Publisher, 2004), 3. Thomas' camel (*C. thomasi*) is considered to be the two-humped ancestor of the dromedary.

[5] I. Köhler-Rollefson, "*Camelus dromedarius*," *Mammalian Species* 375 (1991), 1–8.

[6] E. Hoch, "Reflections on prehistoric life at Umm an-Nar (Trucial Oman) based on faunal remains from the third millennium BC," in *South Asian archaeology*, ed. M. Taddei (Naples: Istituto Universitario Orientale, 1979), 589–638. A date as early as the 4th millennium B.C.E. is suggested by Al-Ani, op. cit. (2004), 3. The first evidence of domestic dromedaries in Central Asia is not before 1,500 B.C.E. (ibidem, 4).

[7] R. Bulliet, *The Camel and the Wheel* (Cambridge: Harvard University Press, 1975).

[8] Mohenjo-daro Museum, cat no. 546–VS 983.

[9] V. Agrawala, *India as known to Panini* (Varanasi: Prithvi Prakashan, 1963, 2nd edition); S. Banerji, *Flora and Fauna in Sanskrit Literature* (Calcutta: Naya Prokash, 1980).

[10] Ibidem, 219.

[11] L. Renou, *La civilisation de l'Inde ancienne, d'apres les textes sanskrits* (Paris: Flammarion, 1950), 200.

the dromedary, and it is very likely that Panini referred to the Bactrian camel, considering the depiction of this animal in friezes from Greater Gandhara, the region where he lived.[12]

Despite their highly praised value, dromedaries are considered quite bad-tempered animals, who can bite nastily and spit to show their disagreement. They are thought to be stupid, untrustworthy, inflexible and obstinate.[13] More likely, however, their ability to survive under the most difficult circumstances urges them to follow their own impulses. On the other hand, the dromedary is a symbol of love in the Thar desert, for example in the Dola-Maru, a Rajasthani love epic. One of the Rajasthani folk-goddesses, the *sagati* Dasha Ma or Moma, rides a dromedary.

According to brahmanical texts on *dharma*, dromedaries fall under the class of inedible animals. The reason might be that they bear teeth in both jaws, unlike the ruminants, who are edible. They lack the frontal incisors, which would make them edible, but they still bear front teeth in the upper jaw: a true canine and a caniniform lateral incisor and premolar. Also their feet form a problem. They are even-toed, thus edible, but not hoofed: their feet are padded and webbed, more like those of an elephant, with small nails at the tip. The feet resemble those of the five-nailed animals, which are inedible, more than those of the even-toed hoofed animals. The dromedary is, however, eaten in the Thar desert, as is clear from, amongst others, the Pabuji myth of Rajasthan.[14]

The dromedary is ritually somehow related to the ram: at the sacrifice of the ram, the sacrificial quality (*medha*) passes out and the ram becomes the camel.[15] Therefore, as stated in the brahmanical texts, the dromedary cannot be sacrificed because it has no sacrificial quality anymore.

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[12] The dromedary though, was already used in warfare during the first millennium B.C.E. in western Asia, seen a relief from the palace of the Assyrian king Ashurbanipal (c. 645 B.C.E.) at Nineveh, Iraq, now in London (British Museum).

[13] Another negative connotation is found in the medical text of Bhela: seeing a dromedary in one's dream would predict coming death, as stated in *Indriya Sthana* 9.12.

[14] See also James Tod "allodial chief Roop Singh of the Pattawut clan held out in phalodi and, when provisions failed, he and his noble associates ate their camels" in *Annals and Antiquities of Rajasthan, or The Central and Western Rajput States of India*, 2 Vols (London: Routledge and Kegan Paul, 1972, first publised 1892), vol. 2, 97.

[15] *AitB* 2.8.

10.2 Dromedaries in Stone

Dromedaries are ideal pack animals in the more arid regions. An example of a transport with dromedaries figures on a decorative plinth frieze from a Jain temple at Mandor near Jodhpur, Rajasthan (thirteenth to sixteenth century; fig. 165). Here, the dromedaries are used as pack animals but also as riding animals. They are realistically depicted, with their long neck, smooth coat and large hump. One of the animals is drinking from a well, in which a *noria* turns.[16]

Another dromedary sculpture once decorated one of the Chandella temples at Khajuraho, Madhya Pradesh (eleventh century, sandstone).[17] These dromedaries are used as riding animal. The characteristic lying position of a dromedary, with folded hind-leg and sitting on the knee, has been carefully sculptured. Actually, the position strongly resembles that of the pair of Bactrian camels at Sanchi, Madhya Pradesh (fig. 161). Here, at Khajuraho, however, there is clearly only one hump present, and there are no long hairs below the throat. The ribs are visible, which seems in contrast with the very round hump. A further difference with the Sanchi camels is that the hind legs are folded more strongly, and the neck and head held more upright as if these dromedaries are about to rise. On one of the plinths of one of the Chandella temples of Khajuraho, a caravan has been depicted consisting of dromedaries and horses, likely representing a war caravan (fig. 166).

Somewhat later is a panel on the plinth of the Sun temple at Konarak, Orissa (c. 1238–1258). The scene has been explained as a foreign delegation with a giraffe on the ground of a similar depiction at Persepolis, Iran.[18] The neck of the animal is extremely long and the back slopes. On the other hand, the animal is small, bears no horns and seems to lack any coat pattern, though this is difficult to establish since erosion obscures the details. The size and overall appearance fits a young dromedary very well since the latter has a relatively longer neck than the adult. Dromedaries do not naturally occur in eastern India, and must have been regarded as exotic animals.

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[16] A *noria* is a wheel carrying pots on its circumference to transport water from a well.

[17] Site Museum; figured in Snead, op. cit. (1989), pl. 95.

[18] For further discussion and references, see section 23.2.

A decorative relief at the Mallikarjuna temple at Srisailam, Andhra Pradesh (sixteenth century) figures a row of animals including dromedaries with a badly depicted hump: the humps are too flat, too elongated, and resemble a hunchback. The two animals to the left have a long neck, steep back, and a short tail. The frieze represents a caravan of adult and juvenile dromedaries.[19] Similar long-necked dromedaries with sloping backs decorates the Hosabasti at Mudbidri, Karnataka (first half of the fifteenth century) and the Vitthala temple at Hampi, Karnataka (first half of the sixteenth century).[20] These dromedary caravans are most likely walking from the port to their destination, because dromedaries do not thrive in these regions and had to be imported continuously, either as pack animal or for use in warfare, without however much success.

10.3 Concluding Remarks

Considering the extremely restricted occurrence of the dromedary, it is not surprising that few depictions of dromedaries are found on architecture other than in the western part of the continent. It does indeed seem that no realistic depiction in stone of a dromedary is known from the rest of the subcontinent. The very few stone carvings from these other areas are naive and often described as giraffes based upon their long necks (see Chapter 23). They date to the thirteenth (Orissa) and fifteenth to sixteenth century (Andhra Pradesh, Karnataka). They seem to represent either tributes or imported animals. Regarding its depiction in western India, it is remarkable that depictions of this valuable animal are so extremely rare, at the same time, the dromedary is praised highly in the vernacular literature of North India. An explanation for this omission may lie in the fact that the majority of surviving stone sculpture is concerned with temple art, whereas the dromedary essentially belongs to the pastoralists. The dromedary plays an important role in Rajasthani folklore, for example the Pabuji and Moma traditions, in religion, legend as well as myth, but this seems not to be reflected in stone sculptures.

[19] See further section 23.2.
[20] Ibidem.

CHAPTER ELEVEN

CANIS AUREUS, THE GOLDEN JACKAL

11.1 The Living Animal

11.1.1 *Zoology*

The golden or Asiatic jackal is a member of the family of the dogs—Canidae: wolves, jackals, dogs, and foxes—. It has a long pointed muzzle, large erect ears, a deep-chested muscular body, a bushy tail, slender, sinewy limbs, short and blunt claws on their small and compact feet, and soft pads below the feet as have the other wild members of the dog family. They all walk on their toes (digitigrade). Apart from these, each member has a few distinguishing characteristics.[1]

The golden jackal (fig. 167) is medium-sized with a shoulder height of around 0.4 m; jackals from the north are on the average bigger and heavier in build than those from the south. Its coat is golden—hence its name—with a darker coloured saddle on the back. The jackal is smaller and meaner in aspect than the Indian wolf (see next section) and it also lacks its arching brows and elevated forehead. From a distance, however, it is not easy to distinguish the golden jackal from either an Indian wolf or a red dog, apart from size. In general, the head and muzzle is the most massive and triangular in red dogs, massive and square in the Indian wolf, and somewhat more pointed and gracile in the golden jackal.

Jackals occasionally eat grass, herbs and fruit but are principally scavengers, next to active hunting on whatever they can catch. Together with vultures and hyenas, golden jackals clear carcasses and garbage in many Indian towns and villages. Most people in India do not consume beef for religious reasons. As a direct result, cattle carcasses are freely available for scavenging. Golden jackals occasionally hunt small deer and antelopes in small packs. Near villages, they sometimes attack poultry, young lambs and goats. Jackals also raid melon patches and

[1] See sections 12.1.1 (domestic dog), 16.1.1 (red dog), and 42.1.1 (foxes).

sugar-cane fields, eat the coffee berries in coffee plantations and the fallen fruits of ber trees.

The jackal's long-drawn howling at dusk or just before dawn is more familiar to most people than the animal itself. The so-called "cat-call"[2] sometimes given out by a jackal is commonly associated with the presence of a tiger. This cry is an expression of fear or alarm, but not only for tigers.

During the day, jackals shelter in holes, among ruins, or in dense grass and scrub. In very hot weather jackals lie in water to cool down. When their life is in danger, jackals may "sham dead", lying prone and inert as if dead; this habit is also seen in Indian wolves and hyenas. The natural enemies of the golden jackal are the striped hyena, pythons and the feral dogs around settlements.

Golden jackals are found all over the Indian subcontinent, including Sri Lanka. Remains of *Canis aureus* have been recovered from the ancient site Lothal in Gujarat (Mature Harappa period).[3] Golden jackals are very common, and can be considered the most successful species of the dog family in South Asia because they live in almost any environment, all over India, from the humid forest country to the dry open plains, including the desert.[4] The highest altitude where they have been reported is c. 3.7 km in the Himalayas. However, the majority of golden jackals lives in the lowlands, not far from towns and villages and cultivation.

11.1.2 *Related Species*

A close relative of the golden jackal is the Indian wolf (*Canis lupus*).[5] The Indian wolf has a shoulder height of about 0.7 m, which is almost twice that of a jackal. The Indian wolf is, however, much smaller and more gracile and slender than the grey wolf in the rest of Eurasia

[2] A term coined by the rangers in Sariska Natural Reserve, Rajasthan.

[3] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

[4] Y. Jhala and P. Moehlman, "Golden jackal *Canis aureus* Linnaeus, 1758," in *Canids: Foxes, Wolves, Jackals and Dogs—2004 Status Survey and Conservation Action Plan*, ed. C. Sillero-Zubiri, M. Hoffmann and D. Macdonald (Gland, Switzerland: IUCN, 2004), 156–161.

[5] Because of the difference in appearance, skull and teeth morphology, the Indian wolf is sometimes considered more than just a geographical race of the grey wolf, and given specific rank as *Canis pallipes*. The latter option is confirmed by the characteristics of their mitochondrial DNA; see D. Sharma, J. Maldonaldo, Y. Jhala and R. Fleischer, "Ancient wolf lineages in India," PRS *Biology Letters*, 271 (2003), 1–4.

and in the Himalayas. Its limbs are long as those of the golden jackal. This convergence in body plan makes it difficult to distinguish the Indian wolf from the jackal, but also from the half-tame or feral dogs that frequent the villages. In general, the wolf has a more elongated, blunt-ending square muzzle, whereas the head of the jackal resembles a triangle, because of its more pointed muzzle which makes it look somewhat like a giant fox.

On the Indian subcontinent, wolves are mainly restricted to the barren mountain areas of Ladakh, Kashmir and Tibet, and the extensive waste land deserts of India and Pakistan. Indian wolves became extremely rare, due to decreasing prey, habitat alteration and active persecution.[6] Near human settlements, they prey on domestic bovids and occasionally carry off children when normal prey lacks. The existence of wolves in India is not generally known. Travellers and hunters were almost entirely absorbed in their fear for tigers and other big cats, notwithstanding the fact that wolves were until rather recently more numerous than big cats in North India from the Vindhyas to the Himalayas.

11.1.3 *Role of Jackals in Society*

Jackals and wolves are essentially wild species, but may have had their role in society as contributors to the ancestry of the domestic dog, since both occasionally interbreed with domestic dogs.

Some tribals hunt and eat jackals, such as the Kolis and Vaghirs in Gujarat and Rajasthan and the Nari Kuravas in Tamil Nadu, but the vast majority of the South Asian population considers the jackal an unclean animal. This perception is most likely linked to their scavenging at dead corpses. According to orthodox brahmanical *dharma* texts, the jackal is forbidden to eat because it has five-nails (*panchanakha*). Pelts and tails of jackals are, however, commercially traded.

In Hinduism, jackals are the companions of terrifying deities. The most common deity with a jackal as personal vehicle is Chamunda, one of the seven mother-goddesses (*saptamatrika*). She is the emaciated, devouring goddess of the cremation grounds. Often she carries a severed head and sits or stands on a corpse. Sometimes she is considered

[6] L. Mech and L. Boitani, "Grey wolf *Canis lupus* Linnaeus, 1758," in *Canids: Foxes, Wolves, Jackals and Dogs*, op. cit. (2004), 124–129.

testimony to the existence of the human sacrifice and the eating of human flesh as some sects are supposed to have practised.[7] Whether the goddess and her worshippers ate human flesh or not is unclear, but the jackal surely does so. Other female deities may be associated with a jackal as well, mostly when their terrifying aspect is highlighted. The most well-known example is Kali, a fierce goddess with a terrible appearance and one form of the wife (*shakti*) of Shiva. She inhabits the cremation ground and is surrounded by millions of jackals. According to the text *Tantrasara*, when the flesh of an animal is offered to the goddess, she appears before the officiant (*sadhaka*) in the form of a jackal.[8] A jackal-headed goddess is Shivaduti.

Popular belief has it that the jackal leads the tiger to its prey and is thereafter rewarded with the remains of the meal. In reality, a jackal may indeed accompany a tiger in its hunting, but not as a guide but merely as an opportunistic scavenger to feed on the left-over of the tiger's meal. In Buddhist tales, the jackal is cunning, much like the fox in European tales. In Hindu tales, the jackal is greedy, for example in the Story of the Self-defeating Forethought from Durgasimha's *Panchatantra*,[9] told as follows,

> Once a hunter shot an elephant. Suddenly, a python appeared, and the hunter shot it, but the python managed to kill the hunter before it died. A hungry jackal entered the scene and calculated that the elephant would be food for six months, the python for four months, and the hunter for three months. First it ate the bow string, but the bow sprang erect and pierced the skull and killed the jackal on the spot. Thus the jackal died because of its excessive greed.

11.2 Jackals in Stone

11.2.1 *The Jackal as Divine Vehicle*

A beautiful stone sculpture of the Hindu goddess Chamunda with jackal comes from Bihar (late eighth to early ninth century; fig. 169).

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[7] Donaldson, op. cit. (1987), 1078.

[8] Pal, op. cit. (1981), 15.

[9] Another variety of the story has the hunter as example of greediness, instead of a jackal (see section 17.2.7, last paragraph). For a version with a boar instead of an elephant and a python, see section 39.1.3, last paragraph.

The goddess sits on a corpse or demon (*preta*), accompanied by three animals: an owl to the right, a wild goose in the centre, and a jackal to the left. The jackal is rendered schematically, without much detail; only its long muzzle makes it a jackal and not a wolf or a hyena. The jackal thrusts upward much in the way Bhairava's dog does,[10] in an attempt to gnaw the corpse's left foot.

A fine example of jackals gnawing with delight a tasty corpse is seen on a Chamunda stele originating from Dharmashala in Orissa.[11] A similar idea is expressed by a stele from eastern India (eleventh to twelfth century; fig. 168). Her jackal is depicted to the right, engaged in scavenging on a dead corpse. Below the goddess stands a cooking pot with human bodies; the tree behind her is decorated with severed heads. Chamunda, wearing a garland of skulls, holding a skull in one of her left hands and grasping an elephant's trunk with one of her right hands, has an angry look here and is truly a terrible goddess. To the left, her owl and goose stand on a corpse. Much less naturalistic is Chamunda's jackal on a contemporaneous stele from Central India (eleventh century, sandstone).[12] Here, a pig-like jackal gnaws the left foot of the very relaxed demon on whose body Chamunda dances.

The jackal is not always scavenging at corpses. On panels depicting all seven mother-goddesses (*saptamatrika*) sitting or standing in a row, which is at times flanked on the left and the right side by Shiva and Ganesha respectively, their respective vehicles are depicted standing next or below each goddess. An example is provided by a *saptamatrika* panel on the Siddheshvara temple at Haveri, Karnataka (tenth to twelfth century; fig. 170). The jackal stands below the emaciated Chamunda, the seventh goddess from the left. It faces towards the right, and has the typical elongated muzzle which distinguishes it from both the wolf and the hyena.

An example of the jackal's association with a female divinity other than Chamunda is seen at the Chausat Yogini Pitha at Hirapur, Orissa (early tenth century).[13] Here, a female figure stands in a niche on the northeast side of the exterior wall next to the entrance. The placement is suggestive of a door guardian (*dvarapala*) and the goddess does indeed

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[10] See section 12.2.1.

[11] Orissa State Museum; figured in Donaldson, op. cit. (1987), fig. 3367.

[12] Berlin: Museum für Völkerkunde, cat. no. I.10.108; figured in Härtel, op. cit. (1960).

[13] Katyayini no. 9; figured in Donaldson, op. cit. (1985), fig. 641.

make a threatening gesture with her sword to underline her protective function. In her left hand she holds a skull (*kapala*) and another severed head appears in the centre of her pedestal. She is flanked by a jackal on each side. That she is a terrifying power is evident from the open-air shrine (*pitha*) as a whole, which is dedicated to the 64 (*chausat*) yoginis.[14] The terrifying aspects of the worship of the goddess appear first on temples throughout Orissa during the eighth-ninth century and seem to reach their zenith in the early tenth century as evidenced at Hirapur.[15]

A remark should be made here. The earliest Chamunda steles do not depict a jackal, see for example a stele from Shamalaji, Gujarat (fourth to sixth century, schist)[16] and a somewhat later stele from Koteshvara near Ujjain, Madhya Pradesh (late sixth to early seventh century). It seems that the introduction of the jackal as her vehicle did not take place before the late eighth century, possibly together with the increasing popularity of the terrifying aspects of the goddesses.

11.2.2 *Jackal-headed Goddesses*

Depictions of the jackal-headed goddess Shivaduti are extremely rare. An example is provided by a stele from Central India (tenth century, grey sandstone).[17] The jackal head is elegant with an elongated, pointed snout. The eyes are bulging to express the goddess's ferocity, very unlike living jackals. Other non-jackal characteristics are her small and round human-like ears, and the long, matted hairs (dreadlocks) so typical of ascetics in India. Somewhat different is a pair of jackal-headed goddesses (*yoginis*), also from Central India (tenth to eleventh century; fig. 171). The two goddesses are exactly the same, but mirrored. Their eyes are elongated and not bulging, as in the former stele, and thus more jackal-like. The ears are, however, rounded as well, and the hairs

[14] Identification of the separate goddesses is impossible as inscriptions lack and existing lists (e.g. *Skanda Purana, Kalika Purana, Matsya Purana, Brihannaradiya, Pithorivrata Katha, Bhavishyottara Purana*) do not agree, not even in number, and do not list the iconographic peculiarities.

[15] Similar tenth-century Chausat Yogini shrines can be found at Bheraghat near Jabalpur in eastern Madhya Pradesh and at Khajuraho in northern Madhya Pradesh, indicating a wider spread tradition.

[16] Baroda: Museum and Picture Gallery; figured in J. Harle, *Gupta Sculpture, Indian Sculpture of the Fourth to the Sixth Centuries AD* (Oxford: Clarendon Press, 1974), pl. 89.

[17] Berlin: Museum für Völkerkunde, cat. no. I.10.138; figured in Härtel, op. cit. (1960).

are long, though not matted. The identification of the two goddesses is uncertain, because they likely belong to a tantric cult, known only to initiates. This is indicated by the licking of blood from a skull cap by both goddesses. Some tantric cults worshipped the 64 yoginis, to which group these two jackal-headed goddesses may belong, but also the more general seven mother-goddesses, to which the jackal-headed Shivaduti belongs.

11.2.3 *The Jackal in Narrative Reliefs*

In the Story of the Geese and the Turtle[18] the jackals play a prominent role with their laughter. The story is told as follows,

> Once, a turtle lived in a lake and had two geese as its friends. After twelve dry years, the lake dried up, and the geese decided to move. The turtle asked the geese to carry him with the help of stick in between them. Two jackals started to laugh at seeing the flying geese with the turtle hanging in between them. The turtle opened its mouth to answer, and thus fell to the ground. The jackals ate the flesh of the tortoise.

The story is illustrated on a frieze at the Tripurantakeshvara temple at Belgavi (earlier Balligrama), in Karnataka (c. 1070; fig. 172). The jackals have not been depicted in much detail and are not very realistic, but their bushy tails and elongated muzzles are enough to determine them as jackals.

A greedy jackal is described in the Story of the Jackal at the Ram Fight[19] as follows,

> Two fighting rams dashed their foreheads together and blood oozed out. A jackal, eager for blood, went in between the rams and started licking the blood. When the rams crashed again, the greedy jackal got crushed between the heads.

The story is illustrated on the same Tripurakantakeshvara temple (fig. 173). The relief is damaged, but the bushy tail and the long muzzle are still visible. The jackal is rendered realistically and more lively than

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[18] *Tantropakhyana*, both Sanskrit and Tamil version. In the *Panchatantra* version of the same story, it are the citizens of the town who laugh at seeing the flying geese with the turtle.

[19] *Panchatantra* (both Vishnusharma's and Durgasimha's version) and the Tamil *Tantropakhyana*. See also C. Patil, *Panchatantra in Karnataka sculptures* (Mysore: Directorate of Archaeology and Museums, 1995).

on the frieze with the Story of the Geese and the Turtle. The jackal is licking the blood from the head of one of the rams, unaware of the approaching danger.

A Buddhist story figuring a cunning jackal is that of Jackal the Arbiter[20] is told as follows,

> Once, a jackal went to the river to bring its wife a rohita fish. The jackal saw two otters in dispute about how to divide a fish. The jackal intervened and offered its service as arbiter. The jackal divided the fish in three parts and assigned the tail to one otter, the head to the other, and the middle part to himself as payment. After advising the otters not to quarrel further but to each enjoy their own share, the jackal left the stage with the largest and best portion of the fish. Had the otters not quarrelled, than they would have enjoyed the complete fish, instead of just head and tail.

The story is depicted on a coping stone of the stupa railing at Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 174).[21] The jackal is depicted twice, once dividing the fish and once walking away with its share. This jackal is not very realistic but rather naive. The head is too massive for a jackal, and the muzzle too square. The animal resembles a wolf more than a jackal, though its body size is too small for a wolf. Moreover, the proud walk of the animal to the right is more typical of a wolf or a dog. However, the differences between the Indian wolf and the golden jackal are minimal as remarked above.

In a depiction of the Story of the Bull and the Wolf[22] on a railing medallion, also at Bharhut (c. 100 B.C.E.; fig. 175), it is again not clear whether a jackal or an Indian wolf is depicted. Apart from the bull in the pond, the same canid is depicted twice: once seated on the bank of the pond, once caught in a snare and hanging upside down from the top of a pole. The only perceptible detail is the bushy tail, but that is not indicative as it could also be a fox or a jackal. The straight line formed by tail, back and neck and its small size are most suggestive of a jackal.

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[20] *Dabbapuppha Jataka*, Pali *Jataka* 400.

[21] *uda jataka* according to the inscription.

[22] *Tripitaka* no. 377; story line seems to be lost, see Cunningham, op. cit. (1962) and section 5.2.4.

11.3 Concluding Remarks

Most jackal sculptures are realistic in the sense that they render its typical long snout and the bushy tail. The difference between a jackal and an Indian wolf in stone sculpture is not always clear, and some of the narrative friezes might depict an Indian wolf instead of a jackal. Jackals in stone reliefs figure mainly in narratives, either as an example of greediness, cunningness or because of their laughter. Regarding religious sculptures, the jackal is restricted to female deities of a ferocious nature: Chamunda, the mother-goddess of the cremation grounds, and another unidentified mother-goddess. The jackal seems to have become associated with Chamunda in stone sculptures not before the late eighth century; earlier sculptures lack the jackal. This might be linked to an increased popularity of terrible goddesses in north-Indian stone sculpture, especially during the tenth century. The rare sculptures of the jackal-headed goddess Shivaduti belong to this period.

CHAPTER TWELVE

CANIS FAMILIARIS, THE DOMESTIC DOG

12.1 The Living Animal

12.1.1 *Zoology*

The domestic dog is basically like the other members of the dog family; actually, the name of the family is derived from that of the dog. This means that the domestic dog has a long pointed muzzle, large ears, a deep-chested muscular body, slender and sinewy limbs, short and blunt claws on their small and compact feet, soft pads below the feet. They walk on their toes.[1]

As is generally the case in a domestic species, many breeds occur, varying in size, colour and other characteristics, partly according to the purpose for which they were bred. The major difference with its closest wild relatives, the golden jackal and the Indian wolf are its drooping ears; this is never seen in wild canids. The tail may be curled over the back, and is often not bushy at all. The shape of the muzzle varies. Very common in India are the medium-sized, slender dogs with drooping ears, either with a pointed muzzle (fig. 176) or a broader, more blunt muzzle. Other differences with wild members of the dog family are found mainly in behaviour: domestic dogs are less aggressive, more docile and humble than both wolves and jackals, dogs wag their tail when pleased—wolves don't, jackals do—, dogs can make a smiling grimace—wolves don't, jackals do—, dogs hide a bone—wolves don't, jackals do—, dogs turn round before sitting down—jackals don't, wolves do—, dogs bark—wolves do, though rarely, jackals don't—. Wolves and jackals both interbreed regularly with domestic dogs in India, and both species appear to have left their stamp on some of the Indian domestic breeds.

[1] See further section 11.1.1.

Dogs occur everywhere where there are humans, and rely on them for food to varying degrees. Village dogs often have to find food in the forest and from scavenging at waste; they are hardly fed by humans. Trained domestic dogs generally do not hunt on their own, though they sometimes kill poultry and small animals.

12.1.2 *Role of Dogs in Society*

Domestic dogs typically occur in human settlements, but whether their ancestors were originally domesticated for some use or just came to roam the village border is still a matter of debate. Also the first onset of domestication or taming is unknown, and estimates range from well before 10,000 B.C.E. in Iraq[2] to a more modest 5,000 B.C.E. in eastern Europe,[3] but these claims are based on fragmented and incomplete skull parts or lower jaws. More recent studies, taking into account a wider range of comparative material and individual variation, shed doubts on the early claims. By the time of the Neolithic period, differences between remains of wolf and dog begin to be substantial. As far as South Asia is concerned, domestic dogs were certainly present at the time of the Indus Valley civilization. Bones and teeth were recovered from the ancient site Lothal in Gujarat (2,300–1,750 B.C.E.).[4] Dog bones were also excavated at Mohenjo-daro, along with terra-cotta images of dogs (fig. 177). These figurines resemble modern Indian domestic dog very closely, and have nothing to do with jackals or wolves. One such terra-cotta figurine[5] bears a prey in its mouth, which may indicate its use as a hunting dog.[6] The small figurine of a 'watchdog', earlier labelled a mastiff,[7] however represents a lion (fig. 409).

In the early stage of domestication and possibly earlier, dogs were likely kept for their meat as well. The eating of dogs today is limited to East Asia and to some tribal areas of India, but was certainly more wide-spread in prehistoric times. For example, the Vlasac site along

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[2] P. Turnbull and C. Reed, "The fauna from the terminal Pleistocene of Palegawra Cave, a Zarzian occupation site in north-eastern Iraq," *Fieldiana Anthropology* 63, 3 (1974), 81–146.

[3] Clutton-Brock, op. cit. (1981).

[4] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

[5] Harappa Museum, cat. no. 13.413.

[6] Ardeleanu-Jansen, op. cit. (1987), 182.

[7] J. Marshall, *Mohenjo-daro and the Indus civilization*, 3 vols (London: Arthur Probsthain, 1931), 348.

the Danube in Rumania yielded chopped dog bones, a proof that dogs were eaten.[8] From Sanskrit sources, the term *svapaca* or "dog-cooker" is known, indicating that dog-eating outcasts or tribals did exist during the first millennium.

In historical times, dogs often had a more noble job and were kept for hunting, guarding or as companion. To improve their functionality, they were selected and breeds for specific use came into vogue. Some tribals, such as the Bhils of Rajasthan and the Kalelias of the Thar desert, keep dogs as hunting companions. Hunting dogs typically are used for hunting by coursing, but also small animals like hares and rats are hunted by dogs as is done by, for example, the Sahariya tribals in Rajasthan. The Moghuls had hunting dogs for hunting large game as is evident from the *shikar* paintings,[9] and the same is valid for the Hindu royalty as evidenced by Revanta sculptures (see section 12.2.2 below).

Ferocious watchdogs were bred by the people from the Ghur mountains near Herat in western Afghanistan. Descendants of these Ghurids conquered large parts of northwest South Asia and made Lahore their capital in the eleventh century; somewhat later they founded the Delhi Sultanate in 1206. Most likely, their watchdogs came along with them and were thus introduced into the subcontinent.

The majority of domestic dogs in South Asia, however, are pariah dogs without any clear function, simply lazing around, searching their food in the garbage and the nearby forest or terrains. These pariah dogs are not unique to the subcontinent, but are similar to pariah dogs elsewhere. They are also remarkably similar to the Australian dingoes and the New Guinea singing dogs. Dingoes were the dogs of the earliest human colonizers of Australia that became feral in due time. They are therefore considered to represent a phenotype that approaches that of the earliest domestic dogs. The dog then is a self-domesticated opportunist, much like the cat, that was much later discovered as potential co-worker in hunting and protector of the house.

The typical habits and life style of the domestic dog may underlie their negative connotation in both Buddhism and Hinduism. Dogs are considered inedible in the brahmanical texts (*dharmashastras*) because they are five-nailed (*panchanakha*), have incisors in both upper and lower

[8] S. Bökönyi, "Vlasac: an early site of dog domestication," in *Archaeozoological Studies*, ed. A. Clason (Amsterdam: North Holland Publishing Company, 1975), 167–178.

[9] See, for example, Topsfield, op. cit. (1990).

jaw (*ubhayatodat*) and are carnivorous (*kravyad*). They are not particularly singled out, yet they seem to have been more abhorred than other prohibited animals in brahmanical texts. Dogs are associated with people of a low status such as the Chandalas and were eaten by some outcasts (*svapacas*, or dog-cookers).[10] It is not explicitly stated why dogs are considered impure and vile; it may be related to their shameless character, breeding freely and prolonged. It may also be related to the dog's profound laziness or to its physical uncleanness; dogs do not lick themselves clean as cats do, they lick each other everywhere and eat garbage.

Dogs figure more than once in Hindu myths in a positive role, despite their negative connotation. For example, as told in the epic *Mahabharata*,[11] a stray dog accompanies the Pandava heroes and their wife Draupadi on their way in the Himalayas to ascend towards heaven. At the end, after they all died except for Yudhishthira, the dog reveals that he actually is Yama, the god of death, and that the journey was a test, which they passed successfully. At other occasions, Yama is accompanied by one or two dogs. The dog is also god Shiva's companion in his manifestation of a wandering beggar, Shiva Bhikshatanamurti, a social outcast.[12] A dog is the personal vehicle of Shiva's terrible manifestation Bhairava. Bhairava has many forms, among others Kshetrapala, protector of the fields.[13] In Rajasthani folklore, there is a couple of folk-gods, known as Kala Bhairo and Ghora Bhairo, who are accompanied by their two dogs.[14] On modern votive prints, they figure along with the warrior-hero and folk-god Devanarayana (twentieth century; fig. 178) or with the ferocious goddess Kali. On a mural in Jodhpur fort, they honour the trident. Bhairo is a form of Shiva, linked to Bhairava with his dog of orthodox Hinduism.[15]

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[10] D. White, "You Are What You Eat: The Anomalous Status of Dog-Cookers in Hindu Mythology," in *The Eternal Food: Gastronomic Ideas and Experiences of Hindus and Buddhists*, ed. R. Khare (Albany, NY: State University of New York Press, 1992), 53–93.

[11] Book 18 (*Svargarohana parva*).

[12] In this form, Shiva (or Rudra) had to do penance for cutting off one of god Brahma's five heads. He had to observe the *kapalika vrata*, a vow of wearing garlands of skulls and carrying a skull in the hand while undertaking a pilgrimage from the Himalayas to Varanasi.

[13] R. Gupte and B. Mahajan, *Ajanta, Ellora and Aurangabad Caves* (Bombay: D.B. Taraporevala, 1962), 119.

[14] Kamphorst, op. cit. (2007).

[15] In Rajput tradition, Bhairo is not only the brother of the Charani living goddess (*sagati*) but also often accompanies the seven mother-goddesses. The Bhairos are often

In Buddhist stories, dogs often play a sympathetic role as faithful companions or loyal counsellors.[16] In the Newari Buddhist culture of Nepal, the dog-headed Shvanasya deity protects the western gate of Kathmandu. The dog may further be associated with the Buddhist fertility goddess Vasudhara.

12.2 Dogs in Stone

12.2.1 *The Dog as Divine Companion*

An early stone sculpture of the Hindu god Bhairava with his dog is found on the temple at Osian in Rajasthan (ninth century, sandstone).[17] The dog stands behind its master, with somewhat awkwardly bent hind legs. The long tail is not curled, and is held straight upwards and seems to end in a bushy tip. The dog looks towards his master, and has a very long, pointed muzzle and bulging eyes. The whole animal is quite stiff and not very naturalistic. The same bent hind legs and long tail is a feature of Bhairava's (?) dog on a frieze from one of the Chandella temples at Khajuraho, Madhya Pradesh (eleventh century, sandstone).[18] Here, the dog has sharply incised locks on the upper part of both front and hind limbs as seen in many lion sculptures. The very long tail ending in a bushy tip fits a lion as well, but the elongated muzzle is typical of both a dog and a jackal. In fact, these two dogs are very similar to jackals in stone sculpture.

A later, southern example of Bhairava with dog is seen on the Hoysaleshvara temple at Hoysala, Karnataka (c. 1121; fig. 179). The ears are pointed and hold backwards, which is typical of an aggressive attitude. The dog has a square, broad and blunt snout. The terrible nature of the scene is further enhanced by the emaciated goddess Chamunda, standing next to the dog, and a severed head held just above the dog by Bhairava. This dog resembles a hunting or guardian dog.

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depicted as traditional Bhil hunters, in particular archers, which brings to mind the divine hunter Revanta with his hunting dogs.

[16] For Hindu folk-tales about faithful dogs, see M. Emeneau, "The Faithful Dog as Security for a Debt: A Companion to the Brahman and the Mongoose Story-Type," JAOS 61, 1 (1941), 1–17.

[17] Figured in Snead, op. cit. (1989), pl. 128.

[18] Site Museum; ibidem, pl. 129.

A different iconography has been followed on a Bhairava stele from Thanjavur, Tamil Nadu (eleventh to twelfth century; fig. 180). The dog does not jump or twist, but stands neatly behind his master. The dog has a massive and short snout and shows its teeth. Its tail is curly, not bushy as a jackal's tail or ending in a plume as a lion's tail. The same posture and the same type of dog is seen on a slightly later Bhairava stele from the same region (twelfth to thirteenth century; fig. 181). A similar stele is part of the Patteshvaram Shiva temple some six kilometres to the southwest of Kumbakonam, Tamil Nadu (sixteenth century; fig. 182). Here, the artist made a mistake in body proportions of the dog: the back of the dog does not form a continuous line from shoulder to tail. It seems that too much stone was removed at the right side.

A jumping, slender dog with a long muzzle is seen more than once. A typical example is seen on a stele with an unidentified deity, possibly representing a three-headed form of Karttikeya,[19] from Central India (ninth to tenth century; fig. 183). The dog jumps towards its master, pleased to see him. Any detail lacks, which makes it impossible to distinguish between a domestic dog and a jackal. The depiction of the animal is further too unnatural and conventional. Jumping, slim canids seem to be an iconographic standard element, and remind of the jumping *mriga* of Shiva as Bhikshatanamurti, the jackal to the right of a Chamunda from Bihar,[20] and the angry dog to Bhairava's left from Hoysala (see above).

Another divinity that might be associated with the domestic dog is the Buddhist fertility goddess Vasudhara. On a sculpture from Greater Gandhara (first to fourth century; fig. 184), two dogs sit at either side of the goddess. They have the general morphology of a dog, but the details are eroded. Their long tails hang down along the sides of the pedestal.

12.2.2 *Hunting With Dogs*

Early evidence in stone for the use of hunting dogs is provided by a medallion on a railing pillar from Bharhut, Madhya Pradesh (c. 100

[19] The deity is further accompanied by two companions and has matted hair on all three heads. His appearance is somehow princely, which indeed suggests a prince (*kumara*), the typical representation of Kattikeya (Skanda).

[20] See sections 2.3.1 and 11.2.1 respectively.

B.C.E., sandstone).[21] Here, two dogs with round, erect ears, curly and bushy tails are attacking a wild boar, while a man encourages them. Details are not worked out very well, and the carving is somewhat naive. The paws of the dogs are more or less the same as those of the boar, and the same can be said for the protruding and large canine teeth. This gives the dog to the left a rather ridiculous appearance: it has its mouth full of peg-like teeth, which must be very uncomfortable. The dog to the right is more lucky, and bears a single set of canine teeth; this dog has, on the other hand, rodent-like round ears. The heads of the dogs are massive and strong, evidence for selective breeding. Another explanation is that these are fighting dogs, meant for amusement of their owners.

Depictions of Revanta, god of hunting, are not without at least one dog. An early example is provided by a stele from Central India, on which a long-muzzled dog accompanies Revanta (seventh century, sandstone).[22] The dog stands frozen, but this is valid also for the horse; the whole scene is more a still life portrait.

All later Revanta steles show hunting dogs with invariably an upward curled tail and a robust built. A typical example is a stele with Revanta on his horse from Bihar (eighth to twelfth century; fig. 185). On the pedestal, the same dog as seen below Revanta's horse is involved in the actual hunt. A much less clear hunting dog accompanies Revanta on a stele from the Hindu temple at Sonapur or Sonepur, Orissa (c. tenth century; fig. 186). The dog walks right below the saddle as in the Bihar stele; in front of the dog and below the uplifted left front leg of the horse walks a wild boar. The god drinks wine from a cup as in the previous stele, but has a smaller hunting company. A stele from North India (ninth to tenth century; fig. 313) also shows the dog actively participating in the hunt, biting the buttocks of the wild boar. The dog has again an upward curled tail and a short, broad head.

Hunting dogs assist the hero Shala in a sculpture originating from the Tripurakantaka temple at Balligame, Karnataka (c. 1070).[23] Shala, the celebrated founder of the Hoysala dynasty fights a lion (see Chapter 33) with shield and sword, with the help of three dogs and a tiny elephant. Two dogs are jumping high and are depicted in mid-air, one

[21] Calcutta: Indian Museum; figured in Snead, op. cit. (1989), pl. 87.

[22] Berlin: Museum für Völkerkunde, cat. no. IC 34614, at present lost; figured in Härtel, op. cit. (1960).

[23] Mumbai: Prince of Wales Museum, cat. no. 85.

aiming at the head, the other at the back of the lion. The third dog is positioned below the lion, and bites a forelimb. All three dogs have short, massive heads, long legs, curly thick tails, and have a slim belly like hunting dogs of today.

The earliest known hero stone erected in honour of a hunting (?) dog stands in Tamil Nadu (c. 615).[24] The stone is said to have been erected in memory of a dog that chased a cattle raider who had killed its master. The dog is large and has a large, plump head, a long, smooth tail which is held upright in the air, and small, erect ears. A similar dog occurs on a hero stone at Palamangalam near Erode, Tamil Nadu, for a hero who killed a wild boar (tenth century);[25] the major difference with the earlier stone is that this dog has a more elongated snout.[26]

12.2.3 *Statues of Guardian Dogs*

A pair of chained dogs held by two guardians flanks the steps leading towards the brick podium of the Nyata Poul or Siddhi Lakshmi temple at Bhaktapur, Nepal (seventeenth century; Plate 40). The dogs have massive and short muzzles, moderately drooping ears and short, thick tails. The guardians and their dogs stand on the lower steps; the higher steps are occupied by other guardians, all in pairs: horses, rhinos, mythical lions, and bears, in this order. It is not clear if this order represents a hierarchic order of some kind.

One of the nicest portrait sculptures of an animal is that of a dog from Madhya Pradesh (nineteenth century).[27] This is a fine example of a much appreciated domestic dog seen the cloth over its back to keep it warm. The dog has a calm, self-confident and almost royal look, giving the impression of being well-trained. The pendulous ears seem uncut, though they are rather narrow. In all likeliness, this dog was a personal guardian or companion in the palace.

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[24] Figured in Nakacami, op. cit. (2003), pl. 9.

[25] Ibidem, pl. 10.

[26] An inscription from Mulbagal Taluka (dated to 950) gives a brief account of two brave hunting dogs, Loga and Thalaga. They accompanied their master, son of Parasandi, in numerous hunting expeditions in which seventy-five boars were killed by Loga and twenty-five by Thalaga. A hero-stone in memory of brave dogs at Kattigenhalli, Karnataka, is said to represent Loga and Thalaga.

[27] Allahabad Museum; figured in Snead, op. cit. (1989), pl. 88.

12.2.4 *Dogs in Narrative Reliefs*

In the Buddhist Story of Bodhi the Great,[28] a dog is portrayed as a loyal and faithful companion in the following way,

> Once, a Brahmin named Bodhi, renounced the world and came to Varanasi to stay in the royal park, on invitation of the king. Someone who was treated bad by the five unjust councillors of the king, came to him for help. Bodhi intervened with success, and the king appointed him as new councillor. After twelve years, the five dismissed councillors succeeded in a conspiracy to kill Bodhi. A tawny dog, formerly fed by Bodhi, overheard the plot and warned him in advance. Bodhi hid himself. Later, the king killed his queen, on the advise of the unjust councillors. Upon this, Bodhi came back with a monkey skin. The councillors accused him of murdering his monkey servant. Bodhi argued with each of them with success, and the truth was revealed. The five councillors were expelled from the kingdom.

The story is illustrated on a coping stone of the stupa railing from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 187). The dog has a very square head and short, erect ears. It resembles a modern guardian dog with polled ears.

Two depictions in stone of a story about a pet dog, that of the White Dog Barking at the Buddha,[29] originate from Greater Gandhara. One is part of a frieze with Buddha legends from a now unknown site (first to fourth century; fig. 188). The dog is small and sits actively upright. It has a curly tail and a slender, elegant built. The dog looks to the right, where the Buddha and two disciples stand. The dog indeed resembles a pet dog more than a hunting or guardian dog. The other is a similar, but mirrored frieze, found at Jamalgarhi, Pakistan (third to fourth century; fig. 189). It is of an inferior quality, compared to the first frieze. The dog here is very small, and sits in an awkward way. Its tail is curly as in the other example, but its built is far from elegant with short legs, long, broad claws, and a short, broad head, vaguely resembling the short-legged Chinese pet dogs. The figures to the right wear Greek dresses, whereas all persons in the other example wear Indian dresses. Furthermore, the 'Indian' example uses the available space in a very efficient and compact way, whereas the 'Greek' example expands the scene without any gain, in fact, the story line is lost in details.

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[28] *Mahabodhi Jataka*, Pali *Jataka* 528; see also *Jatakamala* 23.

[29] As told in the *Culakammavibhanga Sutta* about the brahmin Todeyya who had improperly addressed the Buddha and was reborn as a pet dog to his own son Subha.

A friendly dog and a lion attend the Buddha on a panel, also from Greater Gandhara (third century; fig. 190). The depicted moment is when the Buddha is being attacked by Mara's army of demons; the lion flanks the right side of Buddha's throne, the dog the left side. Lying comfortably, the dog is completely at ease, and obviously has no doubts about the inevitable victory of his master. The same is valid for the lion, who has one paw crossed over the other. The collar and the bell around the dog's neck prove its domestic origin. The dog is sometimes mistaken for a lioness, but the lack of prominent whiskers exclude a lion and so does the shape of the nose.

12.3 Concluding Remarks

The majority of dog sculptures in a Hindu context illustrates the dog's role of companion of Shiva in his terrible manifestation as Bhairava from the ninth century onwards. The early examples are difficult to tell apart as dogs, they may equally well be jackals. The later examples represent without doubt domestic dogs. Next in frequency are the carvings of hunting dogs, mostly figuring in scenes with Revanta, the god of hunt from the seventh or eighth century onwards. Shala, the founder of the Hoysala dynasty, has a hunting dog for assistant when he kills the lion. Dogs must often have been considered worthy companions, regarding the hero stones that were erected in their honour. Dogs as temple guardians are extremely rare, and seem limited to Nepal.

In Buddhism, Vasudhara, goddess of fertility, seems linked to the dog, but sculptures of this goddess are extremely rare. In Buddhist narrative reliefs, dogs are generally depicted with such care and emotion that it is difficult to believe that they were considered unclean and of a low status; they typically play the role of faithful companions and pet dogs.

Taken both Hindu and Buddhist dog sculptures together, it seems that the appreciation of the domestic dog found its way to religious art and architecture through early Buddhism, tribal hunting habits with dogs and the worship of Shiva in his terrible forms despite the fact that orthodox brahmanical circles despised the dog.

CHAPTER THIRTEEN

CAPRA HIRCUS, THE DOMESTIC GOAT

13.1 The Living Animal

13.1.1 *Zoology*

The domestic goat (fig. 191) is related to the wild goats, and as such shares many features with them. These are the upright held tail, the beard below the chin in the males and often also in the females, the horns borne by both sexes, and the amazing climbing abilities. They not only climb steep rocks, but also thorny trees to eat the leaves that would otherwise be out of range.

Domestic goats show a large range of different colours, colour pattern, size, horn shape and horn size. They are on average smaller in size than wild goats, have a much less stocky build, shorter horns, and very often pendulous ears (fig. 192). Though the horns vary greatly among the various breeds, they always sweep upwards and then, if long enough, backwards in a scimitar form—ibex-like—, or sideward, away from the head, with a tendency to form a very loose open spiral—markhor-like—, or with a tendency to form knobs—bezoar-goat-like—. There is always a more or less well-developed keel on the anterior edge of the horn. Hornlessness occurs, but is not very common. The hairs can be very long (Plate 11) and the amount of free hanging hairs below the neck can be as substantial as in markhors.

Domestic goats are by definition found in association with humans (Plate 11). They can be kept at much more barren and cold environments than sheep. Goats are principally browsers, contrarily to sheep, which are grazers.

13.1.2 *Role of Goats in Society*

Goats were, along with sheep and possibly dogs, the first domesticated animals, and form until today an important part of the livestock of humans worldwide. Goats were and are primarily used for their meat and milk. Other useful products are bones, sinews, skins, horns and

dung; the bladder and stomach can be used as a bag. Their use as draught or riding animal is much more limited, especially since the beginning of the twentieth century.

Goats are extremely hardy and can thrive on minimal food quantity and quality and under extremes of temperature and aridity. Goats are mainly found in the arid and semi-arid zones, where vegetation is limited. The fact that goats are browsers and sheep grazers, explains why they are herded so often together. The sheep eat the grasses while the goats browse the thorny scrubs. The browsing of goats of freshly cleared land after the primary forest was burnt or cut down certainly helped the early farmers to improve the land, but at the same time lies at the basis of extensive desert-forming.

Goats were given as burial gift during the Harappa period (2,350–1,750 B.C.E.) in the Indus Valley as evidenced by the graves from Lothal in Gujarat[1] and a grave from the H-site at Harappa (fig. 8). The underlying reason is unknown, because the script of this ancient civilization is still insufficiently deciphered.

Together with sheep, goats are the favourite sacrificial animals in Hinduism, possibly based upon their prolific nature.[2] They are the most common sacrificial animals till the present day (fig. 15). In the brahmanical hierarchy of animals, the male goat comes after the ram.[3] The goat is somehow ritually related to the mythical *sharabha*: at the sacrifice of the goat, the sacrificial quality (*medha*) passes out and the goat becomes a *sharabha*.[4]

The role of goats in religion apart from the animal sacrifice is limited. Strange enough, no major Indian deity seems to ride a goat as the northern European Thor does;[5] the chariot of the Vedic god Pushan is, though, pulled by goats. The Rajasthani folk-goddess Meladi rides a black goat. A goat-headed deity is the Jain god Naigamesha, the patron of children.[6] The association of Naigamesha with the goat might be based upon the same proverbial fertility as is the case

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[1] Halim, op. cit. (1987), 213.

[2] See further section 32.1.3.

[3] *ShB* 6.2.1.18, cited from Smith and Doniger, op. cit. (1989), 189–224.

[4] *AitB* 2.8. This makes the *sharabha* unfit for sacrifice, because it has no sacrificial quality. See further section 43.2.2.

[5] R. Simek, *Dictionary of Northern Mythology* (Cambridge: D.S. Brewer, 1993).

[6] At Indra's command, Naigamesha transferred the embryo of Mahavira, the founder of Jainism, from the womb of Devananda, a woman of the priestly class, to that of Trishala, a woman of the ruling class.

with the Greek satyr Pan. Another goat-headed mythological figure is Daksha, father of Sati, Shiva's first wife. Once, Daksha did not invite Shiva, his son-in-law, to attend his sacrifice. Enraged, Shiva destroyed the sacrifice in the form of Virabhadra and beheaded Daksha. Upon Vishnu's intervention, Shiva placed a goat's head on Daksha's headless neck and restored life to him.

13.2 Goats in Stone

13.2.1 *Early Evidence*

One of earliest stone sculptures of a goat is part of a decorative frieze from northern India (second century B.C.E.).[7] It is a very naturalistic and at the same time appealing depiction of a male domestic goat, walking in procession behind a zebu. The goat walks proudly, and has an upright tail, upright ears, loosely spiralling horns, but no beard can be discerned. Maybe a young male stood as model, though some northern breeds have a hardly discernable beard indeed.

13.2.2 *Goats as Transport Means*

Several early and beautiful sculptures of goats as transport means are present on the gateways to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.). The three architraves of the eastern gateways illustrate scenes of all kinds of animals worshipping the tree and stupa. On the vertical posts six pairs of different mounts with their riders are shown on the junctions with the architraves. The inner side of the lowest level has two pairs of goats. The pair to the left (fig. 193, below) consists of a horned male with male rider and a hornless female with female rider, whereas the couple to the right consists of two horned males, one with a female rider and the other with a male rider. The central architrave of the northern gateway shows similar goat mounts (fig. 193, above), where the flattened horns in the pair to the right sweep backwards with a slight twist; both goats are horned males. In the pair to the left, the horns are more straight (Plate 12). A small difference between the goats of the eastern and the northern gateways is found

[7] New York: Metropolitan Museum of Art, cat. no. L 2000.8.

in the horns: those of the eastern gateway are grooved, whereas those of the northern gateway are smooth.

An early carving of a draught goat was found at Butkara in Greater Gandhara, Pakistan (first to fourth century, or earlier). Here, a chariot is drawn by two male domestic goats, seen the upright tail, the shape of the horns and the size of the animals. They were incorrectly interpreted as two nilgai, based on an inscription on the reverse;[8] nilgai are, amongst others, characterised by very short horns and a large body size. It is not clear how many person actually stand on the chariot, and how many stand behind it. The scene resembles a goat-cart race like the ones that are held until today.

13.2.3 *Goats in Narrative Reliefs*

A speaking goat figures in a yet unidentified story which decorates a railing pillar of the Mahabodhi temple at Bodhgaya, Bihar (possibly first century B.C.E.; fig. 194).[9] The upright tail and the short beard below the chin are unmistakably those of a goat. The goat is sculpted with great care. It is a strong, massive goat, standing proudly on a column.

Horns are very useful in fighting, and it is thus not strange to see one of Mara's soldiers having the head of a male goat on a panel from Greater Gandhara (first to fourth century; fig. 195). The goat-headed soldier stands next to a ram-headed soldier, equally well-equipped. The army is supposed to prevent the Buddha from reaching enlightenment. The beard below the chin and the pendulous ears are realistic, but the horns are much less so. They are short, and look more like a wedged structure emerging from his occipitals.

13.2.4 *Goat-headed Deities*

An early depiction in stone of the goat-headed Jain god Naigamesha comes from Kankali Tila near Mathura, Uttar Pradesh (first to third century; fig. 196). He has short, backwards swept horns, a large beard below the chin and drooping ears. A much later Naigamesha sculpture from the same region is part of a row of mother-goddesses, flanked

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[8] D. Faccenna and M. Taddei, *Sculptures from the Sacred Area of Butkara I (Swat, Pakistan)*, 3 vols (Rome: IsMEO, 1962–1964), vol. II, 3, 132.

[9] The dating of the railing is unsure, because the whole temple complex has been renovated several times during its long-term use; see Chakravarty, op. cit. (1997), 58.

by, amongst others, Shiva and Ganesha, found at the Katra mound at Mathura (tenth to thirteenth century; fig. 197). Naigamesha is the fourth standing figure from the right. His horns are short and upright, and his ears are large and pendulous, much like the centuries older sculpture. Three children seem to surround him here, one is being carried in his left arm, one sits at his left leg on the ground, and one stands next to his right leg. Naigamesha's connection with children is obvious here.

Stone sculptures of the goat-headed Daksha, father of Sati, are rare, if they exist at all because I could trace none. On a brass plaque from Karnataka (eighteenth century), the goat-headed Daksha sits next to Shiva in his manifestation as Virabhadra.[10] This indicates that stone sculptures of Virabhadra could possibly depict Daksha as well.

13.3 Concluding Remarks

One of the earliest goat sculptures dates back to the second century B.C.E. in the form of a decorative relief. The goat has upright ears on this relief. The somewhat later reliefs at Sanchi in Madhya Pradesh figure goats as riding animals; now the ears are pendulous; the horns vary in shape, and a female goat is hornless. Goats figure further in a few narrative reliefs from Greater Gandhara, for example in a scene with a cart race and in Mara's attack. The goat-headed Jain god Naigamesha is hardly depicted, seemingly restricted to northern India. The goat-headed Daksha, father of the Hindu goddess Sati seems not to be depicted at all in stone.

It appears thus that despite the extensive use of goats all over the subcontinent, already since thousands of years ago, their depiction in stone sculptures is limited. The few goat carvings that exist, are however very realistic and these goats are portrayed in much detail. The typically pendulous ears of some Asian goat breeds are already reproduced on reliefs from the first centuries.

[10] Pasadena: Norton Simon Museum, cat. no. M.1974.16.6.S; figured in P. Pal, *Asian Art at the Norton Simon Museum: art from the Indian subcontinent* (New Haven and London: Yale University Press, 2003), pl. 225.

CHAPTER FOURTEEN

CAPRA SIBRICA, THE ASIATIC IBEX

14.1 The Living Animal

14.1.1 *Zoology*

The ibex (fig. 198) is a wild goat with a rather massive built and impressive horns. Bucks stand about one metre at the shoulder, females are smaller and less massive. The most impressive feature of the ibex are the scimitar-like curved horns with lengths of 1–1.15 m around the curve; those of the females are smaller. The horns are regularly ridged, lacking the prominent knobs as present in the bezoar goat (see next section) and feral domestic goats. In older bucks the curvature of the horns is somewhat longer: the tips are directed downwards and not backwards. There is no anterior keel and the anterior part of the horn is flat; the cross-section through the base is almost square.

Typical of all goat species is that both sexes bear horns, though those of the females are usually smaller and less massive. Goats, wild as well as domestic, have a short, upright held tail and the males have a beard below the chin. Wild goats, including the markhor, are expert climbers, sure-footed, leaping from ledge to ledge and balancing on nothing more than a pinnacle of rock. They are able to sustain on the most coarse and thorny plants. All wild goats live in large herds up to forty or fifty individuals; occasional sometimes even much larger assemblages are seen of ibexes.

The Asiatic or Siberian ibex is found above the tree line on the steep slopes, inaccessible to most other animals, of the western Himalayas on both sides of the main Himalayan range, and of the mountain ranges of Kashmir and Baltistan. They are not found east of the Sutlej river, nor south of the Himalayas.

14.1.2 *Related Species*

Closely related to the ibex is the bezoar goat, or Sindh ibex (*Capra aegagrus*; fig. 199). It is a wild goat, generally accepted as the ancestor

of the domestic goat (*Capra hircus*). The bezoar goat is slightly smaller than the ibex and more gracile, especially the females. Older bucks have a dark longitudinal stripe along their back and a vertical stripe down each shoulder. Typical of the bezoar goat are the long, scimitar-like curved horns with a length of one metre round the curve. These horns are prominently knobbed on their front edge in the males; in the females the horns are regularly ribbed as in the ibex. The horns are compressed laterally and thus form a sharp anterior keel. Males have a beard below their chin as in all goats. On the Indian subcontinent, the bezoar goat is restricted to the hills and mountains of Baluchistan and the West Himalayas, and in the southern Kirthar Mountains of Pakistan, where it lives mainly above the tree line.

Another wild goat of the subcontinent is the markhor (*Capra falconeri*; fig. 202). It has the same size as a bezoar goat with a shoulder height of one metre or smaller. Typical of the markhor are its long hairs in winter time, a shaggy mane of long hairs below the throat falling from neck and shoulders to the fore knees and a very extensive black beard in males. The horns of the markhor are characteristically spiralled. The horns may twist into a tight or open spiral, with record lengths up to 1.65 m; the type of spiral depends upon the region of origin. There is no anterior keel on the horn of the markhor, contrary to the horns of the domestic and bezoar goats. Similarity in the shape of the horns is considered a parallel development. Markhors are found in the mountainous regions from eastern Turkmenistan till northern and central Pakistan and Kashmir. They live at medium to high elevations around and above the tree line, but not as high as the ibex; this is because markhors have much less luxurious underwool.

More distantly related to the ibex is the Nilgiri tahr or Nilgiri ibex (*Hemitragus hylocrius*). It is a goat-like bovid with a shoulder height of about 1.1 m and a heavy body, long and robust limbs and an elegant head with narrow, erect ears. The horns are very short, about 0.35 m, close-set, curving backwards and deeply wrinkled. The Nilgiri tahr has a short coat and no mane or beard, which distinguishes it from the ibex. The tahr bucks have a distinct whitish saddle patch on the loins. As the wild goats of the genus *Capra*, it is a social animal and lives in herds. When resting, one or more individuals (sentinels) keep alert and stay on watch. Once, the Nilgiri tahr was common on the precipitous high terrains from the Nilgiris to the Anaimalais and from there southwards along the Western Ghats. At present, their numbers are heavily reduced due to hunting.

Closely related to the Nilgiri tahr is the Himalayan tahr, *Hemitragus jemlahicus* (fig. 200). It lives on the alpine meadows on steep slopes throughout the Himalayas from the Pir Panjal to Sikkim and Bhutan, but never above the tree-line (3.1–3.6 km). It can live in even more inaccessible grounds than the ibex and the markhor, which makes it extremely difficult to spot, even the more so as they hide themselves during the day in forests and bushes. The main difference with the Nilgiri tahr is the long, coarse, flowing hair to protect it against cold and snow; on the neck and shoulders it forms a mane which falls down to the knees.

14.1.3 *Role of Wild Goats in Society*

Ibexes are hunted for their remarkably soft and full woolly under-fur to make shawls, stockings, and gloves. Their skin is used in Kashmir and the Pamirs for the traditional sock-like boots. The bezoar goat is famous for a concretion that is formed in their stomach, known as bezoar stone. This stone is believed to be a remedy against many diseases and an antidote against poison.

Horns of wild goats may have an auspicious value. On the facade of the wooden Hadimba temple in Nepal, several horns of ibexes, blue sheep and argali and antlers of sambars are seen, apparently to ward off the evil eye (fig. 203). An ibex head was, and maybe still is, worshipped as an incarnation of the Buddha by the villagers of Leh in Jammu and Kashmir (fig. 201). In this specimen, the right horn is pathologically shaped, probably induced by severe damage after fighting. The horn assumed thus the shape of a wheel, resembling a *dharmachakra*, the Buddhist Wheel of the Law.

Because of the typical shape of its horns, the markhor is sometimes believed to be the basis for the famous unicorn.[1] Indeed, the markhor is goat-like, has a beard and manes, a spiralled and in some subspecies a strikingly straight, tightly spiralled horn, and lives in hostile and barren mountains. Seen in profile, the horns may look like a single horn.[2]

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[1] E. Thenius and N. Vávra, *Fossilien im Volksglauben und im Alltag* (Frankfurt am Main: Waldemar Kramer, 1996). Furthermore, markhor means "snake-killer" in the language of southern Kashmir, and it might be that the spiralled horns are linked to snakes in a myth, though for this I could find no evidence.

[2] See further section 37.1.3 on the Indian rhinoceros.

14.2 Wild Goats in Stone

A rock-carving at Dongga, between Chanigund and Shimsha Kharbu in Kashmir, figures a vast herd of wild goats (fig. 204).[3] Here, a hunting scene is part of a rock boulder figuring a few hunters and a large herd of wild goats. The period of the carving is difficult to estimate, but the presence of carvings of stupas elsewhere on the same boulder indicates that the present-day population is not responsible for the carvings as they are Muslim.[4] In any case, it is clear that wild goats were not as rare as they are today. The horns of the larger animals are very large and clearly knobbed. The horns sweep high upwards, indicating the bezoar goat, in contrast to the scimitar-shaped horns of the ibex. Nowadays, bezoar goats still live in the region of Kashmir.

One of the very rare evidences of an ibex carving is provided by a steatite seal from Mohenjo-daro in the Indus Valley, Pakistan (2,300–1,750 B.C.E.; fig. 12). The seal represents a horned figure, interpreted as Pashupati or lord of beasts, who is surrounded by five animals,[5] among which one seems to be an ibex, considering the lack of prominent knobs on its scimitar-shaped horns. The neck shows heavy wrinkles; this is often seen due to the structure of fine underwool beneath a rough fur. Mohenjo-daro lies along the lower course of the Indus river. Along the upper course of this river, ibexes occur even today, see for example the worshipped head at Leh in Jammu and Kashmir (see previous section). Images of ibexes or trophies of hunted ibexes could have travelled along the river downstream to Mohenjo-daro in the plains. The scene is sometimes compared to a somewhat similar setting of the teaching Buddha on his seat below which a pair of antelopes or deer (*mriga*) sit, first seen on reliefs from Greater Gandhara and northern India of the first four centuries and known as the First Sermon.[6] Indeed, the main figure on this seal is a kind of meditating yogi, and ibexes fall under the broad category of *mriga* (game) as well. However, without a consensus about the Indus script it is impossible to prove such a link between the

[3] A. Francke, *Antiquities of Indian Tibet. Part I: Personal narrative*, Archaeological Survey of India, New Imperial Series 38 (1914), 105 and pl. 44a.

[4] Ibidem.

[5] See for the other animals sections 8.2.1 (water buffalo), 17.2.1 (elephant), 35.2.1 (tiger), and 37.2.1 (rhinoceros).

[6] See sections 1.2.1 (antelopes and the wheel) and 2.2.3 (spotted deer and the wheel).

two depictions, especially when taking the time gap of more than two millennia into account.

On another steatite seal from Mohenjo-daro (c. 2,100–1,750 B.C.E.; fig. 205), a markhor can be identified.[7] The seal depicts a scene with a figure in a tree, wearing either a trident crown or bovid horns, and two other figures surrounding the tree, seemingly engaged in an act of worship or admiration. Below the animal and the tree, a row of seven figures is depicted, wearing elaborate headdresses. The goat to the left is unmistakably a markhor with its unique spiralled horns, the carefully incised long hairs below the throat and the upright tail. In the literature,[8] this animal is sometimes considered a goat-like figure with a human face but I fail to recognize anthropomorphic traces in the face; the beard in any case fits a wild goat.

Another seal with an unidentified scene from Mohenjo-daro (c. 2,100–1,750 B.C.E.; fig. 206) depicts a figure sitting on some sort of seat with a goat in front. Above the scene is a row of figures, not unlike those of the markhor seal. The animal is clearly a goat, identified as such by its upright tail and backward sweeping horns. It is not clear whether this is a domestic goat (*Capra hircus*) or a bezoar goat (*Capra aegagrus*), but since the majority of depicted animals are wild animals, a wild goat seems more likely.

A marvellous carving of a wild goat is provided by a wine-cup of emperor Shah Jahan, dated to 1657 (jade, inscribed).[9] The knobbed horns are typical of the bezoar-goat, a goat that is famous for the antidote against poison found in its stomach. High class people of the past were always afraid of being poisoned, and all kinds of amulets were used to prevent this; the most famous of them are the fossil shark teeth that were dipped in the wine. It can therefore be imagined that a bezoar goat is a suitable decorative item for imperial wine-cups.

An example of a depiction of a tahr in stone might be presented by a crossbar of the outer railing of the stupa of Amaravati, Andhra Pradesh (fig. 207). The frieze depicts a series of running wild animals; the central animal closely resembles a Nilgiri tahr with its slender, pointed and backward curved horns, and its rather massive goat-like trunk.

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[7] Similar seals are DK 9114 and DK 8853, also from Mohenjo-daro.

[8] E.g. E. Mackay, "Mohenjo-Daro," in *Annual Report of the Archaeological Survey of India for the years 1928–1929*, ed. H. Hargreaves (1933), 67–75; Atre, op. cit. (1990), 43–51.

[9] London: Victoria & Albert Museum, cat. no. IS 12–1962.

14.3 Concluding Remarks

Stone sculptures of the wild goats—ibexes, bezoar goats and markhors—and tahrs—Nilgiri ibex, Himalayan tahr—are extremely rare. The early examples come from the western Himalayas and from the downstream plain of the Indus river in the same region. A much younger stone sculpture, dating to the seventeenth century, is in the form of a bezoar on a wine-cup; its function is clearly to prevent deliberate poisoning of its imperial owner. A possible tahr sculpture originates from Amaravati, Andhra Pradesh.

The lack of stone sculptures of wild goats and tahrs is most probably due to their limited distribution; they are found only in the western Himalayas—wild goats, Himalayan tahrs—and the high mountain ranges of South India—Nilgiri ibex—and even there they are restricted to the higher altitudes. Furthermore, wild goats and tahrs play no role in mythology or religion, apart from their auspicious horns. A religious role may have been attributed to both markhor and ibex during the Harappa period in the Indus Valley, Pakistan, as far as can be concluded from unidentified scenes on steatite seals.

CHAPTER FIFTEEN

CERVUS UNICOLOR, SAMBAR DEER

15.1 The Living Animal

15.1.1 *Zoology*

Sambars are related to red deer (*Cervus elaphus*) and are thus large, gregarious deer with deciduous antlers only in the males.[1] Like red deer, they have no coat pattern except for a spotted pattern in fawns and some white flecks in old hinds. Sambars have a somewhat ungainly build and are very large with a shoulder height of 1.5 m (fig. 208). Yet, they have a very simple antler unlike the complicated antler of red deer.[2] Sambars have a typical shaggy appearance. The males have distinctive long hair, especially below the throat. Sambar further have large, spreading ears.

Herds of sambar consist of only four to twelve individuals, consisting of hinds and their young (fig. 209). During the breeding season an adult stag joins the herd, but the leadership remains with the hind leader. Deer may utter an alarm call, sometimes preceded by stamping with the feet. Herds always follow the leading hind in case of danger, whereas the stag may keep with them or follows his own course.

Sambars are very good swimmers and rivers form no barrier to find new grounds. They swim in a typical way, with their body completely submerged and only their head and antler exposed. The behaviour of sambars is remarkable under conditions of frost and severe cold. Often,

[1] Sambar forms a subgenus on its own (*Rusa*) which is sometimes raised to generic status.

[2] Deer antlers consist of solid bone, growing on extensions of the skull (pedicles); only in the growing antler this is covered by skin and soft hair (velvet). Just above the contact area between the solid antler and the pedicle, a ring of bony matter (burr) is formed. In all deer, the antler starts as a simple spike in the young ones. With the years, the antler becomes gradually more complicated with the addition of spikes, following a species-dependent pattern. Sambar have the simplest antlers of all large deer, with only a brow tine and a forked main beam as in spotted deer and hog deer (see sections 2.1.1 and 2.1.2, respectively).

herds of sambar are then found lying in water to keep themselves warm.[3] The water is warmer than the surrounding air, proved by the heavy mist above the streams, and sambar deer obviously discovered this. When the weather is hot sambars also prefer to stay close to or in the water and they roll themselves frequently in the mud, not only to cool down but also to get rid of irritating flies. Insect-eating birds are their close companions in and near the water where the amount of insects is high. Smaller birds like dronggo's sit on their backs, while herons follow them wading through the water, anxiously waiting for frogs and insects that are startled by the deer.

Sambar is the commonest large deer on the subcontinent. It is found on forested hill-sides throughout the entire subcontinent, including Sri Lanka. They are not shy, and are often found near cultivated terrain. Remains of sambar have been recovered from the archaeological site of Lothal at the Gulf of Cambay in Gujarat (c. 2,300–1,750 B.C.E.).[4]

15.1.2 *Related Species*

There are three more *Cervus*-species on the subcontinent: the Kashmiri barasingha, or hangul (*Cervus elaphus*), the thamin, or brow-antlered deer or sangai (*Cervus eldi*), and the barasingha, or swamp deer (*Cervus duwauceli*). They differ from sambars and from each other by, amongst other characteristics, their antlers, their size, their gregariousness[5] but also by difference in ecological niche: the barasingha lives in marsh and grass plains of northern India,[6] the thamin in river valleys and

[3] Dunbar Brander, cited by Prater, op. cit. (1971), 279.

[4] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

[5] Herds of Kashmiri barasingha and thamin are small, consisting of four to twelve individuals, but herds of barasingha are large to very large, reaching even up to thousands individuals in the past.

[6] Barasinghas have a rather woolly coat, and stags possess a mane. They have large, spreading ears. Barasinghas are restricted to the northern half of the subcontinent (Pakistan, Nepal, Assam, Madhya Pradesh, Uttar Pradesh, West Bengal and Bangladesh), where it lives in marshlands and wet regions like the terai in Nepal and the Sundarbans, but it also inhabits grassy pastures in the proximity of forests and of water. In the terai they are completely restricted to marshland and they are seldom seen out of the water. Once, they were much more common. Remains of this deer have been recovered from the post-Harappa site of Rangpur in Gujarat along the Gulf of Cambay; see Nath, op. cit. (1963) and Chitalwala and Thomas, op. cit. (1977–8). The barasingha with a withers' height of 1.35 m is slightly larger than the two other species with withers' height of 1.2–1.25 m.

open scrub jungle of eastern India,[7] and the Kashmiri barasingha in temperate forests and alpine slopes of the Himalayas.[8]

The antlers of the two barasingha deer have a simple brow tine, followed by two other tines (bez and trez) and ending in a crown, composed of five up to twelve tines—*barasingha* is the Hindi word for twelve—or even sixteen tines. The antler of the thamin, or brow-antlered deer, has a large and prominent brow tine and a crown with three to ten tines. Seen from a distance, the antler has the shape of a huge C or lyre.

15.1.3 *Role of Large Deer in Society*

The four species of large deer—sambars, barasingha, Kashmiri barasingha and thamins—were always hunted for their meat, hide and antlers. The latter provide perfect raw material for tools and other artefacts.

Antlers are auspicious and able to ward off the evil eye, equal to horns of wild sheep and goats. The facade of the Hadimba temple in Nepal is richly adorned with all sorts of horns and antler, among which a large antler of a sambar can be discerned (fig. 210).

A deer or its skin seems to be associated with regeneration. Several ancient tales tell about a sage or mythical person who transforms into a stag to have intercourse with its partner, who in turn transforms into a doe. Examples are the creator god Prajapati, who tried to mount his own daughter in the form of a stag,[9] and the sage Kindama, who is shot by a king while united with its wife, both temporarily transformed into deer as told in the *Mahabharata*. A tradition among the Madra kings prescribes that the king and his queen each wear a hide of a twelve-horned deer (*barasingha*) while having intercourse, presumably to guarantee a fertile new year.[10] The link with regeneration might be based upon the annual shedding and re-growth of the antler. Antler is the fastest growing tissue in the animal kingdom, which makes it an ideal symbol for regeneration and fertility. It seems probable that this symbolic value of the antler made it useful in combination with a symbol for (male) power: the lion. This unusual combination is found on the western gateway to

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[7] The thamin nowadays ranges from Manipur till the eastern border where it inhabits open scrub jungles, river valleys and floating swamps (*phumdi*).

[8] The Kashmiri barasingha is currently found only in Jammu and Kashmir where it lives in the temperate forests.

[9] *AB* 3.33.

[10] *Nagaripracarinipatrika* 62, 275, cited from Thite, op. cit. (1973), 206.

the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 211). The antlers of these winged lions are large and simple with a single tine and a forked end, which is typical of sambar, spotted deer and hog deer.

In Hinduism, a white deer or antelope is the vehicle of Vayu, god of the wind and protector of the Northwest. Nara, the son of Dharma, is associated with deer, likely because deer are considered symbols of *dharma* or righteousness. In Buddhism, deer, or rather *mriga* (game) symbolize the Buddha's first sermon, because after his enlightenment, he is said to have taught his former five disciples in the deer park Ishipatana just outside the town of Varanasi.[11]

Unicorns can be the offspring of a man and doe, maybe based upon the simple logic that the genetic information of "two-horns" mixed with "no-horn" yields "one-horn" (antler = horn). In some stories, such a unicorn has special powers and may even constitute a threat for the gods.[12]

15.2 Sambars in Stone

15.2.1 *Sambars in Narrative Reliefs*

Very picturesque depictions of large deer are seen on the lower architrave of the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (fig. 212). The complete architrave illustrates the Story of Vessantara[13] about a generous prince who gave away all his possessions, including wife and children. In one episode, a couple of deer is seen, sitting in peace amidst a village settlement. Considering the size, the simple antler, and their proximity to humans, a sambar is the most likely candidate. Details of the plants and the village are well-sculptured, so in case a spotted deer was intended, its spots would have been depicted as well. In another episode of the same story (fig. 212), the stag scratches its eye with one of its hind feet, a recurrent motif in Indian sculpture.

The scratching stag motif is, for example, also seen at Mammalapuram, Tamil Nadu, on the monolithic rock carving of Arjuna's Penance

[11] See further sections 1.1.3, 2.1.3, 7.1.2 and 22.1.3.
[12] For example, the *Alambusa Jataka* (Pali *Jataka* 523) or *Isisinge Jataka.*
[13] *Vishvantara Jataka, Vessantara Jataka*, Pali *Jataka* 547.

(seventh to mid-eighth century; fig. 213). Without doubt, this is one of the most touching depictions of deer in India. It is part of a huge scenery, crowded with ascetics and animals, meditating side to side or just sitting or standing. The antler of the stag is simple, typical of sambar and spotted deer, but no spots have been rendered. Another sambar stag is seen elsewhere at the same panel (fig. 213). This stag has a simple antler as well and its relative size suggests a sambar; spots are missing also here.

The role of fear in the life of a large deer is highlighted in the Story of the Worst Evil.[14] The story is told to four monks who could not agree on what was the worst evil in the world. A railing pillar recovered from the Yamuna River at Surajghat near Saptarshi Tila at Mathura, Uttar Pradesh (first century B.C.E.; fig. 214), illustrates the story. Most likely a sambar doe is intended, because barasinghas have rounder ears and prefer a less-forested environment. The story is told as follows,

> Once in a forest, a dove, a crow, a snake and a deer had a discussion about the worst evil. The dove considered love as the most dangerous of all evils, the crow anger, the snake hatred and the deer perpetual fear. Undecided they went to an ascetic, who declared: "None of you is right; the worst evil is to have a body, since the body is the source of all pain and misery".

The Story of the Unicorn[15] about a doe, an ascetic and their powerful unicorn son is depicted on another railing medallion from Bharhut (c. 100 B.C.E.).[16] The doe has an inelegant and large trunk, high shoulders, a large head, a flattened, broad muzzle, no spots, no horns and therefore resembles a sambar doe.

In an illustration of the Story of the Deer[17] on a medallion on a railing pillar from the south-eastern quadrant from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 215) a large deer is depicted with a forked antler. Bachhofer describes the animal as a golden gazelle but the antler definitely indicates a deer.[18] Sambar deer are very good swimmers and are reported to lie in the water for comfort (see above) though barasingha or swamp deer are also excellent swimmers. The brow tine is set at a

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[14] This story is not found in the Pali *Jataka* collections but is part of a Chinese Buddhist text on Buddha's life.

[15] *Alambusa Jataka* (Pali *Jataka* 523), *Isisinge Jataka* or *Rishishringa Jataka.*

[16] Calcutta: Indian Museum; figured in Cunningham, op. cit. (1962, reprint of 1879), pl. XXVI no. 7.

[17] *Ruru Jataka*, Pali *Jataka* 482; the inscription reads *miga jataka.*

[18] Bachhofer, op. cit. (1972), pl. 30.

right angle with the beam, which favours a barasingha but the simple antler on its turn favours a sambar. Both deer are not rare in Madhya Pradesh. Spotted deer are common as well, but their depiction on the same railing differs essentially from this one, so both deer species were well known to the sculptors of this monument. The text (see below) mentions a golden coat with spots, which is typical of a spotted deer, however, the sambar also bears some vague spots in summer. It seems that in this case text and sculpture deviate in the interpretation of the animal. The story is told as follows,

> Ruru was a wise deer with a spotted golden coat. Ruru understood the language of humans, but avoided contact with them because of their bad mentality. One day Ruru heard a cry for help from a man who was being carried away by the stream. Out of compassion, Ruru jumped into the water and saved the man. Ruru asked him to tell nobody by whom he was saved. Later, the queen saw a golden deer in her dream, preaching the dharma in the human language. She became anxious to possess this deer and the king set a price on it. The rescued man guided the king and his hunters to the forest of Ruru. When the king was about to shoot, Ruru asked him how he had found him. Upon mentioning the man as guide, the deer replied that it is better to lift a piece of wood out of the water than to save an ungrateful man. The king asked Ruru to explain this. The king got angry with the man, but Ruru asked to forgive him. The deer was invited to the palace, where it stood on a throne and taught the dharma.

15.2.2 *Deer as Divine Attribute*

A very rare stone sculpture of Nara, son of Dharma with deer is provided by the right half of a Naranarayana panel from the east wall of the Vishnu temple at Deogarh, Madhya Pradesh (sixth century; fig. 29). The panel is unfinished, but it is clear that either young or female deer were intended. These may either be a young large deer, or a spotted deer, but any indication of spots is missing. In favour of a sambar or barasingha is the fact that other deer sculptures from Madhya Pradesh (see below) mainly depict large deer. Sculptures of spotted deer from Madhya Pradesh (e.g. Bharhut, c. 100 B.C.E.)[19] represent the tiny spots carefully, thus unlike the portrayal here. A very similar panel, also from Deogarh, has water buffaloes beneath Nara instead of deer-like animals (fig. 124).

[19] Figured in Snead, op. cit. (1989), pl. 130.

Sculptures of Vayu with his deer are equally rare. An example originates from the region of Kotah, Rajasthan (c. 875–900; fig. 216). The front part of the deer is unfortunately broken off, so any detailed information is missing. The hindquarters indicate a deer, but it is not rendered in much detail, for example, the hooves are not split. The animal is, furthermore, mostly covered by an attendant figure.

15.2.3 *Erotic Scenes With a Deer*

In one temple relief, an unmistakably act of bestiality involving a large deer has been portrayed (fig. 217). The relief is found on the smaller of the twin Sas-Bahu temples near the Eklingji temple at Nagda, just outside Udaipur, Rajasthan (tenth century; fig. 218). The temple is dedicated either to Sas or to Bahu, both folk-goddesses (*sagatis*) of the Charan tradition. Here, a stag mounts a recumbent woman, while attendants behind the scene seem to encourage the act. The stag has very small antlers, typical of a yearling stag, which makes it impossible to determine which of the large deer was intended. Regarding the provenance of the sculpture, a sambar is most likely, though a barasingha is possible as well. The meaning of the scene is unclear, but there might be a relation with deer as fertility symbols (see section 15.1.3 above).

15.3 Concluding Remarks

The majority of sculptures of sambars and barasinghas forms part of early Buddhist narrative reliefs as evidenced by the stupa railings from Sanchi and Bharhut in Madhya Pradesh and the region of Mathura, Uttar Pradesh. In one instance, a disagreement between textual source and depicted animal exists. This is the case with the *Ruru Jataka*, which describes a spotted deer but depicts a sambar at Bharhut. Large deer occasionally figure in Hindu narrative reliefs, a marvellous example of which is provided by a gigantic boulder at Mammalapuram, Tamil Nadu. In at least one case a scene of bestiality involving a deer and a human is the subject of the carving. The motif of the eye-scratching stag is further not restricted to a certain time, period or religion. It is, for example, found at Sanchi in the north as well as at Mammalapuram in the south.

CHAPTER SIXTEEN

CUON ALPINUS, THE RED DOG

16.1 The Living Animal

The red dog or dhole (fig. 219) belongs to the same family as wolves, jackals, dogs and foxes.[1] They share a similar body plan, with a deep-chested muscular body, bushy tail, slender limbs and a well-shaped head with erect ears.[2]

The red dog has almost the size of a wolf with a shoulder height of 0.43–0.55 m. It is much like a domestic dog in general appearance, with the long, lank body of the wolf, but relatively shorter in leg and much shorter in muzzle. The snout is massive, and distinguishes it from other wild canids. The ears have a rounded tip and the tail is bushy. Red dogs have no clear coat pattern, but a distinctive colouring, varying from pale or tawny in northern latitudes, to brownish red in peninsular India and red in Nepal and further eastwards.

Like the other large wild canids, dholes are pack hunters and in this way increase the size of their prey. They even attack gaurs, buffaloes, and rhinoceroses; even leopards, bears and tigers are sometimes killed by red dogs. They typically jump at the hindquarters and flanks of their victim and try to disembowel it, snapping at random, or try to hamstring it. They may also undertake a frontal attack, seizing whatever part they can get hold of. One may hold the victim by the nose, while others tear at the belly and anus. The victim may be emasculated by chance, but in India it is believed that this is a deliberate effort of the red dog. It is also believed that they sprinkle bushes with their urine, and then drive their victim through these impregnated bushes in order to blind it with the acrid fluid.

Red dogs are the most determined enemies of the tiger, hunting him whenever they meet him. In the past, when both red dogs and tigers were still abundant, a tiger could sometimes be seen kept prisoner up

[1] Alternative common names are Asiatic and Indian wild dog.
[2] See for further details, section 11.1.1.

a large tree with a pack of dholes baying around it, when on no other occasion would a tiger attempt to save itself by climbing trees.[3]

Red dogs were found in the forests and jungles all over the Indian subcontinent, except for Sri Lanka. Only in Ladakh and Tibet they inhabit open country. Currently, however, the species is endangered with only a mere 2,500 individuals left in the wild.[4]

16.2 Red Dogs in Stone

The only instance of a carving of a red dog I could find is part of a narrative relief on a coping stone of the stupa railing from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 220).[5] In this frieze, three canids, a dead man and a woman in a tree apparently play a role. The dogs have the short massive pig-like head, round erect ears and bushy tail of a red dog. In fact, the whole scene is strongly reminiscent of the situation of red dogs pursuing a tiger. The tiger, seeing no other escape than climbing a tee, is here replaced by a woman or a spirit. The red dogs patiently wait below the tree.

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[3] W. Rice, *Tiger Shooting in India: Being an Account of Hunting Experiences on Food in Rajputana During the Hot Seasons from 1850 to 1854* (London: Smith, Elder and Co., 1857).

[4] L. Durbin, A. Venkataraman, S. Hedges and W. Duckworth, "Dhole *Cuon alpinus* (Pallas, 1811)," in *Canids: Foxes, Wolves, Jackals and Dogs*, op. cit. (2004), 210–219.

[5] The frieze is referred to as the *Asilakkhana Jataka* (Pali *Jataka* 126) but this story does not include this particular scene. The story tells about a princess and a prince who wanted to marry but got no permission. They let an old woman tell the king that his daughter was bewitched, and that an exorcism should take place on the cemetery on a bed above a dead corpse. The prince played the role of the corpse and put pepper in his nose. The others told the guards that as soon as the exorcism would be finished, the corpse would sneeze, get up and kill the first he would see. The guards flew away at the first sneeze, and the couple was united. The scene on the relief depicts a dead corpse of a man, who might be the prince, and a woman, who might be the princess.

CHAPTER SEVENTEEN

ELEPHAS MAXIMUS, THE INDIAN ELEPHANT

17.1 The Living Animal

17.1.1 *Zoology*

The Indian or Asian elephant (fig. 221) is the second largest land mammal on earth, and without doubt leaves an immense impression on those who meet it in the wild. The Indian elephant is smaller than the African elephant, and a bull stands on average 2.75 m tall at the shoulder; cows 2.45 m.[1] Elephants along the coast opposite to Sri Lanka are said to have been especially tall.[2]

The ears of the Indian elephant are large, but not as large as those of the African elephant. Its back is round, and not hollow as in the African elephant. The hind feet bear four nails each. Its trunk, ending in a single tip, is not only amazingly strong, but very sensitive at the same time, and injury may even cause death because of shock due to pain. Generally, the males bear a pair of short and strong tusks, while the females bear no tusks or at most very small ones. Tuskless males (*makhnas*) are, in general, very large in build and have also more developed trunks. Females with large tusks (*sakhnis*) are very rare. Males with long and slender tusks are not common. The tusks show a large variety in shape and direction. The skin of the Indian elephant is dark but may become lighter with advancing age, and turn greyish-white or even light grey, known as white elephants; this is, however, exceedingly rare.

In ancient texts, such as in Bharavi's *Kīratarjuniyam*, further distinction is made between forest elephants, which are fond of rivers which they turn turbid especially in summer, and mountain-born elephants, which are described as being covered with though hair on the whole of their

[1] The elephants from Sri Lanka and Sumatra are sometimes considered subspecies, recognized by their smaller stature.

[2] S. Digby, *War-horse and Elephant in the Delhi Sultanate* (Oxford: Orient Monographs, 1971).

bodies.[3] All elephants grow hairs in the depths of the skin wrinkles, but these hardly reach the surface. In this respect it is interesting to note that these hairs are longer in calves and young elephants all over their body, and especially on their heads. In principle elephants may thus grow longer hairs, although not to the degree as seen in their distinct extinct relative, the woolly mammoth (*Mammuthus primigenius*). It is likely that these mountain-elephants were not a poetic liberty, but a now vanished variety from the higher altitudes of the Himalayas.

Elephants are highly intelligent and social animals. Herds vary from five up to sixty or more animals, consisting of individuals of various sizes and ages. Older males generally live a solitary life, or live together with another male of equal age. Defence of the young is shared by companions, especially when the calf is very young. The mother is then assisted by always the same female, who acts as a guardian of the calf. Elephants are fond of bathing (fig. 223). They have an acute hearing and smelling, but their sight is very poor. A whisper or gentle foot step are enough to alert them. Despite their huge size and massive feet, elephants are able to walk through the jungle practically without producing a single sound.

During the rut, elephant bulls, but sometimes also the cows, reach a certain excited stage (*mushth*), during which they can hardly be handled. Rutting elephants are described as being fond of giving side-blows to the banks,[4] of swimming and dipping in rivers.[5] The drops of rut fluid floating on waters resemble the eyes of peacock-feathers,[6] in reality, the oily fluid on the water surface refracts the reflected light in a rainbow sequence. They are further described as closing their eyes, stretching their trunks on the branches of trees, and sitting down in an easy way.[7] Elephants scratch their temples against sandal trees and even break them.[8] Special veils were used to cover their faces.[9]

The population of Indian elephants in the wild has been greatly reduced since prehistoric times. At the beginning of the twentieth century, larger herds still roamed the Western Ghats south of Mysore, Sri

[3] *Kir.* 3.38 (*vanya-dvipa*) and 1.36 (*agaja-gaja*), respectively.
[4] *Kir.* VI.7.
[5] *Kir.* V.25; VI.11; VII.11, 35.
[6] *Kir.* VI.11.
[7] *Kir.* XVI.30.
[8] *Kir.* V.47, VIII.12 and *Kir.* XII.49, respectively.
[9] *Kir.* XVII.45 (*mukhacchada*).

Lanka, Orissa, Bihar, the Himalayan foothills in Uttar Pradesh, West Bengal, Assam, and further eastwards along the coasts till Sumatra and Borneo. Bones found at ancient Babylon and tusks at Tell Megiddo are evidence that Indian elephants occurred as far to the west as Iraq and northern Israel and as early as the early second millennium B.C.E.; most likely they were imported from Iran or the Indus Valley.[10] If the elephant was ever native to any of those regions is not confirmed, but in any case it disappeared from western Asia in later times;[11] the same holds for China.[12]

At present, hardly twenty thousand individuals remained in India. The main problem is the available area, because a reasonable habitat occupies a few thousand square kilometres whilst the area cultivated by humans is ever increasing. Elephants not only need a large quantity of food per day, but also often spoil and damage more than they can eat. A herd of wild elephants in a rice paddy leaves a trail of trampled crops in their wake. In open woodlands, they topple entire trees to reach the foliage or fruits, or strip them of bark and break branches. This makes the wild elephant not a particularly welcome guest around a cultivated area. The majority of wild elephants is nowadays restricted to natural reserves (fig. 222).

The natural habitat of Indian elephants consists of hilly or undulating forests preferably with lots of bamboo or the high elephant grass, but also hot and humid jungles and cool forests at higher altitudes fall within their ecological range. In the Himalayan foothills they accept even the snow as seen in Sikkim.

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[10] Zeuner, op. cit. (1963). Bones of elephant were found at Harappa (see B. Nath, "Remains of Horse and Indian Elephant from Prehistoric Site of Harappa," *Proceedings, 1st All-India Congress of Zoology* (1962), Part 2, 1–14), but they may belong to either wild or tamed elephants.

[11] The last records are the Assyrian records, which inform that king Tiglath-Pileser I (1115–1077 B.C.E.) hunted elephants on the outer reaches of the Hittite empire (present-day Syria), that king Ashurnasirpal II (883–859 B.C.E.) kept an herd of thirty elephants in his pleasure garden along the Tigris at Nimrud, Iraq, and that King Sennacherib (705–681 B.C.E.) received a tribute of elephant hides (S. Singh, "The Elephant and the Aryans," *Journal of the Royal Asiatic Society* 1–2 (1963), 1–6).

[12] The *Yu-Kung* (early first millennium B.C.E.) refers to present South Hunan as the country of the docile elephants (C. Bishop, "The Elephant and its Ivory in Ancient China," JAOS 41 (1921), 291), but they became extinct in the Yangtse valley, their last resort in China, already before the end of the fourth century B.C.E.

17.1.2 *Role of Indian Elephants in Society*

17.1.2.1 *Use of elephants*

Until recently, wild elephants were mainly hunted for their tusks. Ivory is a valuable raw material for all kinds of crafts and was sold for high prices; at present it is forbidden to deal in ivory. The hunt for meat might initially have played a role as well. Tamed elephants, on the other hand, are a valuable work force, including transportation, especially so in the jungles and hills where other transport means fail. In many regions they are the only mode of distance travel: through jungle, over high mountainous ranges, through bogs and deep streams; hence their nickname of 'ship of the forest'.[13] The earliest but also the most long-lasting service was that of mount of chiefs and kings, because elephants are an effective symbol of royal power. Until independency, every state had its own state elephant (fig. 224). Elephants were also used in battle as living tanks, able to crush anything below their feet. In later centuries, elephants were the shooting towers for maharajas and Mughal rulers in large-scale hunts, especially in tiger hunting. Outstanding bull elephants were trained to fight each other in championship matches, reported as early as the second century by the Roman author Aelian.[14]

Since the very beginning of the historical period, Indian elephants were used in battle. Accounts on the army of the Indian king Porus who fought against Alexander from Macedonia in 326 B.C.E. mention a squadron of two hundred elephants and the Mauryan emperor Chandragupta provided Seleucus five hundred elephants for the Battle of Ipsus (301 B.C.E.) against Antigonus I.[15] Many coins of Chandragupta figure a war elephant.[16] The ninth and tenth century Hindu dynasties

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[13] K. Bowie, "Ethnicity and Elephants: A Consideration of Society and the State in the Nineteenth Century Lannathai Kingdoms," *Fifth International Conference on Thai Studies, London, England, July 5–10, 1993*.

[14] Claudius Aelianus (born c. 170), *"On the Characteristics of Animals*, ed. and transl. A. Schofield, 3 vols. (Cambridge: Harvard University Press, 1958–9; transl. of *De Natura Animalium*).

[15] H. Scullard, *The Elephant in the Greek and Roman World* (London: Thames and Hudson, 1974).

[16] Not much later, the Romans got acquainted with the war elephant as evidenced by a dish from Capena, Campania, (third century B.C.E.) with a painting of an Indian elephant with driver and *haudaj* and two Macedonian warriors, inspired by Pyrrhus' attack on the Romans in 280 B.C.E. See J. Toynbee, *Animals in Roman Life and Art* (London: Thames and Hudson, 1973); figured in R. Delort, *The life and lore of the elephant*, transl. I. Mark Paris (New York: Harry N. Abrams, 1992; transl. of *Les éléphants piliers du monde*, Paris: Gallimard, 1990), 78.

had thousands of elephants, but the number of elephants gradually declined from the eleventh century onwards[17] to make place for horses and later for musketry after the sixteenth century; from that moment on, elephants were not used anymore for warfare.[18]

Indian elephants were favoured for use in battle for several reasons. They have a convenient size[19] and a *haudaj* (Skt *varandaka*) can be installed on their rounded backs. A *haudaj* is a wooden tower on a platform, usually covered but with apertures to hurl arrows, Greek fire, oil, and daggers to the enemy. Generally, there is place for four to ten men on a *haudaj*, apart from the driver with goad and rod who sits in front of it on the elephant's neck. The elephant itself was protected by mail armour (*varma*) on head, joints, vital parts and by spikes.[20] Apart from this personal protection, each elephant was also protected by a large number, at least several hundreds, of foot soldiers and horsemen who defended it from the side and behind. The *haudaj* is still in use today, but the vast majority of these elephant seats are nothing more than simple wooden constructions on a layer of rugs or blankets (fig. 226).

However, a big disadvantage of elephants in battle was that they could trample soldiers of their own side; this is described in the epic *Mahabharata* and also happened in Porus' army against Alexander the Great. An Urdu metaphor uses "*porus ka hathi*" (= elephant of Porus), for someone who betrays a friend.[21]

Elephants were also used by the royalty to hunt water buffalos, gaurs, leopards and tigers. The royal riders sitting high on their practically unassailable mounts were relatively safe. A hunt with elephants was not only a symbol of power and prestige, but also a gesture towards the population: by hunting the crop-stealing wild cattle and the dangerous big cats, the peasants and their livestock were safeguarded.

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[17] Although this is refuted by the omnipresent friezes with series of war elephants on plinths of most temples of, for example, the Hoysalas of Karnataka of the twelfth and thirteenth century.

[18] A. Wink, *Al-Hind; The Making of the Indo-Islamic World*, vols. 1 and 2 (Leiden: Brill, 1990 and 1997); C. Bosworth, *The Ghaznavids: Their Empire in Afghanistan and Eastern Iran, 994–1040* (Edinburgh: University Press, 1963). This decline seems to coincide with a decline in *nagavanas* (elephant forests), see section 17.1.2.2.

[19] 'mountainous beasts' in *Mbh* VIII, 85, 4ff.

[20] *Arthashastra* II, 32; *Rajatarangini* VII, 1552–6.

[21] S. Haider, *Islamic Arms and Armour of Muslim India* (Lahore: Bahadure Publishers, 1991).

17.1.2.2 *The Keeping of Elephants*

Despite their highly esteemed status, it is not easy to keep and replace elephants. Breeding elephants in captivity is difficult, partly due to their unpredictable behaviour during rut (*mushth*) and the incredibly high costs involved, because young animals cannot be used for work prior to the age of fifteen years. The usual practice was to capture wild elephants to enlarge the domestic herd.[22]

In early historical times, fresh elephants were acquired from reserved forests (*nagavanas*) but they were also hunted there for tusks and ankle-bones.[23] Particular important sources were Bengal, Assam, South Bihar and Orissa, all in the east, from where they were exported to the rest of the subcontinent.[24] These *nagavanas* were supervised by an *adhyaksha* and his foresters, and hunters were excluded or even executed.[25] The elephants in these extensive areas were half-tamed but often wild. Due to the expansion of human settlements, these forests became smaller and smaller, and by the eleventh century the sea-borne traffic from Achin, Thailand, Pegu and other areas in southeast Asia had become the standard means to acquire new elephants.[26]

Ancient elephant lore, known as *gajashiksha* or *gajashashtra*, focuses on the taming and training of elephants, their anatomy, zoology, illnesses and treatments thereof. This branch of science is supposed to have

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[22] A traditional catching method (*keddah*, or roundup) was to drive wild elephants together and into a terrain enclosed with wooden palisades, where they were chained until their training began. It resulted in severe psychological stress for the elephants and was abandoned in India in the early 1970s. Another method is the *mela sikhar* from Northeast India, where wild elephants are captured with a lasso thrown from a tamed elephant. A third method is to capture them with the help of elephants specially trained for this purpose (a *koonki*). Much less sophisticated was to simply go with a large mass of beaters and all sorts of noise-makers, and then to isolate a juvenile, surround it, and immobilize it with ropes.

[23] Wink, op. cit., vol. 2 (1997).

[24] *Arthashastra* II.3 and *Rajatarangini* IV.147; see Digby, op. cit. (1971).

[25] *Arthashastra* II.2.6.

[26] Duarte Barbosa, *The Book of Duarte Barbosa: An Account of the Countries Bordering on the Indian Ocean and Their Inhabitants, Written by Duarte Barbosa and Completed About the Year 1518 A.D.*, 2 vols., transl. and ed. M. Longworth Dames (New Delhi: American Embassy School, 2002; reprint of London: Hakluyt Society, 1918), vol. 2, 154–156; Ito Takeshi, "World of Adat Aceh: A historical study of the sultanate of Aceh" Phd Thesis (Australian National University, 1984).

been founded by the sage Palakapya.[27] Possibly the best known part is the *Matangalila* or Elephant Sport, written by Nilakantha.[28]

17.1.2.3 *Elephants in religion*

For Buddhists, the elephant is a noble, powerful and wise animal that plays a prominent role in the birth story of prince Siddhartha, or Shakyamuni, the historical Buddha. The legend tells that queen Maya had a dream about a white elephant, which came down from heaven during a full moon night, and entered her right side.[29] As was custom in these days, she had her dream interpreted by the court astrologers, who assured her that she was pregnant with a miraculous son. Either he would become a great ruler or a great spiritual leader. The king, hoping for the first, kept his son prince Siddhartha during his entire youth within the palace walls in order to avoid any contact with the outside world. In vain, as tradition tells, because once Siddhartha left the palace on horseback[30] and saw the miseries of illness, old age and death. He drastically turned the course of his life, and took to ascetic practices. After his enlightenment, his first sermon[31] and a long teaching life, he indeed had become a great spiritual leader.

In Vedic religion, the elephant was a symbol of rain. Indra, the Vedic god of rain, thunder and warfare rode his elephant Airavata on the clouds. An important ritual, still performed in Nepal, was the Indra festival, during which a pillar was raised in his honour, generally by kings or local rulers. A pot filled with water is also an essential part of the Indra cult. The connection between water, rain and elephants is obvious, like that between the elephant's loud thundering noise and

[27] H. Zimmer, *Myths and Symbols in Indian Art and Civilization* (New York: Pantheon, 1946).

[28] *The Elephant Lore of the Hindus: The Elephant-Sport (Matangalila) of Nilakantha*, transl. F. Edgerton (New Delhi: Motilal Banarsidass, 1985).

[29] In Thailand, Laos and Myanmar, the white elephant is venerated even today as it recalls the conception of the Buddha. When a white elephant was spotted in the forest, it was captured with the utmost care and brought to the palace, where it lived a long and luxurious life. It might be that a similar habit existed during the Buddhist period in India as well. White elephants are of an advanced age and are extremely rare.

[30] Known as the Great Departure, see also section 18.2.8.

[31] The Buddha's First Sermon, or the Turning of the Wheel, is generally indicated by the presence of two game animals (*mriga*) and a wheel, see further sections 1.1.3, 2.1.3, 7.1.2 and 22.1.3.

the thunders in the sky. Dark rain clouds are further compared to dark elephants.

The elephant is connected with Hindu deities as well. The mother-goddess Matangi rides an elephant. After periods of evil, including war, Matangi comes on her elephant to re-establish peace, calmness and prosperity.[32] As an aspect of Devi, the goddess, she is the patron of inner thought. An elephant-headed god is Ganesha, son of Shiva and the god of wisdom and war, today one of the most beloved Hindu deities. He is remover of all impediments and obstacles, grantor of success and prosperity, in short, Ganesha stands for good luck. Today, the elephant is a powerful auspicious symbol, and plays as such a role as temple elephant (fig. 225).

The elephants' fondness of bathing and their ability to use their trunks as shower makes them ideal candidates for bathing a goddess. One of the manifestations of the goddess Lakshmi, goddess of fortune and prosperity and spouse of the Hindu god Vishnu, is bathed by two or four elephants which pour water over her head. In this manifestation she is referred to as Gajalakshmi. The same iconography is sometimes used for the tantric goddess Bhuvaneshvari.

According to ancient Indian cosmogony, rooted in Vedic belief, the eight cardinal directions are each guarded by a colossal elephant (*loka-palas* or *dikpalas*). They together carry the world on their backs. Each one has a deity as its master; some of these gods gradually became minor gods, while others remained important until today.[33] These eight elephants on their turn stand on the cosmic tortoise Akupara.

Wicked elephants are slain or tamed in several Hindu myths and legends. For example, Krishna slays the wicked elephant Kubalyapitha or Kuvalayapidha sent towards him by the evil king Kamsha to kill him. Shiva, too, kills an elephant demon (Gajasura), which arose from the sacrificial fire. Shiva celebrates his success by dancing inside the skin

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[32] Matangi originally was a tutelary deity of the Matangas, a tribe that worshipped the elephant (*Matsya Purana*).

[33] In the north, Himapandara carries Kubera (god of riches), in the north-east, Supratika carries Soma (god of the moon), in the east, Airavata carries Indra (god of rain), in the south-east, Pundarika carries Agni (god of fire), in the south, Vamana carries Yama (god of the dead), in the south-west, Kumuda carries Surya (god of the sun), in the west, Anja carries Varuna (god of the waters), in the north-west, Pushadanta carries Vayu (god of the wind). The first elephant was Airavata, according to the sage Palakapya, and was produced during the churning of the primordial ocean (Zimmer, op. cit. 1946). This churning was undertaken by the gods and anti-gods to get the immortality elixir (*amrita*) but instead of this, other powerful things emerged.

of his victim. In the Vishnu myth, king Hiranyakashipu used wicked elephants in an attempt to destroy his enemy. His son, prince Prahlada, worshipped Vishnu against his father's will. Hiranyakashipu then tried to get his son trampled between two elephants, but the evil plan failed when Vishnu intervenes. Also the Buddha legend has an episode with a wicked elephant. Once, the Buddha's jealous brother-in-law Devadatta sent a mad elephant towards the Buddha to have him trampled. In vain, because the Buddha simply tamed the animal.

Finally, an elephant king figures in the Vishnu myth.[34] Once at a lake in the Himalayas, an elephant king was caught by a grasping animal (*graha*).[35] Vishnu comes down on his eagle Garuda to rescue the elephant king.

17.2 Elephants in Stone

17.2.1 *Earliest Evidence*

Elephants were tamed since very early times. The earliest sculptural evidence is provided by the steatite seals from the Indus Valley, Pakistan. On a few of them, elephants are depicted with trappings and rugs, such as shown on a seal from Mohenjo-daro (2,300–1,750 B.C.E.; fig. 227). The wrinkles on the head are schematic, and so is the inside of the ear, which is filled with a diamond pattern. The elephant on another seal, the so-called Pashupati seal (fig. 12) lacks any trappings or rugs, and might represent a wild animal. The other animals—a tiger, a water buffalo, a rhinoceros and a pair of ibexes—are likely wild as well.[36]

17.2.2 *Dream of Queen Maya*

Probably the most cute depictions of elephants are those seen in reliefs illustrating the dream of queen Maya (see section 17.1.2.3 above), the mother of prince Siddhartha, who would become the Buddha, the Enlightened One. An early example is found on a medallion of a railing

[34] The story is told in the Gajendramoksha myth (or Karivarada-Vishnu).

[35] The term *graha* (e.g. in *Vamana Purana* 469.58.19) is often translated as crocodile, or as a tortoise (Williams, *The Art of Gupta India* (1982), 134) but literally it could be anything that grasps.

[36] See also sections 8.2.1 (buffalo), 14.2 (ibex), 35.2.1 (tiger), and 37.2.1 (rhinoceros).

pillar of the north-east quadrant from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 228).[37] Here, the elephant is quite large, definitely adult, and flies towards its future mother from the right, approaching her left side. The trunk is curled inward, and not stretched out as in later reliefs (see below).

Later depictions invariably depict a small elephant, likely a calf, such as on two friezes from Greater Gandhara, one from an unknown site (second to third century; fig. 229), and one from Sikri, Pakistan (mid-first to fourth century; fig. 230). In both reliefs, the tiny elephant is encircled. This might be a kind of halo, but more likely it simply is an indication of the full moon. The elephant calf penetrates with the tip of its trunk its mother's right side, following the text of legend as we have it; in the Sikri relief, it is a bit misdirected and touches its mother's hip instead of her flank.

Depictions from the south-east are more or less contemporaneous with those from the north. A very incomplete example is provided by a railing pillar from Amaravati, Andhra Pradesh (first century B.C.E. to second century C.E.). In the left upper corner, a damaged elephant is seen. The elephant carving is not particularly an example of fine art work, but shows nevertheless a similar iconography as observed in the northern examples. The only differences are the missing full moon around the elephant and the direction of its flight: the elephant comes from the right, not from the left.

A complete example originates from stupa 9 at nearby Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 231). The elephant now really dives towards its mother, who seems not so much sleeping but rather laying down in an inviting posture. There is no indication of a full moon, and the direction is as seen in Amaravati. In both reliefs, the elephant does not penetrate its mother's (left) side. In the latter relief, the elephant calf has been portrayed realistically and with great precision.

The scene immediately preceding the elephant's dive towards its mother is shown as well in Andhra reliefs as an elaboration of the episode of the Dream of Maya. The elephant is carried by *ganas* and other divine servants in a royal seat towards the palace. The earliest surviving relief with this scene decorates a railing pillar from Amaravati

[37] The inscription reads *bhagaato ukramti*, the descent of the honourable.

(first century B.C.E. to second century C.E.).[38] The elephant is being transported by a large crowd of all sorts of assistants in a large, shrine-like seat. A similar iconography was followed on a panel from stupa 3 at Nagarjunakonda (third to fourth century; fig. 232). The elephant is small, has miniature tusks, and raises its trunk as a greeting towards its future mother. The artist succeeded very well in carving the elephant as a cute and amiable animal, possibly inspired by young elephants waiting in procession halls of existing temples (fig. 233).

A much later depiction of the episode forms part of a panel depicting several life scenes of the Buddha from Sarnath, Madhya Pradesh (fourth to sixth century; fig. 234). The lower register illustrates the Dream of Maya. The elephant calf dives towards its mother from the right, approaching thus her left side as in the earlier south-eastern reliefs. Again as in these latter reliefs, there is no full moon and the distance between the elephant and its mother is decently large.

An interesting parallel is found in a relief illustrating the Dream of Queen Kaushalya as narrated in the Hindu epic *Ramayana* on the upper Shivalaya temple at Badami, Karnataka (sixth to ninth century; fig. 235). The queen sleeps in her palace, and the elephant merely walks over her left side. The elephant is large and unlike the cute little calf of the Buddhist counterparts.

17.2.3 *The Elephant in the Lotus Pond*

In many narrative reliefs, elephants are portrayed in a lotus pond, in a river or next to a tank. The earliest surviving examples seem to come from the stupas at Sanchi, Madhya Pradesh. On the eastern gateway of the smaller stupa, or stupa 2, an elephant in a lotus pond is being ridden by a young couple (second century B.C.E.).[39] The scene has been referred to as a *karikrida* scene, litt. 'elephant-sport'. Several other medallions of the railing of this stupa depict elephants gathering lotus flowers and bathing elephants. One medallion of the northeast quadrant shows an elephant spraying water over its own back (second century B.C.E.; Plate 22) with the individual droplets reproduced in

[38] Transport of the Buddha as a White Elephant. Chennai: Government Museum and National Art Gallery.

[39] Figured in N. Ray, *Maurya and Post-Maurya Art, a study in social and formal contrasts* (New Delhi: Indian Council of Historical Research, 1975), fig. 57. Ray coined the term *karikrida* for this scene.

great detail. On the lower architrave of the northern gateway of the Great Stupa, elephants are sporting in a lotus pond as part of a large narrative relief illustrating the Story of Vessantara (c. 50–25 B.C.E.; fig. 212).[40] The elephant in front curls its trunk around a large lotus flower in order to eat it. Half its body is submerged.

From a slightly later time is the relief of a herd of elephants in a lotus pond in the Rani Nur cave, or Rani Gumpha at Udayagiri hill near Bhubaneshwar, Orissa (second century, sandstone).[41] The trunks are too thick and the composition is chaotic, giving the impression of a work by a lesser skilled craftsman. It can hardly be believed that elephants were not present in the region. Actually, also the rest of the sculptures in these caves is rather crudely executed; this is explained as partly due to the nature of the coarse sandstone of the hill.[42] This does, however, not justify the chaotic composition.

An elephant in a lotus pond with a couple on its back, much like the '*karikrida*' scene from Sanchi, decorates a gateway to a Hindu temple of a much later date at Aihole, Karnataka (late sixth to early eighth century; fig. 236, above). The elephant is portrayed in a very realistic way. The foliage of the pond resembles that on a panel at Deogarh of the sixth century.[43]

At Mammalapuram in Tamil Nadu, elephants stand on the banks of the river Ganges on the rock-cut boulder illustrating Arjuna's Penance (seventh to mid-eighth century; figs. 237 and 528). They stand there as natural as possible, life-sized and depicted with great care. The female has hardly protruding tusks, the male has a more prominent set. Three small elephant calves are depicted below and behind the bull, supposedly under its protection, something which is naturally done by companion females, not by an adult male. The whole scene breaths an atmosphere of a calm and undisturbed family life.

A marvellous depiction of bathing elephants adorns the Naga Pokuna, a natural water reservoir near the Tisawewa lake at Isurumuni, Sri Lanka (sixth to tenth century; fig. 238). Large and small elephants are sculptured only half, giving the impression of a real bathing scene. The elephants are slightly stylized, yet full of life. Harle calls this large scale rock-cut sculpture the most beautiful Sinhalese sculpture of the later

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[40] *Vishvantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.
[41] Figured in Ray, op. cit. (1975), fig. 61.
[42] Harle, op. cit. (1987), 57.
[43] See section 17.2.6.

Anuradhapura period and onwards;[44] and I cannot but agree with him as far as animal sculptures are concerned.

17.2.4 *Lakshmi and the Elephants*

Sculptures of Lakshmi, the goddess of fortune, being bathed by two elephants in her manifestation as Gajalakshmi abound on early religious architecture; obviously such an auspicious figure needed to be portrayed everywhere. A beautiful and early relief originates from the rock-cut Buddhist caves at Pitalkhora, Maharashtra (late second to early first century B.C.E., trap rock).[45] On either side of Lakshmi is an elephant with its upraised trunk pouring water from a pitcher over her head. The elephants are tame, seen the carpets over their backs. Their tusks are short and pointed, and not sewn-off as is often done. The ear wrinkles are stylized.

On all four gateways to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.), Gajalakshmi figures somewhere (fig. 239). The same is the case for the remaining gateway to the Small Stupa (inner view, right post, between lower and middle architrave).[46] She is also seen on the somewhat earlier railing at Bharhut, Madhya Pradesh (c. 100 B.C.E.). In these reliefs from Sanchi and Bharhut, the goddess either sits or stands and the elephants use a tiny pot to pour water over her. The popularity of the goddess can be inferred from her repeated presence on one and the same vertical post, for example, she is depicted twice on the left vertical post (outer view) of the northern gateway, once sitting, once standing.

At Bodhgaya in Bihar, Gajalakshmi is found on railing pillar 91 of the Mahabodhi temple (first century B.C.E. or later;[47] fig. 241). The scene is put right above a depiction of Indra, disguised as the brahmin Santi.[48] Elephants in combination with Indra, the god of rain, make a good match. The goddess stands here, and the elephants sprinkle water

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[44] Harle, op. cit. (1987), 455.

[45] Figured in S. Gorakshkar ed., *Animal in Indian art: catalogue of the exhibition held at the Prince of Wales Museum of Western India, Bombay, from 30 Sept to 21 Oct 1977* (Bombay: Prince of Wales Museum of Western India, 1979), fig. 22.

[46] Figured in Bachhofer, op. cit. (1972, reprint of 1929), pl. 56.

[47] The dating of the railing is unsure, because the whole temple complex has been renovated several times during its long-term use; it may even be as old as the first century B.C.E.; see Chakravarty, op. cit. (1997), 58.

[48] According to Bachhofer, op. cit. (1972).

directly from their trunks; pots are not present. A similar example is present on railing pillar 8 of the same temple. The major difference is that now the elephants each clasp a jar with their trunks. Lakshmi raises her right hand in a reassuring gesture (*abhayamudra*). The scene resembles that of a frieze from Kaushambi, Uttar Pradesh (second century B.C.E.).[49]

One of the earliest Gajalakshmi reliefs in a Hindu context decorates the Vishnu Temple at Deogarh, Madhya Pradesh (sixth century, sandstone) on a pilaster to the right of the Naranarayana panel. The elephants each pour a jar over the sitting goddess. They hardly fit in the roundel, and seem squeezed between the borders. Of about the same age and iconography is the Gajalakshmi motif on a pillar capital at Cave 1 at Badami, Karnataka (late sixth century; fig. 240). Of the same age or slightly younger is a similar Gajalakshmi carving on the gateway to a Hindu temple at Aihole, Karnataka (late sixth to early eighth century; fig. 236, below). The goddess in these two reliefs sits as in Deogarh, and each elephant holds a jar upside down. The elephants in the Aihole relief are stylized, in great contrast to the realistic elephant from the same gateway sporting in a lotus pond (fig. 236, above), suggesting an earlier date or different origin of the latter.

A nice example from Bangladesh originates from Bargadhi (eighth to twelfth century; fig. 242). Again, the goddess sits and the elephants pour water from jars. An example of the same iconography from the Himalayas comes from the ancient kingdom of Kashmir (eighth century).[50] It may be due to the tiny size of the specimen or the hardness of the black stone out of which it has been cut, that makes the elephants merely resemble an extension of the pillar below them. The ears are too large, and the head is unclear. The goddess sits, as usual. It seems that the elephants together hold one single pot, but there is a lot of damage to that area. The same principle with the elephant-pillar fusion, but with two water pots, is followed in another Gajalakshmi stele from unknown origin, also from black stone.[51] The goddess has a lion as vehicle in both these steles.

Full-scale representations of Gajalakshmi are extremely rare. Two large reliefs are dedicated to the goddess at Mammalapuram, Tamil

[49] Allahabad Museum.
[50] New York: Metropolitan Museum of Art, cat. no. 1989.236.4.
[51] London: British Museum.

Nadu; one at the Varaha cave (seventh to mid-eighth century; fig. 243), the other at the Adipurishvara or Adivaraha cave (late seventh century; fig. 244). In both reliefs, the goddess sits and the elephants pour water from a jar, which is filled and given to them by lovely damsels. The first, however, is by far superior in quality, and has affinities with the scene of Durga riding towards the water buffalo from a nearby cave (fig. 150). The second is much more naive and less elaborate; either it is an inferior copy of the other relief or the other way round, the masterpiece is an elaboration of the more simple forerunner.

17.2.5 *The Elephant Demon*

A marvellous sculpture depicting the elephant-slaying Hindu god Shiva is seen on the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 245). Shiva dances triumphant on the head of the slain elephant within its skin. Shiva is depicted frontally. The elephant is reproduced in much detail, and bears all kinds of jewellery. Nandi, Shiva's bull calf, lies inside the skin to Shiva's right. Another example, also from the south, once decorated the Airavateshvara temple at Darasuram, Tamil Nadu (mid-twelfth century).[52] Shiva dances triumphant on the demon's head, but now turns and twists his body. The elephant's trunk is tightly rolled. Above the god, on the outstretched elephant skin, a front leg and a hind leg and in-between the male organ all three point upwards. The elephant is rendered only schematically, which leads all attention to the dancing god. A stele of Shiva Killing the Elephant Demon decorates also the Chennakeshava temple at Belur, Karnataka, carved in the twelfth century as well, as the three examples above (fig. 246). Here, the elephant skin is represented only minimal by a vague outline above the god, stretched between two upper arms, without any sign of a skin around the god or below him. The feet and tail of the elephant are lacking alltogether. Instead, there is a multitude of ghostly warriors at the left lower side, and Shiva displays some additional weaponry, compared to the Halebid stele. Another stele of Shiva Killing the Elephant Demon at Belur (Plate 20) is more close to the Halebid stele. The god dances within the entire skin, kept in shape by two upper arms, and holds just a few weapons. There are only two musicians and no warriors, and his bull-calf Nandi is

[52] Thanjavur: Art Gallery; figured in Michell, op. cit. (2000), fig. 110.

prominently present at the right side, within the skin. As in Halebid, Shiva holds a severed head in one of his left hands, likely referring to his Bhairava manifestation.[53]

An example in stone of the episode of the Vishnu-myth in which the evil Hiranyakashipu tries to have his son Prahlada, devotee of Vishnu, trampled by elephants is also present on the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century, soapstone).[54] An illustration of Krishna slaying the evil elephant Kubalyapitha might be present on a temple plinth at Mandor, Rajasthan (fig. 247). If so, the elephant is depicted twice, once approaching and being grasped at the trunk, and once defeated and bending to the ground. Another explanation is that the scene represents a hero at war.

In Buddhist legend, Buddha's cousin Devadatta sends the mad elephant Nalagiri to the Buddha to kill him. Two typical illustrations are provided by narrative friezes from Greater Gandhara (first to fourth century), in which the Buddha simply lays his hand on the elephant, who instantly changes its mind and calms down. The first represents the complete scene (fig. 248), the second a fragment only (fig. 249). The elephant on the fragment holds a bar in its trunk in an obvious attempt to hit the Buddha with it. The whole atmosphere is one of dignity and noble calmness. The complete frieze reveals more artistic skill than the broken fragment; in the latter, the elephant has a smooth trunk and an unfinished front limb. The quality of the latter frieze gives the impression of mass production.

In Andhra Pradesh, the same scene is now splendidly dramatic. The story is illustrated as a continuous narrative with the same elephant depicted twice, once before its encounter with the Buddha, and once after. On an *ayaka* frieze from Nagarjunakonda (third to fourth century; fig. 250), the subdued elephant throws itself down in front of the Buddha, with its front part so low that it almost rolls over. To the right, it is represented before its encounter, trampling its victims under its feet. In a similar relief on a cross-bar from nearby Amaravati, the mad elephant drags a victim along by holding a foot with its trunk (first century B.C.E. to second century C.E.; fig. 251) or wraps a victim in its trunk as a python does (third century; fig. 252). This is story-telling in stone

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[53] In miniature paintings of Sadashiva, an omnipresent form of Shiva, the god may be clad not only in a leopard skin, but in an elephant skin as well, loosely draped over his left shoulder as a reference to his elephant-slaying form.

[54] Figured in Vaidyanathan, op. cit. (2002), fig. 221, top.

at its best. The episode might have been referred to in another *ayaka* frieze from Nagarjunakonda, where an elephant bows in respect of the Buddha's footprints (third to fourth century; fig. 253), very similar to the bowing seen in the complete narratives. In all southern cases, the male tusker has been rendered with care for detail, such as the ridge on its back, the wrinkles, and the folded ear rims.

The tiny elephant timidly bowing on a large stele from Bihar with Buddhas, symbolizing the eight principal events of the Buddha's life, is a miniature reference to the mad elephant Nalagiri (tenth century; fig. 254). The elephant, to the right of a comparatively gigantic Buddha, is so tiny and largely covered by a relatively huge eight-spoked wheel on its back that all details are lost. Yet, the posture of the hind limb is indeed typical of the way an elephant lowers itself. A slightly larger variety is seen at exactly the same position on a similar but later stele from Bihar (c. late eleventh century, dark grey chlorite).[55]

17.2.6 *Vishnu and the Elephant King*

Sculptures of the myth of Vishnu rescuing the elephant king, known as Gajendramoksha, are rare. The earliest carving may be identified at Mathura, Uttar Pradesh).[56] A beautiful example is provided by a panel on the north wall of the unfinished Vishnu or Dashavatara temple at Deogarh, Madhya Pradesh (early sixth century; fig. 255).[57] The realistically sculpted elephant is hopelessly wrapped in the coils of the snake. Garuda flies elegantly downwards, carrying its divine master. From the same site but from another, later temple comes a very similar panel (eighth century; fig. 256). The overall impression is that of a mere copy of the earlier example, because the elephant is more stylized, less natural and surely less lively. The *naga* does not look towards Garuda and Vishnu, but away from them. The grasper is in both cases a *naga*, or multi-headed snake-king.

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[55] San Francisco: Asian Art Museum, The Avery Brundage Collection; figured in J. Menzies (ed.), *Buddha: Radiant Awakening* (Sydney: Art Gallery of New South Wales, 2001), 61, pl. 43.

[56] Figured in Williams, op. cit. (1982), pl. 24.

[57] The date of this Gupta temple is under discussion: c. 500 or 520–550 (see Williams, op. cit. 1982: 132), c. 500–525 (see Harle, op. cit. 1974; R. Mishra, "The Gupta Art of Uttar Pradesh and Madhya Pradesh," in *The Golden Age: Gupta Art-Empire, Provence and Influence*, ed. Khandalavala (Bombay: Marg Publications, 1991), 55–72), 600 or even later (S. Weiner, "From Gupta to Pala Sculpture," *Artibus Asiae* 25 (1962), 167–182).

The episode might be alluded to on a doorjamb from Uttar Pradesh (fourth to sixth century) where an elephant is wrapped by a huge snake.

A Gajendramoksha carving from the Himalayas originates from the ancient kingdom of Kashmir (eighth to ninth century).[58] The poor and tiny elephant is firmly grasped by Vishnu. Notwithstanding its miniature size, the elephant carving is accurate and realistic. The grasper is, like in the Deogarh reliefs, a long *naga*; the whole setting is, however, mirrored. In all these northern depictions, the *graha* ('grasper') is interpreted as a *naga* (mythical snake).

Depictions of the episode from Karnataka are quite different.[59] Three are found at Pattadakal near Bijapur. One is present on a pillar of the northern entrance to the main hall of the Virupaksha temple (c. 745, sandstone). Here, the elephant stands on a turtle, which grasps the elephant's right front limb with its beak. It is a naive composition, and gives the impression of a mere pile of creatures: the turtle at the bottom, the elephant on its back with an anthropomorphic Garuda on its back and finally Vishnu sitting on Garuda. The two other reliefs decorate the Mallikarjuna temple and the Papanatha temple respectively. Another southern example is seen on the Vishva Brahma temple at Alampur (late seventh century).

A much later relief decorates the Bucheshvara temple at Koravangala (eleventh to mid-fourteenth century; fig. 257). The grasper is a typical Hoysala-style *makara*, with bushy paws and a curly tail, whereas the elephant is much more realistic. The idea of a pile of creatures as present in the other southern examples, is also preserved here, but now the turtle has been exchanged for a *makara*.

17.2.7 *The Elephant in Other Narrative Reliefs*

The noble character of a self-sacrificing elephant is illustrated in the Story of the Six-tusked Elephant[60] as follows,

> Once, the Buddha was born as the six-tusked elephant Saddanta, living happily in a forest in the Himalayas with its two elephant wives. However

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[58] New York: Metropolitan Museum of Art, cat. no. 1986.306.

[59] The three reliefs at Pattadakal and the one at Alampur are figured in B. Shetti, "Gupta-Vakataka Parallels in Chalukyan Art," in *The Golden Age*, op. cit. (1991), 103–108.

[60] *Saddanta* (*Chaddanta*) *Jataka*, Pali *Jataka* 514.

> one day, all that changed when flowers, pollen and tender shoots fell on one of the wives, while at the same time the wind threw dead leaves, dried twigs and red ants on the other. Overcome with jealousy, she starved herself to death. Reborn as a queen, she asked her hunter to bring the tusks of Saddanta. The hunter is unable to do so, when he meets the noble and wise elephant. Saddanta insists and saws its own tusks off. The queen, upon seeing the tusks and hearing how the elephant generously offered them at the cost of its life, faints and dies out of shame.

The story is not everywhere the same. No allusion to six tusks is found in the Pali version of Sri Lanka, but only to a single pair of tusks from which rays are issued of six different colours.

The story is illustrated on the upper architrave of the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 258); a similar depiction is found on the lower architrave of the western gateway (outer view). The depicted episode is the happy family life of the six-tusked elephants in the remote Himalayas. All members of the herd have six tusks. To the extreme right, a hunter with bow enters the scene.

The story was also popular in Andhra Pradesh as evidenced by a medallion on a railing cross-bar from Amaravati (mid-second century; fig. 259). Wild animals and blocks of stone indicate the Himalayan setting of the story. The skin folds are stylized in the form of stripes, which run parallel on the back of the animals. These parallel stripes give a rather realistic impression, and are likely an innovation to indicate shadow and depth, and were probably not intended to represent skin folds. The elephants seem to have just two tusks; at the background, the tusks are carried away, seemingly two sets of two each. A slightly later relief is an *ayaka* frieze from nearby Goli (c. 250; fig. 260). Also in this case scattered rocks indicate the setting. The scene is definitely more dramatic here, with the hunter actually sawing off the tusks. There is no reference to six tusks, and only two tusks are carried away by the hunter and presented to the queen, who faints.

An aggressive solitary elephant is described in the Story of the Quail[61] as follows,

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[61] *Latuwa* or *Latukika Jataka*, Pali *Jataka* 357, and *Kathasaritsagara*. In the Buddhist *jataka* versions, first a herd of tame elephants passes by, who spare the young in the nest; the leader of the elephants is nobody less than the Bodhisattva. In the story as told in Book 1 of the *Panchatantra*, the bird is a sparrow, who made a nest in a tree, which then was damaged by a wild elephant in *mushth* so that the eggs fell on the ground and broke.

> The tiny Latukika bird, who made a nest on the ground, asks a solitary elephant to spare its young in the nest while it is passing. The elephant tramples them all to death upon which the poor bird broods on revenge. With the help of a crow (to pick the elephant's eye), a flesh-fly (to infect the eye thereafter), and a frog (to give the false illusion of nearby water), they succeed in blinding the elephant and kill it by sending it off the cliff.

The story is depicted on a railing medallion from Bharhut, Madhya Pradesh (c. 100 B.C.E.).[62]

The forgiving character of the elephant is described in the Story of the Lotus Stalk[63] as follows,

> Once, a scholar renounced his worldly life, and went with his seven brothers and sister to the forest, each in his own hut. Every fifth day they came together to listen to scholar, together with a tree-spirit, a monkey and an elephant. Every day the maid servant prepared eight equal portions of lotus-stalks as food for the ascetics. Each took his share one after the other, to avoid contact with each other. One day, god Sakka (= Indra) took the scholar's share. The latter saw his share missing and went quietly back to his hut. This was repeated the next four days. On the fifth day, the assembly day, the others noticed that the scholar looked thin and feeble and they discovered what had happened. Together, including the tree-spirit, the elephant and the monkey, they prayed for the welfare of the unknown thief. Sakka felt guilty and appeared to praise the scholar's virtues.

An illustration in stone decorates a coping stone of the stupa railing at Bharhut (c. 100 B.C.E.; fig. 261). The head of the elephant is reproduced in much detail; the rest of the animal is missing.

Again at Bharhut, elephants are part of another story, that of *Tikutiko Chakamo*[64] as depicted on a medallion of a pillar from the south-western quadrant (c. 100 B.C.E.; fig. 262). The elephants are gathered around a triangular well with a snake. The story might be a representation of Nagaloka at the foot of the Trikutika rocks, because of the presence of a three-headed mythical snake (*naga*) and seven elephants (also known as *naga*).[65] The function of the two lions is unclear.

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[62] Figured in Cunningham, op. cit. (1962), pl. 26, no. 5.
[63] *Bhisa Jataka*, Pali *Jataka* 488, *Jataka Mala* 19 and *Chariya Pitaka* 3.4.
[64] Story line unknown to me.
[65] Cunningham, op. cit. (1962).

In narrative reliefs of the worship of the stupa, in which remains of the Buddha are kept, also animals may come to venerate the holy relics. This is seen on the lower architrave of the eastern gateway at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 264). A herd of elephants comes to visit the stupa, carrying flowers not only in their trunks but also with their tusks.

An elephant uprooting a tree in a hilly and forested region figures in a narrative relief of the Story of the Buddha Visiting the Resort of Naga Apalala at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 32). A similar elephant figures on the so-called Indra panel at the rock-cut Buddhist monastery at Bhaja, Maharashtra (c. 100 B.C.E.),[66] carrying an uprooted tree in its trunk in a very similar way. Probably these uprooting elephants refer to rutting elephants or function as indicators of a hill resort.

A relief on a temple pillar at Bhubaneshwar, Orissa (c. eighth century; fig. 263) depicts the capture of wild elephants in an elephant forest (*nagavana*). Such forests indeed existed in Orissa during that period, serving as a resource for new elephants. The elephants are bound by a cord around one leg to a tree. Dating of the relief is problematic, because it seems not to be anymore in its original position; the lower decorative band ends abruptly. The decorative bands are most close in style to those of eighth-century temples at Bhubaneshwar.

An elephant plays a passive role in the Story of Self-defeating Forethought and depicted on the Tripurantakeshvara temple at Belgavi (former Balligrama), Karnataka (1070; fig. 265).[67] According to this version of the story, an elephant is shot by a hunter in the forest, who on his turn is killed by a huge python.[68] Another hunter, who is already happy with a small prey caught in a trap, survives. Greediness leads therefore to suffering. In this relief, the elephant falls on its forelegs, and tumbles over.

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[66] Figured in Harle, op. cit. (1987), pl. 32.

[67] See also C. Patil, *Panchatantra in Karnataka sculptures* (Mysore: Directorate of Archaeology and Museums, 1995).

[68] For another version of the story, in which a jackal is the greedy character, section 11.1.3; for a version with a boar instead of an elephant, see section 39.1.3, last paragraph.

17.2.8 *War Elephants in Stone*

One of the earliest stone sculptures of a war elephant forms part of Mara's army, which came to disturb the Buddha in his meditation and thus prevent him from reaching enlightenment. It is found on the western gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 266). The army consists of elephants, horses and foot soldiers. The *mahouts* (elephant drivers) hold the typical elephant hook; the elephants are not protected with any armour. On another architrave, a war elephant and its warrior come back from war, possibly the war over the relics of the Buddha (c. 50–25 B.C.E.; fig. 267).

In stone sculpture, the *haudaj* is extremely rare. A minimal *haudaj* is visible on a large panel with *Mahabharata* episodes on the northern wall of the main hall of the Kailashanatha temple, or Cave 16, at Ellora, Maharashtra (eighth to ninth century; fig. 268). An elephant driver sits in front of the small *haudaj*, while a second warrior sits behind it, holding himself to the *haudaj*, on which another warrior sits or kneels. The minimal elephant seat closely resembles the simple seats of today (fig. 226).

Seen the rarity of depiction, it may be suggested that war elephants without *haudaj* were more common, with only one or two combatants on a seat and a *mahout* in front. This is commonly seen on Hoysala temples in Karnataka, in the form of series of war elephants on plinths with a mahout and a warrior, for example on the Santinatha basti at Kadambahalli (eleventh to mid-fourteenth century; fig. 269, above) and on the Hoysaleshvara temple at Halebid (mid-twelfth century; fig. 269, below). Here, some elephants bear a lotus bunch or a weapon in their trunk, others roll their trunk around a tiny human figure, likely in an attempt to succumb him.

The war elephant squeezing an enemy with its trunk or crushing him under a leg has been sculpted more than once. A free-standing example is provided by the life-sized statues outside the Sun Temple at Konarak, Orissa (thirteenth century; fig. 270). One elephant grasps its victim with its powerful trunk, while the other tramples its victim. The body-grasping elephant has also been depicted amidst erotic reliefs on the Chandella temples at Khajuraho, Madhya Pradesh (tenth to eleventh century; fig. 271, Plate 13). The elephant undoubtly has a mean expression in one of the friezes, while intending to crush a woman's body with its foot, firmly holding her in its trunk. The whole scene is very realistic, and one can wonder to what extent such an act took

place in reality. Another explanation is that the scene arouses an erotic sentiment, like the scene immediately to the right. Links between war and rape, and between the enemy and the female victim do exist in medieval Rajput battle poetry.[69] In that case, the elephant symbolizes the victorious king and the female the defeated army of the enemy. The iconography is repeated several times in Khajuraho.

Two fighting war elephants with rider and *mahout* are sculptured as late as the fifteenth century on a panel at the Achyutaraya temple at Hampi (ancient Vijayanagara), Karnataka (fifteenth century).[70] The scene does not represent a championship match (see next section) because in that case only the *mahout* would have been present, without the rider.

17.2.9 *Champion Matches*

Two fighting elephant bulls are depicted on a relief at Udaipur palace, Rajasthan (late sixteenth century; Plate 14). The mahouts are almost invisible; they lean forward over the heads of their elephants. The way of fighting of the elephants is convincing. The only mistake seems to be the misplaced tusk of the left elephant. Both elephants step with one front leg on a wheel-like structure. A similar relief originates from elsewhere in Rajasthan (seventeenth to eighteenth century).[71] The mahouts are lacking here, and the elephant to the right steps on an unclear object, vaguely resembling the wave-like object on hero-stones from the same region (see, for example, Plate 25, the white stone to the right). It might be that these carvings of champion matches are symbolic representations of a conflict between Rajput rulers, or more likely, between a Rajput and a Mughal ruler.

17.2.10 *Elephants at the Royal Gate*

From the thirteenth century onwards, it became a mark of status to have a life-sized elephant statue at the entrance of one's residence, such as the two statues flanking the Delhi Gate of the Red Fort of Old

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[69] J. Kamphorst, "Rajasthani Battle Language," in *Voices from South Asia: Language in South Asian Literature and Film*, ed. T. Damsteegt (Zagreb: Bibliotheca Orientalica, 2006), 33–78; Kamphorst, op. cit. (2008).

[70] G. Pant, *Horse and Elephant Armour* (Delhi: Agam Kala Prakashan, 1997), pl. 44.

[71] London: Victoria and Albert Museum, cat. no. 56–1887.

Delhi (1903, after the original from 1638–1648; fig. 272). The original elephant statues of the Delhi Gate were ordered between 1638 and 1648 by the Mughal emperor Shah Jahan, but not much later destroyed by his successor Aurangzeb in a wave of iconoclasm. The present-day statues are made out of several larger blocks, and cut in a realistic way, but without much fervour. The overall-impression is static.

Another twentieth-century example of elephants at the royal gate flanks the gate to the Rashtrapati Bhavan, formerly the Viceroy's House, in New Delhi (1931, designed by Edwin Lutyens; fig. 275). They form part of a grotesque structure, each carrying a light on their back; in between them sits a square column topped with a pavilion adorned with garland bearing putti. The whole structure is a blend of styles, like the palace itself. The elephants, functioning as oriental motif, are realistic in the sense that they show the most important characteristics of an elephant, but they are stiff and highly stylized. For example, the skin is smooth, not revealing a single wrinkle, and the ears are sharply edged. This is in sharp contrast to the bodies of the puttis, the classical elements of the structure. Their bodies are extremely naturalistic. As stand alone, without the superstructure, the elephants probably would have expressed royal pomp more subtly.

More realistic are the elephants at a gate of Orchha fort on an islet in the Betwa river in Madhya Pradesh (seventeenth century; fig. 273). The elephant's nails, bushy tail tip, wrinkles on the trunk and folds of the ear are all precisely incised, not in a naturalistic way, however, but schematic. The tusks are sewn off, and with its trunk it holds a bush of flowers as seen on the plinths of some Deccan temples (see, for example, fig. 269, below). The Orchha statue hardly fits between the two columns, and its sloping pedestal suggests that it was never commissioned for that particular spot.[72]

The gate elephant of Jaipur fort, Rajasthan (early eighteenth century; fig. 274) is more like a huge barrel on straight pillar-like limbs. The skin is smooth, without wrinkles or folds; toe nails are hardly visible. The tusks are sewn off, and a silver or ivory inset must have been present in its glorious past.

[72] This is not entirely impossible, since Bir Singh Deo, ruler of Orccha (1605–1626) murdered Akbar's prime minister when he was returning from the south with a caravan of treasure and looted the treasures.

The life-sized elephant statues at religious architecture were certainly just as well meant to impress the visitors and neighbouring rulers. Slightly less stiff and surely more rounded than most palace elephant statues are the two elephants at the portal to the Rajput Jagat Shiromani temple at Amber, Rajasthan (1599).[73] Also these are built of larger blocks as their palace counterparts. Another example are the static elephant statues outside the Sun Temple at Konarak in Orissa (thirteenth century). Though naturalistically depicted, the artists failed to capture the spirit of a living elephant.

The tradition of the elephants at the gate seems to go back to the last centuries B.C.E. Elephants are present, for example, at a rock-cut facade at a Buddhist rock-cut cave at Pitalkhora in Maharashtra (late second to early first century B.C.E.; fig. 276). Two life-sized door guardians flank the entrance, with above their heads a small figure of an elephant. These elephants walk slowly towards the entrance, and are mirrored copies of each other. The front part of their heads is heavily damaged. Quite possibly the same idea underlies the frieze at the entrance of the Manchapuri Cave at Udayagiri, Orissa, where elephants walk towards the entrance from either side just below the ceiling (first century).[74] At the rock-cut caves of Ajanta, Maharashtra (late fifth–early sixth century; fig. 277), the elephant at the door is more humble, and kneels in admiration. The elephant is very naturalistic; even the skin folds and wrinkles of its hindquarters were reproduced in great detail.

A variation on the theme are the elephants along or at the steps leading to the entrance. A marvellous example can be found along the staircase to the Airavateshvara temple at Darasuram, Tamil Nadu (mid-twelfth century; Plate 15). The elephants have a slightly bend front and hind leg on one side of the body, and this may be either interpreted as a light trod or as an intention to start kneeling. Their massive, undulating trunks form the balustrade and merge at the tip with a water monster (*makara*) with a short trunk, from the mouth of which a tiny figure emerges, a common motif in Gandhara ornaments. The elephants are lively and realistic, but have a slightly over-proportioned head.

Not exactly free-standing statues but more structural elements are the elephant caryatids. It may be that elephant caryatids have to be

[73] Figured in Michell, op. cit. (2000), fig. 122.
[74] Figured in Bachhofer, op. cit. (1972), pl. 134.

interpreted on a par with the elephant statues at gates and other entrances: as a symbol of royal power to the visitor. An early example is provided by the Buddhist rock-cut caves of Pitalkhora, Maharashtra (late second to early first century B.C.E.) and of Karle (c. 50–70 C.E.). They form also part of the Hindu rock-cut Kailashanatha temple or Cave 16 at Ellora, Maharashtra (eighth to ninth century; fig. 278), where the elephant rows are now and then broken by a lion-elephant fight.[75] Harle considers the Pitalkhora caryatids the forerunners of these Buddhist and Hindu caryatids,[76] which may be true indeed, taking the small distance between the sites and the absence of the concept elsewhere. Elephant caryatids with mahouts carry the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 279). A modern but very similar example decorates a pilaster of the Karni Mata temple at Deshnok, Rajasthan (early twentieth century; Plate 16). Greatest difference with its Sanchi forerunner, except of its essentially different style, is the posture of the elephants: in Deshnok they are in full gallop or maybe even flying, whereas the Sanchi elephants just stand. The Deshnok mahouts are adjusted to this different pace and lean backwards.

17.2.11 *The Auspicious Elephant*

The elephant forms a standard auspicious quartet in early Buddhist art together with the lion, the horse and the bull. These four animals are found together on abacuses of pillars and on moonstones, walking in procession. By turn, one of them may function as crowning element of the pillar. The meaning of the quartet is not clear; it has been suggested that they represent the cycle of existence (*samsara*), in which the elephant symbolizes birth, that they represent the sun and the moon, in which the elephant is the vehicle of Indra/Aditya, or that they represent the cardinal directions, in which the elephant protects the East.[77] A typical example is provided by a free-standing pillar from Sarnath, Uttar Pradesh (third century B.C.E.; fig. 280), where an elephant walks gracefully on the abacus, in between a horse, bull and a lion. This elephant is one of the most carefully sculpted specimens

[75] A *gajasimha* motif, see further section 17.2.16 below.
[76] Harle, op. cit. (1986), 49.
[77] Wijesekera, op. cit. (1990), 75. See also Introduction.

ever found, with the characteristic details rendered accurately, such as the two openings in the tip of the trunk, the rounded back and skin wrinkles everywhere. As far as animals in stone are concerned, this is a masterpiece.

A similar series decorates the moonstones at the entrances to Buddhist monasteries on Sri Lanka. These moonstones were situated at the lower end of staircases, the first thing to meet when entering the monastery, for example the moonstone of the Abhayagiri Vihara at Anuradhapura (c. fifth century; fig. 281). The elephant walks in between a bull (behind it), a horse (in front) and a lion (in front of the horse). The elephants have short tusks and short limbs. The inner circle of such moonstones is occupied by a flock of geese, possibly symbolizing nirvana, the escape from the cycle of birth and rebirth. At rare occasions, only the horse and the elephant figure on moonstones, for example the one at the entrance to the Vatadage at Polonnaruwa.[78] This is in favour of the theory of the connection with the cycle of birth, death and rebirth (*samsara*), in which the elephant symbolizes birth and rebirth and the horse death.

17.2.12 *Elephants as Transport Means*

An early relief of transport elephants are the bracket figures situated in between the lower and the central architraves of the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; Plate 18). Directly behind the ears sits a mahout holding an elephant hook and on the far back of the animal sits the passenger in a sheltered *haudaj*, bound with cords around the elephant's trunk, though this has been forgotten in the figure to the right. Another early relief originates from Kankali Tila near Mathura, also in Madhya Pradesh (first to third century; fig. 321). The passenger on the back holds himself in balance with a rope around his waist connected to another one around the elephant, more or less as seen in Sanchi.

A much more comfortable seat fixed onto the elephant back forms part of the elephant sculptures in the corridor of the Luna-vasahi at Mount Abu, Gujarat (1232–1248; fig. 282). The elephant-hall of the temple is filled with a row of elephants each bearing a minister, his son and his ancestors on its back; the sculptures of these men are, however,

[78] Figured in Boisselier, op. cit. (1979), pl. 102.

all missing; only the legs of the mahout remained. The seat on which the men were sitting, has been tight with many ropes and cords around the elephant's body.

A caravan consisting of elephants only is depicted on a railing fragment from Amaravati, Andhra Pradesh (mid-second century).[79] To the right, the relics of the Buddha are divided, and to the left they are transported. On every elephant a mahout sits immediately behind the ears and a passenger at the far end of its back as seen in Sanchi and Kankali Tila. The elephants walk with a naturalistic pace; tusks are small and thin.

17.2.13 *Elephant Memorials*

An elephant is often a personal transport means and in many cases a special bond between owner and elephant exists. Proof of such a emotional bond is, for example, a memorial stone found near a Jain temple at Hampi, Karnataka (unknown date; fig. 283). Apart from three women (*satis*) who were burnt alive on the funeral pyre of their husband and who are immortalized and deified on this hero stone, also his elephant was considered worth depicting. Possibly the hero died in battle, together with his elephant. He most likely had a high status, regarding the fact that he owned an elephant and had three wives.

17.2.14 *The Elephant as Divine Vehicle*

A carving of Indra with his elephant Airavata decorates the ceiling of the Bhoganandishvara temple at Nandi in southern Karnataka (ninth century, granite).[80] The scale is somewhat confused, with a huge Indra on a small elephant; the god almost glides off its back. Airavata has double tusks and holds a bunch of flowers in its trunk. The style is naive though charming. Slightly younger in age is the Indra carving in the Indra Sabha, one of the few Jain caves among the many rock-cut caves at Ellora, Maharashtra (tenth century; fig. 284). Indra sits here comfortably on his elephant. The elephant lies down, holding a bunch of flowers in its trunk. The tusks are broken off. A later Indra relief decorates the western hall of the Lakshminarasimha temple at Nug-

[79] Chennai: Government Museum; figured in Bachhofer, op. cit. (1972), pl. 123.
[80] Figured in Snead, op. cit. (1989), pl. 151.

gihalla, Karnataka (c. 1246; Plate 18), where Indra and Sachi on their elephant are fighting for Parijata. Airavata holds a bunch of flowers in its trunk, in a way very similar to that hold by war elephants on temple friezes from the same region and period (fig. 269, below). Airavata bears double tusks, thus four in total.

A life-sized elephant guards the shrine of the epic hero Sahadeva at Mammalapuram, Tamil Nadu (seventh to mid-eighth century; fig. 285). The shrine is part of a group of five unfinished monolithic shrines sculpted out of granite boulders near the beach, dedicated to the five Pandava heroes from the epic *Mahabharata*. The hero Sahadeva might have been assigned the elephant as his personal vehicle, but as Harle suggests, the temple was perhaps originally dedicated to Indra, whose vehicle is the elephant Airavata.[81] This is further confirmed by the fact that the nearby Draupadi's shrine, the only finished shrine, was originally dedicated to Durga, with her lion in front and a panel with Korravai, Durga's manifestation as goddess of victory or Glory in Tamil Nadu, inside. The elephant is realistic, but misses the tusks. Empty holes in the statue indicate that once tusks had to be inserted or were inserted once, either separately carved or perhaps consisting of real elephant tusks.

Also Indra's shakti Indrani or Aindri has the elephant as her vehicle. An Indrani sculpture with her elephant is part of the second series of the seven mother-goddesses (*saptamatrika*) from Samalaji, Gujarat (c. 525).[82] Her elephant has small but double tusks, befitting Airavata; the rest of the animal is realistic. Another example comes from elsewhere in North India (sixth to eighth century; fig. 286). The elephant is almost invisible behind the goddess, but seems to be rather smooth and elegant. Similar in iconography, but this time with the child Jayanti, is another Indrani stele from North India (eighth to early eleventh century; fig. 287). Here, Indrani carries Jayanti, while the elephant stands behind the goddess. Major parts of Indrani as well as of her elephant are damaged.

Very different is the elephant on an Indrani stele from Jajpur, Orissa (c. 950–1300; fig. 288). She sits majestic on her thrown, while her humble elephant kneels before her on the pedestal below her. A similar

[81] Harle, op. cit. (1986), 281.

[82] Baroda Museum and Art Gallery; figured in S. Schastok, *The Samalaji sculptures and 6th century art in Western India* (Leiden: E.J. Brill, 1985), fig. 6.

idea, but executed in a more naive style, is expressed on an Indrani panel from Satna, Madhya Pradesh (eighth to early eleventh century; fig. 289). She looks majestic and her elephant kneels, but does not bow as in the Jajpur stele. An eastern Indrani stele, originating from Paogachha, Bangladesh (fig. 290) shows the elephant neither kneeling nor bowing, but just sitting, while the goddess holds her right foot on its back.

Yaksha Gangita stands on an elephant on a railing pillar at Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 291). The elephant is cute and naive, and has two different ears. On its back it wears a rug and around its forehead a cord. The tusks are single, not double. The simple, unadorned style is echoed to some extent in the nine centuries later Hindu temple at Deogarh (fig. 256).

17.2.15 *The Elephant-headed Ganesha*

Depictions in stone of the popular Hindu god Ganesha from the fourth century onwards are countless and even a concise summary of the most famous examples cannot be presented here; this book would then become primarily a book on Ganesha. I will limit myself here to a rather *ad hoc* selection of sculptures. A standard iconographic detail of Ganesha is his broken left tusk, which is either held in one of his hands or, as in most early images, is not represented; the god than holds a radish instead. Other details vary, and are, amongst others, a bowl of sweets in one of his hands and a rat as mount; for sculptures including the rat, see section 3.2.1. Ganesha may be standing, dancing or sitting and may be with or without attendants or side-figures.

One of the earliest Ganesha steles originates from Sankisha near Fatehgarh, Uttar Pradesh (c. 350–400, red mottled sandstone),[83] but the stele is heavily eroded and detail is lost. Here, Ganesha stands. An early sitting Ganesha is present on a pilaster medallion at the Dashavatara temple at Deogarh, Madhya Pradesh (fifth century, sandstone).[84] The elephant head is realistic and unadorned as the rest of the body. Another early carving is a two metres high rock-cut sitting Ganesha in the Karpakavinayaka cave at Pillaiyarpatti near Ramanathapuram, Tamil Nadu (sixth century, granite).[85] It is a stylized image, the ears have

[83] Munich: Museum für Völkerkunde MU 197, Sammlung Scherman Mallebrein; figured in Mallebrein, op. cit. (1984), no. 12.
[84] Figured in Snead, op. cit. (1989), pl. 150.
[85] Figured in Nakacami, op. cit. (2003), pl. 96.

no folds but a strange inflated centre; the ear shape is unrealistic, oval and simple. The contemporaneous stele from Uttar Pradesh (late sixth century, sandstone),[86] is much more realistic with prominent triangular ears with folds and irregular borders. A slightly later example from the east originates from a ruined Shiva temple on the Mundeshvari hill near Ramgarh, Bihar (consecrated 636, sandstone).[87] Though the ears are too large, they are realistically folded. The tusks of this standing Ganesha are small, the left one is broken off and kept in his right hand; the sweets are held in his upper left hand. Again later is a rock-carving of Ganesha in a rock-cut cave at the sacred hill at Arittapatti near Melur, Tamil Nadu (eighth century; granite).[88] This Ganesha is even more realistic, with folds in his ears, no central inflation as in the earlier southern image and with a thick border at the upper inner side of the ear as in living elephants. The shape of the ear is natural. It seems that by now the elephant head starts to be depicted more and more realistic.

More variation in body posture is also seen from now on, such as dancing, see for example fig. 54 (eighth century, Uttar Pradesh). Dancing Ganesha's (*nrityaganapati*) are encountered by the eighth century in Uttar Pradesh and Madhya Pradesh.[89] The Rockefeller Collection dancing Ganesha is one of the rare examples where the eyes are as tiny as they should be for an elephant. The elephant head and trunk are very realistic, and the youthful body of the god is full of a vivid expression. The experiment with a swinging posture instead of the static standing one has succeeded very well.

Ganesha's body and head gradually become more and more vividly realistic, see for example a stele from Central India, probably Madhya Pradesh (eleventh century, sandstone.[90] Even the two nasal openings in the trunk are carefully rendered. Here, the body is pot-bellied and small male breasts are present, quite different from the boyish and more elegant body of the Rockefeller statue. The breasts are in fact realistic in combination with a belly of this proportion, but it seems that this depiction is rare; most pot-bellied Ganesha's have minimally elevated

[86] Pasadena: Norton Simon Museum, cat. no. F.1976.5.8.S; figured in Pal, op. cit. (2003), pl. 70.
[87] Figured in Williams, op. cit. (1982), pl. 256.
[88] Figured in Nakacami, op. cit. (2003), pl. 102.
[89] Pal, op. cit. (2003), 122.
[90] New York: Metropolitan Museum of Art, cat. no. L.1994.18.1.

breasts. The well-fed dancing type is omnipresent in Uttar and Madhya Pradesh of the tenth century (fig. 292) and the eleventh century (fig. 293). The most obvious differences are found on Ganesha's forehead: either the temples are shown in the shape of two bejewelled prominent lobes, often with a small crown or tiara, or the god has matted hair. Matted hair, and long hair in general, does not befit an elephant, but the more so his father, the ascetic Hindu god Shiva. It is seen on one of the steles originating from Uttar Pradesh or Madhya Pradesh (tenth century, sandstone).[91] Another difference is the direction of the trunk; it may sweep towards the left as in the Rockefeller and Metropolitan Museum steles, or to the right as in several Norton Simon Museum steles[92] and the Brooklyn Museum stele (fig. 292).

In later depictions, Ganesha often has a richly jewelled body and head, possibly indicating a ceremonial elephant as they are in vogue in Indian temples until the present day. An early example is provided by a dancing Ganesha on the Chennakeshava temple at Belur, Karnataka (twelfth century; Plate 19). Ganesha wears a complicated crown and is adorned with garlands, cords and a snake around his belly, which is not so much pot-bellied. His decoration and lower garment fit admirably well to the floral decoration above the god. The broken tooth seems to be double, as in the case of Airavata, Indra's elephant (Plate 21). A later example of a bejewelled dancing Ganesha is found in the Hall of the Thousand Pillars in the northeast corner of the Minakshi-Sundareshvara temple complex at Madurai, Tamil Nadu (seventeenth century; fig. 296). Here, the belly is large and unrealistically round as a ball. Partly because of all the royal pomp, this Ganesha lost much of the liveliness that is seen in the northern Indian statue from the Asian Society. In addition, the Minakshi Ganesha has ten arms, holds a jewel or ball of sweets in his trunk and a tiny goddess—either Siddhi or Buddhi—on his left knee. Despite the elaborations on the theme, the elephantine features are nonetheless depicted in a realistic way with the wrinkles in the ear carefully reproduced.

Sitting Ganesha steles are numerous as well. A stele from Bihar for example shows the god sitting with his rat on the pedestal below (tenth century; fig. 294). The elephant head is reproduced with precision

[91] Pasadena: Norton Simon Museum, cat. no. N.1972.3.3.S; figured in Pal, op. cit. (2003), pl. 81B.
[92] Ibidem, pls. 81A, B and C.

and the many wrinkles of the trunk are represented as parallel stripes. Another stele depicts Ganesha sitting with his two consorts Siddhi and Buddhi on his knees. The stele originates from Madhya Pradesh (dated 1164, sandstone).[93] The skin is more smooth, no wrinkles are present; the whole image is somewhat static. The hair is matted, but neatly arranged.

17.2.16 *The* gajasimha *Motif, or the Elephant-Lion Fight*

Elephants are practically invincible with their impressive size, their pointed tusks and their powerful trunks. There remained, however, one animal to fear: the lion. The lion is the only animal that is daring enough to attack an elephant. In sculptural representations of the elephant-lion fight, the lion is victorious, which in reality is hardly ever the case except when an elephant calf is the victim. The motif became a standard decoration on religious architecture and art throughout the subcontinent in the form of *gajasimha*, which is Sanskrit for elephant-lion. In many instances, the lion is a mere mythical creature, often with horns and bulgy eyes (*yali*, *vyala*) but the elephant remained natural.

The elephant-lion fight is used as an alternating element among a row of elephant caryatids at the Hindu rock-cut Kailashanatha temple, or Cave 16, at Ellora, Maharashtra (eighth to ninth century; see above, and fig. 278). Both lion and elephant are realistic, except for the relative size of the lion, which has the same size as the elephant. The relative size is correct only in case an elephant calf was intended. The feet of the animals are each placed on round pedestals. The lion bites in the sensitive trunk as lions generally do indeed when attacking an elephant. This does not kill the elephant on the spot, but the elephant dies later as a result of infections or haemorrhages.

Another example of statues depicting an elephant-lion fight are the two grotesque free-standing statues at Konarak, Orissa, flanking the entrance to the dance hall of the Sun Temple (c. 1238–1258). The lions have more or less the same size as the elephants, as is the case in Ellora, but now they jump over their victim in victory, ready to devour it. Needless to say is that this is far removed from reality.

In the majority of sculptures of the elephant-lion fight, the animals are reduced, especially the elephant, and figure somewhere on a larger

[93] Pasadena: Norton Simon Museum, cat. no. F.1975.16.7.S; ibidem, pl. 101.

stele or architectural element as a side-decoration. In these cases the term *gajasimha* is used. Especially large scale steles of Vishnu in one of his manifestations are decorated with *gajasimhas* at either side, for example the Harihara stele from Madhya Pradesh (ninth century, red sandstone).[94] The elephant is reduced to a mere head, has cut-off tusks, and a round cloth adorning its head. Very similar are a later Vishnu stele from the Punjab (tenth to eleventh century)[95] and one from Uttar Pradesh (c. 1100, sandstone)[96] in but in these two cases the elephant tusks are complete. Large steles of other deities may as well use the *gajasimha* motif, for example a Jina Parsvanatha stele from Rajasthan or Madhya Pradesh (eleventh century, sandstone).[97] On the Sun Temple at Konarak, Orissa, a pair of mirrored *gajasimhas* decorates a pilaster on the temple wall (eleventh century; Plate 17). The lions are grotesque, with bulging eyes, large claws, sharply incised locks on the neck and legs and frowning eyebrows, whereas the elephants are represented as more humble creatures, and sculpted in much less detail; generally, the opposite is the case.

In cases in which the elephant is portrayed completely, the scene is in general more violent, with warriors with swords riding a ferocious but mythical lion-beast and often a second warrior between the lion and the elephant, thus ensuring the victory of the lion. As in the case of *gajasimhas* with reduced elephants, this more complete version mainly decorates large Vishnu steles, for example the huge stele of Vishnu with Lakshmi and Sarasvati from Bihar or West Bengal (eleventh to twelfth century, black stone).[98] The tusks are cut-off, and the elephant has cords, straps and a round lotus carpet on its back. The same iconography, but now with complete tusks and a square carpet, is seen on another, otherwise similar stele from the same area and period (twelfth century, black phyllite).[99] The motif occurs in Buddhist steles as well, but it seems that in these cases the warriors are missing, for example a stele with Manjuvajra mandala from former Bengal (eleventh century, black stone).[100] Here, the esoteric form of Manjushri, the bodhisattva of

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[94] Chicago: Art Institute of Chicago, cat. no. 516.1983.
[95] New York: Metropolitan Museum of Art, cat. no. 68.46.
[96] Pasadena: Norton Simon Museum, cat. no. M.1975.11.11.S; figured in Pal, op. cit. (2003), pl. 88.
[97] Pasadena: Norton Simon Museum, cat. no. M.1979.86.S; ibidem, pl. 117.
[98] New York: Metropolitan Museum of Art.
[99] New York: Metropolitan Museum of Art, cat. no. 1991.406.
[100] New York: Metropolitan Museum of Art, cat. no. 57.51.6.

transcendent wisdom, is flanked at both sides by an uproaring leonine yali, spitting jewels and standing on an elephant.

17.3 Concluding Remarks

From the multitude of stone sculptures ranging from the Harappa period of roughly 2,300–1,750 B.C.E. to the twentieth century, it is evident that the elephant plays many roles in Indian society. Elephants are the symbols of worldly royal pomp and power, but also symbol of Buddha's last birth. Elephant are carriers of the rain god and his wife, and supporters of the eight wind directions and of temple gateways. Elephants are the tanks in battle formations, and noble and wise creatures in narratives. Ganesha, the god of wisdom and war, the remover of obstacles, has an elephant head. Elephants provide showers of blessing water and are fond of bathing themselves as well. All these roles and customs are captured in stone sculpture and in the majority of cases their depiction is realistic, sculpted in much detail.

In narrative reliefs, elephants are often portrayed in a lotus pond or along the shore of a river or a lake, without playing an active role in the story. The link with water and bathing is also manifest in the sculptures of Gajalakshmi, the goddess of fortune being bathed by two elephants. The iconography varies slightly: the water is poured directly from the trunks or from a water pot, and the goddess may be standing, or seated. Attendants may be present or not. In the early Buddhist art, she is an auspicious figure decorating almost every stupa railing or gateway. Starting with the Deogarh temple of the sixth century, this custom was adopted for Hindu religious architecture. Gajalakshmi is almost always a minor element, purely decorative and auspicious; two exceptions are full-scale reliefs of her at Mammalapuram, Tamil Nadu.

Reliefs illustrating the Dream of Queen Maya, the mother of the Buddha, figure a cute and tiny elephant, diving from the sky towards its future mother. They seem to be limited to the last centuries B.C.E. and first centuries C.E. when Buddhism flourished in northern India and in Andhra Pradesh in the south. The depictions are more elaborate in the south, including the transport of the elephant before its descent, but those of the north follow more closely the texts, for example in depicting the full moon around the elephant.

Evil elephants are slain with success by the Hindu gods Shiva and Vishnu. Reliefs of these episodes seem to be limited to the south. In

the Buddhist legend, the evil elephant, sent by Devadatta, is not killed but tamed by Buddha. Friezes from Ancient Gandhara in the north and Andhra Pradesh in the south illustrate the episode; the southern reliefs are much more elaborate than the northern reliefs, and include the moment before the actual taming as well. A reference to the story is found on some large Pala steles from the east in the form of a miniature kneeling elephant.

Narrative reliefs of Vishnu rescuing the elephant king (Gajendramoksha) from a grasper in a lake differ between the north and the south. The northern reliefs depict a mythical snake (*naga*) as grasper. Early southern reliefs have a turtle as grasper, whereas a later southern relief figures a *makara* (water monster).

The elephant plays different roles in the various narrative reliefs. One of the most appealing roles is that of the self-sacrificing elephant Saddanta. Reliefs illustrating the tale differ between the north and the south; in the northern reliefs (Sanchi, Bharhut), the elephant is six-tusked, but normal-tusked in the southern reliefs (Amaravati), in accordance with the Sri Lankan textual version of the story.

Stone sculptures of war elephants are found on many Hindu temples, mainly on plinths, but also in illustrations of the epic war as described in the *Mahabharata*. Series of war elephants decorate Hoysala temple plinths in the Deccan, but also the Sun temple at Konarak, Orissa. In some reliefs, the war elephants crush female bodies or squeeze them with their trunks. These depictions go side by side with erotic scenes, reminding of medieval battle language in which the enemy, the battlefield and war are compared to a bride, the nuptial bed and rape respectively. Fighting bull elephants, likely engaged in a champion match, continued to be depicted at least until the eighteenth century.

Life-sized elephant statues flank entrances of palaces and temples since about the thirteenth century. The most majestic and grotesque statues are static and stylized. Examples are found mainly in northern India, until as late as the beginning of the twentieth century with the Rashtrapati Bhavan in New Delhi (1931). The tradition has a forerunner in entrances to several early Buddhist rock-cut caves, in which an elephant walks towards the entrance. The elephants along the steps leading to the entrance of the Hindu temple at Darasuram, Tamil Nadu, may be explained as a variation on the theme. The same may be valid for the elephant caryatids at gates and entrances of early Buddhist rock-cut architecture and stupa gateways.

The elephant walking together with the lion, the horse and the bull forms a standard auspicious set in Buddhist sculpture. These four animals are found together mainly on abacuses and as capitals of the free-standing pillars known as Ashoka pillars in northern India and on the half-round moonstones at the entrances to Buddhist monasteries on Sri Lanka; in rare cases the elephant walks only with the horse.

The elephant as the personal vehicle of Indra, the Vedic god of rain, is represented in stone sculpture with double tusks and often a bunch of lotus flowers in its trunk. Carvings of Indra are, however, rare. The elephant of Indra's spouse Indrani is depicted more often, typically on friezes with the seven mother-goddesses (*saptamatrikas*) from the sixth century onwards.

Sculptures of the elephant-headed Hindu god Ganesha are extremely numerous and found all over the subcontinent as early as the sixth century. A comprehensive overview of all possible iconographies of this most popular god falls well beyond the scope of this book; only a few observations and examples are presented. A standard iconographic detail of Ganesha is his broken left tusk, which is held in one of his hands; other details vary, and are, amongst others, a bowl of sweets in one of his hands and a rat as mount. From the eighth century onwards, Ganesha is depicted either dancing, standing or sitting, without a geographical pattern. The dancing posture seems the most favoured. His potbelly is gradually given more emphasis and so are the jewels and tiaras. In some steles, Ganesha wears the matted hair of his father Shiva. The trunk may sweep to the left or to the right, and may be more or less straight or tightly rolled.

Generally, when lions or other large carnivores attack an elephant, they aim at the highly sensitive trunk. Often the elephant dies later as a result of infections or haemorrhages. It seems that this was not generally known to Indian peoples, because it was hardly ever represented; an exception is found at Ellora in Maharashtra. The fight between an elephant and a lion became a decorative motif, known as *gajasimha* and found on many Hindu temple pillars and plinths, but also on large Vishnu or Bodhisattva steles from the ninth century on. In such cases, the lion is often represented as a fantastic lion or leonine beast (*vyala* or *yali*), standing or trampling upon a tiny elephant, sometimes reduced to an elephant head only. The elephant is in practically all cases a domestic elephant as is indicated by cords, straps, carpets, cloths and often the typical cut-off tusks.

CHAPTER EIGHTEEN

EQUUS CABALLUS, THE DOMESTIC HORSE

18.1 The Living Animal

18.1.1 *Zoology*

The domestic horse is a slender-headed, gracefully built large ungulate with long legs and short ears. As all members of the family, it is an odd-toed hoofed animal in which the third or middle toe of the foot is the only remaining functional one; the second and forth digits have been reduced to splint bones during evolution, while the first and fifth digit are lost completely.

The manes and the forelock of the domestic horse have long, sideward falling hairs, unlike the short, erect hairs of the wild horses, asses and donkeys (see section 18.1.3 below), and some rare breeds, e.g. the Fjord of Norway. However, the manes are often cut and fashioned so that they stand upright as well. The hairs of the tail are much longer than seen in the wild horses and donkeys. All horses, including the wild horses, zebras and donkeys, bear incisors also in their upper jaw, in contrast to the ruminants who lost them and have a callous pad instead. Males bear canines in their upper jaw, which are never protruding and tusk-like as in deer and pigs; females have at most vestigial canines.

Domestic horses can gallop with a speed of 26–29 km/hr, doubled to a 64–69 km/hr if trained.[1] Their biggest advantage compared to the wild Indian horses,[2] though, is their jumping ability with recorded jumps up to ten metres broad and two and a half metres high.[3] Horses typically run off when frightened, but when needed will defend themselves by kicking backwards with their hind-legs and biting nastily.

Domestic horses are not indigenous to the subcontinent, but were brought along with immigrants or traders some three thousand years

[1] G. Waring, *Horse behavior* (Park Ridge and New Jersey: Noyes, 1983).
[2] *Equus hemionus*, or khurs, see sections 18.1.3 and 19.1.1.
[3] D. Willoughby, *The empire of Equus* (London: Thomas Yoseloff, 1974).

ago. Nowadays, domestic horses are found throughout the subcontinent. Feral populations do not exist here.[4]

18.1.2 *A Short Note on Breeds in India*

The size, body proportions and coat colour and pattern of domestic horses vary greatly among the many breeds. The most important Indian breeds or types of domestic horse are summarised below.[5]

The Manipuri is an ancient breed originating from Assam, descendant from a Mongolian stock which was later crossed to Arabs. It is a riding horse, selectively bred for polo. The use of the Manipur in polo games is mentioned in manuscripts dating back to the seventh century. The Manipuri is small, standing about 1.1 to 1.3 m at the shoulder. The Manipur is a sturdy pony, and was used in the cavalry of Manipur for the invasion of Myanmar in 1896.

The Marwari or Mewari from Rajasthan (fig. 296) is a famous Rajput war horse. In Mughal and colonial sources, however, the Marwari is incorrectly negatively portrayed as a wretched little pony, thin, weedy and narrow, with the front legs set too close to each other (see below). As many have erroneously reported, the Marwari is not a pony, but stands 1.4 to 1.52 m at the shoulder. The Marwari is renowned for its remarkable characteristic of refusing to go down even when seriously injured until it has carried its rider out of danger. The Marwari would stand near its wounded rider, biting and kicking at those who attempted to approach. The most famous early Marwari horse is Chetak, the loyal horse of Maharana Pratap of Mewar. Though mortally wounded, it managed to bring its master into safety at the battle of Haldi Ghati near Udaipur (1546) against Akbar, and died soon after as legend has it. The breed derives from crossings between horses from Turkmenistan and Kathiawar (north Gujarat) and has Arabian blood in its ancestry. At the beginning of the twentieth century, the breed had disappeared practically speaking, but at present is being retro-bred.

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[4] Although the earliest fossil record of the genus *Equus* is from deposits dating back to about 2.6 million years ago (Late Pliocene) in the Siwalik sediments of India-Pakistan, these horses bear no relation with *E. caballus*, whose origin lies in Central Asia.

[5] Adapted from B. Hendricks, *International Encyclopedia of Horse Breeds* (Oklahoma: University of Oklahoma Press, 1995), 251–279.

The Kathiawari or Kutchi of Gujarat is closely related to the Marwari and has Arabian blood as well. It shows the same bond with its rider as the Marwari in war. It is smaller and lighter than the Marwari and stands 1.33–1.43 m at the shoulder. Their origin is said to be based on a crossing of local horses with shipwrecked Arabs off the west coast at Veraval Port. The Kathiawari is easily recognized by its extremely curved ears, more than in any other horse breed; the ear tips touch and often overlap at the tips. The Kathiawari is adapted to the extreme temperatures of the Indian deserts, is swift and strong and hardy enough to carry its rider with armour all day through the most difficult terrain. It is said to be the ideal war horse; especially those of the Panchaal region are most famous. Often portrayed by authors as a pony, the true Kathiawari is a small hotblood.

The Arab is of the same size as the Marwari and is a remarkably lively horse, loyal and faithful, with great stamina. Its ears are small and pointed and are moved at the slightest sound. The profile of its head is slightly hollow, not straight. The largest difference with the Indian Marwari and Kathiawari is its origin, which can be traced back to the deserts of the Arabian peninsula. The Arab has been selectively bred at least since the seventh century. Muslim legend has it that god created the Arab from the southern wind. The Koran dictates good care for the Arab. In the dry season, when there is no grass, it is fed milk and dried meat of camels, dried dates and even locusts. The Mughals of India and Pakistan kept and bred the Arabian horse and naturally despised all other horse breeds, for they had no divine origin. Arabian horses can not carry heavy armoured men, which made them useless in the European medieval cavalry.

The Spiti, the Tibetan pony or Nanfan and the Bhutia are strong, thick-set ponies of the Himalayas, standing 1.2 m or more at the shoulder (fig. 297). The ears are small and pointed, the neck is short and massive. They are especially adapted to higher altitudes, and do not thrive so well in the warmer plains and valleys. They are used as pack animal at mountain passes. The Spiti, Nanfan and Bhutia are closely related to each other. These Himalayan ponies are descendents of Mongolian ponies. The Mongolian pony is one of the oldest horse breeds and influenced most Asian breeds to some extent. Its wide distribution is thanks to the nomadic way of life of the martial Mongolian tribes. The Mongolian pony is short and massive with a large head with small eyes and short, thick ears and with luxurious

manes and tail to keep itself warm. The profile of the head is slightly rounded in some types.

The horses frequently seen in villages all over northern India are often malformed, undernourished and undersized. Most likely it are these horses to which Muslim and colonial sources refer when they describe the Rajput horses. The majority of these local horses are of mixed origin, often with a small percentage of Kathiawari or Arab blood; see for example a local horse at Mussoorie in northern Uttar Pradesh (fig. 298); its slightly inward curved ears and long legs reveal a certain amount of Arabian or Kathiawari blood in this local stock. The majority of these horses stands not higher than 1.3 m at the shoulder. Despite their often ungainly built, they are well adapted to the local conditions and are strong and tough as a goat, able to live on low quality fodder.

Lastly, together with the British rulers came their swift race-horse to India, the English thoroughbred (fig. 299). It is a large horse, standing about 1.6 m at the shoulder, with a relatively light built. English thoroughbreds have a long neck, high withers and strong hindquarters. The head has a straight profile, unlike the hollow profile of the Arabs. They were selectively bred for the races since the seventeenth century, and were a century later improved with Arabian, Turkish and Berber blood. This horse breed did not play any significant role in India before the twentieth century. The thoroughbred in India does not show the same stamina and hardiness of the Indian and Arabian breeds; it is not adapted to the Indian climate.

18.1.3 *Related Species*

The domestic horse is closely related to the domestic donkey (*Equus asinus*), the khur or Asiatic wild ass (*E. hemionus*) and the kiang or Tibetan wild ass (*E. kiang*). The donkey is an imported animal from Africa through the Arabian world, but this did not take place before the Common Era.[6] Khurs and kiangs, on the contrary, are indigenous to the subcontinent (see next Chapter).

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[6] H. Epstein, "Ass, mule, and onager," in *Evolution of domestic animals*, ed. I. Mason (London: Longman, 1984), 174–184; P. Grubb, "Order Perissodactyla," in *Mammals species of the world: a taxonomic and geographic reference*, ed. D. Wilson and D. Reeder (Washington, D.C.: Smithsonian Institute Press, 1993), 369–372. However, the total absence of donkey in art and excavations may be biased by the fact that donkeys typically belong

Both donkeys (fig. 525) and khurs (Plate 28) have erect manes, and a tail ending in a bushy tip, in contrast to the long, falling manes of horses and the long-haired tail. They are small and have a relatively large head; the ears are slightly larger in the khur and much larger in the donkey, compared to the domestic horse. Khurs and donkeys may have a longitudinal stripe over their back and a transversal stripe over the shoulders, which horses never have; donkeys may even have rings on their lower limbs. Exceptions to these general differences are seen only in the Przewalski horse and the Norwegian fjorden breed, which have stripes, too, and erect manes, on which the longitudinal stripes continues. Neither of these two breeds is found on the Indian subcontinent.

Mules and hinnies are not a species on their own, but hybrids between a donkey and a horse, respectively with the horse as the mother and with the donkey as mother. They resemble both parents, though an expert can tell the difference between a mule and a hinnie: mules have a large head with large ears and a tail with long hairs, whereas a hinnie has a smaller head with shorter ears and a tufted tail. Hybrids are appreciated because they can carry heavier loads, walk more sure-footed and with greater endurance than both parents.

18.1.4 *Role of horses in society*

18.1.4.1 *Use of the horse*

The use of the domestic horse is wide-spread. The horse is mainly used for riding, as pack animal or as draught animal and to a lesser extent for its meat, skin and milk. Riding horses are used in hunts, wars, royal display and as transport means. Horses are also used in polo, jumping and racing. The world's first polo club is the Sichar Club of Assam, founded in 1859.

In prehistoric times, horses were just another game item, see for example the famous caves of Lascaux in southern France (c. 13,000 B.C.E.). The earliest management system, and the first step to domestication, was most likely based on the seasonal corralling of wild horses,

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to the poorer households, as seems the case for Africa; see R. Blench, "The history and spread of donkeys in Africa," in *Donkeys, people and development. A resource book of the Animal Traction Network for Eastern and Southern Africa (ATNESA)*, ed. D. Fielding and P. Starkey (Wageningen, 2004), 22–30.

rather like reindeer management today in some places, to provide meat and hides on a regular basis. Eating equids is and was common in many Eurasian pastoral systems; it was much later that a taboo arose: Islam prohibits it, and many Christians refuse it.

The horse-drawn chariot was in use in Asia Minor by about the beginning of the second millennium B.C.E., and around c. 1,500 B.C.E. the horse-drawn chariot appeared also in Greece, Egypt and China.[7] The introduction of the horse-drawn chariot surely had a profound impact on history, as had the invention of the stirrup much later in Central Asia, which made it possible to ride a horse. The evolution of the chariot cannot be followed on the subcontinent, as the transition from solid bi- and tri-partite wheels to four- and then many-spoked (six, eight and nine) wheels took already place in the second millennium B.C.E., well before the time of the first actual finds of chariots or their depictions on the Indian subcontinent.[8]

Horses were used in warfare from the very beginning of the historical period, see for example Kautilya's *Arthashastra*, dated to the second century.[9] The first comprehensive handbook on horse-lore is the *Ashvashastra* ascribed to the epic hero Nakula.[10] According to this text, horses are the very life and soul of battle.[11] The usefulness of the horse in warfare is again praised in similar works: the *Manasollasa* of king Someshvara III (early twelfth century), the *Hariharacaturanga* of Godavara Mishra (late twelfth century), and the *Ashvashastra* of the Jain author Hemasuri (fourteenth century).

18.1.4.2 *Domestication of the horse*

At present, two opinions considering the ancestry of the domestic horse prevail: either the tarpan[12] or the Przewalski-like horse gave rise to the

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[7] S. Piggott, *Wagon, Chariot and Carriage* (London: Thames and Hudson, 1992); M. Levine, "Domestication and early history of the horse," in *The domestic horse. The evolution, development and management of its behaviour*, ed. Daniel Mills and Sue McDonell (Cambridge: Cambridge University Press, 2005), 5–22.

[8] An early artefact is a clay model from Chanhudaro, Pakistan (ca. 2,000 B.C.E.); pole, posts and axle are reconstructed, which hinders any interpretation of the type of wheels and whether they turned with the axle or not.

[9] T. Trautmann, *Kautilya and the Arthasastra* (Leiden: Brill, 1971).

[10] *Asvasastram by Nakula with coloured illustrations*, transl. and ed. S. Gopalan, Tanjore Saraswati Mahal Series 56 (Tanjore, 1952).

[11] Ibidem, Chapter *Vajiprashamshadhyaya* or horse praise, verses 12–13.

[12] R. Nowak, *Walker's Mammals of the World* (Baltimore and London: The Johns Hopkins University Press, 1999, sixth edition) and discussion therein.

domestic horse.[13] Its original distribution included the steppes from Poland and Hungary to Mongolia, but not the plains of the Indian subcontinent. The situation concerning the domestication and import of the horse *Equus caballus* into the subcontinent is not clear because of the sparse archaeological data. Two options prevail concerning the domestication of the horse on the Indian subcontinent itself. In the first option, initially the khur or onager was domesticated, to be replaced at a later date by the horse,[14] as in Mesopotamia.[15] In the second option, which seems to be the prevailing one, khurs and onagers played no role, and only *E. caballus* was domesticated.[16] The genetic diversity, however, of horse breeds of today is large, much larger than that of cattle and goats, excluding an origin from one single wild population.[17]

The first archaeological indication of horse keeping comes from an Ukrainian nomadic people of about 4,000 B.C.E.[18] Remains of truly domestic horses have been found at archaeological settlements in China, the Near East (Babylon and Assyria) and northern Europe around 2,000 B.C.E., in Greece around 1,700 B.C.E. and in Egypt around 1,600 B.C.E., but there are no convincing reports of dated horse remains from South Asian archaeological sites before the end of the second millennium B.C.E.[19] One of the problems is that much material comes from poorly defined contexts, and can thus be considerably younger in age than the bulk of material at the site; this is the case in Mohenjo-daro and Harappa in the Indus Valley of Pakistan.[20] A date after 1,700 B.C.E. is most likely, considering the dates from nearest-by Assyria, combined with the evidence of the slow process of dispersal into Greece and Egypt.

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[13] D. Prothero and R. Schoch, *Horns, tusks, and flippers: the evolution of hoofed mammals* (Baltimore and London: Johns Hopkins University Press, 2002) and discussion therein.

[14] B. Brentjes, *Die Haustierwerdung in Orient* (Wittenburg: Neue Brehmer Bücherei, 1965); R. Conrad, *Die Haustiere in den frühen Kulturen Indiens* (München: Franz Frank, 1966).

[15] S. Dalley, "Ancient Mesopotamian Military Organization," in *Civilizations of the Ancient Near East*, vol. 3, ed. J. Sasson et al. (New York: Scribner, 1995), 413–422.

[16] Herre and Röhrs, op. cit. (1973).

[17] Levine, op. cit. (2005), 5–22.

[18] Prothero and Schoch, op. cit. (2002).

[19] R. Meadow and A. Patel, "A Comment on: Horse Remains from Surkodata by Sa'ndor Bokonyi," *South Asian Studies* 13 (1997), 308–315.

[20] Meadow, op. cit. (1986), 43–64.

The problem of dating horse remains is further increased by the difficulty in determining archaeological remains of domestic horses and khurs or wild asses correctly.[21] The first is imported and non-indigenous, the second is indigenous and originally inhabited the plains of the north-western regions in huge numbers, intergrading in the west with the Persian variety, or onager.[22]

The first positive evidence of *E. caballus*, based on anatomical features, comes from the Iron Age level, dated to the first millennium B.C.E., of the site of Pirak, Pakistan; the earlier levels, assigned to a pre-Harappan Neolithic period, yielded only khur remains, while the younger level contained remains of both the domestic horse and the khur.[23] Horse remains from other early sites turned out to belong to khurs only, e.g. at Surkotada[24] and Rangpur[25] along the Gulf of Cambay, Gujarat. Horse remains from mature and post-Harappa levels of nearby Lothal were not determined further.[26] The horse bones from Mohenjo-daro, found less than 0.5 m below the surface, belong either to khurs or came from much younger layers, in spite of what some scholars assume;[27] the same is valid for Harappa.[28]

The import of the domestic horse not before the Iron Age is confirmed by the total absence of any older artefact with a horse depiction. A recent attempt[29] to prove the opposite has been shown up to be nothing more than a badly distorted, "computer-enhanced" image, printed next to an "artist's reproduction" of a horse; the original source is a photograph of a damaged seal,[30] which shows only the hindquarters of an evident 'unicorn' bull.[31] The earliest domestic horse in Indian art

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[21] Taxonomical differences are mainly found in the metapodals, the first phalanges and lower teeth, but overlaps are considerable, and in many cases only bone fragments and upper teeth are found.

[22] T. Roberts, *The Mammals of Pakistan* (London: Ernest Benn, 1977).

[23] Meadow, op. cit. (1986).

[24] A. Sharma, "Evidence of Horse from the Harappan Settlement at Surkotada," *Puratattva* 7 (1974), 75–76.

[25] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14; the latter assign the horse bones to the donkey, *E. asinus*.

[26] Ibidem.

[27] Pant, op. cit. (1997).

[28] Khur bones from Harappa are ascribed to the domestic donkey (Pant, ibidem).

[29] N. Jha and N. Rajaram, *The deciphered Indus script. Methodology, readings, interpretations* (New Delhi: Aditya Prakashan, 2000).

[30] Seal impression Mackay 453 in Mackay, op. cit. (1937–1938), vol. 2. The seal used to make the impression is DK 6664.

[31] M. Witzel and S. Farmer, "Horseplay in Harappa The Indus Valley Decipherment Hoax", *Frontline* 17, 20 (Sep. 30–Oct. 13, 2000).

comes from Pirak, in the form of small equid figurines of baked clay. Based upon the presence of the characteristic forelock, they represent domestic horses, and not khurs.[32] Though attributed to the Harappa and even pre-Harappa levels, they most likely belong to the same level in which *E. caballus* bones were found, dated to the first millennium B.C.E., because the complete absence of domestic horse images and bones in Harappa contexts surely would isolate the Pirak figurines from those of the post-Harappa periods. In Mohenjo-daro and Harappa, not all archaeological contexts are equally well-defined,[33] likely the same is true for Pirak.

Apart from references in the ancient *Rigveda*, dated to the last half of the second millennium B.C.E., the first historical accounts of the use of domestic horses comes with the Shakas of the third and second century B.C.E. in North India. The horse was their supreme icon. They belonged, together with the Scythians, to a category of nomadic tribes from the Central Asian steppes, who spoke an Indo-European language and migrated into the subcontinent through Iran. They were skilled horse-archers with hooked and poisonous arrows, "promising double death" in Ovid's description.[34] In Sanskrit texts they are referred to as *mleccha* (barbarian). Their arrival in India coincides with the first depiction of the horse in Indian stone sculpture. The Shakas were replaced during the first century B.C.E. by the Kushanas, an offshoot of the Yueh-chih tribes of Kansu.[35] Indian texts refer to them as *tusaras* or *tukharas*, inhabitants of Tukharistan along the river Oxus in present-day Afghanistan.[36] The domestic horse spread fast over the northern part of the subcontinent during the first millennium, but seems not to have reached the warm and humid areas of the peninsula. They were brought there in due time in the first half of the second millennium. The dispersal of the horse over the continent can be followed in historical documents, copper plate inscriptions and literature going back to the sixth and seventh century.[37]

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[32] Meadow, op. cit. (1986); figured in J. Enault, *Étude architecturale et Figures. Fouilles de Pirak*, vol. 2. Paris: Diffusion De Boccard, 1979), figs. 564, 599 and 602.

[33] Meadow, op. cit. (1986).

[34] Wink, op. cit. (1997).

[35] Ibidem.

[36] Ibidem.

[37] For example, horses are mentioned in connection with army composition of, amongst others, the Rashthrakutas of the Deccan, the Latas of Gujarat and the Marwars of Jodhpur in Rajasthan.

18.1.4.3 *The Horse in Religion*

The earliest description of a horse in a religious context is found in the verses of the *Rig Veda* (c. 1,400 B.C.E.), in relation to a horse sacrifice (*ashvamedha*).[38] This sacrifice was supposed to sustain riches, wealth, good horses and many offspring.[39] The selected horse was first free to wander at will through the lands, and woe the king who dared to capture or hurt it; such an insult was reason enough to start a battle. In order to check what was going on, the horse was accompanied by a few selected men. After a year the horse was ritually killed and thus send to the abode of the gods. Once the horse was dead, the chief queen laid down aside the horse and its genitals were made to touch the queen's.[40] This is a very direct link between the horse and powerful offspring; what else a king could wish.

The connection of the horse with powerful offspring, or fertility in general, may underlie the present-day custom in Rajasthan to feed the groom's horse during wedding ceremonies. The bride's mother gives the horse traditional sweets and rose petals. The horse is heavily decorated with ornaments (fig. 300). On the other hand, it may equally well be a social status symbol for the groom and his family. The possession of a horse is a good indication for a family's welfare.

The horse is the personal vehicle or mount for several deities and saints. The image of a solar deity depicted riding on a chariot drawn by one or several horses appeared all across Eurasia, from the Mediterranean through Iranian plateau to India and Central Asia.[41] The

[38] From the *Rig Veda* verses it is not clear whether their horse was a khur or a domestic horse. It is described as having thirty-four ribs, being seventeen pairs, "the axe penetrates the thirty-four ribs of the swift horse; the beloved of the gods cut up (the horse) with skill so that the limbs may be unperforated, and recapitulating joint by joint" (*RV* 1.162.18). Domestic horses of today have eighteen pairs of ribs. Living wild khur also have eighteen pairs (*E. hemionus* checked at the Field Museum, Chicago, USA) as some other wild horses (*E. montanus*, *E. quagga quagga*, *E. africanus taeniopus* checked at Naturalis, Leiden, the Netherlands); they may even have nineteen pairs (*E. montanus*, *E. przewalski* checked at Naturalis). The number of ribs seems not to provide us a clue, unless in case a local khur-breed, now extinct, had a different number, but this can not be checked. It might be that the Vedic definition of what is a rib differed from that of present-day anatomy. Other Vedic sources inform that their horse was born of the ocean: it has the ocean as its belly (*TB* VII.5.25), it is produced from water (*ShB*, ed. Eggling, 1963: part 3, 19) and thus belongs to Varuna, god of the waters (*ShB*, ed. Eggling, 1963, part 4, 401).

[39] *RV* 162.22.

[40] *ShB* XII.5.2.

[41] The solar god is known with various names: Apollo in Classic Greece, Helios in Greek Bactria, Ohrmazd in Khotan, Mithra in Middle Persian, Mihr for the Sasanians, and Surya in India.

connection between the horse and the path of the sun is repeated in Hindu mythology, where the horse is the vehicle for the sun god Surya.[42] His chariot, which follows the course of the sun on its daily path, is drawn by four or by seven steeds; a variation on the theme is a single horse with seven heads. Also Surya's son, Revanta, the god of hunting, has likewise a special bond with the horse. Revanta does not stand on a chariot as his father does, but rides the horse. In the ancient Vedic tradition, also the Ashvins, the twin gods of medicine, rode a golden chariot through the sky before dawn; this chariot was either drawn by horses or by birds.

For Hindus, god Vishnu's tenth avatar is the future apocalyptic Kalki. In this form, he is supposed to ride a white horse with a sword in his uplifted hand to destroy the wicked and rescue the virtuous at the end of times. The iconography closely resembles that of the horse-riding heroes and saints. The whole idea of Kalki may have been derived from the local deified warrior-heroes. They are protectors, saviours or rescuers, such as the horse-riding Kshetrapala, the protector of the fields. The same is valid for the martial saint Aiyanar[43] and for the village deity Madurai Vira, the hero of Madurai, Tamil Nadu. Their presence is indicated by horse statues or statuettes, mostly of wood, terracotta, or metal, at wayside shrines and as ex-voto offerings inside these shrines. Aiyanar is worshipped in Tamil Nadu and Kerala,[44] whereas Madurai Vira is much more local; his shrines are found in the Pudukottai region of Tamil Nadu. In the westernmost parts of the Thar desert, terracotta horse statues (twentieth century; fig. 301) are found on altars for local deities, possibly representing their mounts, and quite possibly also to be explained as ex-voto offerings,[45] comparable

[42] Alternate names or forms of Surya are Aditya, Ravi, Bhanu, Bhaskara, Samba, and Martanda.

[43] Alternate spellings or names are Ayyanar, Ayyappa, Sasta, and Hariharaputra.

[44] T. Rao, *Elements of Hindu Iconography* (Varanasi: Indological Book House, 1971; reprint of 1914–1916), vol. 2, pt. 2, 485–492.

[45] Kamphorst, op. cit. (2002), Ch. 18 and op. cit. (2008). Another explanation for the frequent ex-voto offerings of horse statuettes or figurines in village shrines in the south today is that they may have their roots in the ancient horse sacrifice; see Pal, op. cit. (2003).

to the situation in Tamil Nadu and Kerala. The same is done by various tribal groups in Gujarat.[46] Several folk-gods ride a horse, such as Pithora of, amongst others, the Rathwa of Gujarat[47] and Bhairmdeo of the Bastar tribes of Madhya Pradesh.[48] In Jainism finally, the horse is associated with the Tirthankara Shambhunatha, and in esoteric Buddhism with Manjuvajra. The Rajasthani folk-goddess Sitala Devi rides a donkey instead of a horse.

Horse-headed deities are known in both Hinduism and Buddhism. Once, Vishnu came down to earth as Hayashiras—Sanskrit for horse head—to destroy the demon Hayagriva—Sanskrit for horse neck—. Rather confusing is the fact that he again came down in the form of Hayagriva to slew the demons Madhu and Kaitabha who had stolen the Holy Book, the Veda. Hayagriva is primarily a god of wisdom and knowledge. A story about how he got his horse-head is told in the *Devibhagavata*: once Vishnu was protecting a sacrifice, but fell asleep with his head on his bow. The gods were not able to wake him up and they let white ants eat through the bow-string, which then sprang and the released bow cut off Vishnu's head. The goddess Tripurasundari put a horse's head on his torso instead. Hayagriva became adopted by the Buddhist as well as the horse-headed fierce form of Amitabha, the Buddha of the Pure Land (Sukhavati), who resides in the uttermost west; as Hayagriva, he is the protector of the *dharma* (Dharmapala). In the Newari Buddhist culture of Nepal, the horse-faced Hayashya protects the eastern gate of Kathmandu. Kubera, god of riches, has horse-headed musicians (*kinnaras*); alternatively, they bear goat horns much like the flute-playing Greek satyr Pan.

The horse forms an auspicious quartet in early Buddhist architecture together with the lion, the bull, and the elephant. These four animals are found together on abacuses of free-standing pillars and on moonstones at the entrances of Buddhist monasteries on Sri Lanka, walking in procession. One of them may function as crowning element of the free-standing pillar in turn. The meaning of the auspicious four is not clear; it has been suggested that they represent the cycle of birth, death and rebirth (*samsara*) and nirvana, in which the horse symbolizes

[46] H. Shah, "Gujarat," in *Tribal India, Ancestors, Gods, and Spirits*, ed. Saryu Doshi (Bombay: Marg Publications, 1992), 85–102.
[47] Ibidem, 92.
[48] M. Pal, "Madhya Pradesh," in *Tribal India* (1992), 103–118, 118.

death.[49] At rare occasions, only the horse and the elephant figure on moonstones, such as the one at the entrance to the Vatadage at Polonnaruwa,[50] favouring the theory of the connection with *samsara*, because the elephant represents birth and the horse death. Another role of the horse in Buddhism is as prince Siddhartha's loyal steed Kanthaka. As such he figures in the legend of the Great Departure of the Buddha. After prince Siddhartha, the future Buddha, had seen sickness, old age and death, he choose to abandon his luxurious palace life to find a way to escape from sorrow and pain. One night, he left the palace on his horse, unnoticed by his family and servants. In the forest, he exchanged his princely clothes with those of his servant, and sent the servant back to the palace on his horse. After years of austerities and meditations, he finally reached enlightenment under the Bodhi tree and became known as the Buddha.

18.2 Horses in Stone

18.2.1 *Small Versus Large Breeds*

Depicted horses can roughly be divided into two sizes, small and large. In sculptures, mules cannot be easily differentiated from horses, as they are intermediate between a horse and a donkey. Mules, however, typically belong to poorer households, which drastically reduces the change of finding them in art works.

Small breeds are common for the older periods. The great majority of the Iron Age horses (roughly 900–300 B.C.E., thus including the Roman and Greek horses of classic times) were less than 1.25 m in withers' height, and would be called ponies by modern standards; they are indeed sometimes referred to as Celtic ponies. The horses that were used to draw the chariots of kings and warriors of Egypt and Mesopotamia belonged without exception to these small breeds. The situation for the ancient civilizations of South Asia is not expected to have been much different. In other words, the chariot of prince Siddhartha, the future Buddha, of the sixth century B.C.E. was most likely drawn by such a horse.

[49] Wijesekera, op. cit. (1990), 75.
[50] Figured in Boisselier, op. cit. (1979), pl. 102.

The horses from Scythia and the Russian steppes were, however, larger and there might have been some influence on the South Indian continent in the third to first century B.C.E., either in art or in blood lines or both. That the Scythian horses were larger indeed is not only known from sculptures and descriptions, but also from their mummified remains from the Pazyryk tombs.[51] These horses were used with their riders in the Roman armies; their remains are found at several archaeological sites within the former Roman empire. Though they were larger than the small breeds, they hardly surpassed a withers' height of 1.45 m, which makes them comparable to the smaller range of the Arabian horse of today, and considerably smaller than what we call a large horse today. Actually, according to the present standards, a withers' height of 1.47 is the minimum for a horse; everything below is officially a pony. This means that, especially for the older periods, all horses are small in modern eyes. The truly large breeds, up to 1.60 m at the withers, had to wait until post-medieval times.

The size of a horse in sculpture is best estimated by means of the relative size of the rider, an attendant or another side-figure standing next to the horse. In the case of the small horses, the feet and the lower part of the leg of the rider extend well below the belly of its mount. Attendants look straight into the eyes of this size of horse, or are even higher than its head. In case of the larger horse, the feet of the rider may extend just below the belly, but not so the lower part of his legs. The eyes of the attendant are on a level with the shoulder of the horse.

18.2.2 *Typical Sculptures of Small Breeds*

The oldest surviving stone sculpture of a small horse dates back to the first Indian imperial dynasty, that of the Mauryas of North India, and forms part of the abacus of a free-standing pillar at Sarnath, Uttar Pradesh (third century B.C.E.; fig. 302). It is at the same time a rare example of a horse represented without any harness or bridle. The depicted horse is very elegant, has a large though slender head, a strong neck, small hooves, curly and long manes, a tail with long hairs and an unmistakably forelock, flying backwards indicating its high speed. All

[51] S. Rudenko, *The Frozen Tombs of Siberia*, transl. M. Thomson (London: J. Dent, 1970).

features fit the domestic horse. The size cannot be estimated, because no reference object is depicted, but the relatively large head, massive and short neck and short legs indicate a small breed. The long and abundant hairs are in favour of a derivative of the Mongolian pony, such as the Spiti of the Himalayas.

A slightly later relief leaves no doubt regarding size. Small riding horses decorate the extension of the eastern gateway from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 303). The rider is almost twice as tall as the horse, and almost touches the ground with his feet. This horse is truly very small, and smaller than any later horse in sculptures. The hooves are large and the well-formed, bushy tail reaches the ground. The manes are fashioned and very short and upright. The muzzle is straight and the ears round and small. A saddle seems to be absent, but harness and bridle are in use; bandages have been sculpted either only at the fore-knee or at all four limbs. The forelock, present in one of the two examples, cannot be confirmed for the other due to damage. Also the rock-cut horse reliefs on the columns of Cave 7 at Bedsa near Mumbai, Maharashtra (first century B.C.E.)[52] represent such a small breed with a large head and a massive triangular neck. The forelock is clearly visible, and the manes seem short and upright.

Sri Lanka provides no exception, and the horses of the earliest sculptures are invariably small with large heads and long, wavy tails. A nice example is provided by a free-standing horse sculpture in the form of a horse capital of the western side-platform of the Kantakachetiya stupa at Mihintale (second to first century B.C.E.; fig. 304). One of the differences with the early northern sculptures is the slightly rounded profile of the muzzle here.

A seemingly large horse with rider decorates a column from Sarnath, Uttar Pradesh (second century B.C.E.; fig. 305). It differs essentially from the earlier, more vivid horse sculpture on the abacus of the free-standing pillar from the same region. The manes are now fashioned and are short and upright; the presence of a forelock is unsure, because of damage. Considering the purely decorative function of the horse at Sarnath, the mythical nature of the fly-whisk bearer, and the common occurrence of small horses at that period, it is most likely that the rider's size is misleading. A further clue is offered by the way the tail is fashioned. The initial part of the tail seems wrapped, after that

[52] Figured in Snead, op. cit. (1989), pl. 77.

long hairs follow. Exactly the same tail is seen in a contemporaneous panel fragment illustrating Buddha's Great Departure from Pitalkhora, Maharashtra (c. 100 B.C.E.).[53] Here, the horse is without doubt small. On the other hand, taken the early period of the Sarnath column in consideration, and the mythical nature of the horse rider, it seems perceivable that this is a reference to stories heard about the larger horses of the Scythians.

The seemingly disproportional size of the horse on the Sarnath column was repeated a century later as part of a very similar setting on the southern gateway to the Great Stupa at Sanchi in Madhya Pradesh (c. 50–25 B.C.E.; fig. 306). At either side, a couple of horses with riders, one with fly-whisk as on the Sarnath capital sits comfortably on the junction of architrave and vertical post. The manes are fashioned, short and upright. The forelock is integrated into a large fancy plume. Also these riders are of a mythical origin as half of the other animal couples, decorating the junctions between architrave and vertical post, such as antlered lions and winged goats. It is most likely that also in this case the size of the rider is misleading and that in reality the local horse of that period and region was small. As in the case of the Sarnath column, a reference to stories about the large horses of the Scythians cannot entirely be ruled out. On the other hand, at the very same gateway a similar horse with rider plays a role in a narrative (fig. 266). Here, there is no doubt about the small size of the horse. It is surrounded and ridden by soldiers of the demon army of Mara, who want to prevent the Buddha from reaching Enlightenment. The horse bears the same huge plume on its forehead, its manes are short, and the first part of the tail is wrapped. The muzzle is somewhat rounded.

Horses in reliefs from Greater Gandhara and northwest India under the Kushana rulers of about the first to fourth century are invariably small, but not as small as the Bharhut ones. These horses may have a long, falling mane and a free forelock as illustrated by a Hellenistic—or Roman—sport scene with nude riders from Greater Gandhara in Pakistan (first to fourth century; fig. 308). A very similar horse with a long-haired tail and loose falling manes figures as the mother of the newborn fowl Kanthaka, prince Siddhartha's horse (first to fourth century; fig. 309). The scene is admirably touching, with fellow horses looking to

[53] New Delhi: National Museum; figured in K. Iyer, *Animals in Indian Sculpture* (Bombay: Taraporevala, 1977), pl. 34b.

see what is going on from behind a separating low wall. The mother is being fed from a large bowl, while her fowl is drinking milk.

Far more common in reliefs, however, is the fashion of short and upright manes, e.g. as seen on an architrave narrating the Transport of the Buddha's Relics from Shahr-i-Bahlol, Pakistan (first to fourth century; fig. 307) and on a fragment of a frieze with the Return of Chandaka and Kantaka from Greater Gandhara (third century; fig. 310). A large forelock plume may be present as well.

A very nice example of a small horse with upright fashioned mane, forelock plume on the forehead and a long tail figures on a panel illustrating the Great Departure of the Buddha from Greater Gandhara (first to fourth century; fig. 311). The head is slender, with slightly steeping forehead, and the neck is as thick and triangular as that of the Himalayan breeds of today, such as the Spiti and the Nanfan, derivatives of the Mongolian pony. Taking into consideration the descent of the Kushana rulers of that period, such a type of horse is not unlikely at all. Modelled upon this or upon a shared source is a panel with the same scene from about the same time from Nagarjunakonda in Andhra Pradesh (third to fourth century, limestone).[54] The horse is larger in height—or the Buddha smaller—than in the Gandhara panel. However, the shorter back seems to indicate that this horse is actually smaller than the Gandhara specimen.[55] The smoothness of Gandhara is lacking, and muscles in the neck are vaguely indicated. The profile of the head is straight.

Exactly the same small horse with long tail, massive and short neck, large head and small rounded ears continues to be depicted in Greater Gandhara also in the following centuries. An example is a boxlid fragment depicting a lion hunt on horse-back (fifth to sixth century).[56] The long forelock hairs fly backwards due to the speed, a detail that was also seen on the Sarnath abacus of roughly eight centuries earlier (fig. 302). Main differences are that the horse is much more robust and has a fashioned short and upright mane, a relatively large head and large hooves and larger ears.

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[54] New York: Metropolitan Museum of Art, cat. no. 28.105.

[55] The very small size of the Nagarjunakonda horse is also evidenced by another panel at Nagarjunakonda (*ayaka* frieze, panel B4) with a less elaborate version of the same episode with less side figures and a very small horse.

[56] New York: Metropolitan Museum of Art, cat. no. 51.108.4.

The horse of, presumably, king Samudra Gupta is immortalised as a free-standing statue at Khairigarh, Uttar Pradesh (fourth to sixth century; fig. 312). The poor animal stands in an awkward position, with hanging head and bent hind limbs; it certainly does not give an active, powerful and proud impression. The horse is rather naked, and seems devoid of mane and tail. The muzzle is somewhat rounded, similar to the horse in Mara's army depicted on an architrave at Sanchi (fig. 266). The neck is not held upright as it should. The hind parts are much too rounded for a horse, and the hind limbs are bent like a dog's. In the front limb, the shoulder bone goes straight upwards, without much muscle cover. The size of the horse cannot be estimated directly, but the overall look of the horse is typical of the small horses, characterized by a large head.

The horse in reliefs from Sri Lanka is small with a long bushy tail during the same period as well. A common occurrence of the horse in reliefs is as part of the auspicious animal series decorating the moonstones at the entrance of monastic buildings, such as the one at the Abhayagiri Vehera at Anuradhapura (fifth century; fig. 281) and a similar moonstone from an unspecified monastery at Anuradhapura (sixth to seventh century; fig. 95). The difference between the two moonstones is that the latter figures only a horse and an elephant, whereas the other figures the standard quartet including also the bull and the lion. The horse is in both cases a small horse with a very large head, short legs and a tail almost till the ground. The profile of the head is straight, unlike the rounded muzzle of the horse capital at Mihintale of seven centuries earlier (fig. 304).

The horses from northern India of the next periods are small, too. An example is provided by the so-called Shankharagana panel from Sagar, Madhya Pradesh (c. 750–775).[57] The muzzle is clearly rounded. The same type of horse is, again, seen in most reliefs of the tenth and eleventh centuries from Madhya Pradesh, such as on reliefs of several Chandella temples at Khajuraho, Madhya Pradesh (see for example, below and fig. 331). The same horses with large heads, rounded muzzles and massive necks decorate two pillar bases at Satrunjaya Hill, Gujarat (eleventh to twelfth century). The muzzles are rounded over their entire

[57] Figured in C. Packert Atherton, *The sculpture of early medieval Rajasthan*, Studies in Asian Art and Archaeology 21, ed. Jan Fontein (Leiden-New York-Köln: Brill, 1997), pl. 132.

length. In one of them, the horses are in a jumping gallop, and take part in a hunt as is indicated by the doggish animals below them, which might be explained either as massive hunting dogs or as wild boars (see also below and fig. 327). Their manes are entirely shaved, not even a trace is left. The tails seem to be braided and reach the ground; in fact, they look more like stiff posts than like tails, do not taper towards the end and have no free end. The other base represents a group of caparisoned horses, also with shaved manes; tails are hidden below the cloth. The horses in both scenes give the impression of enlarged small horses. The disproportional small size of the riders emphasizes the size and power of the horse. The horses do not likely represent a large breed, because the rounded muzzle invariably goes together with a small breed. This is further confirmed by the abundance of similar reliefs in medieval western India; often with small rider on horse-back and a large attendant walking behind the horse, revealing the true proportions.

An exception to the general pattern of small horses with a large head and very rounded muzzle is the small horse with a straight muzzle which figures as the vehicle of Revanta, the Hindu god of hunting, on a panel from northern India (ninth to tenth century; fig. 313). The manes are reminiscent of those seen in the much earlier Kushana sculptures. They seem to be combed in two layers as seen in some lion sculptures. The front leg is stiff as a pillar, without any notion of a joint or a muscle. The belly of the horse is too thin. The whole scene is unrealistic, and devoid of action, giving the impression of having been modelled upon an example in metal.

In eastern Indian sculptures, a small horse with a large head, massive triangular neck, rounded muzzle and often with shaved manes seems to have been the standard as well. One of the earliest depictions of this type in Orissa are the seven horses yoked to the chariot of Surya, the sun god, as a detail on the tower of the Vaital Deul at Bhubaneshwar (eighth century, sandstone).[58] The central horse is depicted frontally, the remaining three on either side are rendered in profile and face outward. Other, similar horses in Orissan sculptures are the horse of Kalki, Vishnu's tenth incarnation, in the east niche on the north side of the tower of the Manibhadreshvara (early eleventh century), the horse

[58] Figured in Donaldson, *Hindu temple art in Orissa*, vol. 3 (1987), fig. 3873.

of Kshetrapala, protector of the fields, at Bhillideuli (twelfth century) and Surya's horses at the Sun temple at Konarak (c. 1238–1258).[59]

Again similar are the horse of Surya's son Revanta at hunt on a stele from Ghatnagar, Bangladesh (tenth to thirteenth century; fig. 314), and on a similar stele from Bihar (tenth century; fig. 185). The former horse of Revanta clearly has a short tail, whereas the latter horse seems to have a long tail. The horse in both Bangladesh steles has large, rounded ears and a very round muzzle; the horse on the Bihar stele has a very massive head and a round muzzle with a dimple midway. The same horses are seen in sculptures from former Bengal, such as the central horse of Surya's seven horses on a stele from Rajshahi, Bangladesh (eighth to twelfth century; fig. 315). Another example is provided by the seven horses of Marichi, the Buddhist goddess of dawn, from Bodhgaya, Bihar (ninth century; fig. 316). Generally, Marichi drives a chariot drawn by seven pigs or boars, but in this case her chariot is drawn by seven horses, like Surya's chariot.

All these eastern horses are very small and rather unrealistic. A giant and free-standing version of Revanta's horse as seen on the stele from Bihar are the free-standing horse statues outside the Sun temple at Konarak, Orissa (thirteenth century; fig. 317). Their heads are quite large, and any elegance is totally lacking in these horses. The muzzle of these horses is rounded with a dimple midway. It lacks the typically rounded muzzle of the small horses of Orissan sculpture, such as present on the very same temple, drawing Surya's chariot. The horse of the statues closely resembles the Himalayan and Mongolian ponies. The close resemblance of the Konarak horse statues and the Bihar stele is suggestive of a younger age of the latter, presumably the twelfth century.

The horse of Revanta and his spouse figuring on a stele from Karnataka (twelfth century) provides a problematic case.[60] The horse gives the impression of being a large horse, since the feet of its riders do not reach the belly of the horse. The horse further has a relatively small head with a rounded muzzle, and a medium-sized tail, which reaches the ankle. The riders are too small compared to the horse, and the whole image gives the impression of an expanded small horse instead of a real large horse, or a confusion of scale, because commonly the

[59] Figured in ibidem, fig. 3576 and Snead, op. cit. (1989), pl. 141 respectively.
[60] Figured in Gorakshkar, op. cit. (1979), fig. 24.

rounded muzzle is seen in reliefs with small breeds. That these horse represents in actual fact a disproportional large small breed is confirmed by an earlier bronze statuette of Revanta from the same region (c. tenth century, Karnataka or Andhra Pradesh),[61] which figures a small horse with the same rounded muzzle. Another hint at the real proportions is given by a carving of a horse-rider on the Keshava temple at Somnathpur, Karnataka (1268, Plate 23). The rider is too small for the horse, as indicated by the much larger size of the attendant walking behind the horse. The muzzle of this horse is hollow, which might point to an imported Arabian-type of horse.

18.2.3 *Typical Sculptures of Large Breeds*

The large horses in stone sculpture represent for the greater part war horses. Their muzzles are not rounded but more or less straight, sometimes slightly hollow. A typical example of sculptures of large horses are the bracket figures of the colonnade of the *kalyana mandapa* of the Jalakantheshvara temple in the fort at Vellore, Tamil Nadu (late sixteenth century; fig. 453). The horses are upthrusting and have their mouth open, likely a side-effect of a painful type of bit.[62] The horse is elegant and approaches modern standards. The scene represents a hunting scene with assistants to finish off the game. Of the same type are the rearing bracket horses at the horse *mandapa* at Shrirangam (seventeenth century; fig. 318), and many other contemporaneous South Indian temples. These horses have few in common with the small horses with massive neck, large head and rounded muzzle so typical of most Indian depictions.

A modern, large and elegant horse figures on a panel from Govardhan, Uttar Pradesh (c. 1600; fig. 319). The horse is in a jumping gallop. The muzzle is very hollow, yielding an elegant look. The ears are pointed and rather large, resembling those of the Kathiawari and Marwari of today, though the hollow muzzle is more typical of Arabian horses. Similar extremely hollow, long, slender heads are depicted on several local hero-stones in Rajasthan.[63] Also these horses are large, elegant and are definitely modern horses. Their nostrils are wide open,

[61] New York: Metropolitan Museum of Art, cat. no. 2003.143.
[62] See also section 18.2.5.
[63] See section 18.2.7.

indicating the use of a painful bit. It seems logic to assume that they all derive from a common example or breed. In folk art this can be followed to the extreme as seen in some clay horses (twentieth century; fig. 301). This common example may be close to the Marwari breed, which was the favourite and highly praised war-horse of the Rajputs from the sixteenth century onwards.

18.2.4 *The Horse-drawn Chariot*

The depiction in stone sculpture of the use of the chariot, in war as well as otherwise is so widespread that an overview lies beyond the scope of this book. Below only a few examples are provided to give a general idea.

One of the earliest depictions of a war chariot is that of a quadriga figuring in the *Mugapakkha Jataka* on a medallion of a railing pillar at Bharhut, Madhya Pradesh (c. 100 B.C.E.).[64] The chariot is the typical war-chariot with a higher front and a curved profile. The same chariot is ridden on the southern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 320) as part of a scene with Mara's army, which came to prevent the Buddha from reaching enlightenment. To the right, an archer with bow and a driver holding the bridles stand on the small chariot with sixteen-spoked wheels.[65]

An early illustration in stone of a horse-drawn chariot with passengers originates from Jamalgarhi in Greater Gandhara, Pakistan (third to fourth century, schist). It is not clear how this chariot is drawn, though it seems that it is a single-beam system with two horses yoked at either side. Another example of a slightly earlier date decorates a gateway architrave from Kankali Tila near Mathura, Uttar Pradesh (first to third century; fig. 321). Here, the horses draw a closed chariot with passengers. They are attached to it by means of a single beam in between them to which they are yoked by means of straps around their

[64] Calcutta: Indian Museum; figured in Barua, op. cit. (1979).

[65] Earlier than the Bharhut reliefs are the rock paintings of two war chariots at Morhana Pahar, Mirzapur district, Uttar Pradesh. One chariot is a biga, the other is a quadriga; both have a standing single driver and are engaged in a fight. The drawing, most probably dating to the early centuries B.C.E., is supposed to record an imported story originating from the Ganges-Jamuna plain and reproduced in a drawing by the local hunter-gatherer population according to Sparreboom (1985). The drawings then do not reflect local technology; see M. Sparreboom, *Chariots in the Veda* (Leiden: Brill, 1985), 87.

necks, endangering the oxygen supply; their tails are bound and hold aside. Both friezes illustrate the transport of the relics of the Buddha, and in both the wheel has thirteen spokes.

Almost all depicted chariots of later periods represent war chariots, mostly figuring in illustrations of an epic episode. However, in such illustrations the chariots are mere copies of either the wooden temple chariots that are used in processions till today or of simple agricultural carts (fig. 73). The reason is that war chariots were not in vogue anymore. The wheels vary and can be many-spoked—mainly six- or eight spokes—or unspoked with an outer and inner circle. A rare example of a relief in which the two types are depicted together is that of an illustration of the *Mahabharata* on a column at the Virupaksha temple at Pattadakal, Karnataka (c. 733–744; fig. 322). The chariots themselves are just square blocks, on which an archer with bow stands in an attacking posture. There is no indication of a driver, and no side nor front panels prevent the archer from falling off. Very similar examples can be seen on other pillars of the same Virupaksha temple (fig. 322) where an unspoked, double-rimmed wheel is depicted twice, and at the large *Mahabharata* panel on the northern wall of the main hall of the rock-cut Kailashanatha temple or Cave 16 at Ellora, Maharashtra (eighth to ninth century) where the wheels are many-spoked.

The largest horse chariot sculptured ever is without doubt the Sun temple (c. 1238–1258) along the Bay of Bengal at Konarak, Orissa. This dynastic temple is a monumental horse-drawn chariot in stone, representing the Sun's chariot with twelve wheels at each side and drawn by seven horses. The wheels are eight-spoked with eight thinner, supplementary beams in between the main beams.

18.2.5 *The War Horse*

An early stone relief of a war horse is part of an *ayaka* frieze from Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 323). The scene illustrates a combat scene from an otherwise unidentified story with two approaching parties. The party to the right comes on horse and elephant back, while the party to the left consists solely of foot soldiers. The horse is small, has an upright fashioned mane, and a massive triangular neck; the forelock is not fashioned into a plume. Another early carving of a war horse is part of a scene with Mara's army on a gateway of the Great Stupa at Sanchi, Madhya Pradesh (fig. 320). The first free-standing statue of a war horse is found outside

the Sun temple at Konarak, Orissa (c. 1238–1258; see above and fig. 317). This colossal horse has not only modern bridles and tacks, but bears also a heavy saddle to which stirrups are attached.

Gradually, larger horse breeds came into vogue for use in war. Early examples of large war horses are provided by the bracket figures at the Jalakantheshvara temple at Vellore (late sixteenth century; see above and fig. 453) and at the temple complex at Shrirangam (seventeenth century; see above and fig. 318). These horses are represented as aggressive as shown by the open nostrils and mouth. However, this is most likely just due to the use of a painful type of bit; training of the horse was based on pain, and the early bits were essential in this.[66] Only by opening the mouth, the horse could reduce the pain caused by the bit; to control the horse more, the mouth was often closed by force using a nose strap. The bracket scenes seems to illustrate a hunt, but can also be explained as a battle, in which the enemy is represented by a game animal. These rearing horse brackets are missing at Hampi, the ancient capital Vijayanagara, Karnataka. The only indication here of the use of a large war horse is provided by the plinths with friezes of rows of animals walking in procession. One or more such rows commonly consist of large horses with their riders, either walking or galloping, such as on the Mahanavami, presumably once a royal throne room or audience hall (early sixteenth century).[67]

18.2.6 *The Horse as Divine Vehicle*

Sculptures of Revanta, the Hindu god of hunting and son of the sun god Surya and patron deity of horse traders, portray the god as a rule engaged in a hunting scene.[68] In many reliefs, however, Revanta seems to return from the hunt instead of engaging in it.[69] This is, for example, the case on a frieze from Uttar Pradesh or Madhya Pradesh (eleventh century, sandstone),[70] although the scene might also represent merely

[66] For an overview of bits as depicted in Indian art, see J. Deloche, *Horse and Riding Equipment in Indian Art* (Pondicherry, 1990).

[67] Figured in Harle, op. cit. (1987), fig. 259.

[68] This iconography is prescribed in the *Brihatsamhita* by Varahamihira (c. 505–558); see B. Sharma, *Iconography of Revanta* (New Delhi: Abhinav Publications, 1975).

[69] Pal, op. cit. (2003), 127.

[70] Pasadena: Norton Simon Museum, cat. no. P.1997.4.2; figured in ibidem, pl. 85.

a royal hunt instead of Revanta with his two companions.[71] The three horsemen are interpreted as Revanta in front followed by, possibly, Danda and Pingala who each have a dog. An attendant carries a stick with the captured game; the party clearly returns from the hunt.

In most sculptures, however, Revanta is depicted still engaged in a hunt with dogs. An early example comes from Central India (seventh century, sandstone).[72] The horse is small, and has an elegant, small head, falling manes and small ears. It lifts up its right front limb, intending to start walking, though still standing. It is more a portrait than an active hunting scene. This is not the case in a stele from Bihar (tenth century, chlorite), which shows more action.[73] Below Revanta's horse, a dog kills an animal, and on the pedestal three more game animals stand or flee away. Revanta's two companions are on foot here. The horse is the standard small horse with very rounded muzzle as seen in most northern Indian reliefs of the early medieval period. A similar stele from Ghatnagar, Bangladesh (tenth to thirteenth century; see above and fig. 314) is more lively, with an elegant, smiling god. His booted feet are clearly placed in stirrups. The two companions are on foot and differ somewhat: the one to the right holds a dagger and is elegant and smiling, the one to the left, holding a sword or club has a broad face and seems to look angry. Another active scene with Revanta's dog engaged in killing a wild boar, is seen on a stele from North India (ninth-tenth century; see above and fig. 313). On the pedestal of yet another Revanta stele from Bihar (eighth to twelfth century; see above and fig. 185), a hunter shoots a fleeing deer or antelope, chased by his dog and startled by a group of beaters and musicians. The stirrups seem attached to the cloth, not to the saddle.

The sun god Surya typically rides a chariot drawn by seven horses. In stone reliefs, the seven horses may be simply represented as a single seven-headed horse. The horses are generally minimally depicted. They are rearing, and their bridles are held by Aruna, the personification of dawn.[74] Surya may wear high boots, possibly indicating a foreign influence, but in many reliefs this is not the case.

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[71] Ibidem, 127.

[72] Berlin: Museum für Völkerkunde, cat. no. IC 34614, at present lost; figured in Härtel, op. cit. (1960).

[73] Pasadena: Norton Simon Museum, cat. no. M.1975.14.14.S; figured in Pal, op. cit. (2003), pl. 140.

[74] Aruna is often seen sitting on the head of Rahu, the personification of the lunar eclipse. Surya may further be accompanied by Danda and Pingala.

Not all reliefs depict his horses, for example the early stele on the Surya temple at Osian, Rajasthan (eighth century, sandstone).[75] The god is recognized here by his two companions, the lotus flowers in both hands and the fact that he has only two arms in contrast to the so common multiple arms of most Hindu deities. He wears an Indian garment and no boots.

The addition of the horses is not related to the period, because a contemporaneous Surya relief on the tower of the Vaital Deul at Bhubaneshwar, Orissa (eighth century, sandstone) clearly shows seven rearing horses, guided by Aruna.[76] A similar standing Surya as in Osian, but combined with seven rearing horses led by Aruna was once present in a niche of the Sun temple at Konarak, Orissa (thirteenth century, chloritic schist).[77] The attendants Danda and Pingala are much reduced in size here. The god's dress is Indian, without boots. Again similar, but with some minor variations, is a Surya stele from West Bengal or Bangladesh (c. 1100, chloritic schist).[78] Here, a small female figure is present between the god's feet and behind Aruna as seen on the stele from Rajshahi, Bangladesh (eighth to twelfth century; see above and fig. 315). The god wears boots.

In most reliefs, the central horse is depicted frontally, while the others face laterally. This is not the case on a column from Kasipur, Bengal (ninth century, basalt).[79] Here, all seven horses face to the right.

The chariot of Marichi, the Buddhist goddess of the Dawn, is typically drawn by seven swine.[80] However, on a Marichi stele from Bihar (ninth to tenth century, chlorite), her chariot is drawn by seven horses instead.[81] The driver sits on the head of Rahu in the centre of the pedestal as befitting Aruna, charioteer of the sun god. The whole image seems to be the result of a confusion between the iconography of Surya and that of Marichi.

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[75] Figured in Michell, op. cit. (2000), fig. 40.
[76] Ibidem, fig. 42.
[77] New Delhi: National Museum; ibidem, fig. 89.
[78] Pasadena: Norton Simon Museum, cat. no. M.1980.1.2.S; figured in Pal, op. cit. (2003), pl. 150.
[79] Calcutta: Asutosh Museum, University of Calcutta; figured in Snead, op. cit. (1989), pl. 140.
[80] See for sculptures of Marichi standing on her swine chariot section 39.2.4.
[81] Berlin: Museum für Völkerkunde, cat. no. I.380; figured in Härtel, op. cit. (1960).

18.2.7 *The Horse on Hero Stones*

Hero stones are a common phenomenon in Rajasthan and Gujarat, and are found scattered throughout the landscape, especially in the desert. They were erected in honour of warrior-heroes and deified forefathers. An early hero stone originates from Dumad, Gujarat (c. 1298; fig. 324), erected in memory of Sri Godadadeva. Here, the rider clearly uses stirrups, attached somehow to the saddle cloth. The horse with its small size, shaved manes and rounded muzzle is similar to earlier reliefs from the same region, such as those on pillar bases at Satrunjaya Hill, Gujarat (eleventh-twelfth century; see above).

Especially the desert regions of Rajasthan abound in similar but more naive hero stones (seventeenth to eighteenth century; Plate 24), dedicated to Rajasthan's innumerable warrior-heroes and folk-gods like, for instance, Pabuji, Devanarayan and Rupnath.[82] The majority of these stones dates back to the seventeenth and eighteenth century, but a few may be as early as the sixteenth century.[83] Generally, these stones depict a small horse with a large head with large, pointed ears, a rounded forehead and a compressed muzzle with a pronounced dimple midway (eighteenth to nineteenth century; fig. 325), very unlike the rounded muzzles of the earlier periods. The size of the rider is not consistent; he is regularly depicted too small for his horse (fig. 326). The horse steps now on an almost round, unidentified object. Pabuji has an archer as companion, possibly a traditional Bhil hunter. The manes of the horse are completely shaved as typical of the early medieval period. The unidentified object is depicted regularly, sometimes resembling a rolling wave, sometimes a formless mass, but also sometimes a tiny calf (seventeenth to eighteenth century; Plate 25, stones to the right and the centre). In the latter case, it refers to Pabuji retrieving stolen cattle, in the first case it refers to a local story according to which Pabuji crossed the "sea of Sindh".

A somewhat different hero stone is at present worshipped at Kolu (Plate 25, stone to the right), resembling in style a panel with fighting elephants, also from Rajasthan, now in London (seventeenth to eighteenth century; see section 17.2.9). As seen in the elephant stele, the horse steps on an unclear object, somewhat like a folded object or a wave. What makes this stele different from the common Pabuji hero

[82] Kamphorst, op. cit. (2002) and (2008).
[83] Ibidem.

stones is, apart from the more sophisticated style, the confused scale. The horse shows all features of a small breed with its large head and hooves, but Pabuji is almost a miniature rider in comparison with his horse. He uses a saddle and stirrups, which are attached far too high. The horse further has a somewhat rounded muzzle with a dimple in the middle as on most Rajput hero stones. The whole style and iconography differs much from that of other hero stones in the same region so that import from elsewhere in Rajasthan cannot be discarded.

Other Rajasthani hero stones are more tribal in style, such as a cluster at Malunga (Plate 26). The horses are invariably stylized and are small. In one case, the horse steps on a round, coiled object.

A hero stone with two heroes on horseback is worshipped at Keru (c. fourteenth to fifteenth century; fig. 327). The horses here have rounded muzzles as typical of the earlier period, and very round, piggish hindquarters. They both step with one front foot on what seems to be a wild boar but what is locally explained as a calf. Warrior-heroes like Pabuji are described as rescuers of cattle. The 'boars' and the rounded muzzles of the horses are remarkably similar to those sculptured on a pillar bases at Satrunjaya Hill, Gujarat (eleventh to twelfth century) which indicates an early date for this particular stone. Currently, the stone is attributed to Pabuji, but the presence of two riders indicates that originally the stone was dedicated to different folk-heroes.

The steles in worship of warrior-heroes who came on horseback to rescue cattle or people are not local, nor restricted to the Indian subcontinent, but should be seen in a larger context, see for example the very similar 'hero stones', four in total, found in the compound of the Palace of the Knights on Rhodes, Greece (fig. 328), which have been interpretated as votive reliefs in honour of the oriental god Kaka(s)bos, riding a horse and holding a club in his right hand. Also Kalki, Vishnu's tenth incarnation comes on horseback to destroy the wicked and the vile and to rescue the virtuous, but his steles form part of religious architecture, and seem not to exist on their own. An example adorns the Rani-ki-Vav—the Queens Step-well—in Patan, Gujarat (eleventh century, white sandstone), where the god's horse steps with one front foot on the head of a fallen warrior.[84]

[84] Figured in Michell, op. cit. (2000), fig. 81.

18.2.8 *Horses in Narrative Reliefs*

A dramatic illustration of the Great Departure of the Buddha on his horse Kanthaka originates from Greater Gandhara, Pakistan (first to fourth century; fig. 329). The Buddha's noble steed Kanthaka bends to the ground to say fare-well to its master. Without doubt, the horse is endowed here with deep affection for its master and admiration for his new path of life.

Before the touching farewell, the horse Kanthaka carries its master without being heard out of the palace into the wilderness. To help Kanthaka in this, the horse is carried through the air. In narrative reliefs, this is done either by earth gods as in the case of Greater Gandhara (fig. 311) or by dwarfs (*ganas*) as seen in Nagarjunakonda, Andhra Pradesh.[85] In some reliefs from Greater Gandhara, the horse emerges from the two-dimensional plane (second to third century; Plate 27). The earth gods stand aside in these cases and are not actively involved. The horse exits the scene rather awkwardly with its belly touching the floor; the prince sits high on its back, towering high above the head of the horse.

An illustration in stone of the myth of Krishna slaying the horse demon Kesi decorates an unspecified Hindu temple at Paharpur, Bangladesh (eighth to twelfth century; fig. 330). The upward thrusting horse is swallowing Krishna's bent elbow, but Krishna lifts already his right fist to knock the demon down. The horse has bulging eyes, small rounded ears and a full, not to say overcomplete, dentition. In general there is a tendency to provide monsters and demons with a surplus of teeth and bulging eyes; this horse demon forms no exception.

The Story of the Horse-headed Ashvamukhi[86] relates the punishment for betrayal of one's husband as follows,

> Once, a former queen of Varanasi was re-born as a horse-faced *yakshi*, Ashvamukhi by name. In her former life, she had betrayed her husband, the king, and upon being asked she replied that if that could be proven true, she may be reborn as a *yakshi* with a horse head. Thus it happened and she lived as Ashvamukhi in the desert, devouring travellers. Once she wanted to eat a Brahmin, but fell in love with him and locked him up in her cave. In due time, they got a son. Later, the Brahmin and the son left her and her heart broke. In this way, she repaid her karmic debt.

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[85] New York: Metropolitan Museum of Art, cat. no. 28.105. See also section 18.2.2.
[86] *Padakushala Manava Jataka*, Pali *Jataka* 432.

An illustration of the story decorates the upper medallion of the fifth post of the southern section of the railing around the Mahabodhi temple at Bodhgaya, Bihar (first century B.C.E. or later).[87] Another instance of the story is found on a medallion of the railing of Small Stupa at Sanchi, Madhya Pradesh (second century B.C.E., sandstone).[88] Ashvamukhi carries a child here. Her manes are short and erect, giving the impression of a donkey or a khur.

18.2.9 *Erotic Scenes With a Horse*

An unmistakably instance of sex with a horse is revealed by the plinth of the Lakshmana Temple at Khajuraho, Madhya Pradesh (c. 930–950; fig. 331). A bearded man penetrates a small, pony-sized mare, while in front of the horse a second man seems to masturbate. A third man stands behind the horse, bedecking his face as if in shame.[89] The meaning of the scene is not clear. Clearly, the Khajuraho temples abound in erotic sculptures, and there are as many theories as there are sculptures, for example theories proclaiming that this kind of art is simply auspicious, is related to esoteric traditions that pursue ecstasy, stimulate people to reproduce and thus to yield more soldiers, refer to a heaven with beautiful maidens (*kanyas*) for soldiers who died in battle, provides a test for the visitor's control of the senses and so on.[90] A very similar, but three hundred years later example of sex with a horse can be found on the Gangeshvari temple at Beyalisbati, Orissa (c. 1260).[91]

On a column at Hampi, the ancient dynastic capital Vijayanagara but now merely a cluster of ruins, in Karnataka (sixteenth century,

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[87] Figured in Bachhofer, op. cit. (1972), pl. 4. The dating of the railing is unsure, because the whole temple complex has been renovated several times during its long-term use; it may even be as old as the first century B.C.E.; see Chakravarty, op. cit. (1997), 58.

[88] Figured in Iyer, op. cit. (1977), pl. 43.

[89] The scene is practically identical to the one involving a recumbent woman instead of a horse on the north-facing middle band of the nearby Vishvanatha temple (c. 1002).

[90] Fact is that war scenes also abound in the same degree as the erotic scenes. The slaying of an enemy is sometimes compared to the raping of a woman, and the battlefield to the nuptial bed; see Kamphorst, op. cit. (2006), 33–78. It might thus be that the whole temple and its complex of erotic and martial carvings should be explained as a sanctification of war, though the role of the horse in this particular scene remains unclear. A link with war is possibly present at Beyalisbati as well.

[91] Figured in Donaldon, op. cit. (1986), fig. 1429.

granite)[92] a puzzling scene has been sculpted, involving a horse, standing upright next to a woman, with erect male organ. The horse is small, its head seems large, its muzzle slightly hollow, surely not rounded as in most small-horse examples. Its slightly compressed muzzle fits better the large war-horses of the region, but also a donkey. The scene may be a reference to the final part of the *ashvamedha* sacrifice, where the queen has to lie next to the dead horse and the horse's genitals are made to contact those of the queen. It is described in the epics *Mahabharata* and *Ramayana*, and scenes from both epics occur often on temples of that region and period. Another, more likely option is that it is comparable to a *gadhegal khambha*, a boundary marker as seen in Gujarat. A typical example comes from Porbandar, but was originally found near Ghumli (carved in 1189 according to the inscription).[93] It represents an unmistakably scene of bestiality, involving a horse mounting a recumbent woman. These kind of images were meant to warn would-be trespassers.[94] Bestiality scenes are in general placed next to curses and imprecatory verses on boundary stones erected to protect land from invaders and trespassers.[95]

18.3 Concluding Remarks

Reliefs depicting a horse are found in many contexts. The horses may be portrayed as the divine mount of gods, such as Revanta, god of hunting, as divine draught horses to drag the chariot of Surya, the sun god, as more humble draught horses, such as the ones that transported the relics of the Buddha, as royal mounts, including that of prince Siddhartha, the future Buddha, as war horses, as auspicious animals or as personal mount for a local hero.

Generally speaking, these horse sculptures represent either small breeds or large breeds. Apart from the size, further differences are seen in the size of the head, the shape of the head (straight muzzle, or slender head with slightly indented profile, or a rounded, inflated

[92] Figured in Snead, op. cit. (1989), pl. 85.

[93] Figured in Maddock, op. cit. (2000), 89, fig. 2.

[94] Ibidem, 90. The idea of bestiality with a stallion as punishment is wider spread, considering an inscription on a Jain temple at Sravanabelgola in Karnataka, promising the ones who intend to destroy the religious text an involuntary mating with a horse.

[95] T. Donaldson, "Orissan Images of Varahi, Oddiyana Marici, and Related Sow-Faced Goddesses," *Artibus Asiae* 55, 1–2 (1995), 155–182.

muzzle), the tail length (reaching the ground, or not extending beyond the middle of the leg ending in a bushy tip), and the size of the hooves. The forelock can be fashioned into a plume, and the manes can be cut or even completely shaven. The latter is an ancient custom, and may have come from Greece through the Greek Bactrian province of Afghanistan and Pakistan.[96]

The use of the stirrup is evident only in a very few sculptures of horse riders, and certainly not in sculptures from before the tenth century; most likely their first appearance is in the eleventh or twelfth century. The overwhelming majority of horses seems to have been ridden without stirrups, at least as far as stone sculptures are concerned.

The historical image which arises from the depictions in stone of the domestic horse on the Indian subcontinent points to an initially restricted use of the horse, mainly as mount for royalty and deities. These horses are all small, close to the Himalayan and Mongolian ponies of today. The early horse in India-Pakistan probably was a swift horse, good for outrunning the enemy, surprise attacks, but not for carrying heavy weights. The earliest depictions of small horses come from Sarnath and Bharhut, Madhya Pradesh. From the first centuries of the Common Era onwards, they are slightly larger, but still small. More or less standard in stone sculptures is the relatively large head with a somewhat rounded muzzle, and often fashioned or shaved manes and tail.

The horses in reliefs from roughly the ninth century to the thirteenth century from northern and eastern India invariably have rounded muzzles, sometimes even very rounded, and often completely shaved manes. They are all small and have a relatively large head.

The first unequivocally large horses are the war horses as sculptured at the large dynastic temples of southern India, such as the ones at Vellore and Shrirangam, but not before the sixteenth century. They reflect the gradually increasing need for a larger horse in warfare. The muzzles of these large war horses are not rounded but more or less flat, sometimes even indented or compressed. These are modern, large breeds, fit for carrying heavy armoured warriors but not for swift, speedy attacks. In typical examples they are depicted jumping up, thrusting their front limbs high in the air, and preferably with a defeated warrior

[96] See, for example, the horses on the north side of the Parthenon frieze and horse statue no 697 from the Acropolis of Athens, Greece, of the early fifth century B.C.E.

below it on the ground, in the same way as the *vyalas* and *yalis* trample the elephant in the *gajasimha* motif.

The small, swifter horses, however, continued to be depicted, but not on imperial monuments and important main stream temples, but more regionally restricted, such as on hero stones and village temples. It is likely that the more powerful and rich dynasties could afford the expensive, large heavy-duty horses, which had to be imported constantly, while the smaller kingdoms could not. In addition, for those smaller kingdoms, the smaller and swifter horses likely were more useful. The smaller horses are better adapted to the local environment, more hardy and with greater stamina. These smaller breeds are bred until today, such as the famous Marwari (Mewari) of Rajasthan, the Kathiawari (Kutchi) of Gujarat and the Manipur polo-pony of Assam.

The availability of the horse may very well have been dependent on trade contact with nomads and pastoralists who kept large breeding herds in the arid zone.[97] The ecological features of the arid areas in India coincide with the ecological niche of the horses. Outside this arid region, horse thrive much less and in the humid, tropical zones they cannot be kept at all, hence their total absence from those regions in the earlier periods. They have to be imported there continuously, whereas in the arid zone, home of the khur,[98] which is closely related to the domestic horse, they can be kept and bred. This makes their owners not only independent from outside import, but gives them also the possibility for selective breeding. In this way, the Marwari and Kathiawari breeds, superb war horses in the Indian climate, could arise.

[97] *Sensu* J. Gommans, "The silent frontier of South Asia, c. 1200–1800 A.D.," *Journal of World History* 9, 1 (1998), 1–25.

[98] *Equus hemionus*, see next Chapter.

CHAPTER NINETEEN

EQUUS HEMIONUS, THE KHUR

19.1 The Living Animal

19.1.1 *Zoology*

The khur (Plate 28) is the indigenous wild horse of the South Asian subcontinent. It is a small to pony-sized horse with a shoulder height of 1–1.42 m. Khurs have a stocky built, short legs and a relative large, massive head compared to most domestic horses, but not unlike many modern ponies. The tail is naked and ends in a tuft of hairs as in donkeys and zebras. The tail is moderately long, and reaches about the middle of the leg. The erect brown mane is continued as a dark brown stripe extending along the back to the root of the tail; sometimes also a transverse shoulder stripe is present as in the domestic donkey. The khur has broader hooves, and shorter hairs on mane and tail than both domestic horses and donkeys; their black-tipped ears are in size between those of a horse and a donkey. They lack the typical forelock, the tuft of hairs between the ears on the forehead, of the domestic horse (fig. 332).

The khur is a social animal which lives in herds of upto thousands of individuals of both sexes, though during the dry season they disperse into small groups. Two standing khurs often place their heads on each other's backs as a token of friendliness, but it also provides them with a clock-round view of their surroundings. Despite their not exactly graceful built, khurs are swifter than most domestic horses, and reach a maximum speed of 70 km/hr and sustain a pace of 50 km/hr for over an hour without sweating.[1] Khurs are legendary for this ability to run swiftly and tirelessly for longer periods (Plate 28); they outrun

[1] C. Groves, "The taxonomy, distribution, and adaptations of Recent equids," in *Equids in the ancient world*, ed. R. Meadow and H.-P. Uerpmann (Wiesbaden: Dr. Ludwig Reichert Verlag, 1986), 11–65.

most horses.[2] In addition, they also climb much better than domestic horses.

The khur originally occurred roughly from Palestine in the west to the Gobi desert in the east, each region with its own subspecies or race, for example the onager in Persia and the khiang on the Tibetan Plateau; the latter is often regarded as a species on its own (*Equus khiang*). Gradually, the wild populations became restricted to small pockets of habitat and reserves, and on the Indian subcontinent the khurs are restricted to the Rann of Kutch (Gujarat; mainly the Little Rann), the Thar desert (Rajasthan and Pakistan), and the coastal plains of Baluchistan (Pakistan); the khiangs are restricted to Ladakh (Jammu and Kashmir). Nowadays, the khur is an endangered species; at the end of the twentieth century the total wild population in the Rann of Kutch counted only about 1,000 individuals,[3] while in the past it was common to see herds each consisting of over a thousand animals. Their decline is due to habitat loss, hunting for meat and competition from domestic livestock.

The habitat of khurs consists of dry steppes and flat desert country, including salt flats and gravel plains. They concentrate in and around the *bets*: flat grass-covered oases in the desert which expand and flourish during the monsoon rains.

It is very difficult to tell apart the remains of the indigenous khur and the imported domestic horse (*Equus caballus*). Taxonomical differences are mainly found in the metapodals and first phalanges: those of the khur tend to be more slender than those of horse.[4] Further, the valley between metaconid and metastylid in the molars of the lower jaw is usually rather V-shaped in khurs, and open U-shaped in horses.[5]

Khur remains have been recognized as such at Surkotada[6] and Rangpur,[7] both in Gujarat, and in all levels, ranging from pre-Harappan

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[2] Prothero and Schoch, op. cit. (2002).

[3] J. Smielowski and P. Raval, "The Indian wild ass and captive populations," *Oryx* 22 (1988), 85–88.

[4] S. Bökönyi, "Once More on the Osteological Differences of the Horse, the Half-ass and the Ass," in *The Caspian Miniature Horse of Iran*, ed. L. Firouz (Miami: Field Research Projects, 1972), 12–23; B. Compagnoni, "The Bone Remains of *Equus hemionus* from Shahr-i Sokhta," in *Approaches to Faunal Analysis in the Middle East*, ed. R. Meadow and M. Zeder, Peabody Museum Bulletin 2 (1978), 105–118.

[5] Ibidem.

[6] Sharma, op. cit. (1974), 75–76, pls. X through XIII.

[7] Determined as "donkey" in Nath, op. cit. (1963) and Chitalwala and Thomas, op. cit. (1977–1978), 14.

aceramic to the post-Harappan levels at Pirak[8] in Baluchistan, Pakistan. Though the remains of Lothal[9] in Gujarat from mature and post-Harappan levels are not determined further, they most probably belong to khurs, considering the data from the other Gujarati sites. This is further confirmed by the clay figurines from Lothal, which represent khurs. Their tail is thick and short and the mane is marked out over the entire neck, strongly suggesting a short and upright mane.

19.1.2 *Role of Khurs in Society*

The khur can be tamed rather easily when young, but they are said not to accept a harness.[10] Due to their temperament, adult khurs in captivity are often restless and can turn aggressive. On the other hand, there is evidence that the Persian subspecies, the onager, was used to draw (war) chariots in ancient Sumer and was only later replaced by the stronger and faster horse.[11] The same may have occurred in India, and use may have taken place on a small scale, possibly by capturing new animals from the wild without captive breeding, similar to what is done with the elephant. Other possibilities are the use of hybrids, as might have taken place in western Asia[12] or the use of khur mares and castrates. Fact is that onagers were captured alive in western Asia as late as 645 B.C.E. as depicted on a relief in the British Museum originating from the palace of the Assyrian king Ahurbanipal at Nineveh in present-day Iraq.

Apart from their possible use as tamed horses, the khurs were hunted in South Asia until the mid-twentieth century. Evidence for this are the stories of local guides in the Rann of Kutch, which tell that their ancestors hunted khur there until c. 1950.[13] As shown in the Introduction, hunting and the killing of animals was always allowed by the

[8] Meadow, op. cit. (1986), 43–64.
[9] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.
[10] Prater, op. cit. (1971).
[11] Zeuner, op. cit. (1963).
[12] J. Zarins, "The domestication of Equidae in third millenium B.C. Mesopotamia," Thesis no. T-26263, Joseph Regenstein Library (University of Chicago, Illinois, 1976).
[13] These guides are descendents of the Gujarati Jhala Rajputs. A Rajput in general is described as a martial Hindu, who "slays buffaloes, hunts and eats boar and deer, and shoots ducks and wild fowl" (Tod, *Annals and Antiquities of Rajasthan*, vol. 1 (1972, reprint of 1892), 57). The negative view on the martial Rajputs is without doubt inspired by an artificial division between the martial Rajputs on the one side and the

Brahmanical *dharma*-texts, and the local passion for hunting forms no exceptional case. The horse, and with it its wild relatives, are today considered noble and unfit as game animal, but this attitude is relatively recent, and likely of a European origin. Hunting khurs in South Asia is not different from hunting zebras in Africa.

19.2 Khurs in Stone

A possible example of a depiction of khur is provided by an illustration of the *Valahassa Jataka*[14] on a railing pillar from Bhuteshvara near Mathura, Uttar Pradesh (first to third centuries, fig. 333). Its large head, very massive neck, upright manes and the non-elegant appearance strongly indicate a khur. According to the tale, the horse flew from the Himalayas to Sri Lanka. A khur is a swift horse, and in the Himalayas a variety lives: the kiang of the Tibetan Plateau, which is very alike the khur, but larger and more robust. The depiction is very accurate. In the Buddhist text of the story, a white horse came to save those who wanted to be rescued from man-eating ogresses. The text gives the horse wings and a crow-beak, not unlike the well-known griffin, but in this stone sculpture, these mythical extras are missing.

A second example is provided by a domeslab from the second stupa from Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 334). A series of galloping horses is used as decorative band; they have large heads, broad necks and upright manes. In addition, they bear no harness nor tacks and they differ from the other horses in narrative reliefs from the same site. If this panel would have come from an arid zone in the west, the determination of khur would have been no problem. India's east, however, is ecologically unfit for khurs and horses; it may be that either the sculptor or the example came from the west. The period is the time when Romans came overseas to the south and the east after their discovery of the favourable monsoon winds; it has been suggested that Roman sculptors (*yavana tacca*) are responsible for

Brahmanical values on the other side in nineteenth-century Rajasthan (Kamphorst, op. cit. 2008).

[14] Pali *Jataka* 196.

the horse sculptures in nearby Amaravati.[15] That there were tales and stories about wild, extremely swift horses can be deducted from a frieze from a cross-bar of the reconstructed outer railing of the Amaravati stupa, but from an earlier period (first century B.C.E. to second century C.E.; fig. 98). Here, a man is engaged in capturing wild animals, being a bull and a horse. The horse has a large head, a massive snout, an extremely short tail and a straight back, all highly suggestive of a khur. The tail is like the tail of a khur and of a donkey, except for its much too short length. Its wings and spiralled horn, however, moves it to the realm of the fabulous.

19.3 Concluding Remarks

Many small domestic horses share typical features with the wild horses such as a massive, triangular neck, a large head, and large hooves, but the presence of the forelock and in many cases long manes are in favour of the domestic horse. Only the absence of a forelock, and the presence of a tufted tail and large ears strongly indicates a khur.

It appears that, apart from the protohistoric terracotta figurines from Lothal in Gujarat, artistic representations of khurs are extremely rare. The only possible examples are provided by early Buddhist reliefs from Mathura in Uttar Pradesh and Nagarjunakonda and Amaravati in Andhra Pradesh.

[15] R. Knox, *Amaravati: Buddhist Sculpture from the Great Stupa* (London: British Museum Press, 1992); see, however, Bachhofer, *Early Indian Sculpture* (1972), 121, who argues in favour of a purely Indian development.

CHAPTER TWENTY

FELIS SPP., THE SMALL CATS

20.1 The Living Animal

20.1.1 *Zoology*

Cats of the genus *Felis* are elegant, graceful and agile small carnivores. They have sharp, retractile claws, sharp teeth, long and prominent whiskers, large upstanding ears and large eyes (fig. 335). Cats are excellent stalkers because they make no noise while walking. The coat of *Felis* species is spotted or striped in a species specific pattern. The tail is ringed with black in most *Felis* species. All *Felis* cats are more or less the same, and the only available diagnostic features for our purpose are body proportions, coat pattern, tail length, distribution and habitat.

They are all solitary animals. Usually they hunt at night; their normal prey consists of hares, rodents and lizards. Cats are excellent tree climbers and many wild cats sleep in trees. The sighting of a wild *Felis* is a rare occasion, due to their solitary and nocturnal lifestyle, combined with their silent movement.

The genus *Felis* includes one domestic species, *Felis catus*. There are many breeds and local races, but differences are mainly restricted to size, coat pattern, colour and hair type. In general, they have a body length of about sixty cm, and a medium-sized tail, reaching the ground when standing, or slightly longer. If there is a pattern, it consists of continuous or interrupted vertical stripes, vaguely resembling that of a tiger or a desert cat, or blotches of a different colour, for example white socks and a white muzzle on an otherwise black coat. Most likely, cats in early historical times resembled their wild ancestor more than modern cats do.

Three wild species of *Felis* are common on the subcontinent, being the leopard cat (*F. bengalensis*), the jungle cat (*F. chaus*), and the desert cat (*F. libyca*). They all three have more or less the same size as a domestic cat. The six other wild *Felis* species have a much restricted distribution (see next section).

The leopard cat has a long tail till the ground. Its body and tail are spotted, resembling those of the leopard, but the spots are elongated and more filled (fig. 336, above). This makes this cat much wanted for its fur. The leopard cat has a wide distribution and is found in the forests from Kashmir and the Himalayas to Cape Comorin in the south.

The desert cat has a rather long tail of about half its body length. It is easily distinguished by its numerous dark grey spots on its body; limbs and tail are ringed with black (fig. 335). The desert cat is found in the arid zones and scrub jungles of the north-western regions extending into the drier parts of central India and the Deccan. It is a rather common wild cat. The desert cat is considered ancestral to the domestic cat.

The jungle cat resembles a desert cat, but has much longer limbs, which make the tail seem comparatively short. There is a very vague pattern on its body; the tail and legs are ringed with black (fig. 336, centre). The jungle cat is the most common wild cat of India, and is found practically everywhere from the Himalayas to Cape Comorin, and also on Sri Lanka. It lives in grassland, scrub jungle, and the reedy banks of rivers and marshes. Being not afraid of humans, they are also found living in old ruins. This is the only cat that also hunts by day.

20.1.2 *Related species*

Six more wild species of *Felis* occur on the Indian subcontinent, which all have a limited distribution. The golden cat,[1] the fishing cat, and the lynx[2] are considerably larger than the domestic cat, whereas the other three wild species, the caracal, Manul's cat,[3] and the marbled cat[4] are

[1] The golden cat (*F. temmincki*) is the largest *Felis*. It gives the impression of a miniature maneless lion with its golden coat with hardly any pattern. The golden cat is found in the forested hills of Nepal, Sikkim, Assam, and the Chittagong hills.

[2] The lynx (*F. lynx*) is a heavily built cat with characteristic tufts of hair on the tip of its ears. It has a fringe of hair hanging down its cheeks, and a short tail, ending in a black tip. The lynx is restricted to the grasslands and river plains of the upper Indus valley, Gilgit, Ladakh and Tibet.

[3] Manul's cat (*F. manul*) is immediately recognised by its short and widely separated ears, which appear to be set very low behind the cheeks, its broad head, its thick medium-sized ringed tail. It is found only in Ladakh and Tibet, but even there it is rare nowadays.

[4] The marbled cat (*F. marmorata*) has a coat pattern which resembles that of the clouded leopard (*Neofelis nebulosa*), consisting of elongated large and small blotches,

about the same size as the domestic cat. Only the caracal and the fishing cat have a wider distribution and are relatively common.

The caracal (*F. caracal*) has characteristic tufts of hair on its ears, like the lynx. It is smaller than a lynx, and has a longer tail, elegant build, and no hairs below its cheeks. The caracal lives in the deserts and semi-arid scrub jungles of Pakistan, Kutch, Punjab, Rajasthan, Uttar Pradesh and central India.

The fishing cat (*F. viverrina*) is short in limb and rather stout in build with a short tail. Its body bears elongate spots arranged in more or less longitudinal rows; the tail is ringed with black (fig. 336, below). The fishing cat lives in or near heavy jungle, scrubs, grass swamps, reed beds, river banks, tidal creeks and backwaters in the Himalayas, the doab, the Indus and Ganges deltas, Orissa, at the Malabar Coast between Mangalore and Cape Comorin, and on Sri Lanka.

20.1.3 *Role of Cats in Society*

The domestic cat is not a truly domestic species. Most cats are able to survive outside the house, and it is said that the cat is willing "to share 'its' home with humans" because of shelter, food, affection and comfort, but that without these, a cat prefers to go its own way and becomes feral again. The differences between the wild cats and the domestic cat are minimal, because breeding is largely uncontrolled. The coat pattern of the majority of domestic cats is tabby—also known as agouti—like the wild cats. The single-coloured—mostly black—and the sex-linked orange-coloured patterns are considered mutations;[5] albino is a suppression of any colour. The breeds with different patterns than these are all human-controlled and of rather recent origin.[6]

The desert cat has been suggested as possible ancestor; the earliest domestication is supposed to have taken place in Egypt during the second millennium B.C.E.[7] The earliest possible evidence of the domestic cat in South Asia is from Harappa in the Indus Valley, Pakistan (c. 2,300–c. 1,750 B.C.E.). Remains of *Felis* from this archaeological site

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yielding the characteristic marbled appearance. It has a long tail. The marbled cat is restricted to the forests of Nepal, Sikkim and Assam.

[5] N. Todd, "Cats and commerce," *Scientific American* 237, 5 (1977), 100–107.

[6] Clutton-Brock, op. cit. (1981), 109.

[7] J. Boessneck, *Die Haustiere in Altägypten*, Veröffentlichungen der Zoologischen Staatssammlung München 3 (Munich: Ludwig-Maximilians-Universitat, 1953); Clason, op. cit. (1979).

have been determined either as domestic cat or as a desert cat.[8] The morphology and size of the wild *Felis* members and of the domestic *Felis* are so similar that it is not easy, if not impossible, to distinguish them in an archaeological context. The same is actually true for their depiction in stone sculpture; the only basis for determination on species level could be provenance of the sculpture; other factors being relative tail length and body size, but these details are not always reliable in a relief.

Apart from being a pet animal and a pest controller around and in the house, some cats may have another function. Caracals for example are easily tamed and trained for hunting hares, foxes and larger birds. This sport was once popular in Persia.

In Hinduism, the cat is associated with one deity only. The cat is the personal vehicle of Sashthi, the goddess of childbirth and the sixth of the seven mother-goddesses (*saptamatrikas*). Why a cat is attributed to childbirth is not clear, but it is interesting to note that in ancient Egypt the goddess of childbirth Bast was cat-headed. Many theories prevail: cats are associated with rain and water, cats are enemies of mice and rats, and thus protect the grain and other crops, cats have a high fertility rate, female cats are sexually very active when in heat and accept more than one male, etcetera, but none of the theories has a sound basis.

Cats, finally, were reported to have been eaten by some wanderer or outcast groups.[9]

20.2 Cats in Stone

20.2.1 *Cats as Divine Vehicle*

Depictions of the Hindu goddess of childbirth Sashthi with her cat are extremely rare, because often the mother-goddesses are depicted without any vehicle, or are sitting on corpses instead. In the remaining reliefs, erosion or a too small size of the frieze further obscure any positive identification. A typical example of a frieze with the

[8] Prashad, op. cit. (1936) and Conrad, op. cit. (1966), respectively.
[9] A. Smith, *Sport and Adventure in the Indian Jungle* (London: Hurst and Blackett, 1904).

saptamatrikas originates from North India (c. 950–c. 1300, fig. 337). The frieze represents the seven mother-goddesses in a row, starting from the right, and ending with Shiva holding the lute (Vinadharamurti) to the left. Mother-goddess number six, Shashthi—the third figure from the left—sits to the right of number seven, who has a yoga belt around the knees. Shashthi's cat is not very clear, but has the typical small triangular ears of a cat and the large mouth of a carnivore. The cat lies and has its tail folded over the back. Small parallel incised lines seem to indicate the ringed tail.

Less clear is the cat in another *saptamatrika* frieze from Central India (ninth century; fig. 123). Here, the mothers dance, while their animal vehicles stand next to them. Shashthi is here again the third figure from the left. The cat, standing to her right, is rather plump, and has its small triangular tongue out of its mouth. The muzzle is typically cat-like with prominent and round cheek muscles.

20.2.2 *Cats in Narrative Reliefs*

That cats are carnivorous by nature cannot be denied. This is nicely illustrated in the Story of the Mice in which the cat is portrayed as a vegetarian yogi, who abstains from eating meat, at least, that is what it says.[10] The story is told as follows,

> Once, there was a cat who pretended to be an ascetic. It stood all day in a difficult outstretched yogic posture outside a cave in which a family of mice lived. The mice trusted the cat, holding the cat for a vegetarian ascetic. But as the days went by and their numbers dwindled steadily, the mice realized the true nature of the cat.

The illustration of this story forms part of the huge monolithic panel with Arjuna's Penance at Mammalapuram, Tamil Nadu (seventh-mid eight century; fig. 392). The coat pattern of the tomcat is not represented; the ears are triangular and quite large. The tail is long, and reaches the ground; this could indicate the leopard cat, *Felis bengalensis*.

Cats are not always the most witted ones in stories. In the Story of the Rooster and the Cat,[11] the rooster, who is the Buddha in one of

[10] The story is known as *Bihara Jataka*, *Musika Jataka* or Pali *Jataka* 128. Main difference with the Hindu version is that in the Buddhist tale a jackal plays the role of the cat. The cat, however, is a more proper consumer of mice than a jackal.

[11] *Kukkuta Jataka*, Pali *Jataka* 383.

his former lives, is the most clever one. The story was told to a monk to prevent him from getting married,

> Once upon a time a she-cat lived in the forest, who ate many cocks. Also a large rooster lived there. The cat wanted to eat it, too, but failed every time. Then the cat decided to fool the rooster and started to talk sweet words, proposing to marry the rooster and to become its faithful wife. The rooster on its turn pointed the cat to all the consumed birds that were its friends and relatives. The cat got the message, withdrew and left the forest without success.

The story is illustrated on a coping stone of the stupa railing from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 338). The cat bears horizontal stripes on tail and limbs, which fits the jungle cat, but also some domestic breeds. The setting of a forest and the daytime of the scene are in favour of the jungle cat. The individual toes of the paws are carefully represented, and the cat sits in a natural way. It seems that the sculptor miscalculated the proportions of the legs relative to each other and solved his problem by putting a flat stone below the cat's front paws.

20.3 Concluding Remarks

Sculptures of the small cats are limited to reliefs with the seven mother-goddesses, in which case the cat accompanies the sixth goddess, Sasthi, and to narrative reliefs in which a cat plays a role. Not all reliefs of the seven mother-goddesses depict the animal vehicles; only in less than half of them the animals can be discerned.

Narrative reliefs depict the cat as witty yet not be trusted, such as in the Story of the Cat and the Mice as illustrated at Mammalapuram, Tamil Nadu, and in the Story of the Cat and the Rooster as represented at Bharhut, Madhya Pradesh. In both cases, the cat is a deceptive creature, not to be trusted and only aiming at getting a meal. Furthermore, in both cases it are the victim animals who understand the cat's true nature, in the first one it are the mice, in the second one a rooster.

CHAPTER TWENTY-ONE

FUNAMBULUS SPP., THE STRIPED PALM SQUIRRELS

21.1 The Living Animal

21.1.1 *Zoology*

The striped palm squirrels are small rodents with a head and body length of about 13–15 cm, and a tail which is slightly longer than the body (Plate 29). The two common species of South Asia are the three-striped or southern Indian palm squirrel (*Funambulus palmarum*) with three white stripes running along its dark brown back, and the five-striped or northern Indian palm squirrel (*F. pennanti*) with two additional white stripes running on the flanks, parallel to the three dorsal stripes.[1] The most important difference between the two species is that the five-striped squirrel is essentially commensal with man. It has become almost as dependent on man for food and shelter as house rats and mice, and lives in crowded towns, cities and villages where it shelters in houses, gardens, groves, hedges and in roadside trees. The three-striped squirrel, on the contrary, is a forest animal. It has a particularly shrill bird-like call which it repeats again and again, accompanied by quick jerks of its tail.

Both species inhabit the Indian peninsula from the base of the Himalayas southwards, but the five-striped squirrel is more common in northern India, particularly in the drier and more arid portions and extends into the dry plains of the South. The three-striped squirrel predominates in the South, and in the moister parts of western and eastern India. Both species may, however, occur in the same area.

[1] Two other Indian striped squirrels are the dusky-striped squirrel (*Funambulus sublineatus*) and the Himalayan striped squirrel (*Callosciurus macclellandi*). The first squirrel has three pale stripes on a dark brown background, as if it is a bleached three-striped squirrel, and lives in the forests of south Indian hill ranges and Sri Lanka. The second squirrel has alternating black, brown, and buff stripes and lives in the hill forests of the Eastern Himalayas and Assam. These two squirrels keep to the densest cover, and are hardly ever seen.

21.1.2 *Related Species*

There are non-striped squirrels on the subcontinent as well, but they all keep to dense cover, and are hardly seen. The Himalayan squirrels are the orange-bellied squirrel (*Dremomys lokriah*), and the hoary-bellied squirrel (*Callosciurus pygerythrus*), both restricted to the hills of Nepal, Sikkim, Bhutan and Assam.

Three species of giant squirrels live on the subcontinent: the Indian or Malabar giant squirrel (*Ratufa indica*, fig. 339) of peninsular India south of the Ganges, the grizzled giant squirrel (*Ratufa macroura*) of the hill ranges of South India and Sri Lanka, and the Malayan giant squirrel (*Ratufa bicolor*) of the hill ranges of Nepal, Sikkim, Bhutan and Assam. Giant squirrels are elegant and beautifully coloured animals, but are shy and live in the summits of the higher trees. Their large, globular nests in the branches are easier discovered than the animals themselves.

The most amazing squirrels are without doubt the large flying squirrels of the genera *Eupetaurus*, *Petaurista*, *Petinomys*, *Hylopetes*, and *Belomys*. They do not truly fly, but merely glide or sail through the air with the help of a membrane which connects front and hind limbs (fig. 340). They are nocturnal, in contrast to the other squirrels, and thus hardly ever seen.

21.1.3 *Role of Squirrels in Society*

The five-striped palm squirrel can be considered a commensal with humans. It lives in settlements and feeds on household waste and whatever suitable food it can find. The five-striped squirrel is easily tamed, but is not domesticated in the true sense, because its breeding is uncontrolled by humans. The three-striped squirrel lives in the forest and is not associated with humans. Squirrels seem to play no role in religion or traditional lore. Their only direct contribution is as small game animal for hill tribes, especially so the giant squirrels.

21.2 Squirrels in Stone

One of the earliest and at the same time most appealing stone sculpture of the five-striped palm squirrel decorates a railing pillar from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 341). The squirrels climb a floral

motif along a medallion with an illustration of the Story of the Monkey King.[2] The five nails at each foot are nicely sculpted. The body bears numerous stripes, also on the lateral sides, which excludes the three-striped palm squirrel. An interesting detail are the rings on the tail; they have been interpreted as cascading layers of overlapping hairs instead of just a colour pattern. The tail has a strange blunt ending and is not pointed as seen in the living animal.

A later depiction of a squirrel, also from the north, originates from Mathura, Uttar Pradesh (first to third century; fig. 342) and decorates the reverse side of a *yakshi* stele. The squirrel runs in a very natural way along the trunk or main branch of a tree. It is realistically depicted as if it had temporarily invaded the sculpture. The only unrealistic detail is the same blunt ending of the tail as seen on the Bharhut railing pillar. The amount of stripes is less, but as they proceed onto the lateral sides of the animal, this, too, must be the five-striped species. The rings on the tail resemble not so much layers of overlapping hairs; the way they are represented emphasizes the ringed aspect of the tail.

Two squirrel carvings from the east are much less realistic and more naive. Both sculptures come from Goli in Andhra Pradesh, but from different periods. The earlier relief of the two is an *ayaka* frieze illustrating the Story of Vessantara[3] about a generous prince (second to fourth century; fig. 46). In front of the seat of the meditating figure to the right, a small, roundish, plump animal is climbing a trunk, or what remained of it. The animal bears very vague stripes and has a clear squirrel-like tail, which is however not ringed. It seems that the sculptor was not very acquainted with the striped squirrels, which is not surprising as the common species in that area is the three-striped species, which lives only in the forest. The very vague stripes might indicate a dusky-striped squirrel, which lives in the South Indian forests as well. The fact that the other animals are rendered in great detail, like the spotted deer with its tiny spots, supports the idea that the sculptor was indeed unfamiliar with striped squirrels.

The later relief of the two is a panel illustrating the Story of the Conversion of Nanda (third century, limestone).[4] The depiction of the squirrel is even worse here. There is no indication of any stripe, but

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[2] *Mahakapi jataka*, Pali *jataka* 407. See for the medallion and the story, section 28.2.2.

[3] *Vishwantara Jataka, Vessantara Jataka*, Pali *Jataka* 547.

[4] New York: Metropolitan Museum of Art, cat. no. 30.29.

the whole image is strongly reminiscent of that of the earlier example, except that now all detail is lost. The fact that the animal climbs a palm tree in the same way the squirrel climbs the tree trunk in the earlier relief strongly indicates that here, too, either the three-striped or the dusky-striped squirrel was intended. The squirrel plays no role in the story, but is merely meant to indicate a forested setting in which to place the monkey.

21.3 Concluding Remarks

Depictions of the striped palm squirrels are not particularly abundant. Among these, the five-striped palm squirrels in reliefs from northern India are realistic and reproduced in much detail, except for an enigmatic blunt tail tip. The three-striped palm squirrels in reliefs from southern India, on the other hand, are rendered much more schematic and not particularly realistic. This difference between northern and southern squirrel carvings is best explained by the commensal nature of the five-striped species contrary to that of the three-striped and dusky-striped species which are forest dwellers and thus not easily seen. As it is today relatively easy to make a close-up photograph of the five-striped squirrel (Plate 29), it must always have been relatively easy to observe this species carefully from a close distance.

CHAPTER TWENTY-TWO

GAZELLA BENNETTI, THE CHINKARA

22.1 The Living Animal

22.1.1 *Zoology*

The chinkara or Indian gazelle is a gracile and small antelope with a shoulder height of 0.65 m (fig. 343). Chinkaras are related to blackbucks (see Chapter 1) but are much smaller, more gracile, and have relatively smaller and more upright horns. The horns of the bucks are marked with prominent rings and are long, though not as long as in the blackbuck, and range between 25–30 cm in length. The horns are slightly S-shaped seen in profile and almost straight seen from the front. Does have much smaller, smooth and sharply-pointed straight horns; hornless females are not uncommon. Chinkaras have tufts of hair growing from the knees. When alarmed, chinkaras swiftly flee but stop some 200 or 300 metres away to turn around to check the cause of the alarm as most antelopes do. They never look back while running. Chinkaras live in small herds of ten to twenty animals.

The chinkara lives in the semi-arid wastelands, scattered bush, thin jungle and sand-hills of the desert zones of north-western and central India extending through the open lands of the Deccan to a little south of the Krishna River. They are not found at altitudes above 1.2 km, and they avoid cultivation.

Gazelles once roamed the open plains of the subcontinent in large numbers and were very common, but at present they are mainly restricted to natural reserves and desert zones. Remains of the chinkara have been recovered from the post-Harappan archaeological sites of Khanpur and Somnath along the Gulf of Cambay, Gujarat (c. 1,700–1,000 B.C.E.).[1] At present, this area is rather desolate with only a thin cover of xerophytic vegetation, and just a few trees with large

[1] P. Thomas, "Zoological evidence from Prehistoric India with special reference to domestication. A review," BDCRI 34, 1–4 (1974), 195–210; Chitalwala and Thomas, op. cit. (1977–1978), 14.

distances in between. The presence of subfossil chinkara indicates that the landscape changed during the past three millennia from scattered bush to the present-day open almost tree-less landscape.

22.1.2 *Related Species*

There is one other gazelle on the Indian subcontinent: the Tibetan gazelle or goa (*Procapra picticaudata*). The goa has distinctive horns, which rise vertically and curve sharply backwards. It has a white rump patch. The natural habitat of the goa is restricted to the Tibetan Plateau and is restricted in India to Ladakh and Sikkim. Currently, it is a nearly threatened species, mainly due to hunting for its horns.[2]

22.1.3 *Role of Gazelles in Society*

The chinkara is exclusively a game animal. It was already hunted during the second millennium B.C.E. as is evidenced by their remains found at the sites Khanpur and Somnath, Gujarat. As all gazelles, it can at most be tamed and driven in a kind of coral, but not be bunched up together or driven into a direction that the shepherd wishes to go.[3] Gazelles are social and live in groups. They are territorial and lack a dominance based hierarchical social structure and thus cannot be domesticated.[4] Humans cannot even alter the course of the migration routes of gazelles, which makes active herding practically impossible. In addition, gazelles are easily frightened, and have the tendency to damage themselves even to death, in order to escape.

Gazelles belong to the vague group of *mriga* (game) to which also deer and antelopes belong. This means that in cases in which a *mriga* plays a role, either in connection with a divinity or a myth or story, the gazelle can stand in, just as any deer or antelope species. This means that a gazelle may take the place of the stag as a vehicle for Vayu, the god of the wind and guardian of the north-western direction (*dikpala*). In Buddhism, gazelles may figure as *mriga*, symbols of the First Sermon

[2] D. Mallon and Y. Bhatnagar, "*Procapra picticaudata*," in *2007 IUCN Red List of Threatened Species*, op. cit.
[3] Clutton-Brock, op. cit. (1981), 171.
[4] Ibidem, 55.

of the Buddha, which he gave after his Enlightenment.[5] The place of action is often translated as deer park (*mrigavana*) but any kind of game animal (*mriga*) can be recognized in narrative reliefs of this episode of the Buddha's life: deer, nilgai, antelopes and gazelles.[6] The episode is recognised not only by a pair of *mriga*, but also by the presence of a spoked wheel, the Wheel of the Law (*dharmachakra*), which was set into motion at this occasion. Also other teaching episodes from Buddha's life may be indicated by a pair of gazelles; the same applies to teaching Jinas in Jain religious sculptures.

The gazelle is protected by villagers for religious reasons in some parts of western India.[7]

22.2 Gazelles in Stone

22.2.1 *Gazelles and the Wheel*

Depictions of the teaching Buddha, either the First Sermon in Sarnath's game park (*mrigavana*) or another teaching episode from his life, may figure gazelles below the seat. A pair of gazelles with rather short horns is, for example, present on a frieze with the First Sermon from Sikri in Greater Gandhara, Pakistan (mid-first to fourth century, schist).[8] The gazelles lie in comfortable position, lying towards each other, but turning their heads and facing away from each other. The turned heads are reminiscent of the motif of the fleeing gazelles and antelopes with turning head while still at full speed.

A similar pair of gazelles is seen on another First Sermon panel, also from Greater Gandhara, Pakistan (c. third century, grey schist).[9] The two gazelles lie relaxed in front of the Buddha. Their horns are so small that they became insignificant. Furthermore, the animals are heavy and plump, very unlike the gracefulness of living chinkaras. They lie now opposite, with facing hindquarters, and again turn their heads, but now facing each other.

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[5] See, e.g. M. Thomsen, "Südasien," in *Ferne Völker, Frühe Zeiten. Kunstwerke aus dem Linden-Museum Stuttgart Staatliches Museum für Völkerkunde, Band 2: Orient, Südasien, Ostasien* (Recklinghausen: Aurel Bongers, 1982), 107–188, 111.

[6] See further sections 1.1.3 (antelopes), 2.1.3 (deer), and 7.1.2 (nilgai).

[7] D. Mallon, "*Gazella bennetti*," in *2007 IUCN Red List of Threatened Species*, op. cit.

[8] Lahore: Central Museum 134.

[9] New York: Metropolitan Museum of Art, cat. no. 1980.527.4.

Again very similar is the pair of gazelles on a contemporaneous pedestal of a seated Buddha probably from Nagarjunakonda, Andhra Pradesh (late third century; figs. 344 and 345). Also these animals are heavy, well-fed, and not exactly gracile, possibly indicating a season with plenty young grasses after the monsoon. This pair of gazelles provides an interesting variation on the theme of sitting gazelles facing in opposite direction: they sit behind each other, in opposite direction, and both look forward; the front one to the left, the back one to the right.

A different iconography has been followed on an earlier depiction of a teaching episode from Amaravati, Andhra Pradesh, on a medallion on a railing pillar from Amaravati, Andhra Pradesh (first to second century; fig. 346). The medallion illustrates the Story of the Buddha Visiting the Shakyas, his own clan, to convert his family. The gazelles sit next to the empty throne of the Buddha, not below nor in front of the seat, because this place is already occupied by a set of large footprints, symbolizing the Buddha's presence. The gazelles do not turn their heads here, but face each other and the throne with the footprints. The gazelles are not the plump and full gazelles with short horns as shown in the reliefs above. The horns are now slender and pointed, and in the left animal the slight S-shaped curve seems to be present; this may indicate a young buck.

Slender, long-horned gazelles sitting at either side of the throne instead of in front of it seem typical of this early period in Andhra Pradesh, because exactly the same setting is seen on an *ayaka* frieze from stupa 9 at Nagarjunakonda (third to fourth century; fig. 347). Also here the place in front of the empty seat is occupied by footprints of the Buddha, generally explained as an aniconic stage of representation of the Buddha, in which symbols stand for the person.[10]

22.2.2 *Gazelles in Other Narrative Reliefs*

An early sculpture of a pair of gazelles forms part of an *ayaka* frieze from Goli, Andhra Pradesh (third century; fig. 46). The frieze is an

[10] This kind of representations of the teaching Buddha without the actual presence of the Buddha but indicated by footprints and an empty seat are considered representations of worship of the place itself where the Buddha once held such a sermon in the view of J. Huntington, op. cit. (1985) and S. Huntington, op. cit. (1985, 1990). In instances of reliefs illustrating the First Sermon or the Enlightenment, this can be true indeed, but here, in the case of the Visit to the Shakyas, it is more hard to imagine a worship of the locus itself.

illustration of the Story of Vessantara[11] about a generous prince. Below the seat, a pair of gazelles is depicted in a very realistic way. The buck has long, straight and pointed horns, while the doe has none. Hornless females are not uncommon for gazelles. On the same frieze, to the left, a marvellous spotted deer or chital is portrayed with a similar body as this gazelle, but with different horns and a spotted pattern. The variation between the ruminants seems thus indicated by differences in appendages and coat pattern only. The size of the animals is appropriate for gazelles. The tail is held upwards as in goats, which makes it not entirely impossible that this animal was modelled upon a goat to which gazelle horns were added.

On the same *ayaka* frieze but more to the left, a running gazelle is present at the top, close to a hut. The gazelle is put in a very inappropriate place, most likely merely to fill an empty space; an example of the *horror vacui* as seen in many Indian reliefs. The gazelle turns its head, looking back. This is a characteristic motif for gazelle and antelope depictions in India, though not based upon reality. Similar fleeing gazelles with turned head while running are seen on two narrative friezes from Nagarjunakonda, Andhra Pradesh, illustrating the Buddha visiting the resort of naga Apalala in the Himalayas, also known as the Conversion of Naga Apalala (fig. 348). The gazelles play no other role in the story than indicating a setting in the wild. The depiction of the gazelles is conventional and based upon a common example; in reality, gazelles and blackbucks never look back while running.

22.2.3 *Gazelles as Divine Vehicle*

A stele with Vayu, the god of the wind, originating from Hinglajgarh, Madhya Pradesh (tenth century, sandstone) portraits his animal vehicle.[12] It lies down, and has a short, unbranched horn or antler. No further details are present. The *mriga* may be a young gazelle or blackbuck buck with spiky horn, or even a yearling spotted deer or sambar stag, because no further characteristics were rendered, such as a spotted coat, grooves on the horn or tines to the antler. The fact that the horn

[11] *Vishwantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.

[12] Indore: Central Museum; figured in F. Bunce, *An encyclopaedia of Hindu deities, demigods, godlings, demons and heroes*, 3 vols (New Delhi: D.K. Printworld, 2000), pl. 227.

is neither grooved, twisted, spiralled nor branched, however, favours a young gazelle.

22.3 Concluding Remarks

Carvings of gazelles in stone are very rare, and practically limited to early Buddhist narrative reliefs, mainly from Andhra Pradesh and Greater Gandhara.

Gazelles fall under the broader class of *mriga*, or game animals, and it is not always possible to determine the *mriga* with certainty. Straight, ungrooved and unbranched horns and a small body size are indicative for a gazelle. There is not much difference between the depicted gazelles: they are either calmly sitting as a pair below or flanking the wheel of the law (*dharmachakra*) in illustrations of Buddha's First Sermon, or bouncing off in fear. In the latter case, they often are represented with turned heads to look back, which in nature is never done. In the former case, the setting seems to follow a variation on the theme of backward-looking gazelles. They either turn their heads, facing each other or not, or they look forward, but lie behind each other in an opposite facing direction, which gives the misleading impression of backward turning heads. Settings in which the gazelles do not turn their head and do not turn away from each other seem to be restricted to iconographic programmes in which the Buddha's presence is indicated by his footprints in front of an empty seat. In these cases, the gazelles lie not in front of the seat, but next to it. None of the variations is restricted to a certain period or region, but may be found next to each other.

CHAPTER TWENTY-THREE

GIRAFFA CAMELOPARDALIS, THE GIRAFFE

23.1 The Living Animal

23.1.1 *Zoology*

The giraffe and its close relative the okapi are purely African mammals, and do not thrive elsewhere in the wild. However, because of their amazing exterior, they were captured early in history and given away as presents to rulers in other parts of the world, including India. Far away from their natural habitat, they never survived long. Both the giraffe and its name are imported.[1]

Giraffes, and okapis to a lesser extent, are extremely long-necked, even-toed herbivores with a sloping back and a characteristic coat pattern, consisting of stripes in okapis and of blotches of varying shape in giraffes (fig. 349). The giraffe has an impressive size with a shoulder height of 2.5–3.7 m, whereas the okapi is more moderate sized with a shoulder height of 1.5–1.8 m. The neck of the giraffe bears a mane. The tail ends in a bushy tip. The eyes and ears are large and the tongue is extensible: they can even clean their eyes with their tongue. The back inclines downwards from the withers to the loins. The feet are large and heavy; false hooves are lacking. The horns, born by both sexes, are no real horns but skin-and-hair covered ossicones. In the giraffe they grow behind the eyes but in the okapi above the eyes; in both species a fifth, median horn occurs on the nose in males.

23.1.2 *Role of Giraffes in Non-African Societies*

Several ancient Roman and Greek authors mention and describe the giraffe, for example Horace,[2] Pliny the Elder, Pausanius, Solinus, the

[1] Hindi: *jirava/jarava* from Arabic *zurafa*; Sanskrit: *citroshtra*, meaning 'spotted dromedary'.

[2] Horatius Flaccus Quintus, 65 B.C.E.–8 C.E.

poet Oppian and Heliodorus from Emesa.[3] After that period, however, almost all accounts of giraffes come from the Arabs. The later Greeks and the Romans were not very acquainted with this animal, considering for example a Roman mosaic from northern Syria or Lebanon (fifth century; fig. 350). The coat is nicely spotted as in the leopard, false hooves are present as in the deer, the hooves are splayed as in the camel, the tail seems to have been forgotten, and the neck is moderately long as in the okapi. It has a cord around its muzzle, held by a negroid person who might be considered a tribute bringer.

One of the most popular Persian bestiaries is that of the Arab cosmographer Zakariya al-Qazwini (1203–1283) who described and depicted an Ethiopian specimen in his book about the marvels of creation.[4] In the early versions the animal is still rather giraffe-like, but after 1545 it became more goat-like with cow's horns.[5] The common element in all descriptions and depictions of the giraffe is its spotted leopard-like skin; only al-Qazwini himself considered the coat pattern hyena-like, which is closer to the truth.[6] From the gradual degeneration in depiction, it can be deducted that al-Qazwini indeed had seen a giraffe, while later artists simply copied him. Because of the popularity of his bestiary, it is not unlikely that depictions of giraffes in South Asia (see below) were based on one of its versions.

Giraffes were given as present by the sultans of Cairo to the other parts of the then known world. It seems that the first giraffe was send to the imperial court of Timur Lenk[7] in Samarkand, Uzbekistan, at the onset of the fifteenth century, according to the accounts of a Spanish ambassador of that time.[8]

A second giraffe is mentioned in the *Zafar-nameh* of Sharaf al-Din (c. 1414)[9] as well as by the German traveller Johann Schiltberger.[10]

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[3] C. Spinage, *The Book of Giraffe* (London: Collins, 1968), 43.

[4] *Ajaib al-Makhluqat* (dated 1276), ms 2178 at National Library at Paris, folio 274a.

[5] Spinage, op. cit. (1968).

[6] At least the spotted African hyena, not the striped Indian hyena.

[7] Also known as Tamerlane.

[8] *jornufa*, in De Clavijo, *Narrative of the embassy of Ruy Gonzales de Clavijo to the court of Timour at Samarcand, A.D. 1403–1406* (London: Hakluyt Society, 1859), 86–87.

[9] Spinage, op. cit. (1968).

[10] *surnasa*, in J. Schiltberger, *The bondage and travels of Johann Schiltberger, a Native of Bavaria, in Europa, Asia and Africa, 1396–1427*, transl. J. Buchan Telfer and ed. P. Bruun (London: Hakluyt Society, 1879). Schiltberger erroneously placed India along the Nile.

This is likely the giraffe which was given to the new ruler of Bengal, Shihabuddin Bayazid Shah as a gift from East Africa on the occasion of his inauguration (c. 1413). The specimen was on its turn given away to Chinese ambassadors for the Imperial Zoological Garden of Cheng Tsu at Beijing, obviously a flattery to please the mighty Ming emperor. The giraffe arrived there in 1415,[11] where it was considered the reappearance of the mythical animal *chi'i lin*, a symbol for wisdom and benevolence. Hardly anybody can have seen this giraffe during its short stay in Bengal, so if art works are based upon sightings of this animal, they cannot be else than inspired by a drawing or an interpretation of a description.

The impact of the giraffe was definitely great and the animal was illustrated in the miniature paintings of an Indian *Timur-nameh* (c. 1580),[12] one of the biographies of Timur Lenk (1336–1405). The main differences between the painted animal and a real giraffe are the short, wavy horns, the presence of false hooves, the spotted coat and its much smaller size, while a giraffe is a huge animal, very unlike the depicted animal. The only similarity with a real giraffe is its proportionally exceptional long neck. The spots are like those of the leopard; possibly inspired by the giraffe's Greek name (*camelopardalis*, or "camel-leopard").

In this context it is interesting to notice the striking similarity between the Bankipur *Timur-nameh* 'giraffe' and the one on a Jain book cover or *citrapattika* from Jaisalmer, Rajasthan (twelfth century, but more likely thirteenth century);[13] even the stepping posture is exactly the same. On the Jain cover, the horns are much shorter, not wavy and more like the protuberances of the giraffe. The upward-swaying tail ends in a bushy tip as in the real giraffe. Another difference is that the Jain image represents a wild animal, whereas that in *Timur-nameh* has a bell around its neck. The Jain image likely is based on one of the early versions of al-Qazwini's bestiary, in which case the Jain cover (not necessarily the manuscript) cannot be dated before the thirteenth century. The *Timur-nameh* from Bankipur is then based on a later version of the bestiary.

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[11] S. Wilson, "The Emperor's giraffe," *Natural History* 101, 12 (1992), 22, 24–25. The giraffe from India was accompanied by a second giraffe, directly imported from Africa on behalf of the Chinese emperor.

[12] Bankipur manuscript, folio 132; figured in A. Roşu, "La Girafe dans la faune de l'art Indien," *Bulletin de l'École Française d'Extrême-Orient* 71 (1982), 47–61, fig. 10.

[13] Ibidem, fig. 9.

From what can be concluded from the drawings and the histories on presented giraffes, it appears that no convincing evidence exists for the presence of a giraffe in India before the early fifteenth century.[14] The first attested presence is the short-term visit at Bengal's court between 1413–1414. The giraffes or okapis that were ever brought to India were done so only in the course of political contact with the foreign world. Overseas trade became only really important during the Vijayanagara period of the fourteenth to sixteenth century[15] and import of giraffes or okapis may indeed have taken place, because part of the trade went via Africa. Early import through the Greeks or Romans is very unlikely, considering their unfamiliarity with the animal.

23.2 Giraffes in Stone

The earliest possible evidence in stone of a giraffe has been recognized on the southern plinth of the platform of the Sun temple at Konarak, Orissa (c. 1238–1258; Plate 30). Konarak was an important harbour at India's eastern coast at that time and foreign ships surely passed by. The scene in Konarak has been explained as a foreign delegation with a giraffe,[16] based on a relief on the eastern staircase of the Apadana[17] at Persepolis, Iran, where a negroid delegation brings an okapi.[18] Admittedly, the animal's neck is extremely long and its back slopes. On the other hand, the animal is too small, no coat pattern is indicated, and the presence of horns is not sure, though there is a lot of erosion in

[14] The so-called giraffes in rock paintings of India, such as the famous 'giraffe-group' painted at Adamgarh, Madhya Pradesh are better explained as sambar does or nilgai, despite the opinion of e.g. Y. Mathpal, "Further evidences of giraffe like long-necked animal in the rock paintings of India," BDCRI 36, 1–4 (1976–1977), 110–114. Mathpal even raises the possibility of survival into the Holocene of extinct Early Pleistocene giraffe-like animals, which lacks any palaeontological basis; in addition, the Pleistocene giraffes differ much from the extant giraffes: the former are massive, short-necked animals with antler-like palmate horns.

[15] N. Ramanayya, *Studies in the history of the third dynasty of Vijayanagar* (Madras: University of Madras, 1935), 284–293; R. Majumdar, ed., *The History and Culture of the Indian People, Vol. 6, The Delhi Sultanate* (Bombay: Bharatiya Vidya Bhavan, 1960), 649–665.

[16] A. Boner and S. Sarma, *New light on the Sun temple of Konarka* (Varanasi: Chowkhamba Sanskrit series Office, 1972). See also M. Mansinha, "Reflections on the wonder and enigma of Konarak," *Marg* 12, 1 (1958–1959), 28, and Roşu, op. cit. (1982), who interpret the scene as a royal delegation with a giraffe as well.

[17] The audience hall of Darius and Xerxes, c. 518–460 B.C.E.

[18] Figured in E. Schmidt, *Persepolis, vol. 1, Structures, reliefs and inscriptions* (Chicago: University of Chicago Press, 1953), pl. 49.

that area. If indeed such a delegation ever took place at the port of Konarak, then the artist never saw the animal, and modelled the relief upon a description or a drawing. Though it cannot be entirely excluded that the animal is a giraffe or okapi indeed, other explanations should be considered as well. The size and overall appearance fits a young dromedary (fig. 351) equally well with its relatively longer neck than in the adult. Dromedaries naturally do not occur in eastern India and would have presented an equally exotic but surely less expensive gift. Dromedaries were not portrayed on Orissan temples, which indicates that they were indeed unknown and therefore exotic. The relief on the Sun Temple has been restored, and the much eroded animal of the original panel[19] resembles a giraffe much less than the restored panel.

The second reference to a 'giraffe' is provided by the exterior wall of the Mallikarjuna temple at Srisailam, Andhra Pradesh (sixteenth century).[20] Among a row of animals, the two to the left are giraffe-like with their long neck, steeping back, short tail, but they are followed by dromedaries with badly depicted hump, which is too flat, too elongated, giving the impression of a high back. The size of the 'giraffe' is too small with a withers' height of only about 1.5 time that of the accompanying man; the horns are further lacking, and no coat pattern seems to have been indicated. The identification is therefore not sure.[21] Most likely, the frieze simply figures a caravan consisting of adult dromedaries with their young, walking from the port to their destination. Dromedaries had to be imported, because they do not occur naturally in eastern and southern India. It can therefore reasonably be expected that the depicted specimens are not very realistic. A similar long-necked, medium-sized animal with steep back, and no horns is seen on the Hosabasti at Mudbidri, Karnataka (first half of the fifteenth century)[22] and on the basis of the western wall of the peristyle of the Vitthalasvamin temple at Hampi.

[19] Figured in Roşu, op. cit. (1982), fig. 5.

[20] A. Longhurst, *The Mallikarjuna temple at Srisailam, Kurnool district*, Annual Report of the Archaeological Department, Southern Circle (Madras) (1917–1918), 20–33; Roşu, op. cit. (1982).

[21] D. Spooner, *Annual Report of the Archeological Survey of India 1917–1918*, Part I, Calcutta; Roşu, op. cit. (1982).

[22] Figured in Roşu, op. cit. (1982), fig. 3.

23.3 Concluding Remarks

Is it possible that a giraffe, a strictly African mammal, has been portrayed on the Indian subcontinent? Some scholars are convinced that this is indeed the case, but studying the history and examining the evidences carefully, this is hard to prove.

It appears that the rare examples of giraffes in medieval Indian painting are copied from Arabian bestiaries. The even more rare stone depictions are, if not mythical, at their best interpretations of giraffe descriptions, in which only the typical long neck and steeping hindquarters survived. It is far more likely, however, that these strange giraffe-like animals in stone are just young dromedaries. They, too, had to be imported to southern and eastern India. With their very tall limbs and equally tall neck they have a strange and exotic appearance, especially when standing upright and browsing a tree. This is confirmed by a frieze from Andhra Pradesh on which the 'giraffe' is accompanied by adult dromedaries. Dromedaries, together with horses, were imported into the south to be used in warfare, but without much success.

CHAPTER TWENTY-FOUR

HERPESTES SPP., THE INDIAN MONGOOSES

24.1 The Living Animal

24.1.1 *Zoology*

Mongooses are small carnivorous animals with a slender body, short limbs, an elongated head with a pointed muzzle and a muscular, tapering tail (fig. 352). This tail is as long as body and head length together (45–50 cm) in the common or grey mongoose (*Herpestes edwardsi*) or about half that length in the small Indian mongoose (*Herpestes auropunctatus*).[1] The ears of mongooses are round and really small, whereas the claws are long with splayed digits that are adapted to dig. Mongooses run after their prey and sometimes dig out their victim. They prey upon snakes, often on highly venomous species like cobras (fig. 353), made possible by their efficient defence system consisting of an extreme agility in evading a bite and bristling of the hairs on the body to look much larger so that the snake misses its goal. They also smash snails and other hard objects by standing upright and hurling the object to the ground with force. Mongooses shelter in existing cavities or dig a hole by themselves.

Typical of the coat pattern of mongooses is the silver or golden sparkling all over their body as if tiny crystals are attached to it. In the common or grey mongoose, the sparks are silvery and are the result of a pepper-and-salt tinge due to alternate light and dark rings on its hairs (fig. 354). In the small Indian mongoose, the coat is olive-brown or darker brown, minutely speckled with gold, which explains its Latin name.[2]

[1] There are four other mongoose species on the Indian subcontinent, which keep to hill forests, each restricted to a certain region. These species are the brown mongoose (*Herpestes fuscus*), the ruddy mongoose (*H. smithi*), the striped-necked mongoose (*H. vitticollis*) and the crab-eating mongoose (*H. urva*).

[2] The coat pattern of the striped-necked mongoose and the crab-eating mongoose are much like that of the common mongoose, shining with silvery spots. The brown

The common mongoose and the small Indian mongoose are found everywhere, from cultivated lands, jungle, mountain forests to the arid desert and the plains and even up to 2.135 m in the Himalayas. They enter houses and live there, and hunt in fields and cultivation. Though they kill domestic poultry, they kill much more rats and mice for compensation. The distribution of the common mongoose extends into Iran and Iraq in the west and Sri Lanka in the South; the small Indian mongoose does not extend its range into peninsular India.

24.1.2 *Role of Mongooses in Society*

A mongoose is more effectively in clearing a house from rats, mice, snakes, scorpions and various insects than a cat, and for this reason mongooses are often kept as pets. Remains of the small Indian mongoose were recovered from the mature Harappan site of Lothal at the Gulf of Cambay, Gujarat (c. 2,300–1,750 B.C.E.),[3] a strong indication that also in this early period the small mongoose did not avoid cultivation and may even have been kept as pest controller.

It is believed that a mongoose which has been bitten by a snake eats a certain root or herb, known in India as *mangus vail*, which acts as an antidote. It is also believed that the thorny patch on the mongoose's tongue contains an antidote; this thorny patch is in reality used for rasping flesh from bones. Mongooses are of their own less sensitive to snake venom than most other animals; they do not possess any antidote, nor do they eat protective plants. This partial immunity is not unique to mongooses, but is also present in cats to a certain degree and in pigs and hedgehogs.

The only Indian deity to which the mongoose is assigned is Kubera. He is the Hindu god of wealth and riches, but also the regent of the north among the eight guardian deities (*dikpalas*) and king of the *yakshas*. His home are the caves in the Himalayas. Jambhala is his Buddhist counterpart. The mongoose of Kubera, and likewise that of Jambhala, is supposed to vomit jewels, befitting the attribute of a god of wealth. The basis for this belief cannot easily be explained. However, the mongoose is completely bedecked with flickering jewels in the case of the common

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coat of the brown mongoose is speckled with yellow or tawny 'jewels' as a bleached version of the small Indian mongoose

[3] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14.

mongoose, or with speckles of gold as is the case in the small Indian mongoose. These shiny jewels and gold dust may very well have led to the association of the mongoose with Kubera and Jambhala. Besides, the mongoose has an indirect connection with wealth and prosperity by being helpful in getting rid of the grain-eating rats and mice.

24.2 Mongooses in Stone

24.2.1 *Mongooses in Narrative Reliefs*

It might be that a mongoose figures in a panel from Mathura, Uttar Pradesh (first to third century; fig. 355). The panel illustrates the story of the Visit to the Indrashailaguha, in which Indra visits the Buddha who is meditating in a cave in his mountain, Indra's Peak. Several wild animals are present around the cave to indicate the mountainous environment of the Himalayas. Easy to identify are a bear in small cavern below the cave, a peacock and a lizard or a monitor lizard, but more problematic is the jumping or running elongated small mammal to the right of the cave. The limbs are short, and tail is muscular and tapering, but too massive. The pointed muzzle is too massive as well. The animal might be a mongoose, an animal which is supposed to dwell with his lord Jambhala in the Himalayas. For the same matter, however, it might be one of the viverrids like a civet or a binturong, or a mustelid like a marten, an ermine or a weasel. The sculpture is not very realistic and further determination is impossible; only a thorough comparison with similar panels might offer a clue, but this is beyond the scope of this book.

24.2.2 *Mongooses as Divine Attribute*

A beautiful stone sculpture of a mongoose is provided by a Jambhala stele from Kurkihar near Bodhgaya, Bihar (tenth century; fig. 356). Jambhala holds his mongoose firmly by the neck. The front part is unfortunately broken, but what remains of the rest of the animal is realistic. The digits of the mongoose's claws are long and are clearly splayed as they should, and the animal's coat is smooth. Exactly the same iconography seems to have been exported overseas as is indicated by a Kubera stele from Yogyakarta, Java (thirteenth to sixteenth century;

fig. 357). Here, the complete mongoose is preserved completely and gives an idea of how the Kurkihar specimen may have looked like.

A different setting is seen on a Kubera stele from Madhya Pradesh (late tenth century, sandstone).[4] The tail of the mongoose is not depicted, and supposed to hang behind Kubera's left leg. The head and muzzle are elongated and the ears are completely lacking. Kubera grasps his mongoose in the neck as in the other steles. Here, however, the mongoose turns its head towards Kubera yielding a rather contorted body posture, more as if the god is holding a bag instead of a living animal. In a Kubera stele from the same region but a century later (late eleventh century, sandstone),[5] the mongoose is held in the upper left hand of the god and hardly recognizable as an animal. The muzzle is broken and might have been pointed; body and tail form one entity, tapering towards the end, obviously without legs. The animal is portrayed so unlikely that it might be a money sac instead, though in that case one would expect the bag to be hanging down, and not swung upwards. With its curved outline, it does not resemble a radish either; an attribute that is rarely associated with this god.

A jewel-spitting mongoose functions as Kubera's attribute on a stele from Satna, also from Madhya Pradesh (eighth to early eleventh century; fig. 358). The animal has an elongated body and possibly a long snout as well. Its ears seem lacking, but its wide-open eyes are large. The limbs are extremely short. The digits are splayed and give the impression of being webbed as typical of otters instead. The tail hangs loosely over Kubera's left leg. A collar around the neck of the animal makes it domestic, but at the same time links it with the money bag as seen in earlier sculptures (see below). Kubera does not hold the animal by the neck, but by its body instead.[6]

Far more common are images of Kubera and Jambhala holding a money bag in the left hand instead of a mongoose. An example is provided by a lintel from Sarnath, Uttar Pradesh (fourth to sixth century; fig. 359) as part of a scene from the Story of Kundaka.[7] The bag is

[4] Pasadena: Norton Simon Museum, cat. no. F.1975.16.3.S; figured in Pal, op. cit. (2003), pl. 93.

[5] Pasadena: Norton Simon Museum, cat. no. N.1975.4.1.S; ibidem, pl. 96.

[6] This stele differs much from the Pasadena steles, which suggest that it might be dated to the eighth or ninth century, but not much later.

[7] *Khantivadi Jataka* or Pali *Jataka* 313 about the virtue of forbearance: the bodhisattva, born as Kundaka, does not become angry with the drunken king who let his arms and limbs cut off, but forbears it, assuming that he himself must have been the

large, and held in a way very similar to how Kubera holds the mongoose in the Pasadena stele from the late tenth century. In later periods, as it seems, the bag lies more behind him, and he holds it in a more casual way over his knee as seen on a Jambhala statue from Saheth-Maheth, the ancient Sravasti near Gonda, Uttar Pradesh (sixth to eighth century; fig. 360). In fact, this bag is strongly reminiscent of the posture of the mongoose over his knee in the stele from Kurkihar, Bihar (fig. 356) and Java (fig. 357). The function of Kubera is here merely to indicate the Himalayan setting of the first part of the story.

An unclear example is provided by a Jambhala stele from Ghasikundi in former Bengal (late twelfth century; fig. 361).[8] It is not clear whether the attribute in his left hand, resting on his knee, is a money bag or a rough depiction of a small mongoose. The position of the object and the posture of Jambhala himself are close to the Saheth-Maheth stele (fig. 360), favouring a money bag.

24.3 Concluding Remarks

Stone sculptures of a mongoose seem to be limited to the Hindu god of wealth Kubera and his Buddhist counterpart Jambhala; a possible exception might be provided by an early panel illustrating the Indrashailaguha Visit of the Buddha from Mathura, Uttar Pradesh.

The iconography of Kubera/Jambhala gives the impression of a gradual transition from a large money bag held in front (fourth to sixth century), through a smaller bag over his knee (sixth to eighth century), to a mongoose on his knee (tenth to twelfth century) or held high in the air (eleventh century) but different iconographies may be present in the same area or the same period.

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source of the provocation. Before he went to the royal park, he lived an ascetic life in the Himalayas.

[8] Date from S. Kramrisch, "Pala and Sena sculpture," *Rupam* 40 (1929), reprinted in *Exploring India's Sacred Art, Selected Writings of Stella Kramrisch*, ed. B. Miller (Philadelphia: University of Pennsylvania Press, 1983), 204–240.

CHAPTER TWENTY-FIVE

HYLOBATES HOOLOCK, THE WHITE-BROWED GIBBON

25.1 The Living Animal

25.1.1 *Zoology*

The white-browed gibbon or hoolock is the only ape on the Indian subcontinent; all the other South Asian primates are monkeys, mainly macaques. Gibbons are easily recognised by their extremely long arms and the lack of the tail, a typical feature of the apes (fig. 362). They are small with a head and body length of only about 0.44–0.64 m and a weight of only 4–8 kg. Their extreme agility in climbing trees and swinging from one branch to the next is proverbial. They can make leaps of nine meters or more. The presence of gibbons is betrayed by their typical calls or songs, which may carry for several kilometres. In order to produce the sound, they blow up their throat as a balloon for resonance. Gibbons have the habit to walk upright with their long arms held high for balance.

The white-browed gibbon has a very restricted distribution on the Indian subcontinent. It is found only in the deciduous monsoon and evergreen rainforests of the lowlands and hills east of the Brahmaputra river in Assam and Bangladesh.

25.1.2 *Role of Gibbons in Society*

Gibbons seem to play no particular role in society or religion. They are hunted and eaten by hill tribes.

25.2 Gibbons in Stone

On a stele with the historical Buddha (Shakyamuni) from Bihar (tenth century; fig. 363), a gibbon might have been depicted. The stele refers to the episode of the monkey which offers honey to the meditating Shakyamuni. The primate is very small and stands upright like a human.

Macaques and langurs cannot stand in this very upright position. A tail seems lacking, which is diagnostic for apes. The head of the animal is decorated with long hairs on the cheeks as in living gibbons. The animal further wears a girdle or skirt of leaves.

There might be a frieze with frolicking gibbon-like primates on the Brahmeshvara temple at Beraboi near Puri, Orissa (eleventh century) but details are not clear.[1] The geographical location of the temple, however, favours macaques and langurs instead of gibbons, but that is on itself not enough evidence.

25.3 Concluding Remarks

The extremely limited Indian distribution makes the gibbon an unlikely candidate for sculptures, added to the fact that this primate plays no role neither in religion nor in folklore. Exceptions may be provided by a stele from Bihar (tenth century) and possibly also by a frieze from Orissa (eleventh century). Theoretically, these reliefs may indicate that the gibbon had a somewhat larger distribution in the past than today, including northernmost Orissa and easternmost Bihar.

[1] Figured in Donaldson, *Hindu temple art in Orissa*, vol. 2 (1986), fig. 2336.

CHAPTER TWENTY-SIX

LEPUS NIGRICOLLIS, THE INDIAN HARE

26.1 The Living Animal

26.1.1 *Zoology*

The Indian hare is a large leporid with a head and body length of 40–60 cm, long ears, large, well-furred hind feet and a rather long tail of 10 cm (fig. 364). It is subdivided into three subspecies, the black-naped hare of peninsular India roughly south of Madhya Pradesh, the rufous-tailed hare of India roughly north of Madhya Pradesh, and the desert hare of the arid zones of north-western India and Pakistan. In its typical form, the Indian hare bears a dark brown or black patch on the back of its neck, hence the name black-naped hare for this subspecies. The dark patch can be grey and thus hardly visible in the rufous-tailed hare. The patch is not visibly present in the desert hare. Apart from the colour pattern, the subspecies look fairly the same.

The Indian hare is mainly found in open grassy areas, cultivated plains, semi-arid and arid plains and hills throughout the entire subcontinent, including Sri Lanka. Indian hares are also found in the Nilgiris and other South Indian hill ranges (black-naped hare) and in the Himalayas up to 2.5 km (rufous-tailed hare). Many Indian hares live near villages and cultivation. During the dry season when grass in the wild is scanty, they come to roadsides or even enter compounds to feed on the grass growing there. Indian hares can be really numerous where the environment is suitable. The ideal environment consists of bush and jungle alternating with cultivated plains; hares avoid the dense forest.

26.1.2 *Related Species*

The other hare species on the subcontinent is the hispid hare, also known as bristly rabbit or Assam rabbit (*Caprolagus hispidus*). The hispid hare is as large as the Indian hare, but has a hardly visible tail (2.5 cm), very short and broad ears, short hind legs, and a peculiar coarse bristly fur.

It is found only in the riverine grass jungles along the southern foothills of the Himalayas roughly from Uttar Pradesh through Nepal, Sikkim, West Bengal, Bhutan to north-western Assam and north-eastern Bangladesh, but it is critically endangered now, due to habitat destruction, mainly by deliberate burning of thatch land but also due to hunting by domestic village dogs.[1] The last record was thought to be in 1951 from Kheri at the Uttar Pradesh-Nepalese border, but since 1956 it has been rediscovered in scattered parts of its range.[2] At present, however, it's number appears to have been dropped again to a mere hundred individuals, which is too low to sustain a viable population.[3]

The common rabbit (*Oryctolagus cuniculus*) does not naturally occur in India; all rabbits in the wild are feral domestic rabbits, originating from the rabbits that were brought by the British.

26.1.3 *Role of Hares in Society*

The hare is as much a hunted and trapped animal in South Asia as it is in the rest of the world. It is mainly hunted for its meat, and much less for its pelt. For the Sahariya tribals of Rajasthan, it is the number one animal for hunting. Remains of the Indian hare were recovered from the mature Harappan site of Lothal at the Gulf of Cambay, Gujarat (c. 2,300–1,750 B.C.E.),[4] indicating that four thousand years ago it was hunted as well. Hares were never domesticated. The Romans kept them captive in enclosures, but did not tame them nor controlled their breeding. There is no evidence of a similar practice from South Asia.

In Indian literature, hares are presented as intelligent animals. For example, there is a tale about how a hare outwits a lion in the Parrot Book,[5] which is told as follows,

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[1] D. Bell, W. Oliver and R. Ghose, "The hispid hare," in *Rabbits, hares, and pikas: status survey and conservation action plan*, ed. J. Chapman and J. Flux (Gland, Switzerland: IUCN, 1990), 128–136.

[2] D. Bell, "A study of the hispid hare *Caprolagus hispidus* in Royal Suklaphanta Wildlife Reserve, western Nepal: a summary report," *Dodo* 23 (1986), 24–31.

[3] W. Oliver, "The doubtful future of the pigmy hog and the hispid hare," *Journal of the Bombay Natural History Society 75* (1978), 341–372.

[4] Nath, op. cit. (1968), 1–63; Chitalwala and Thomas, op. cit. (1977–8), 14

[5] *Shukhasaptati*, 28th story in *Das Papageienbuch*, ed. W. Morgenroth (München: Winkler-Verlag, 1969), 160–162. The story is also part of Book 1 of the *Panchatantra* collection.

> Long time ago, a lion was master of the forest. One day, the other animals of the forest decided that the lion should stay in its cave and everyday a selected animal would be sent as prey. In this way, peace would return. One day, it was the turn of the hare, but the hare delayed and the lion got angry. The hare replied that it had come already for lunch, but was attacked by another lion, who had spoken bad about Kutila. The lion felt offended and asked the hare to show the way. At a deep water well the hare stopped, saying that this was the other lion's abode. The lion looked down and took its own reflection in the water for its rival. The lion roared awfully and the echo came back as if from its enemy. Furious, the lion jumped down into the well and drowned.

For Indians, the shadow on the full moon has the shape of a hare. This is explained in the Story of the Hare (for depiction and story, see next section).

26.2 Hares in Stone

The earliest depiction of the Indian hare in stone is known from a fragmentary impression of a steatite seal from Harappa in the Indus Valley, Pakistan (2,300–1,750 B.C.E.; fig. 365).[6] The hare on this seal has very large ears and seems to have a rather short body, though this cannot be said with certainty because of damage. The hare is portrayed in great detail with the individual toes of front and hind limbs reproduced precisely. This cannot be observed in a running hare, so more likely the sculptor modelled the carving upon a hunted hare.

The Indian hare is the hero in the Story of the Hare on the Moon,[7] in which a virtuous hare sacrifices itself willingly as follows,

> Once, a hare, a monkey, a jackal and an otter were friends. They agreed to practise charity on the following day, the Day of Feast (Uposatha), to gain merit. The next day, the otter brought seven red fishes as charity gift, the jackal brought a lizard and a pot of milk-curd, and the monkey a bunch of mangoes. The hare felt that grass would not be appropriate as a gift and decided to offer its own body. God Sakka (Indra), disguised as an ascetic came down to ask for food. The hare asked the guest to make a pile of wood and kindle the fire. Then it jumped into the fire in order to offer its roasted meat to the ascetic. However, the fire did not

[6] From the same region also a clay figurine of a hare is known, figured in Marshall, op. cit. (1931), pl. 96 no. 9.

[7] *Sasha Jataka*, *Shashapandita Jataka*, Pali *Jataka* 87.

burn the hare, upon which Sakka revealed his true identity. To mark the hare's virtue, Sakka draw its image on the moon.

The story is illustrated on two stupa railings, one at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 366) and the other from nearby Goli (third century; fig. 367). The ears of the hare are in both reliefs comparatively short, and so are the limbs; the total impression is more like that of a hispid hare, but that hare did not occur in the area, unless its distribution was much larger in the past. The body size offers no further clue, because both hares are of a similar size. The body of the hare on the Goli relief is well-fed, not bad for a meal of course, but not very realistic for a wild hare. The hare on the Nagarjunakonda relief is much more realistic.

On a pedestal of a stele with Revanta, god of hunting, engaged in a hunt from Bihar (tenth century, chlorite), three game animals are depicted, of which the one to the right resembles a hare.[8] The animal is half the size of the muntjac or hog-deer in the middle and is running away. The ears are long, typical of a hare.

26.3 Concluding Remarks

The extremely low occurrence of the Indian hare in stone sculptures stands in sharp contrast to its wide distribution over the entire subcontinent, its vast numbers in the wild and around the villages, its position as one of most hunted and trapped animals and its positive roles in narratives. This lack may be caused by its small size, which makes it more difficult to render it carefully, especially in combination with larger animals or humans. Another factor may be that the positive attitude towards the hare is restricted to Buddhist stories, which on their turn are restricted in time and distribution along with Buddhism itself in India. The only reliefs from a Hindu context in which a hare is depicted seem to be limited to depictions of game animals in hunting scenes as typical of reliefs of Revanta, the god of hunting. The depiction of a hare on one of the steatite seals from Harappa (c. 2,000 B.C.E.) is therefore the more surprising.

[8] Pasadena: Norton Simon Museum, cat. no. M.1975.14.14.S; figured in Pal, op. cit. (2003), pl. 14.

CHAPTER TWENTY-SEVEN

LUTROGALE PERSPICILLATA, THE SMOOTH INDIAN OTTER

27.1 The Living Animal

27.1.1 *Zoology*

Otters are fish-eating mustelids with a body that is perfectly adapted to their aquatic lifestyle. They are streamlined, and have an almost cylindrical body, a broad flattened head, close coat of waterproof fur, a thick muscular tail with flattened tapering end, paddle-like feet with clear webbing, strong and long whiskers and small ears. Their head and body length is about 0.7 m; the tail length is about half that size. When swimming at high speed, otters make sinuous snake-like movements with their body and tail. The smooth Indian otter (fig. 368) is active on land as well where it may travel long distances, but it also enters the sea. Its coat is smooth as its common name already suggests. For the rest it is much like the common otter.[1]

The smooth Indian otter is found everywhere on the subcontinent in lakes and streams from the Himalayas and Sind to the extreme south, except for the deserts, though it also occurs in the dry zones of central India and the Deccan. Smooth Indian otters were till recently extremely common in the Sundarbans, Orissa and Sindh, but even there their numbers dropped. Currently, the species is vulnerable.[2] This otter is the most terrestrial of all otters, and even goes into the jungle to hunt when pools and streams dry up in the dry season.

[1] The species is sometimes treated under the same genus with the common otter (*Lutra*).

[2] S. Hussain, "*Lutrogale perspicillata*," in *2007 IUCN Red List of Threatened Species*, op. cit. Intentional killing and trapping of otters takes place on a large scale in India, Bangladesh and Nepal because of their interference with the increasing aquaculture activities.

27.1.2 *Related Species*

There are two more otters in South Asia: the common otter (*Lutra lutra*) and the clawless or oriental small-clawed otter (*Aonyx cinerea*), which both are more cold-loving otters.

The common otter is the same species as found in the rest of Eurasia, and looks much like the smooth Indian otter, except for its grizzled coat (fig. 369). Furthermore, the common otter moves quite clumsily on land, in contrast to the more versatile smooth Indian otter. The common otter lives in the cold hill and mountain streams, lakes, tanks and flooded rice-fields of Kashmir, the foothills of the Himalayas from the Punjab to the Assam hill ranges, plains of Assam and lower Bengal, and the south Indian hills.

The clawless otter is smaller than the other two otters and has a more massive trunk. It has rudimentary claws, hence its name; the webbing between the digits is minimal or even entirely lacking. The clawless otter lives on crabs, molluscs, frogs etcetera; fish are relatively unimportant on its menu. The clawless otter has the same distribution as the common otter, but occurs also at the higher elevations in the South Indian hill ranges, and probably in creeks and estuaries of Bengal.

27.1.3 *Role of Otters in Society*

Smooth Indian otters are kept by fishermen in the Sundarbans and trained to drive fish into the nets. After the hunt, they climb aboard to be rewarded with fish. The Muhanas of Sindh use them for capturing river dolphins (*Platanista gangetica*, see Chapter 36) instead. Two or three tame otters are let into the river and fish and prawns are thrown to them. The commotion that arises attracts the dolphins which get trapped into the nets. Though otters can be tamed, they are not domesticated.

No deity is associated with the otter (see, however, the next section). The otter plays no role in Indian religions.

27.2 Otters in Stone

27.2.1 *Parvati and the Otter*

There seems to be an occasional link in stone sculptures between the otter and the Hindu goddess Parvati, daughter of the mountains, on

panels and steles depicting Shiva sitting together with his wife Parvati. This can, for example, be seen on the south-western wall of the southern *navaranga* of the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 370). Below Parvati, an otter is depicted. Otters abound in the cold mountainous streams, and as such they form appropriate animals to indicate the presence of Parvati, daughter of the mountains, but also to indicate the geographical location of the setting. The whole scene may refer to the divine couple meditating on Mount Kailasha in the Himalayas. This can also be inferred from a very similar setting seen on a panel at the north side of the *navaranga* of the Kedareshvara temple at nearby Nuggihalli (Nugginalli) (1219; fig. 371). The panel illustrates the story of the multi-headed demon Ravana lifting up Mount Kailasha in order to disturb Shiva and Parvati in their meditation. On top of the mountain, the divine pair is depicted in exactly the same way as seen on the Halebid panel (see above). Below Parvati's foot a tiny creature is present, too; most likely, this is an otter.

An isolated Hoysala stele from Karnataka shows an otter walking below Parvati seated next to Shiva (thirteenth century, chloritic schist).[3] The stele represents Shiva and Parvati in embracement, known as Shiva Umamaheshvaramurti. Below Parvati an otter is seen walking towards the centre. Its coat consists of fine squares, possibly in an attempt to carve the grizzled coat, typical of the common otter. The squares of its coat almost resemble scales, but the posture of the limbs is definitely mammalian, which excludes a monitor lizard (*Varanus*).

A variation on the theme with curly waves instead of an otter occurs as well, and even on the same Hoysaleshvara temple at Halebid, Karnataka. The presence of mountain streams below Parvati is on this panel indicated by waves and not by an otter. Either at the same temple more artists were at work on one and the same theme, or the scenes are supposed to differ in their setting.

27.2.2 *Otters in Narrative Reliefs*

Two otters figure in the Story of the Jackal as Arbiter[4] as illustrated on a coping stone of the stupa railing from Bharhut, Madhya Pradesh

[3] Philadelphia: Museum of Art, Pan-Asian Collection; figured in Harle, op. cit. (1987), fig. 208.

[4] *Dabbapuppha Jataka*, Pali *Jataka* 400. For the story and depiction, see section 11.2.3.

(c. 100 B.C.E.; fig. 174). The two otters have a cylindrical body, a broad and square head, tiny ears and a muscular tail, which, however, does not taper towards the end as it should. In general, the animals lack the sophisticated streamlined morphology of an otter and resemble small dogs rather than mustelids. In fact, they are more or less miniature versions of the jackal, except for their tiny ears.

The otter plays a role in the Story of the Hare.[5] The charity gift brought by the otter consists of a large fish. The story decorates the stupa railing at Nagarjunakonda, Andhra Pradesh (fig. 366). The otter has short legs, a broad head with tiny ears and an elongated cylindrical body. The only unrealistic feature is its tail, which is very fox-like, and not muscular and tapering as in otters.

27.3 Concluding Remarks

The lack of any role of the otter in society is reflected by its rareness in stone sculptures. The only instances seem to be as part of a Himalayan setting in panels depicting the Hindu goddess Parvati, daughter of the mountains and wife of Shiva, and in early Buddhist narrative reliefs. The Shiva-Parvati panels with an otter seem limited to the twelfth and thirteenth century in Karnataka.

[5] *Shasha Jataka*, Pali *Jataka* 87. For the story and depiction, see section 26.2.

CHAPTER TWENTY-EIGHT

MACACA MULATTA, M. RADIATA, THE RHESUS MONKEY AND BONNET MACAQUE

28.1 The Living Animal

28.1.1 *Zoology*

Macaques are Old World monkeys (cercopithecids), closely related to the baboons of Africa though much smaller, with a head and body length of about 0.75 m. They have sturdy, squat bodies, strong limbs, and a somewhat elongated snout (fig. 372). The tail length of the rhesus monkey (fig. 372, above) is about one quarter of the head and body length, but much longer in the bonnet macaque. Other differences between the two species are the red hindquarters in the rhesus monkey, and the hairy bonnet on the head in the bonnet macaque. The bonnet consists of long dark hairs which radiate in all directions from the top of the head, except for the forehead (fig. 372, below, left). Both macaque species are at home in trees as well as on the ground. They are good swimmers, and may drop from the trees straight into a stream and swim to the opposite bank.

Macaques are largely vegetarian, but they also eat insects, other small invertebrates and occasionally eggs and small vertebrates. As all primates, macaques carry food to the mouth with their hands. Like baboons, they have cheek pouches in which they store food that they cannot consume immediately. Macaques live in large troops, and they help each other to rescue the injured or threatened, and in defence of the young. Fur-picking is an important means of social communication.

The distribution of the two macaque species differs. The rhesus monkey lives in almost the complete northern half of the subcontinent from eastern Afghanistan and possibly formerly south-eastern Pakistan, through much of India and Nepal further eastward. The rhesus monkey is the most common monkey of North India. This macaque has adapted to a wide range of subtropical habitats and is found in high altitudes with snow up to near-deserts and dense deciduous forests and

mangrove forests. It is rare or absent in broad-leaved evergreen forests, and also in tropical zones. In some areas they mainly live in cities and towns, where they can find everything they need and are free from large predators.

The bonnet macaque lives in tropical deciduous, coniferous, riverine and mangrove forests of peninsular India south of the line Mumbai on the west and the Godavari river on the east. This is the common monkey of southern India, in villages and in jungles. On Sri Lanka, a very similar, but smaller, macaque is found, the toque macaque (*M. sinica*, see next section).

28.1.2 *Related Species*

Apart from the very common rhesus monkey and bonnet macaque, four more macaque species live in South Asia, all with a very restricted distribution and living in the forests. These four species are the stump-tailed macaque (*Macaca arctoides*) of the eastern Himalayas,[1] the Assam macaque (*M. assamensis*) of Nepal, Assam and Bangladesh,[2] the pigtail macaque (*M. nemestrina*) of Naga Land,[3] the liontail macaque (*M. silenus*) of Tamil Nadu and Kerala (fig. 372, below, right),[4] and the toque macaque (*M. sinica*) of Sri Lanka.[5]

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[1] The stump-tailed macaque lives in tropical and subtropical broad-leaved evergreen forests of the eastern hill ranges of the Himalayas, especially near the Brahmaputra River of north-eastern India. It lives more on the ground than in the trees. Its most characteristic feature is its tiny tail, reduced to a mere stump.

[2] The Assam macaque lives in the subtropical broad-leaved evergreen forests of the mountains of Nepal, Assam and Bangladesh. It looks pretty the same as the rhesus monkey, but is slightly larger.

[3] The pigtail macaque lives in the tropical broad-leaved evergreen forested hills of Naga Land. Its most characteristic feature is its upright, curled tail.

[4] The liontail or lion-tailed macaque lived in the tropical broad-leaved evergreen forests of south-western peninsular India, but is currently restricted to the Ashambu hills of the Western Ghats, the Anamalai-reserve (Tamil Nadu) and the Nellcampathi hills (Kerala). Its most characteristic features are the luxurious whitish ruff of long hair on each side of the face vaguely resembling a lion's mane and its rather thin tail that ends in a plume.

[5] The toque macaque lives on Sri Lanka. It is the smallest living macaque species, while at the same time its tail is the longest of all macaques, longer than head and body together. It resembles a small bonnet macaque.

28.1.3 *Role of Macaques in Society*

The rhesus monkey is sacred for the Hindus and is commonly found in the vicinity of temples and urban areas in northern India and Nepal. Nevertheless, where the food is scarce, the villagers regard the monkeys as a threat to the crops which should be eliminated. During the last century, their numbers have declined drastically from twenty million in the 1940's to not even half a million today, and most populations along roads, in villages and even around temples have disappeared. This is mainly due to exportation, habitat destruction and loss of traditional protection.

Macaques can be trained to perform various tasks. The bonnet macaque is employed on a large scale for street performances in southern India. The pigtail macaque of Naga Land is often trained to harvest coconuts, while rhesus monkeys and bonnet macaques make nice pets.

Today, macaques are eaten by most tribes in India, for example by the Kathodias of Udaipur, Rajasthan. There is, however, evidence that this was done by kings as well in the centuries B.C.E. as told in the Story of the Monkey King (see section 28.2.2 below). The Lepchas of the Himalayas not only eat the monkeys, but also attribute medicinal value to their flesh. This idea may have been wider spread in the past, too, considering a reference to the eating of a monkey's heart to banish diseases and old ages as told in the Story of the Monkey and the Crocodile (see section 28.2.3 below).[6]

Monkeys are not always praiseworthy. They stand for the unbound desires and the flickering of an unstable mind. In stories, they may be either depicted as stupid, such as in the Buddhist story of the gardener whose garden was taken care of by monkeys, or as clever, such as in the Story of the Monkey and the Crocodile.

[6] Monkey fat may further have been considered a treatment for burns, as told in the *Kapi Jataka* (Pali *Jataka* 404), but whether this was based upon an existing custom or just invented for the story, is unclear to me.

28.2 Macaques in Stone

28.2.1 *Macaque Statues*

A touching and unique example of a macaque portrait is a free-standing statuette of a monkey family at Mammalapuram, Tamil Nadu (seventh-mid eighth century; fig. 374). This is one of the rare examples of a naturalistic depiction of monkeys engaged in natural activities. The father, or more likely a youngster of a previous year, is busy with picking the fur of the mother, and the mother on her turn is breast-feeding a baby. The monkeys are bonnet macaques, considering the length of the tail and the protruding muzzle. There is no doubt here about the familiarity of the sculptor with monkeys and the way they live, see for example a grooming cluster of closely related Japanese macaques (fig. 373).

28.2.2 *Macaques in Buddhist Narrative Reliefs*

The majority of macaque sculptures forms part of a narrative relief. Macaques figure, for example, on a large panel illustrating the Miracle of Sravasti from Greater Gandhara, Pakistan (first to fourth century; fig. 375). The macaques play no active role in the story, but merely indicate the setting of a forest. The hairs on their bodies are deeply incised. Their posture is baboon-like, standing on both hands and feet. The tails are rather short, better fitting a stump-tailed macaque than a rhesus monkey. The terrestrial way of locomotion confirms this as well, but the provenance of the sculpture pleas against this option. The stump-tailed macaque is found thousands of kilometres to the east, though theoretically its former distribution may have been much larger, including northern Pakistan.

Monkeys play an active role in another episode of the legend of the Buddha, known as the Story of the Monkey Offering Honey to the Buddha. The episode is depicted on a panel of the east side of the west pillar of the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 380). The monkeys, two in total, have a short tail, hairy limbs, and a rounded muzzle, typical for the rhesus monkey. They resemble the monkeys as depicted on another panel of the Sanchi gateway, illustrating the Story of the Monkey King (see below).

An illustration of a self-sacrificing monkey is provided by the Story of the Monkey King.[7] The tale is evidence for the eating of monkeys by high society and is told as follows,

> Once, a king hunted monkeys. They tried to escape, but a river blocked their way. The monkey king stretched itself as a bridge over the river so that the monkey subjects could safely reach the other side. But a rival on purpose jumped on the monkey king, and wounded it badly. The human king was moved, upon seeing what was happening. He ordered his servants to take the monkey on a stretcher and cure it.

An illustration of the story decorates a railing pillar of the stupa from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 341) and also the right jamb of the western gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E., upper panel, outside view; fig. 376). The latter relief lost the naive and lively spirit of the earlier relief; the main theme is lost in details and the urge to depict as much as possible in one panel. The provenance of both sculptures and the quarter length tails of the monkeys indicate the rhesus monkey. The monkeys in the Bharhut relief are realistically depicted.

In a southern reference to the story on an *ayaka* frieze of stupa 6 at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 377), a bonnet monkey figures, recognized by its much longer tail.[8] In this version, the monkey subjects do not walk over their king, but just sit on it as if riding to the other side. The monkey king realistically hangs over the river, holding hold of the higher opposite bank and bending under the heavy weight of its subjects.

The stupidity of monkeys is illustrated in the Story of the Monkeys and the Gardener[9] as follows,

> Once, a gardener went away for some time and an old monkey offered him to take care of his garden. It asked its fellow monkeys to water the plants. When the old monkey came the next day for control, it discovered that all trees were uprooted. The over-active monkeys had taken the trees

[7] *Mahakapi Jataka, Rajovada Jataka*, Pali *Jataka* 407. The story is, as all stories, known in many varieties, and in one of them, the king simply wanted to eat the mangoes of the tree in which the monkeys used to live. Disturbed by the monkeys, he ordered them to be shot. Considering the current monkey-eating habits of many if not most tribals around the globe, it seems likely that the fruit-eating king is a later, Buddhist adaptation.

[8] Earlier referred to as the *Shrikinnara Jataka*.

[9] *Aramadusaka Jataka*, Pali *Jataka* 46.

> out to measure the length of their roots, in order to give the appropriate amount of water and thus avoiding waste of water.

The story is nicely illustrated on a coping stone from the stupa railing from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 378). The rhesus monkeys are reproduced in much the same way as seen in the relief with the Story of the Monkey King (fig. 341) with a clear hairy coat and a quarter length tail. The head and muzzle, on the other hand, are too rounded; the typical baboon-like muzzle is not present as it is in the Monkey King relief, evidence for a different artist at work. The same stupa railing from Bharhut provides yet another coping stone relief with a monkey, relating the Story of the Lotus Stalk[10] in which the monkey plays a negligible role (fig. 261). The muzzle of the rhesus monkey is carefully rendered, in the same style as in the Monkey King relief, though slightly different.

The monkey represents ugliness and old age, respectively symbols for relatively and mortality in the Story of the Flying Buddha, told as follows,

> Once, Buddha's disciple Ananda was thinking of leaving the order of monks. He desperately desired a bride and a family life. In order to prevent him from doing so, the Buddha took him with him on a journey to the Himalayas. Buddha rose into the air and they flew over the mountains. Buddha showed him an old monkey on a tree trunk and a beautiful nymph (*apsaras*) in heaven. They represent the ugly and the beautiful, the old and the young, the mortal and the immortal, the relativeness of everything. Ananda realized his mistake.

The story is depicted on an *ayaka* frieze at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 379). The monkey in this stone sculpture has a short tail, more fitting the rhesus monkey than the bonnet macaque, though Andhra Pradesh is too much to the south for a rhesus monkey. The presence of a tuft of hair on the cheeks and the absence of a bonnet are, again, befitting the rhesus monkey. It may be that the frieze was sculpted after a northern example as was the case with the panel figuring the Buddha's Great Departure from Nagarjunakonda[11] which seems to have been inspired by a relief from Greater Gandhara (fig. 311).

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[10] *Bhisa Jataka*, Pali *Jataka* 488, *Jataka Mala* 19 and *Chariya Pitaka* 3.4.; see further section 17.2.7.

[11] New York: Metropolitan Museum of Art, cat. no. 28.105. See also section 18.2.2.

A very similar depiction of the story, but of a much lower quality as if it is a mere copy of a copy, originates from nearby Goli, Andhra Pradesh (third century, limestone).[12] The monkey sits in the same way. Here, too, the tail is short as that of a rhesus monkey. No details have been sculpted in this panel; the same can be said for the squirrel.[13]

28.2.3 *Macaques in Hindu Narrative Reliefs*

A monkey is considered intelligent in the Story of the Monkey and the Crocodile,[14] as told as follows,

> Once, a monkey lived in a huge rose-apple tree on the river bank, below which a crocodile used to rest. The monkey threw apples down for its guest and so they became friends. One day the crocodile took the apples home to its wife. The wife concluded that the monkey's daily diet of such nectar-like fruits must have made its heart nectar-like, too. Eating it would banish disease and old-age. But the crocodile refused to kill its friend. On its wife's threat to starve herself, the crocodile finally went. It lied to the monkey when inviting it for dinner at the opposite bank. The monkey sat on its back and off they went. In middle of the river, the crocodile told the truth. The monkey said that it had left its sweet heart in the apple-tree, so they returned to get it. Once ashore, the monkey fled and laughed at the crocodile, "who then has two hearts?"

The story is illustrated on a frieze at the Tripurantakeshvara temple at Belgami (former Balligavi), Karnataka (c. 1070; fig. 381). Seen the long, thick tail, the absence of long hairs at the sides of the face and the provenance of the sculpture, the carving most likely represents a bonnet monkey.

Hanuman, the popular monkey-god of the Ramayana is a common langur (see Chapter 38). However, on a stele at the entrance to the Baghbhairava temple at Bhaktapur, Nepal (sixteenth century; fig. 382) a macaque plays this role. Hanuman is proceeding towards Sri Lanka and steps on the bridge of stones towards the island, swinging a kind of hammer in his right hand. His short tail reveals that he is a rhesus

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[12] New York: Metropolitan Museum of Art, cat. no. 30.29.

[13] For the palm squirrel, see section 21.2.

[14] *Panchatantra* (ed. Vishnusharma), Book 4. Almost the same story occurs in the Seventy Tales of the Parrot (*Shukhasaptati*, 68th story, ed. Morgenroth 1969: 264–268); the only major difference is that the bad guy is here a dolphin instead of a crocodile.

monkey, not a langur with its extremely long tail.[15] Another instance of Hanuman depicted as a rhesus monkey is seen on an early panel from the region of Sarnath, Uttar Pradesh (fourth to sixth century; fig. 383) narrating the episode in which Hanuman meets Rama. Here, Hanuman sits next to the brothers Rama and Lakshmana, while his army seems to be camping in front. The faces of the monkeys are minutely reproduced, with emphasis on the eyes. The monkeys lack the long tail, so typical of langurs.

An unmistakably erotic touch is present in the sculpture of a heavenly damsel (*surasundari*) with a rhesus monkey on a panel at the Queen's Step-well (Rani-ki Vav; eleventh century) at Patan in Gujarat.[16] With her left hand, she lowers her undergarment, showing her pubic area, while a monkey climbs up her left leg, eagerly looking up. Whether she wards it off or invites it secretly remains a mystery. Here, the monkey likely represents the unbound desires, the attachment to which leads to misery. The scene flanks a panel with Kalki, the horse-riding tenth avatar of Vishnu, who will come to rescue the world at the end of this period.

Monkeys figure regularly in similar settings, such as the monkeys in the erotic reliefs at Khajuraho, Madhya Pradesh. An example is provided by a panel on the north vestibule of the Lakshmana temple (c. 930–950; fig. 384), where a monkey disturbs a loving couple (*mithuna*). The male partner tries to ward off the monkey with a staff.

28.3 Concluding Remarks

In general, depictions of macaques from the northern half of the subcontinent represent the rhesus monkey with its quarter length tail and those from the southern half the bonnet macaque with its long tail. I could not find a good example from Sri Lanka, but likely the toque macaque with its very long tail will be found depicted. The majority of macaque sculptures illustrates their role in various narratives; only rarely this is not the case, such as the statue of a bonnet macaque family at Mammalapuram, Tamil Nadu. In these narratives, the monkey

[15] For an overview of Hanuman as a langur (*Semnopithecus*) in Indian stone sculpture, see sections 38.2.2 (narrative reliefs) and 38.2.3 (statues).

[16] Figured in Michell, op. cit. (2000), fig. 82.

can be clever as in the Story of the Monkey and the Crocodile (e.g. at Belgami, Karnataka) or stupid as in the Story of the Gardener and the Monkeys (e.g. at Bharhut, Madhya Pradesh). The monkey can further be portrayed as a self-sacrificing noble king as in the Story of the Monkey King (e.g. at Bharhut and Sanchi, Madhya Pradesh, and at Nagarjunakonda, Andhra Pradesh) or as a symbol for ugliness and old age as in the Story of the Flying Buddha (e.g. at Nagarjunakonda and Goli, Andhra Pradesh). The many roles and anthropomorphic characteristics attributed to macaques supposes that macaques are the perfect stand-in for humans, at least as far as narrative reliefs are concerned. Monkeys further figure regularly in erotic sculptures as a symbol for the unbound desires (e.g. at Patan, Rajasthan, and Khajuraho, Madhya Pradesh).

The sacred character of the rhesus monkey for Hindus cannot be traced back in sculptures, in contrast to that of the langur, or Hanuman monkey (see Chapter 38). The hunting of macaques, including the rhesus monkey, and the attribution of medicinal qualities to monkey parts is evidenced by narrative reliefs.

CHAPTER TWENTY-NINE

MELURSUS URSINUS, THE SLOTH BEAR

29.1 The Living Animal

29.1.1 *Zoology*

Bears are large animals, easily recognised by their large head set with small eyes and rounded ears, heavy body, massive, short limbs and a hardly visible tail. Their body length on average ranges from about 1.4 to 1.7 metres, but may reach almost 2 metres. The paws are short and broad, five-toed and bear long, curving non-retractile claws. Bears typically rise on their hind legs to look around. They walk on the sole of their feet like humans—plantigrade, thus not on their toes—, which makes their footprints resemble those of a human.

The sloth bear is black with a distinct whitish V-shaped breast patch. It is easily distinguished by its coat of long unkempt hair, its long claws on the forefeet (fig. 385) and an elongated muzzle with protruding lower lip. The hind legs are shorter than the front limbs and their backs are curved, which gives them a rather clumsy look. The long hairs make bears impervious to the stings of bees.

Bears typically feed during the night. During the day, they shelter in caves, hollow trees and shelters under the rocks. Despite their terrifying impression, they developed a vegetarian way of life, eating meat only occasionally. They may raid sugarcane and crops near villages and climb date palm trees to drink the toddy from the pots. Honeycombs are especially favoured as well as termite mounts, which they dig out for the larva's. The strong limbs and their inward turned paws are well-adapted for climbing and digging, and not for swift and agile movements. As befitting a tropical species, the sloth bear never hibernates.

The sloth bear is the most common Indian bear. It lives in the forested tracts of Bangladesh, India and Nepal from the base of the Himalayas to the extreme south including Sri Lanka. Nowadays, the species is vulnerable and enjoys protection in the national reserves Chitwan in Nepal and Dumkal and Tatanmahal in Gujarat.

29.1.2 *Related Species*

Three more bear species live on the Indian subcontinent, all with a very limited distribution. These are the Malayan sun bear (*Helarctos malayanus*) of the tropical forests of the hills of north-east India, south of the Brahmaputra,[1] the brown bear (*Ursus arctos*) of the subalpine and alpine zones of the north-western and central Himalayas and Bhutan,[2] and the Himalayan black bear (*Selenarctos thibetanus*) of the steep forested hills throughout the Himalayas;[3] sporadically they descend southwards till Sylhet, Bangladesh, and they have been encountered in the Terai jungles of Nepal and the lower altitudes in the Assam hill ranges. Only the black bear is of some importance with its larger distribution and regular contact with humans.

The red panda or cat bear (*Ailurus fulgens*) resembles a small bear, but does not belong to the same family (Ursidae). It is placed in a family of its own, together with its large nephew, the giant panda of China and Myanmar. The red panda resembles a miniature bear with large, upright and pointed ears and a long, thick bushy ringed tail (fig. 386) as wild cats have, hence its popular name of cat bear. It is found on the subcontinent only in the temperate forests of the Himalayas of Nepal, Sikkim and Bhutan. The red panda sleeps during the day as bears do, preferably in trees, curled up with its tail wrapped over its head. They are easily tamed and make charming pets.

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[1] The sun bear is the smallest bear in India. It is black like the sloth bear and the Himalayan black bear, and also bears a pale patch on the chest. The sun bear is an agile climber with its bowed front legs and inward turned paws.

[2] The brown bear is the largest bear in India, and may reach a body length of about 2.5 metres. Its coat is brown with a faint V-shaped pattern on its chest. The brown bear avoids encounters with humans. They may kill sheep, goats and ponies in summer, when these are brought to the high pastures, but they never become man-killers and avoid human settlements.

[3] The Himalayan black bear is as large as the sloth bear and has a black coat with a clear whitish V-shaped breast patch as well. Differences are that the black bear's coat is short, smooth and shiny, and that it has a compact yet elegant built. The Himalayan black bear is the most aggressive of the Indian bears. It is also the most carnivorous and regularly kills sheep, goats and even larger cattle near the villages. Black bears attack people when disturbed; many people are killed or wounded by this bear. Black bears sometimes hibernate in caves, rock shelters, hollow trees or in a den, filled with leaves. The majority, however, comes down to lower levels and remains active. The Himalayan black bear is rather common.

29.1.3 *Role of Bears in Society*

Bears are not hunted for their meat or skins. They are, however, regularly killed for they are considered to constitute a severe danger and should therefore be eliminated. Generally traps are used, but also a kind of birdlime method. It was used, and maybe still is, by the tribals of the hills in the Tirunelveli district, Tamil Nadu.[4] Long bamboo sticks smeared with birdlime are stuck in the sloth bear's chest and then twisted in the long hairs, making the animal helpless and easy to spear.

Traditional hunter-gatherer groups in Tamil Nadu collect bear's bread,[5] made out of jackfruits, wood-apples and honey-comb, including bees, comb and honey by mother bears for their young.[6] The ingredients are chewed, swallowed and regurgitated and let to dry into a cake as reserve food. A cave may contain a dozen of such breads.

There is a popular belief that a bear kills by hugging a victim in its massive arms. This is not the case, all bears kill by striking. Tribals around Bastar, Chhatisgarh, believe that sloth bears deliberately abduct attractive young women.[7]

The bear is associated in the Jain Digambara tradition with Jina Anantanatha.[8] In Hinduism, the bear Jambavan figures in the epic Ramayana. Jambavan is the ruler of the bears, whose army assisted the hero Rama in rescuing Sita from Sri Lanka, reign of king Ravana.

29.2 Sloth Bears in Stone

29.2.1 *Bear Statues*

A realistic statuette of a bear originates from the Mathura region, Uttar Pradesh (first to third century; fig. 387). The massive masticatory muscles, the straight profile of the forehead and the muzzle, the overall doggish appearance of the head, the short front limbs and the

[4] E. Burton, *An Indian Olio* (London: Spencer Blackett, 1888).
[5] *karadi roti* in Tamil.
[6] K. Anderson, *Nine Man-eaters and One Rogue* (London: Allen and Unwin, 1955).
[7] R. Noronha, *Animals and Other Animals* (Delhi: Sanchar Publishing House, 1992).
[8] Alternatively named Ananta Tirthankara. Anantanatha is the fourteenth of the twenty-four Jinas.

long curved claws are typical of a bear. The overall shape is similar to that of the bear Jambavan as depicted on a modern wooden panel from Andhra Pradesh (c. 1900; fig. 388), strongly indicating that this animal is supposed to be a bear indeed. The bear of the statue holds a kind of ball in its left hand and a bottle or bag in the right hand. It might be that this bear was associated somehow with Kubera, who also dwells in caves. In that case, the right hand holds a money bag and the left hand a jewel pot. The region, the elongated muzzle and the long claws are evidence for the sloth bear.

Along the steps towards the brick podium of the Nyata Poul or Siddhi Lakshmi temple at Bhaktapur (Bhadgaon) in Nepal, a pair of sloth bears is standing guard (seventeenth century; Plate 40). They are, like the other animals, sculpted realistically and portrayed in great detail. The typical elongated and somewhat inflated muzzle are characteristic for a sloth bear. The bears occupy the highest position among the animals along the steps.

29.2.2 *Bears in Narrative Reliefs*

A bear sleeping in a rock shelter on what seems to be a layer of leaves can be discerned at the left top corner of a panel from Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 32). The panel illustrates the Story of the Buddha Visiting a Naga Resort in the Himalayas as indicated by the rocks in the background. Here, the bear obviously is meant to indicate the setting, and plays no active role. The clearly distinguished front part of the muzzle and the hairy coat are suggestive of a sloth bear. This bear is found indeed in Andhra Pradesh, whereas the other three bears are not.

Bears sleeping in caves are seen more often as a minor detail in Buddhist narrative reliefs, such as on a frieze with a hunting scene from Greater Gandhara, Pakistan (first to fourth century; fig. 515) and a frieze from Mathura, Uttar Pradesh, with Indra visiting the meditating Buddha in a cave (first to third century; fig. 355), known as the Indrashailaguha Visit. Details are lacking in both reliefs. The bear in the Gandhara frieze could be a sloth bear as well as a Himalayan black bear. The Mathura frieze represents the sloth bear, not only because of its provenance, but also because of the very long claws of the bear.

29.3 Concluding Remarks

Bear sculptures are hard to find. Two examples of realistic sloth bear statues are known from the region of Mathura, Uttar Pradesh, and from Bhaktapur, Nepal. The Mathura statuette might be related to the worship of Kubera, the Hindu god of wealth who lives in a cave in the Himalayas, regarding the objects in its hands. The Nepal statue occupies the highest rank among a series of guardian figures of a Hindu temple, but whether this informs about the bear's high hierarchical status or not, is not clear. The temple is dedicated to Lakshmi, the Hindu goddess of wealth and spouse of Vishnu, but who is otherwise not related to Kubera.

Most bear sculptures form part of narrative relief to indicate a mountainous setting. They are depicted as sleeping in caves or rockshelters. Examples are early Buddhist narrative reliefs from Uttar Pradesh and Andhra Pradesh. Seen the absence of later bear sculptures, it might very well be that some unidentified animals in narrative reliefs should be explained as bears. Bears are not easy to recognize because of the lack of clear diagnostic features. The presence of bears can be expected in all reliefs depicting wild animals in a mountainous or forest setting, but also in illustrations of the episode of the Ramayana in which Jambavan and his army of bears play a role. Those reliefs abound, but I could find no clear evidence of a bear, which strongly indicates that a bear does not belong to the standard repertoire in narrative reliefs.

CHAPTER THIRTY

MUNTIACUS MUNTJAK, THE INDIAN MUNTJAC

30.1 The Living Animal

30.1.1 *Zoology*

The Indian muntjac[1] is a small deer with a shoulder height of only 0.5–0.7 m. Males bear deciduous antlers, which are very short (c. 7 cm) and simple, having only a brow tine. The pedicles on which the antler stands, however, are very long and prominent. They form bony ribs on the face arising from the orbit up to the rear of the skull, which are emphasized by dark hairs on the surface, hence its popular name of rib-faced deer. These two dark ridges give the muntjac its typical angry look (fig. 389). The ridges are present in both sexes, but only males bear antlers; females have a tuft of bristly hairs instead. Seen from a distance and in a glimpse, the head appears triangular (fig. 390). Males further bear sharp, protruding upper canines. The coat is spotted only in the newborn. Muntjacs live solitary or at most in pairs, and are very shy. The call of muntjacs resembles the barking of dogs. When alarmed, they may also stamp the ground with their feet as most deer do.

Muntjacs are common in the dense forests from the foothills of the Himalaya to the forests of South India, including Sri Lanka. They prefer thick forests with outskirts and open clearings.

30.1.2 *Role of Muntjacs in Society*

Muntjacs are hunted for their meat, but not in the same scale as the large gregarious deer, because of their solitary and hidden life style.

Muntjacs are not associated with a particular deity, nor do they play a role in mythology and folklore. At most, they may figure as *mriga*, the broad category of game animals into which all deer, gazelles and

[1] Other popular names are barking deer, rib-faced deer and red muntjac.

antelope species fall. In Buddhism, *mriga* are a symbol of the First Sermon of the Buddha;[2] in Jainism they are symbol of the Last Sermon of the Jinas. In Hinduism, *mriga* are related to certain manifestations of Shiva.[3]

30.2 Muntjacs in Stone

A pair of muntjacs with their young figures on one of the gateways of the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 155). The scene represents animals paying homage to the Buddha under the Bodhi tree, indicated by an empty seat, a so-called aniconic representation of the Buddha.[4] On the extreme left water buffaloes are depicted with in front of them what seems to be a pair of muntjacs. This is indicated by their clearly curved backs and straight and massive antlers.[5]

On a pedestal of a stele with Revanta, god of hunting, engaged in a hunt from Bihar (tenth century, chlorite), three game animals are depicted, of which the central one resembles a muntjac.[6] The animal is slightly smaller than the boar to the left and clearly larger than the hare or four-horned antelope to the right. It looks backward as seen in several antelope and gazelle sculptures. The animal has further short limbs, a curved back and the characteristic triangular head of a muntjac (fig. 390).

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[2] See further sections 1.1.3 (antelopes), 2.1.3 (deer), 7.1.2 (nilgai) and 22.1.3 (gazelles). The First Sermon of the Buddha is indicated by the presence of a wheel (*dharmachakra*) flanked by a pair of *mriga*.

[3] See section 2.2.1 for sculptures of Shiva with a young spotted deer or a spotted mouse deer as his *mriga*.

[4] See, however, J. Huntington, op. cit. (1985) and S. Huntington, op. cit. (1985, 1990) according to whom scenes like this one represent a pilgrimage to the place where the enlightenment once took place.

[5] Another option is that they represent hog-deer, *Axis porcinus*; see for description of this species, section 2.1.2.

[6] Pasadena: Norton Simon Museum, cat. no. M.1975.14.14.S; figured in Pal, op. cit. (2003), pl. 140.

30.3 Concluding Remarks

Sculptures of muntjacs are extremely rare, likely due to the shy nature of this deer, its solitary life style, its preference for dense forests and the fact that it is not linked to any divinity. Examples of muntjac carvings are found at Sanchi, Madhya Pradesh, and on a pedestal of Revanta, the Hindu god of hunting, from Bihar.

CHAPTER THIRTY-ONE

MUS MUSCULUS, THE COMMON HOUSE MOUSE

31.1 The Living Animal

31.1.1 *Zoology*

Mice are small rodents, closely related to rats but smaller, with a body length of about 5–9 cm on average and with a tail of about the same length. Mice are cute animals due to their rounded ears, pointed muzzle, round bodies (fig. 391) and their habit of eating with both hands. Their fur is soft, but their tails are naked. The common house mouse is extremely common, not only in the fields, compounds, and gardens, but especially so inside buildings and houses. Although not every mouse in the house is a common house mouse, and not every common house mouse lives in a house, most mice at home are common house mice indeed.[1] It is easily distinguished from field and tree mice by its much smaller ears. In addition, the latter mice prefer a forested habitat, although they are often found in villages as well.

The great success of the common house mouse started millennia ago in Iraq, where the first farmers cultivated grain. From there, they spread fast all over our planet and at present, where there are people, there are house mice. This is due to their proverbial prolific nature, their small size and their great ability to adapt.

31.1.2 *Role of Mice in Society*

Mice are not particularly welcomed guests. They are generally considered pests which have to be eradicated as soon as they are detected.

[1] Apart from the common house mouse, there are several field and tree mice in India, of which the most common are the Indian field mouse (*Mus booduga*), the spiny field mouse (*Mus platythrix*), the long-tailed tree mouse (*Vandeleuria oleracea*). A similar species is the metad, or soft-furred field rat (*Millardia meltada*). This species is easily distinguished by its dense soft fur, large rounded ears and larger size (head and body 13–15 cm). The majority of mice lives in the forests and fields and is hardly seen.

Most likely, mice are abhorred because of the damage they bring. They spoil the grain and other harvest and food because they eat on the spot, leaving their droppings and urine wherever they pass. Cats and mongooses are kept as domestic pets in order to control mice and other small animals. Another effective means is the use of peppermint oil, the smell of which is said to be avoided by mice.

Mice are not disliked everywhere. An exception can be observed nowadays in the Karni Mata temple at Deshnok, Rajasthan. Here, black rats are venerated but there are a few white mice in the temple as well; see Plate 6, where a white mouse enjoys the milk together with some thirty or so black rats.[2] The sighting of such a mouse is considered especially auspicious, and brings luck. As can be expected, the local priest is willing to show such a mouse upon donation. Why specifically a white mouse brings luck is not clear, though a similar belief seems to have been held by the Romans as well, as described by Pliny the Elder.[3]

31.2 Mice in Stone

Several mice figure on the large rock-boulder representing Arjuna's Penance at Mammalapuram, Tamil Nadu (seventh to mid-eighth century; figs. 392 and 528). The detail in question illustrates the Story of the Mice.[4] Here, the cat stands in a yogic position just outside the cave where the mice live. Gradually, the mice get used to its presence and trusting its vegetarian life-style, they venture again outside the cave. This is the moment that is captured in the stone relief. The mice are very realistic; they are depicted as cute, well-fed rounded rodents with small ears. One is standing upright, to check what's going on with the cat. The mice are depicted in various postures and positions, and give a lively impression.

[2] See section 3.1.3 for the myth and 3.2.2 for sculptures of these auspicious rats.
[3] Clutton-Brock, op. cit. (1981), 155.
[4] The story is known in the Buddhist lore as *Bihara Jataka, Musika Jataka* or Pali *Jataka* 128. Main difference with the Hindu version is that in the Buddhist tale a jackal plays the role of the cat. The cat, however, is a more proper consumer of mice than a jackal. See section 20.2.2 for the Hindu version of the story.

31.3 Concluding Remarks

The strong dislike for mice, combined with their extremely small body size, explains most probably their notorious absence from stone sculpture. A very rare exception is provided by the mice carvings on the large rock-boulder at Mammalapuram, Tamil Nadu, where they figure in the Story of the Mice.

CHAPTER THIRTY-TWO

OVIS ARIES, THE DOMESTIC SHEEP

32.1 The Living Animal

32.1.1 *Zoology*

Sheep, wild as well as domestic, are medium-sized bovids, and are thus even-toed ruminants with horns in both sexes. As in all bovids, the horns are hollow when shed. Sheep horns are massive and curve in the shape of a spiral around the ear with varying diameter. The horns of the ewes are always smaller than those of the rams of the same species or breed, and only slightly curved. Hornless ewes are very common in domestic breeds. The shoulder height differs between the species, and varies between 0.65 and 1.3 m; rams are larger and heavier than ewes, and the wild sheep are larger than most domestic sheep. Sheep typically have a narrow nose, pointed ears, and a long, drooping tail and never have a beard such as goats (*Capra*) possess. They have a face gland just below the eye. Domestic sheep lost their overcoat, exposing their woolly undercoat. Feral domestic sheep in time develop the coarse hairs again, but never to the degree seen in the wild species. The earliest domestic sheep most likely still had an overcoat, shedding their wool annually.[1]

Sheep are gregarious animals (fig. 393) and can be easily herded in large groups. They keep their heads relatively cool by grouping together in a circle (fig. 394) when the sun is too hot. The hierarchy between rams is based on the age and size of the horns. They fight amongst each other by rearing up on their hind legs, followed by lunging forward and down with lowered heads to crash their horns together, but serious injuries are rare. Domestic sheep fight much like their wild cousins.

Domestic sheep are well adapted to the tropical, subtropical and temperate arid regions and are thus found almost everywhere; they

[1] Clutton-Brock, op. cit. (1981), 22.

are intolerant to desert conditions and extreme humidity. Sheep are grazers, like cattle, and unlike goats, which are browsers.

32.1.2 *Related Species*

There are two wild sheep on the subcontinent, the urial (*Ovis vignei*) and the argali (*Ovis ammon*), and a sheep-like distant relative, the blue sheep (*Pseudois nayaur*), all three with a very limited distribution. Wild sheep have a woolly underfur, but this is always hidden by the coarse and heavy coat. The horns of the wild sheep are more impressive than those of the domestic sheep. Hornlessness of the ewes is very rare in wild sheep. Herds of wild sheep can consist of more than a hundred individuals; rams generally stay apart from the ewes and young.

The urial, or shapu, may have a long and great ruff below the throat in rams. It lives on the steep grassy hill slopes above the tree-line, scrub-covered hills, and the barren stony ranges of the cold, arid regions of the mountains of Afghanistan, Pakistan, Kashmir and north-western India. Its numbers decline drastically, due to competition with and the spread of diseases from domestic sheep and trophy hunting.

The argali, or Marco Polo sheep, nayan or great Tibetan sheep, is the largest of the Indian sheep. Argali horns are massive, outwards curved, deeply wrinkled, and the heaviest and largest of all living sheep; in some varieties, they form more than one circle, following a corkscrew pattern (fig. 395). A record length of 1.69 m has been noted.[2] Argali are restricted on the subcontinent to north-eastern Afghanistan, Kashmir, the Tibetan Plateau, extreme northern India, Nepal and Sikkim. The argali is much less common than the urial.

Blue sheep or bharal are only distantly related to sheep, and differ from them in diagnostic features. Their horns are comparatively smooth, without the transverse wrinkles seen in sheep. Blue sheep horns curve upward, then outward, and finally backward, from the sides of the head, resulting in a semicircular form, with the tips inclined inward (fig. 396). Blue sheep are restricted to the Tibetan Plateau, the north-eastern part of Pakistan and the mountains of north-western Nepal, Sikkim and Bhutan.

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[2] G. Schaller, *Mountain Monarchs* (Chicago and London: University of Chicago Press, 1977).

32.1.3 *Role of Sheep in Society*

The domestication of sheep is supposed to have taken place about 8,000 B.C.E. between the eastern Mediterranean and Caspian seas.[3] All breeds of domestic sheep originated from the Asiatic moufflon (*Ovis orientalis*)[4] as indicated by archaeological and chromosomal evidence.[5] The domestic sheep on the Indian subcontinent are in all likeliness descendants of domestic *Ovis aries* that were imported some time after 8,000 B.C.E. Earlier domestic breeds were likely quite different from the modern breeds. For example, at present most sheep in Pakistan belong to fat-tailed breeds imported from outside the area.[6] This might obscure a direct comparison of sculptured sheep with present-day South-Asian breeds.

Sheep were initially herded for their skin, meat, may be milk and later, after the developing of a woolly fur, their wool. In wild sheep and primitive domestic breeds, the woolly undercoat sheds annually, and this wool can be gathered to be made into felt. By 3,000 B.C.E., the woolly, white fleece without the bristly outer coat (kemps) was already common in western Asia as is evident from depictions from Iraq. Other useful products of sheep are bones, sinews, fat and the bladder for musical instruments or bags. Sheep are kept in large herds, more often than not in a semi-nomadic system (fig. 393). In South Asia, trained rams were used for ram fighting, for example as mentioned and painted in the Book of Babur (*Baburnama*) when Babur visits Agra. Rams were also used for riding, probably exclusively so by children and as draught animal for small carts.

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[3] C. Nadler, K. Korobitsina, R. Hoffmann and N. Vorontsov, "Cytogenetic Differentiation, Geographic Distribution, and Domestication in Palearctic Sheep (*Ovis*)," *Zeitschrift für Säugetierkunde* 38 (1973), 109–125, 121; W. Herre and M. Röhrs, "Zoological considerations on the origins of farming and domestication," in *Origins of agriculture*, ed. C. Reed (The Hague and Paris: Mouton Publishers, 1977), 245–280.

[4] Naturally occurring in the mountainous regions from Asia Minor to southern Iran.

[5] The Asiatic moufflon has a chromosome number of 2n=54 as in domestic sheep. The wild sheep on the Indian subcontinent have higher chromosome numbers—urial, 2n=58, and argali, 2n=56—. There is, however, still much controversy about this matter, because fusion of chromosome pairs is a common phenomenon; see for example P. Grubb, "Order Artiodactyla," in *Mammals species of the world: a taxonomic and geographic reference*, ed. D. Wilson and D. Reeder (Washington, D.C.: Smithsonian Institute Press, 1993), 377–414. Interbreeding of the urial and the Asiatic moufflon takes place in north central Iran, see Clutton-Brock, op. cit. (1981), 54.

[6] Meadow, op. cit. (1986), 60.

Domestic sheep are highly favoured as sacrificial animals in brahmanical texts because they have the highest hierarchical status in the sacrificial order.[7] This is so, because sheep as well as goats, are said to be most manifestly like the prolific creator god Prajapati, in that 'they bear young three times a year and produce two [offspring] three times [per year]'.[8] The gestation period of sheep and goats, however, is four months and the interbirth interval is five or six months at least, so the text is not entirely clear on this point.[9] As the text is interpreted now, the 'year' is longer than both a solar and a lunar year.

Horns of sheep are considered auspicious and able to ward off the evil eye, just as antlers of deer and horns of ibexes and chamois. The facade of the wooden Hadimba temple in Nepal is richly adorned with all sorts of horns and antlers (fig. 203) among which two pair of blue sheep horns can be discerned: the second from below in the series to the left and the third from below in the series to the right. In another part of the facade, the horns of an urial are present (fig. 210) above the large sambar antler.

The ram is the personal vehicle of Agni, the Vedic god of fire. In Hinduism, Agni plays a minor role. The goddess Savitri, spouse of Agni, rides a ram as well, but also Kubera, lord of riches, may ride a ram. The Gujarati folk-goddess (*sagati*) Gheldi Mata or Ghel Mataji rides a ram, too.

32.2 Sheep in Stone

32.2.1 *Earliest Evidence*

One of the oldest Indian sculptures of a sheep is a marble figurine from the Indus valley, Pakistan (c. 2600–1900 B.C.E.), attributed to a reclining wild sheep (moufflon).[10] The animal resembles an urial most closely with its ruff below the throat as is indicated by a faint ridge of stone. The horns in urial are not as impressive as in argali, yet still larger and more outward sweeping than in domestic rams, in which the

[7] *ŚB* 6.2.1.18; quoted from Smith and Doniger, op. cit. (1989), 189–224.

[8] *ŚB* 4.5.5.6, 9 and 5.2.1.24; cf. *TS* 6.5.10.1; cited from B. Smith, op. cit. (1991), 527–548.

[9] Twins are further very common in sheep, but triplets are more common in goats. As far as goats are concerned, an interpretation as 'they give birth three times [per litter] and produce two [litters] of triplets a year' would be closer to the biological truth.

[10] New York: Metropolitan Museum of Art, cat. no. 1978.58.

horns tend to sweep closely around the ears. In this figurine, the horns are beautifully sculpted, and are swept around its ears. The muzzle ends blunt and the legs are folded below the body in a realistic way. The whole figure was portrayed with great care. Based on the horns alone, a domestic ram might have been intended, but the presence of a ruff below the throat dismisses that option. Furthermore, the horn size and form depends highly on individual age, and young rams have much less remarkable horns. Other similar figurines of sheep were found in the same region and from the same period; they all show this ruff of hairs below the throat, stylized in the form of a ridge.[11]

32.2.2 *Sheep as Divine Vehicle*

A beautiful and realistic adult ram is ridden by Agni, the Hindu god of fire, and his spouse Savitri on a lintel above a doorway of the Tarappa Gudi temple at Aihole, Karnataka (seventh to eighth century; fig. 397). The grooved horns curve around the ear. The ram runs in a flying gallop; the scene is very similar to that of Yama and his shakti riding the water buffalo on the same temple (fig. 119).

On a northern Agni stele from Rudrapur, Uttaranchal (eighth to early eleventh century; fig. 398), the ram has very short and upright horns and pendulous ears. Its tail is upright, which fits a goat better. The horns may indicate a very young ram, which are the typical sacrificial rams.

Steles of Agni on his ram are frequently met with on Orissan temples, all slightly different. Agni's ram on the Simhanatha Temple on Simhanatha island in the Mahanadi river is rendered with a beautiful beard (late ninth century), typical of the wild urial and not so much for domestic breeds.[12] The dewclaws are prominent, the horns are short and grooved, the tail is short, thick and drooping, and the overall posture is elegant. The hooves are too flat, a common shortcoming in domestic sheep, especially when they live on too soft substrates. On the Dakshaprajapati temple at Banpur, it is Agni's spouse Savitri who rides the ram.[13]

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[11] There are also figurines of baked clay, presumably votive offerings, which depict domestic rams without a ruff of hairs and with large, massive horns circling the ear.

[12] Figured in Donaldson, *Hindu temple art in Orissa*, vol. 1 (1985), fig. 392.

[13] Ibidem, vol. 2 (1986), fig. 1453. North side of the *jagamohana*.

The Agni in a set of eight guardians of the cardinal directions (*ashthadikpalas*) from Bhubaneshwar (975–1025; fig. 399, above, left) rides a ram with short, massive horns and small, strong hooves, unlike the Simhanatha ram. The tail is upright as in goats, but a beard is lacking. A contemporaneous Agni stele from Patharpunja (tenth century; fig. 399, above, right) figures a goat-like ram with a clear beard and backward swept goat-like horns; even the posture of Agni's vehicle is that of a goat. The only sheep-like feature is its drooping tail.

A more realistic ram sculpture is found on a ruined temple at Benusagar, Bihar (ninth to eleventh century).[14] Here, Agni stands next to his mount instead of riding it. The ram is rounded, has short but curved horns as a domestic breed, a drooping tail and lacks a beard. A hornless but otherwise realistic ram is ridden by Agni on a stele with unknown origin (fig. 399, below, left). The ram either belongs to a hornless breed or had its horns cut; a third option is that it is not a ram, but a ewe. The tail is drooping as it should, and the woolly hairs are indicated with dashes. The dewclaws are prominent.

An awkward ram figures on another Agni stele in London, also with unknown origin (fig. 399, below, right). The horns curve nicely around the ears, the tail is drooping, the dewclaws are indicated, but the trunk is far too elongated; in addition, the ram has a tiny triangular beard, typical of a goat. The animal is a hybrid between a ram and a goat. The lotus seat of the god slopes clearly to the left, floating somehow above the ram. A similar elongated ram with small triangular beard, but now facing left, accompanies Agni on a stele from Bangladesh or West Bengal (tenth century; fig. 400). The setting differs from the other steles, in that the god sits on his ram, or rather, squats and leans against the ram, because the ram lies too much to the back to sit on.

32.2.3 *Sheep-headed Figures*

A rare example of a relief with a sheep-headed figure is provided by a bracket figure of the Chennakeshava temple at Belur (c. 1117; fig. 401). The head is that of a ram, and is beautifully carved. The long, pendulous ears are realistic, and so are the deeply grooved horns, encircling the ear. The face is friendly. It's not clear to me what mythical figure is represented here, but it might be Daksha, with a ram's head instead

[14] Ibidem, vol. 1 (1985), pl. 598.

of the expected goat's head; another option is one of the musician's of Kubera. He holds a stick or flute in his right hand, at the same time making the fear-not gesture (*abhayamudra*).

32.2.4 *Riding a Ram*

Domestic rams were used as mount for children or young adolescents. A nice illustration of this custom is provided by a frieze depicting prince Siddhartha, who would become the Buddha, going to school from Butkara I in Greater Gandhara, Pakistan (first to second century, schist). The grooved horns encircle the ear as they should. The tails are thick and long as seen today in some domestic breeds of the area such as the fat-tailed sheep of Pakistan and Iraq. The faces of the rams are marked with longitudinal stripes, possibly indicating some alternating colour pattern or the conspicuous face gland of sheep. The riders are children as can be concluded from the size of the men in front and behind them, who are about twice their size. A parasol is held above the children's heads as token of their royal status.

A heavily eroded ram can be seen on a stupa drum frieze with the next episode, in which the prince just arrives at school from Greater Gandhara, Pakistan (first to fourth century; fig. 402). The ram is rather elegant and large, almost resembling a small horse. But the adult men behind and the teacher in front make clear that the animal is just small, and its rider a child. The area of the horns is damaged, though there is still a vague indication of a horn, excluding thus a horse. A further evidence for this is provided by a similar frieze of Siddhartha in School from Marjanai, Swat Valley, Pakistan (mid-first to second century; stupa shrine 3, green phyllite) where the ram has tightly curved horns and a woolly coat.[15]

32.2.5 *Sheep in Other Narrative Reliefs*

On a panel illustrating the Buddha legend of the Miracle of Sravasti from Greater Gandhara, Pakistan (first to fourth century; fig. 375), a wild ram is depicted to indicate the setting in the right upper quarter. The ram plays no active role in the legend. It bears a thick ruff below

[15] S. Khan, "Preliminary report of excavations at Marjanai, Kabal, Swat," *Ancient Pakistan* XI (1995), 1–74, pl. 11b.

the throat and has massive, circling deeply grooved horns. It resembles an urial closely; urial still live in that region.

A ram is the sacrificial animal in the Story of the Ram that Laughed and Wept,[16] which is told as follows,

> Once, a brahman decided to offer a Feast for the Dead with a ram sacrifice. He let his pupils bath the ram, adorn it with a garland, feed it and bring it back as described by the rules. At the river side, the ram first started to laugh loudly, followed by loud weeping. Upon hearing what happened, the master asked the ram why it had laughed and why it had wept. The ram explained that once, as a brahman, he, too, sacrificed a ram for a Feast for the Dead, but for this his head was chopped off 499 times in following births. Now it laughed, because this was to be its last time, after which it would be freed from that misery. However, at the same time the ram wept out of pity, when it realized that now this brahman would on his turn suffer 500 births being a sacrificial animal. The brahman understood the message and restrained from the sacrifice.

The story is illustrated on an *ayaka* frieze at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 403). Though the ram has no horns, it is definitely a sheep with its prominent woolly coat, emphasized by dashes on the body and thick layers around the neck, indicating that the body was shaven but the neck not; another explanation is that the layers represent the garlands. The tail is drooping, but dewclaws are not indicated. The ram is portrayed realistically so it seems plausible to assume that either hornless breeds were kept in Andhra Pradesh at that time or that the horns were cut at a young age.

Rams are notorious for their fighting. This is nicely illustrated in the Story of the Jackal at the Ram Fight[17] as follows,

> Once, there was a herd of rams. Two among them were fighting angrily, dashing their slab-like foreheads together so that blood oozed out, which attracted a jackal, eager for blood. It stood in between the rams and started licking the blood. When the rams crashed again, the greedy jackal did not step aside and was crushed between the heads.

An illustration of the story decorates the Tripurantakeshvara temple at Belgami (former Balligavi), Karnataka (c. 1070; fig. 173). The rams have curved horns, a clear woolly coat, though neatly arranged in cascading layers of curls, small hooves, and a long, though upright tail. The

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[16] *Matakabhatta Jataka*, Pali *Jataka* no. 18.

[17] *Panchatantra* (ed. Vishnusharma and ed. Durgasimha), as well as the Tamil *Tantropakhyana.*

muzzle is inflated, not flat. Despite the small failures, the whole is an accurate and characteristic depiction of sheep.

Another charging ram is depicted in a narrative frieze on a coping stone from Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 404). The frieze illustrates the Story of the Leather Garment[18] about an arrogant mendicant who met his death by taking the butting of ram for a friendly salutation. The ram is well-fed, and charges in a realistic way. Its horns, sexual organ and profile of its muzzle are accurate.

32.2.6 *Erotic Scenes with Sheep*

A goddess who is, at least in stone reliefs, somehow related to sheep, is the Buddhist protective goddess Hariti. Originally she was a child-devouring ogress or *yakshi*, but after her conversion to Buddhism, she became not only the patron of children, but also of the monastery (*vihara*). Her aspects and iconography became somehow confounded or mixed up with those of Shitala (Shitaladevi, Mariyamman), the South Indian mother-goddess of small-pox. This may be based upon the close relation between small-pox and a high mortality rate of children.[19]

Children may be represented on pedestals or steles of this goddess, in very rare cases playing with sheep. An example of nude children, cherubin or putti-like, playing with sheep is provided by a pedestal of a stele of Hariti sitting with her spouse Kubera from Sahri-Bahlol, Greater

[18] *Chammastaka Jataka*, Pali *Jataka* 324.

[19] Smallpox is an acute contagious disease caused by the variola virus, closely related to cowpox, camelpox and monkeypox (information WHO). The disease is believed to have originated over 3,000 years ago either in the doab of India (W. McNeill, *Plaques and Peoples*, New York: Anchor Press/Doubleday, 1976) or in Egypt, and is one of the most devastating diseases on earth. Before Edward Jenner introduced inoculation with cowpox in 1798, a similar variolation was done in India centuries earlier by using sun-dried crusts of patients, which procedure was said to gave 90% protection against the disease (Al-Biruni, op. cit., transl. Sachau (1983), vol. 1, 308). The practice was brought by Buddhist monks via Tibet to China, where the method was slightly refined (F. Fenner et al., *Smallpox and its eradication*, Geneva: World Health Organization, 1988, 253). Sheep can be infected with cowpox, but also with orf, a parapox-virus, which gives similar symptoms. Orf has a veneral form. The wounds are present mainly on muco-cutaneous borders, such as the mouth and sexual organs, and are very contagious, not only for sheep but also for humans. Direct contact yields similar wounds, and it may theoretically be that this was done on purpose to fight the disease with its own disease products, exactly as was done much later with the smallpox crusts. If this was ever done, is highly speculative and as far as I know not described in ancient texts, but if so, it would explain the rare depictions of playing, including bestiality, with sheep on some Hariti pedestals.

Gandhara, Pakistan (fourth to fifth century; fig. 405, above). To the right and the left, children are wrestling, but those in the centre are busy with a sheep. One is riding it, one is holding it at the head, apparently preventing it from walking away and one seems to push it.

The next step towards a less innocent playing is seen on another Hariti pedestal from the same region and roughly the age (first to fourth century; fig. 405, below). In the centre, two ewes stand in front of a pillar, facing each other, while they seem to be penetrated by two male nudes. The horns are compact and encircle the ear, clearly indicating sheep, not goats. The same idea is followed on a much later Hariti pedestal from Patan, Nepal (seventh to eighth century).[20] The iconography may have been borrowed from ancient Rome, because pillar pedestals with nude putti playing with a sheep are known (c. second century B.C.E. to second century C.E.; fig. 406), though here there is no sign of any erotic play.

An unmistakable example of sex with sheep is provided by a frieze at the Tripurantakeshvara temple at Belgami (ancient Balligavi), Karnataka (c. 1070; fig. 407). At the left, four human couples are depicted, of which two are engaged in rather complicated sexual actions, to the right a man is penetrating a ewe, while a second man is fixating her by holding her at the horns and bending her head to the ground. The main difference with the Hariti pedestals is that here adults are engaged in the action instead of children or putti.

32.3 Concluding Remarks

The majority of sheep sculptures represents domestic sheep. Wild sheep seem to figure only in Indus Valley sculptures (c. 2,600–1,700 B.C.E.) and in narrative reliefs, such as those illustrating the Miracle of Sravasti from Greater Gandhara. Wild sheep are recognized in stone sculpture by their massive horns and a ruff or hairs below the throat.

The ram of Agni is depicted in various ways in stone sculptures. Agni's ram may be depicted with a beard, typical of goats, possibly in a misplaced attempt to copy the small, triangular beard of Agni himself. Only the wild shapu has a ruff of hairs below the throat, but its

[20] P. Pal, *The Arts of Nepal, Part 1, Sculpture*, Handbuch der Orientalistik 7, 3, 3, 2 (Leiden and Köln: E.J. Brill, 1974), pl. 60; Pal considers the action merely playing.

horns are more massive and impressive than those of Agni's ram. Not all Agni's rams are unrealistic, or hybrids between a goat and a ram. A realistic and beautiful ram carving is present at Aihole, Karnataka, but also at Benusagar, Bihar. The majority of Agni's rams has small to very small horns. Some of Agni's rams bear no horns at all, indicating either a hornless breed or a custom of cutting the horn in the newborns. The various ways in which Agni's ram is depicted in stone seem not to be linked to period or region.

Sheep, mainly rams, play a role in several narrative reliefs, such as the Story of the Ram that Laughed and Wept (e.g. at Nagarjunakonda, Andhra Pradesh), the Story of the Jackal at the Ram Fight (e.g. at Belgami, Karnataka), the Story of the Leather Garment (e.g. at Bharhut, Madhya Pradesh), the episode of Prince Siddhartha going to or being at School (e.g. at Greater Gandhara).

Sheep, finally, sometimes figure in erotic scenes. Such may be the case with the sheep on Hariti pedestals. Hariti is the Buddhist protective goddess of children and the monastery. In most cases, nude children only play with the sheep (e.g. at Sahri-Bahlol, Pakistan) but in other cases the play is not innocent anymore and the ewe is truly penetrated (e.g. at another Greater Gandhara pedestal and at Patan, Nepal). Adult sex with sheep is depicted in a Hindu context at Belgami, Karnataka, seemingly in no relation to Hariti or any other deity.

CHAPTER THIRTY-THREE

PANTHERA LEO, THE LION

33.1 The Living Animal

33.1.1 *Zoology*

The lion is one of the Indian large cats, easily distinguished from the others by its golden colour, imposing mane in the male and its long tail ending in a black plume. Its body length is about 2,75 m. The Asiatic lion is very similar to the African lion (fig. 408) and belongs to the same species, but has a scantier mane, a fuller coat, a longer tuft of hairs on the end of its tail, a more pronounced tuft of hair on the elbow joints, and a fuller fringe of hairs below its belly. In short, the scantiness of the mane of the Asiatic lion is compensated by the extra hairs on the rest of its body. Lions have a largely uniform colouring when adult, but the coats of the kittens, females and young adult males bear the typical rosette coat pattern as seen in jaguars and leopards, though only faintly so (Plate 31).[1]

Adult male lions display their body size and mane by stiff standing or walking in a posture called "strut".[2] Females, young males and adult males which are not in a show-off mood walk with their head held low. Lions prefer a more open country, though they also thrive very well in open jungles. Contrary to most other cats, lions live in groups. They seem lazy, sleeping during the day in the shadows of trees and in caverns. They hunt at night, mainly on large game and cattle. Lions are not as ferocious as often described. The lions, for example, that were used in the ancient Roman games, were starved and tormented first, much like the bulls of the Spanish bull fighting today.

Lions have their own typical way of hunting. The most extensive field study on this terrain is without doubt that of Schaller on the Serengeti

[1] A. Turner, *The Big Cats and their fossil relatives. An Illustrated Guide to Their Evolution and Natural History* (New York: Colombia University Press, 1997), 93.
[2] Ibidem, 96.

lion of Africa; I summarise here only parts of his description.[3] First of all, hunting is mostly done by female lions; only some 3% of all stalking and running was done by males; males are unlikely to hunt, however, they respond quickly to an unexpected opportunity without the need for a run or stalking. Lions have impressive claws, but lack speed and this is reflected in their way of hunting. Small prey is either slapped on the thigh causing the animal to fall, and then clutched with both paws, or they are simply grabbed with both paws; the killing bite is mostly in the back of the neck or at the throat and seldom at the head, back or chest. Medium-sized prey is grabbed by the rump with the forepaws, dragged down and bitten in the neck or nose, at a safe distance from hooves and horns. Death is due to strangulation when held by the throat, or to suffocation when taken by the nose.[4] Large-sized prey is only hunted cooperatively and grasped with both paws and bitten in back and nape. Single lions seldom attack an adult large bovid with its huge body mass and dangerous horns and hooves, moreover, its skin is over 1 cm thick and thus too difficult to penetrate. When stalking, a lioness halts when the prey suddenly becomes alert; she may stand motionless with one paw raised in mid-stride. A fleeing animal may be grabbed with a forepaw by the thighs to let it fall.

Once, the Asiatic lion was found over the whole of northern and central India as far south as the Narmada river. Mankind is responsible for the lion's practical extinction in India, especially after the arrival of the Europeans in India. Nowadays, the Asiatic lion is restricted to the Gir Forest in Kathiawar, Gujarat.[5] Nonetheless, with a number of approximately 250 mature individuals, all occurring within one area, the Asiatic lion is critically endangered.[6]

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[3] G. Schaller, *The Serengeti Lion, a Study of Predator-Prey Relations* (Chicago and London: The University of Chicago Press, 1972), 233, 242, 247, 259, 264–5.

[4] Ibidem, pls. 31 and 32, respectively.

[5] The former owners of the Gir Forest, the nawabs of Junagadh, protected the lions, but after the separation India-Pakistan the nawabs left to Pakistan. The villagers used the forest as grazing ground for their cattle and soon the numbers of deer, lion and tiger declined severally. Under Indira Gandhi the park got again protection and became one of the best national reserves of India.

[6] K. Nowell and P. Jackson, ed., *Wild Cats. Status Survey and Conservation Action Plan*, IUCN/SSC Cat Specialist Group (Gland, Switzerland: IUCN, 1996).

33.1.2 *Role of Lions in Society*

Above all, the lion is a much desired trophy for princely hunting. This hunting was the main reason behind their drastic decline in numbers; only thanks to the natural reserve of Gir, the lion is preserved in India. For the common people, the lion was hunted merely to protect themselves and their cattle. Lions are not used for their meat; only their hide and skull are used as a trophy. Apart from hunting, the lion may have been used in lion fights as in ancient Rome. Evidence for this are some depictions of such fights.

The lion is considered an auspicious animal together with the horse, the elephant and the zebu on early Buddhist architecture, either alone or in combination with the latter three. These auspicious four seem to have formed a standard quartet in Buddhism, found on free-standing pillars of northern India and on moonstones in Sri Lanka, walking in procession. By turn, one of them may function as crowning element of the pillar. The meaning of the quartet is not clear; possible explanations are that they represent the cycle of existence (*samsara*) in which the lion symbolizes illness, that they are based upon the earlier sun and moon worship, in which the lion is the symbol in the sun god's banner, that they each protect a cardinal direction, in which the lion protects the north, or that they simply represent royal pomp and power. In Hinduism, rows of walking or running lions function as auspicious decoration of temple plinths. These repetitive series are also seen with horses, elephants and geese, but not with bulls.

The use of the lion as a royal emblem is well known and not limited to South Asia or a certain period in history. The image of the lion is also suited as a guardian of entrances, especially those to royal palaces (*simhadvara*, or lion-door) and as throne legs (*simhasana*, or lion seat) for kings and deities. The lion is a common ornamental figure on palace architecture, but also on seats of deities. Based on the royal descent of the Buddha, the lion became closely associated with the historical Buddha, who is referred to as Shakyasimha, meaning lion of the Shakya clan.

The lion is the personal vehicle of several gods and goddesses. The most important are the Hindu goddesses Durga and Kali, both spouses (*shaktis*) of god Shiva. They each represent terrible or wrathful aspects of the goddess, and a lion is thus a proper mount. Other mother-goddesses who may ride the lion are Varahi, Chamunda and Ambika, but generally they ride a different animal: the buffalo for Varahi and a corpse

for Chamunda. Heramba, a five-headed form of the elephant-headed Hindu god Ganesha, has the lion as vehicle, too. In Nepal, he is given both the rat and the lion.[7] Also the one-headed Ganesha himself may ride a lion instead of a rat in Kashmir, Afghanistan and Nepal.[8] It is likely that in such cases Ganesha inherited the lion from his mother, the goddess Durga.[9] In Buddhism, the bodhisattva Simhanada Lokeshvara, a manifestation of Avalokiteshvara with a trident, matted hair and a rosary rides a lion.[10] Another lion-riding bodhisattva is Manjushri, the bodhisattva of wisdom.

A lion-head is characteristic for two manifestation of the Hindu god Vishnu: Narasimha and Vishvarupa. As Narasimha—his man-lion incarnation (*avatar*)—, Vishnu came down with a human body and lion head, to kill the demon Hiranyakashipu, who could be killed neither by a man nor by a beast, so the only remaining option was by a man-beast. Vishvarupa is Vishnu's three-headed all-pervading and all-mighty form; one of this heads is that of a lion. A Buddhist lion-headed deity is the local Buddhist guardian deity Simbasya, protector of the northern gate of Kathmandu, Nepal.

Royal, auspicious and heroic as a lion may appear, it obviously also has its weak points. In several tales, Hindu as well as Buddhist, the lion is figured as arrogant or selfish and not particularly bright. An example is the tale in which a hare outwits a lion as described in the Parrot Book.[11]

33.2 Lions in Stone

33.2.1 *Earliest Evidence*

The lion was still very common in India during the Harappa period (c. 2,300–1,750 B.C.E.) in the Indus Valley of Pakistan. The few depictions of lions in stone sculptures from that time and region are

[7] A. Getty, *Ganeśa: A Monograph On the Elephant-Faced God* (New Delhi, Munshiram Manoharlal, 1971, 2nd ed.), 19.

[8] G. Verardi, "Notes on Afghan Archaeology, II," *East and West*, n.s. 27, 1–4 (1977), 277–283.

[9] Pal, op. cit. (1981).

[10] Known as Guanyin of the Lion's Roar in China.

[11] *Shukhasaptati*, 28th story. For the story, see section 26.1.3.

evidence that these people indeed knew this animal very well. A small figurine from Mohenjo-daro (fig. 409) shows the massive and blunt muzzle of a lion.[12] The thin mane of the Asiatic lion is indicated by vertical lines. A broken steatite seal, also from Mohenjo-daro, Pakistan (fig. 410) preserved the hindquarters of the animal. The tail ends in a clear plume, evidence for a lion. The most realistic depiction of a lion is, however, in the form of a terracotta amulet from Mohenjo-daro (fig. 411). This is how a real lion looks like: a large cat with a big, square head and large claws.

33.2.2 *The Auspicious Lion*

The lion, either alone or walking in procession with an elephant, a bull and a horse or other lions decorates many religious architectural structures, early Buddhist as well as later Hindu. They decorate pillar capitals, moonstones, stupa panels and temple plinths and have an auspicious function.

33.2.2.1 *The Lion Capital*

The most eye-catching lion capitals are those of the free-standing pillars of the Mauryan period from Uttar Pradesh, such as the one at Sarnath (third century B.C.E.; fig. 412) and the one at Basarh or Bakhira (third to second century B.C.E.).[13] The Sarnath capital is mainly known today as the official emblem of the Republic of India.[14] These lions are the most realistic lions ever portrayed in pre-modern India, with even the veins and retractile claws carefully sculptured, oval eyes, folded mouth corner, square short face, small rounded ears, and broad nose. The dentition is cat-like with large canine teeth and not with the row of blunt teeth as seen in many later sculptures (see below). The only shortcoming are the too neatly arranged manes and the moustache-like whiskers, especially so in the Sarnath capital.

An example that is closely related to the Sarnath capital is found on the southern gateway to the Great Stupa, again at Sarnath but

[12] The statuette has been interpreted as a mastiff, but the muzzle is definitely cat-like.

[13] The Basarh capital consists of a single lion, which is otherwise similar to the four lions of the Sarnath capital. IM List 1900 183.

[14] The lion capitals are said to resemble Greek examples with their moustache and embedded eyes and indicate the presence of Greco-Bactrian artists in the region; see Bachhofer, op. cit. (1972).

two centuries later (c. 50–25 B.C.E.; Plate 33). The lions are much the same as on the free-standing pillars, but lost the fine touch of the older capitals. Every detail is preserved, but more superficially rendered; the lion face became less square, the grooves less deep, the mouth corners rounded, and the manes even more neatly arranged in cascading ringlets around the neck. It seems that some sort of standardization made the sculptors less critical, because the winged lions on the posts of the western gateway but in a different setting show so much more spirit (c. 50–25 B.C.E.; Plate 32). The details approach those of the lions of the earlier Sarnath pillars: retractile claws, naturalistic hairs, square faces, tail with tuft of hairs and so on. The lions are supposed to be mythical, but if the wings are skipped, they look very realistic. The only shortcoming are the tufts of hair over the forehead and the somewhat bulging eyes.

The lion capitals around Buddhist stupas outnumber the zebu, horse and elephant capitals greatly. An example of how such pillars around a stupa could have looked like is provided by a votive stupa from Greater Gandhara, Pakistan (c. 200; fig. 413). The lions sit, and they all four face towards the stupa.

The habit of erecting lion-pillars at stupa gateways was certainly not limited to the north, but existed in the southeast as well as evidenced by a narrative panel from Nagarjunakonda, Andhra Pradesh (c. 250–300, limestone).[15] The panel illustrates the legend of the Buddha's descent from the Trayastrimsha heaven. Surrounding the stupa are pillars and pilasters with lion capitals. The lions, although miniature, are naturalistic with full and thick manes, not arranged in curls or in cascading collars. They further have square heads, rounded ears and oval eyes which are not bulgy. A very similar setting is provided by a panel from nearby Amaravati (third to fourth century; Plate 34). Here, the stupa is surrounded by a railing as well, interrupted by a gateway flanked by lion pillars. In front of the stupa, an empty throne with a cushion is present, likely a hint to the presence of the Buddha himself.

33.2.2.2 *The Walking Lion Series*

The lion may also be depicted in repetitive series on religious architecture, either walking or running, and either realistic or mythical, as is the case with elephants and horses. Series of running lions, including

[15] New York: Metropolitan Museum of Art, cat. no. 28.31.

mythical lions of three types—griffin-like lions with bound beaks, horned lions and winged lions—are depicted regularly in Andhra Pradesh on early Buddhist monuments. It is not clear whether these are meant to be just decorative or auspicious. A typical example is provided by a panel from stupa 3 at Nagarjunakonda (third to fourth century; fig. 414, above). The bodies of the lions are muscular, compact and powerful, their heads are massive and square, the eyes are not bulgy but naturalistic, the ears are small and triangular, the manes are realistic and not combed or arranged as collars, except for the griffin-lion which has them arranged in circular rows. An interesting feature are the long tails hanging down between the hind legs; if the lions would be running indeed, the tail would stay behind in mid-air.

On a very similar panel from stupa 2, Nagarjunakonda (third to fourth century), the tail sweeps further forwards and lies on the ground below the belly; another difference with the panel from stupa 3 is that the tail ends in a large plume as seen in the living lion. There seems to be a lot of variation in carving skills between sculptors working at the same stupa, see for example another panel from stupa 3 (fig. 414, centre). Every detail of the lions is vague and imprecise, and worst of all, the front limb touches the ground from the elbow downward. An intermediate skill is revealed by another panel from stupa 2 (fig. 414, below). The lions are much more realistic, but the front limbs lie already on the ground. It might be that these running lions of the Andhra Pradesh stupas of the first centuries are based upon examples from the eastern Roman empire, because depictions of the lion of St Marcus are amazingly similar to the Nagarjunakonda lions (c. 1400, based on Roman examples; fig. 415). The front limbs are here parallel to the ground, because the lion has to hold the book. If the book is left out, the posture of the front limb closely resembles that of some of the Nagarjunakonda running lions.

The auspicious series of running lions is replaced by a series of walking lions, often with mythical additions such as horns, on Hindu temples in the south, where lions never thrived. All leonine features are heavily exaggerated here, and the animal becomes a fabulous cat, see for example a lion frieze on the plinth of the Kedareshvara or Chennakedareshvara temple at Halebid, Karnataka (1219; fig. 416). The fringes of hair on the elbow are translated as flowers, and copied for reasons of symmetry on the knees. There are many instances of similar friezes from the region, all sharing more or less the same characteristics. The lion here is a mythical *vyala* or *yali*, basically a lion, but with horns,

bulging eyes and often short tusks. They are very common in sculptures from the Deccan and southern India. In the Karnataka examples, the manes are always neatly arranged in cascading collars around the neck, the paws are always brush-like with large individually incised toes, and the eyes are always bulgy, sometimes almost popping out of their orbit. A fringe of short hairs follows the underside of the limbs. The tail is swept over the back, often encircling a rosette. Everything is a gross exaggeration of real leonine features.

The walking lion together with the horse, the zebu bull and the elephant are the standard repertoire of the moonstones found at the lower end of steps leading to the entrance of Buddhist monasteries on Sri Lanka, for example at Anuradhapura (sixth to seventh century; fig. 95). There is hardly anything wrong with this lion, and it is very close to a real lion, except for two minor details: the manes end in artificial round curls and the sexual organ takes the position and size of that of bull; in lions as well as in the other cats, the penis is small and situated just below the anus. There is no evidence that lions lived on Sri Lanka, so most likely the sculptor copied Indian examples very precisely. The type of lion is not unlike that of sculptures of the Pallava period (seventh to mid-eighth century) from Tamil Nadu, which lies opposite to Sri Lanka at India's south-eastern coast (see section 33.2.5.1 below).

33.2.3 *Lions as Royal Emblem*

A lion as a royal emblem in stone sculpture is found on the Hanuman temple at Chamba, Himachal Pradesh (mid-seventeenth century; fig. 417). Its purpose is to remind the visitor of Raja Prithvi Singh.[16] The lion is characterised by huge rosettes on shoulder and hindquarters, moustache whiskers, elongated ears, cascading manes consisting of small curls and a tail making a loop above its back; all of which are also seen in other Indian sculptures, but not in the living lion. The rosettes may refer to the faint rosettes on the coat of youngsters, lionesses and cubs. It is not likely that the artist had seen a lion himself, which is confirmed by the region of Chamba, which has a too high altitude for lions. The ferocious animal resembles a barking dog more than a roaring lion.

[16] Reign 1641–1664; "singh" means "lion".

A Bodhisattva torso from Sarnath, Uttar Pradesh (c. 80, sandstone)[17] is assigned to the historical Buddha on the basis of a tiny figure of a lion present between the legs of the Bodhisattva. The lion is in an attacking posture, rearing on its hind legs. Details are lost due to erosion, but the hind limbs seem quite robust. Such a posture is repeated in later sculptures in the form of the roaring and upthrusting *vyalas* and *yalis*. Here, the lion functions likely as a royal emblem to remind of the royal status of the historical Buddha.

33.2.4 *Lions as Throne-legs*

The lion has abundantly been employed as ornament for the legs of royal thrones.[18] These lion-seats are reproduced in miniature size on pedestals of many deities, and in such cases the lions are often reduced to mere shadows of real lions. An example of such reduced, hardly cat-like animals is seen on Maitreya's pedestal from Kharki in Greater Gandhara, Pakistan (first to third century; fig. 418). Their rounded ears and broad nose are the only proper leonine features. The manes are reduced to a tie-like structure below the throat and a cap on the head, the eyes are bulgy, the eyebrows are frowning and the tongue hangs out of the grimly smiling mouth as in dogs.

Another typical example of stylized, symbolic lions on a lion-throne is provided by an isolated Tirthankara pedestal from Deogarh, Uttar Pradesh (sixth century; fig. 419), originating from a Jain context.[19] The large paws with retractile claws, the thin whiskers, the wrinkles on the muzzle, although stylized, and the small rounded ears are realistic. The rest of features is not very lion-like: the manes are arranged as triangular collars draped around neck and torso, while they are missing on the head. The lions further have eyebrows as in humans, rounded circles or callous pads on the upper sides of the hands and feet, a trident-shaped figure or rosette on the hindquarters, and a row of blunt herbivorous teeth in a gaping mouth. The posture of the lion is the ready-to-attack posture with uplifted front limb. Everything that is

[17] Figured in Bachhofer, op. cit. (1972), pl. 80.

[18] *simhasana*, or lion-seat.

[19] For the buffalo-headed figure, see section 8.2.3. The pedestal most likely once belonged to a Jain Tirthankara statue, as can be inferred from the presence of a wheel in between the two lions and the presence of Yama as a side-figure, also seen at a Tirthankara colossus at Gwalior, Rajasthan (fig. 91).

angular in a real lion, is rounded and filled here; a typical characteristic of Gupta sculpture in general. Since the sculpture comes from a lion-rich region, it seems likely that there was no intention to depict the animal lively.

Very similar sculptures with such 'laughing lions' are provided by the lion-seat pedestal of a Tirthankara Parshvanatha stele from Rajasthan (tenth to eleventh century; fig. 420) and that of Tirthankara Vrishabhanatha from Saheth-Maheth, the ancient Sravasti near Gonda, Uttar Pradesh (twelfth century; fig. 421). A much later lion figurine, possibly a throne leg, from Rajasthan (fourteenth century, sandstone) follows the same iconography with bulgy eyes, combed manes ending in curls and arranged schematically in three layers like collars, moustache whiskers, short round ears and a thick tail, upwards bent over the back.[20] Also here the mouth is wide open, showing no clear canines or other teeth and giving the impression of an empty gap. These examples come from different religious contexts and different period, yet are very similar. It seems likely that they all go back to a common example (Gupta?), but not a living lion.

A very unleonine 'laughing lion' sits on a Buddha pedestal from Nalanda, Bihar (late tenth-eleventh century, black stone).[21] The lion again seems to follow a prescribed iconography, and is characterized by an uplifted left front limb, roaring open mouth with blunt low teeth, flat manes like stripes, prominent eyebrows, bulgy eyes and a very long tail sweeping over its back and ending in a whisk. The uplifted limb and the roaring mouth are strongly reminiscent of Durga's lion from the same region and period (see section 33.2.5.1 below). The lions on a Vishnu pedestal from Tamil Nadu (750–825, granite) are again of the same style, but more rounded here, with larger ears and clearly bulging eyes.[22] The ears are reminiscent of those of small cats.

The lions on a Buddha pedestal from Nagarjunakonda, Andhra Pradesh (late third century; fig. 345) closely resemble the gateway lions as depicted in miniature on a panel from the same site with full thick manes around head and neck and massive paws (see section 33.2.2.1 above, last paragraph). Another example of realistic lions of a divine lion-seat is provided by a seated Tara stele from Bengal (tenth century;

[20] Mumbai: Prince of Wales Museum, cat. no. 444; figured in Gorakshkar, op. cit. (1979), fig. 37.
[21] New York: Metropolitan Museum of Art, cat. no. 20.58.16.
[22] New York: Metropolitan Museum of Art, cat. no. 1984.296.

fig. 422). The lion has a convincing mane, small, round ears, a short, broad face and fringes of hairs below his elbow. As a variation on the theme, the lions lie in a kind of cave.

Lion-seat pedestals for the Hindu goddess Durga are rare; generally the goddess has the lion as her mount, not as a throne leg. An example comes from southern Uttar Pradesh (850–900: fig. 423) in which two lions are present, carrying her lotus seat. The lions look quite realistic, notwithstanding their small scale. Their faces are broad, manes are present on the head, the paws are broad, the eyes are small, yet somewhat bulgy, and there is a fringe of hairs at the underside of the legs. Not corresponding to a living lion are the circles present on the wrist and the presence of male tits, which is a very unusual iconographic feature and certainly not present in the lion. There seems also to be a vague indication of the last rib bow at the border between the thorax and the belly. The last two features are actually anthropoid.

Lion-seat pedestals are equally rare for the Hindu god Ganesha, who typically rides a rat. An example is provided by a pedestal of a Ganesha stele from Himachal Pradesh (tenth century).[23] The lions have very realistic compact heads and ears, but the moustache whiskers, neatly arranged collar-mane, the somewhat bulgy eyes, the rosette on hindquarters are according to the standard program, very unlike a real lion. They resemble the seven centuries later royal emblem of Raja Prithvi Singh at Chamba, Himachal Pradesh most closely (see section 33.2.3 above).

33.2.5 *The Lion as Divine Vehicle*

33.2.5.1 *The Lion of Durga*

The lion is above all the vehicle of the Hindu goddess Durga, a fierce form of Shiva's spouse. A fairly realistic lion is sculptured on a Durga stele, probably from Uttar Pradesh (ninth century, sandstone).[24] The lion is strong, heavy and has a typically broad face. The manes are arranged as long curls. The sculptor did his utmost best on the details, which are rarely depicted so accurately. These are the hairs at the inner side of the ear, the whiskers with their origin indicated with dots and the presence of an upper eyelid and a pupil. The lion looks

[23] New York: Metropolitan Museum of Art, cat. no. 1985.402.
[24] New York: Metropolitan Museum of Art, cat. no. 1990.15.

down, and not straight to the spectator. The way it looks and the way its tongue is protruding give the impression as if it suffers under the heavy weight of the goddess. The goddess seems to hold the lion's tail in one of her hands.

A much more aggressive behaviour is shown by Durga's lion on a stele from Shahabad district, Bihar (ninth century, schist).[25] The iconography is characteristic for most examples from Bihar and Bengal of the Pala-Sena period.[26] The aggressiveness is usually translated in stone as a roaring open mouth, showing its dentition, and a raised front leg as if ready to attack.

Similar in posture and expression is the roaring lion of the mother-goddess Ambika from Gujarat or Rajasthan (eighth to early eleventh century; fig. 424). The paws are broad, the right front limb is uplifted, the mouth is wide open and the eyes are bulgy. Manes seem to be missing completely, and the tail makes a complete loop above the lion's back.

The lion vehicle is assigned to Draupadi, the wife of the five Pandava brothers in the epic Mahabharata, but apparently only at Mammalapuram, Tamil Nadu (seventh-mid eighth century; fig. 425). Her shrine has a lion statue in front, indicating that originally the shrine was dedicated to Durga, just as the shrine of Sahadeva with an elephant statue in front was originally dedicated to Indra.[27] The lion is a faithful depiction following the iconography, but missing the impression of a living lion. The manes consist of nice curls, which are draped neatly around the neck and head as a veil, not as hairs. The face and muzzle are too round; actually, this is valid for the whole animal. The gaping mouth shows very large, curved canines, directed backwards, and seem not particularly useful. Most likely, the sculptor never saw a living lion, but knew very well its characteristics. The result is, yet, quite realistic and not mythical as many other examples from the south.

An extremely similar depiction of a lion is found nearby in the form of a more than life-sized lion-throne, which decorates the landscape near Mammalapuram, Tamil Nadu (seventh-mid eighth century; fig. 426).

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[25] Pasadena: Norton Simon Museum, cat. no. F.1975.16.10.S; figured in Pal, op. cit. (2003), pl. 133.

[26] Ibidem, 172; see, e.g., S. Huntington, *The "Pala-Sena" Schools of Sculpture* (Leiden: E.J. Brill, 1984), figs. 49, 89–90, 153, and E. Haque, *Bengal Sculptures: Hindu Iconography up to c. 1250 A.D.* (Dhaka: Bangladesh National Museum, 1992), pls. 181–85.

[27] Harle, op. cit. (1986), 281.

The same lion figures also on a nearby rock-boulder illustrating the *Mahabharata* episode about Arjuna's Penance (seventh-mid eighth century; fig. 427). Only its posture differs here: the lion thrusts upwards as if to attack.[28] Again the same lion is part of the nearby Krishna Cave (seventh-mid eighth century; fig. 428), here in combination with a beaked lion with horns (*yali*) and a lion with human face, indicating that the lion was a on a par with the 'horned bird-lion' and the 'man-lion'. All these Mammalapuram lions seem to have been modelled upon one and the same example, and quite possibly by one and the same sculptor.

33.2.5.2 *The Lion of Mother-Goddesses*

A stele of the buffalo-headed mother-goddess Maheshvari, linked somehow to Durga, with her lion as her vehicle originates from Satna, Madhya Pradesh (eighth to early eleventh century, fig. 125). The lion resembles the 'laughing lion' of some lion-seats, such as the pedestal of the Parshvanatha stele from Rajasthan (tenth to eleventh century, fig. 420) but in a contorted posture in order to look up. A trident-shaped rosette is discerned on the hindquarters.

Three other mother-goddesses with occasionally the lion as vehicle are the sow-headed Varahi, Ambika and the emaciated Chamunda. The latter goddess, with her visible ribs, sunken belly and pendulous breasts is constantly hungry for meat. She is the goddess of death but also the personification of the wrath of the main goddess; the carnivorous lion seems a perfect mount for such a deity. The lion on a Chamunda stele from Samalaji, Gujarat (sixth century, grey schist)[29] has bulgy eyes, conspicuous claws, a thick, drooping tail but lacks manes. Hellenistic influence has been proposed[30] and this may be valid for the claws indeed, but certainly not so for the whiskless tail and the lack of manes. The lion may be a lioness, considering the lack of manes, or based on a leopard as evidenced by the whiskless tail. Manes are more often lacking in sculptures of goddesses, as is the case of the Ambika panel from Gujarat or Rajasthan (fig. 424), but not always, see for example the lion on a Chamunda stele from Koteshvara near Ujjain, Madhya

[28] Interesting to note is that the upthrusting lion of the boulder with Arjuna's Penance was repeated in Ellora, Maharashtra (eighth to tenth century); see also section 8.2.4.3.

[29] Baroda Museum and Picture Gallery; figured in Harle, op. cit. (1974), pl. 89.

[30] Harle, op. cit. (1974).

Pradesh (late sixth to early seventh century), which has clear manes.[31] They stand upright and are well-organized like a collar of rays around its head, proceeding even on top of the head.

33.2.5.3 *The Lion of Bodhisattvas*

The lion of Simhanada Lokeshvara accompanies his master on a stele from Mahoba, Uttar Pradesh (tenth to thirteenth century; fig. 429). The lion is not realistic at all with its rounded muzzle, its overcomplete blunt teeth, slightly bulgy eyes, elongated ears, manes arranged as three collars around the neck and lacking on the head, thick bulbous claws and large foliate rosettes on shoulder and hindquarters. It is not clear whether the lion looks up with a friendly, doggish smile, or is roaring.[32] The lion resembles the lions of some lion-seat, for example those of the isolated pedestal from Deogarh, also in Uttar Pradesh (sixth century; fig. 419).

A very similar lion is seen on a Simhanada Lokeshvara stele from Sultanganj, originally from the Rajmahal Hills, Bihar (twelfth century; fig. 430). Also this lion is not exactly a realistic lion with its collar-manes, moustache whiskers, elongated eyes, overcomplete dentition and rosettes on shoulder and cheeks. The lion looks towards the deity in exactly the same way as in the Mahoba stele. Also Heramba's lion on a stele from Bangladesh (eighth to twelfth century, black stone)[33] follows exactly the same iconography as Simhanada Lokeshvara's lion, especially the one from Mahoba, Uttar Pradesh.

A stele of Manjuvajra[34] from Deul, Bangladesh (tenth to thirteenth; fig. 431) figures the bodhisattva sitting on his lion, much in the same way as Simhanada Lokeshvara, but mirrored and with his left foot touching the lotus seat. The lion follows the same iconography as seen on the Simhanada steles, but resembles a real lion even less; only the claws, a fringe of hairs along the limbs and the moustache-whiskers are remotely reminiscent of a lion. The heavy-bodied felid turns its head and looks towards its master, just as Simhanada Lokeshvara's lion does. Its blunt teeth and strange muzzle, however, resemble those of

[31] Baroda Museum and Picture Gallery.

[32] The name of its Chinese variant, "Guanyin of the Lion's Roar", suspects the latter.

[33] Dhaka: Bangladesh National Museum; figured in Huntington Archive for Buddhist and Related Art, scan 0009371, internet <huntingtonarchive.osu.edu>.

[34] Manjuvajra is a manifestation of Manjushri, the bodhisattva of wisdom.

a water monster (*makara*) more than those of a lion. The collar with bell around its neck seem to be derived from a misinterpretation of the collar-like manes.

33.2.5.4 *The Lion of Dionysus*

In some reliefs from Greater Gandhara, Pakistan, human figures may ride a lion, but whether they are divine or mortal is not clear, although riding a lion is not exactly what a normal human would do. In Greek mythology, it is Dionysus (Bacchus), god of wine and joy, who rides a lion.[35] Gandharan narrative reliefs are highly indebted to Greek mythology, so a link with Dionysus and lion-riding figures is the most plausible explanation. A fine example originates from Yusufzai (fig. 432). Except for the long tongue and the rosettes on hindquarters and shoulders, the lion is rather realistic, yet misses the leonine grandeur. The tongue is strongly reminiscent of a large hound. The rosettes, based upon the vague pattern present in cubs, females, and young males, are seen regularly in later Indian lion sculptures.

Another scene involving lion riding from Greater Gandhara represents a Bacchanalian scene (second to third century; Plate 35), strengthening the link with Dionysus. The manes consist of long hairs around the face and on the head, the ears are extremely small and triangular, the face is square, and large teeth seem to be present. The only non-leonine feature are the bulgy eyes. According to the museum label, the scene itself and the shape of the drinking vessels follow late Hellenistic examples. It seems, however, that this does not apply to the bulging eyes, so typical of many later Indian lion sculptures. The lion-riding figure is accompanied by two men with a large drinking cup and something resembling a basket.

33.2.6 *The Lion-headed Vishnu*

Two manifestations of the Hindu god Vishnu are recognized by a lion-head or face: the man-lion Narasimha and the three-headed Vishvarupa. Sculptures of the first manifestation are abundant, and below a mere overview of typical examples is given.

An example of Narasimha's lion head which resembles that of a living lion reasonably well originates from Uttar Pradesh (eighth

[35] Alternatively, he may ride a panther, a tiger or an ass.

to ninth century; fig. 434). A good observation of the artist are the hairs inside the small and round ears, resembling the ears of Durga's lion from the same region (ninth century; see section 33.2.5.1 above). Narasimha shares also the curly manes with the latter's lion. Human features are the frowned eyebrows to give him an angry look and the moustache whiskers.

Similar, but more fierce, is the lion-head of a Narasimha stele from Verinaga, ancient kingdom of Kashmir (tenth to twelfth century; fig. 433, left). The lion has the same moustache whiskers, hairs inside its ears and curly manes as seen in the Uttar Pradesh stele, but is somewhat more sophisticated. The face has a much more lively expression. Another stele from Verinaga (fig. 433, rigth) is similar in iconography, yet very different in expression. The latter Narasimha is more a mythical demon than a man-lion, emphasized by its two additional arms. The manes are like the long, falling hairs of humans, the bulgy eyes almost pop out, and the protruding tongue is not very realistic.

Even less realistic is the lion-face of a Narasimha stele on the Trimurti temple at Devanagara, Uttar Pradesh (eighth to early eleventh century; fig. 435). The manes are fashioned as matted hair, the head is rounded instead of massive and deep circles are present below the eyes. Only the rest of the iconography reveals that this must be Narasimha. The common feature shared with most other Narasimha steles are the bulgy eyes and the moustache whiskers.

Another most unrealistic lion-head is that of a colossal Narasimha statue from Hampi, Karnataka (1528; Plate 36). Even the human features are lost here: the eyes are extremely bulgy, leaving no space for eyebrows, and the muzzle is extremely broad and flat without any trace of the 'moustache whiskers'. The manes are draped like a collar around the face. It is not amazing that such a fantastic lion comes from a region where lions never lived. Despite its improbability, it shows character and style. The god wears a yogic belt around his knees, as seen in a much older Narasimha stele at Nagarjunakonda, Andhra Pradesh (third to fourth century, black stone).[36] The Narasimha stele on

[36] This form is also known as Lakshmi-Narasimha or Ugranarasimha, which generally has an image of Lakshmi sitting on his lap. The Lakshmi image in this case was damaged in the mid-sixteenth century. Narasimha further sits on the coils of the seven-hooded snake Adishesha, who rises behind him to serve as a canopy. The lion-mask above the arch (*makara torana*) can be considered an additional reference to Vishnu's lion-incarnation.

the four centuries earlier Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 436) is equally unrealistic. The expression is, however, more lively, mainly because of the much more active dance-like pose with his many arms whirling around. This is a rare example of a lively Narasimha; most steles are rather static.

A lion-head is also characteristic for yet another form of Vishnu: his manifestation as the three-headed Vishvarupa, whose right head is a lion's head. An example of such a Vishvarupa statue originates from the ancient kingdom of Kashmir (sixth century).[37] The massivity of the muzzle, the round ears and the indication of manes by means of a collar around the neck are evidence of a lion. A much more lively and by far more realistic lion-head is provided by another small statue from the same region and time (sixth century).[38] The represented features are similar to those seen in the other statuette. The whole lion-head, however, is full of vigour and expression, bringing to mind the Mauryan lion capitals of some nine centuries earlier.

33.2.7 *Lion Statues*

A vague indication that lions were kept for fighting is provided by a lion statue from Greater Gandhara, Pakistan (second to third century, schist).[39] The lion is naturalistic as all Gandhara examples with its broad face, loosely arranged hairs in the manes, large paws with retractile claws, fringe of hairs at underside of legs, whiskers. The sharply incised veins on the legs seem inherited from the earlier Mauryan period. The only truly remarkable feature is the belt around its chest, something which one expects for a tamed animal. It may be that such lions were kept for fights or royal display.

A seated lion guards the entrance to the rock-cut Dhumar Lena cave or Cave 29 at Ellora, Maharashtra (sixth century; fig. 437). The sculptor managed quite well to copy a living lion; the muzzle may be too round and the manes below the throat may be too neatly arranged, but for the rest it is quite a convincing lion. The lion uplifts its left front limb as in many other Indian examples, and the thick paws is remotely

[37] New York: Metropolitan Museum of Art, cat. no. 1991.301.
[38] New York: Metropolitan Museum of Art, cat. no. 1986.506.15.
[39] New York: Metropolitan Museum of Art, cat. no. 32.70.

reminiscent of the brush-like paws of later southern examples. It further resembles the 'laughing lions' of several lion-seat pedestals.

Another statue of a seated lion in his role as door guardian comes from Suhania, not far from Gwalior, Madhya Pradesh (eleventh century, sandstone).[40] Some features are fantastic, like the very rounded head and muzzle, the thin lower jaw, the cascading layers of its collar-like mane and the foliate design on the elbow, but other features are quite naturalistic, like the fringe of hairs at the underside of the limbs, the massive paws, the long tail, swept over the back and the small ears. The lion seems ready to rise and attack, but because of the rounded muzzle and neatly combed manes it lost much of its ferocity.

A modern lion statue is found outside the Karni Mata temple at Deshnok, Rajasthan (early twentieth century; Plate 37). This lion differs essentially from all earlier lion sculptures, not only in its naturalness, but also in its posture: sleeping. The lion is not ferocious at all, and seems not to have been intended to guard the place. The details of the lion are rendered with great precision after careful observation of a living lion or a picture thereof. It differs essentially from earlier Indian lion sculptures.

33.2.8 *The Lion in Narrative Reliefs*

A tale in which the lion figures as a selfish creature instead of being a thankful friend, is that of the Story of the Lion and the Woodpecker,[41] which is told as follows,

> Once upon a time a bone splinter got stuck in the mouth of a lion while eating. The lion walked around in distress because of the pain. A woodpecker offered the lion its service in removing the splinter, but on one condition: the lion's mouth should be kept wide open with a stick, because a lion is a carnivore after all. So it was done and the bird removed the splinter, and upon that, the stick. No word of thank came from the lion. After some time, the woodpecker asked the lion a favour in return. But the lion was unwilling, saying that it had already fulfilled a favour once by keeping its mouth open instead of swallowing the bird. The woodpecker realized the true nature of its friend and flew away to a safer abode.

The story is illustrated on a frieze from Mathura, Uttar Pradesh (first to third century; mottled red sandstone). The lion is doubtless one of

[40] Gwalior: State Archaeological Museum; figured in Snead, op. cit. (1989), pl. 54.
[41] *Javasakuna Jataka*, Pali *Jataka* 308.

the most realistic lions ever depicted in India. The naturalness of its manes is striking, consisting of loosely arranged hairs, in contrast to the more commonly sculpted collars, scratches or curls. The square head, the typical pattern of the edges of the mouth when opened, the paws with clear claws, the relaxed position of the tail draped over the hind leg and the small round eyes make a perfect combination.

The carnivorous nature of lions makes them ideal to indicate a peaceful setting. Hardly anything can be imagined more peaceful than a vegetarian lion; it brings to mind some Christian depictions of paradise in which lions are painted next to lambs. An early example of such an innocent lion figures on the lower architrave of the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; fig. 212). The lions in the cavern form part of the ascetic environment as described in the Story of Vessantara[42] about a generous prince who gave away practically everything. The lions do not show any interest in the deer, which on its turn scratches its eye, unaware of any danger. Both lions are males with manes and do not differ from other Sanchi lion sculptures.

A later example of a peaceful lion originates Greater Gandhara, Pakistan (first to fourth century; figs. 190 and 438). Here, a very friendly lion figures in a narrative panel illustrating the Attack of Mara with his army to prevent the Buddha from reaching Enlightenment. The lion lies next to Buddha's seat, seemingly laughing in advance, foreseeing the inevitable victory of the Buddha. The lion's companion at Buddha's left seems to be a dog with a collar and a bell.

Two friendly lions figure on another narrative panel from the same region (second to third century; fig. 440). The panel illustrates the Story of the Indrashailaguha Visit, where Buddha is meditating in a cave and converts the Hindu god Indra (Sakka). The cave is supposed to be in Indra's mountain, not far away from Rajagriha. The panel shows two lions resting in a cavern below the cave where the Buddha meditates. The lions are without anger or fear, and peacefully rest below the Buddha. Their depiction follows other Gandhara sculptures. A similar example is provided by an Indrashailaguha Visit panel from Loriyan Tangai in Greater Gandhara, Pakistan (c. 50–250; fig. 516).[43]

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[42] *Vishvantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.

[43] An earlier depiction of the same story on the northern gateway to the Great Stupa at Sanchi, Madhya Pradesh (c. 50–25 B.C.E.; left jamb, inner view, upper panel; figured in Bachhofer, op. cit. (1972), pl. 60) however, represents the cave as a

A modern depiction of the story decorates the Peace Stupa (Shanti stupa) on the Dhaulagiri hill near Bhubaneshwar, Orissa (inaugurated November 8th 1972; fig. 439).[44] Apart from the lion, there are some other wild animals as well, such as a rhinoceros, some squirrels, wild boars or hog-badgers, and possibly a hedgehog, the only sculpture of this animal as far as I know. The animals on this relief are not typical of the region and in reality inhabit different ecosystems. The choice of particular these animals might have been based on a text, an example, either Japanese or Indian, or a personal artistic preference. The presence of lions may partly be symbolic for the Buddha as Lion of the Shakya clan.

It seems that organised lion-fights did occur in ancient India like in ancient Rome, evidenced by a panel from Sarnath, Uttar Pradesh (sixth to eighth century; fig. 441). Three women are watching a fight between a lion and a human from behind a railing on a balcony. The lion is on top of its victim, trying to get hold of the skin. The manes are indicated by mere scratches of parallel lines, indicating a lioness. The head is truly massive and square, and the tail lies over the back, probably ending in a tuft of hairs as it seems.

A panel with a ferocious lion in action once decorated a doorjamb in Uttar Pradesh (fourth to sixth century; fig. 443). Here, the lion jumps on its victim and bites its neck as a lion does. The muzzle is short and broad, and the tail ends in a nice tuft of hairs, and the manes are luxuriant. Obviously the scene was considered auspicious, considering its presence on a doorjamb. The other scenes include several erotic couples, which are known to be auspicious as well, and an elephant fighting a snake. It might be that these fights are hints to a more elaborate narrative.

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rock-temple with facade, devoid of animals. The placement in a remote area full of wild animals, including lions and bears, seems thus to have chosen some time after the first century.

[44] The stupa is built as one of a series (e.g. in Darjeeling, New Delhi and Vaishali) through an Indo-Japanese collaboration with the aim to spread the message of peace. The place Dhaulagiri is appropriate because tradition holds it that in 261 B.C.E. emperor Ashoka got disgusted on this spot with the massacre of the Kalinga war that he himself had initiated and converted to Buddhism. Why the Indrashailaguha Visit narrative was chosen for decoration is not known to me, but the coexistence of wild animals, such as the lion, with the domestic cow and elephant certainly is peaceful, and the conversion of a god, Indra or Sakka in this case, may stand for the conversion of a mighty emperor. For the rhinoceros, see section 37.2.3.

A frieze depicting a lion hunt from Jamalgarhi in Greater Gandhara, Pakistan, shows realistic lions (first to fourth century; fig. 442). All features of the animals are leonine: a short face with rounded ears, manes consisting of loosely arranged hairs around neck and head and a tail ending in a plume. The lions are very large, compared to the size of the hunters, which is realistic. The clothes of the hunters seem of a foreign origin with boots and a helmet.[45]

On a wall panel of the Chitragupta or Surya temple at Khajuraho, Madhya Pradesh (early eleventh century, sandstone) a realistic, though somewhat naive scene is represented involving a lion attacking a mounted warrior.[46] The lion is about to grasp the hindquarters of the horse, roaring ferociously and showing its large canine teeth. The lion is realistic, except maybe for the slightly exaggerated eyebrows or folds above its eye.

Sculptures of lion-defeating guardians occupy niches next to some windows of the Rajarajeshvara temple at Thanjavur, Tamil Nadu (c. 1004–1010).[47] The lion has an uplifted left front limb, the typical freezing posture while stalking, but it is secured to the ground by the guardian's left foot. The lion's naturalness is reasonable, especially taking the provenance into account. Its muzzle is square, the dentition is sharp and sparse as in living lions and the paws are broad and large. Conventional failures are the bulgy eyes and the collar-like flat manes.

33.2.9 *Durga's Lion Fighting the Buffalo*

The most abundantly depicted fighting, or at least active, lion in Hindu iconography is the lion of the goddess Durga where she is engaged in slaying the buffalo demon in her manifestation as Mahishasuramardini. Her lion, if present, may be represented in several stages of action. In case the goddess simply stands with her right feet on its back for support, I consider the lion as inactive, and not more than a divine mount. The active stages can be classified as following: she rides the lion towards the enemy (1), the lion stands next to her awaiting her

[45] A box-lid from the same region, but somewhat later, depicts two men on horseback hunting a lion (fifth century, schist; New York, Metropolitan Museum of Art, cat. no. L.1993.51.12). The lion has the massive body, head and paws of a lion, but its manes are exactly the same as those of the two horses, indicating that the artist worked after an example.

[46] Figured in Snead, op. cit. (1986), pl. 81.

[47] Figured in Dehejia, op. cit. (1997), figs. 144 and 145.

command (2) or the lion is engaged in the fighting, biting either a limb of the buffalo (3), the buttocks of the buffalo (4), its shoulders (5) or its tail (6). The tail-biting lion seems to be a very rare iconography, and is as far as I could trace present only on a panel from Uttar Pradesh (c. late ninth century).[48] Examples of the other iconographic varieties are extremely numerous, and the following account is restricted to a few typical sculptures.

33.2.9.1 *Durga rides the lion*

A large rock-cut panel in the Mahishasuramardini cave temple at Mammalapuram, Tamil Nadu (seventh-mid eighth century; fig. 150) shows Durga riding her lion into battle. This lion is very realistic, with a roaring open mouth, showing its large canine teeth, though the manes are too neatly arranged as a tapestry of curly dots. A very similar iconography was followed at the rock-cut Kailashanatha temple or Cave 16 at Ellora, Maharashtra (eighth to ninth century; Plate 10). These two sculptures are so similar, that direct influence seems likely. The Ellora lion, however, is of a lower artistic quality, more static and stylized, especially so the hind limbs. The Mammalapuram lion furthermore looks in three-quarter profile, which gives it a personal tough, whereas the Ellora lion is seen from the side; the Ellora action moves in a two-dimensional plane contrary to the impression of a three-dimensional plane in Mammalapuram.

33.2.9.2 *The lion is ready to attack*

The lion stands next to Durga, and is ready to attack as is indicated by its uplifted left front leg on several Mahishasuramardini panels, for example on the Durga temple at Aihole, Karnataka (700–725, sandstone; fig. 138), from a Hindu temple at Mukhed, West Bengal or Bangladesh (tenth to thirteenth century; fig. 151), and on the Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century, soapstone; fig. 139).

33.2.9.3 *The lion bites a limb*

The limb in which the lion bites may be either the front leg of the theriomorphic buffalo, or the hand or foot of the anthropomorphic

[48] New York: Metropolitan Museum of Art, cat. no. 1933: 33.65.2, not in the exhibition; figured in V. Desai and D. Mason, *Gods, Guardians, and Lovers. Temple Sculptures from North India A.D. 700–1200* (New Jersey: Grantha Corporation, 1993), 171.

buffalo. In the wild, lions do not do this; they do their best to avoid the limbs of the ungulates, to prevent from being kicked. This iconography is seen frequently in former Bengal.

An interesting variation on this iconography originates from the Sundarbans, West Bengal or Bangladesh (thirteenth to sixteenth century; fig. 444, above, left). The lions at either side of the goddess take no active part in the killing, but jumps in the wrong direction. They are not realistic, considering the horse-like erect manes and the spirals on knee and elbow joints, perhaps indicating the presence of strong muscles. The lions seem to have a decorative function, while an active companion is depicted centrally, most likely representing Durga's own lion. This lion jumps high up and bites the demon in the arm. The posture of the upright standing lion and the way it bites the arm of the demon is reminiscent of the demonic horse biting Krishna's arm as seen on the Paharpur temple (fig. 330).

Another example is provided by a stele from Puruliya, West Bengal (late eleventh-twelfth century; fig. 148) where the lion bites the demon's hand. The lion is realistic, with the prominent whiskers and the tufts of hairs at the underside of the legs being carefully rendered. The mane, however, is draped like a bundle of collars around the neck, while they are missing on the head. A prominent rosette is present on its hindquarters as seen more often.

A most unrealistic lion is found on a contemporaneous stele from Raniganj, West Bengal (twelfth century; fig. 444, above, right). Durga's lion bites the front leg of the buffalo, half-hidden behind the goddess. The lion is depicted minimally, and looks more like an attacking dog with its long snout and the way in which it tries to dismantle the leg than like a lion.

A sophisticated example of Durga's lion biting the foot of the demon is provided by stele from Bangladesh or West Bengal (twelfth century).[49] Manes of the lion are again missing and replaced by a collar; whiskers are, however, present. The lion merely takes the foot gently in its mouth, not exactly an example of devouring. Its eyes are more elongated than necessary, and a spiralled figure can be discerned on its hindquarters, reminiscent of the rosette figure seen in other carvings.

[49] New York: Metropolitan Museum of Art, cat. no. 1993.7.

33.2.9.4 *The lion bites the buttocks*

In the wild, lions prefer to jump up and bite the neck, back or hindquarters. An example of such an attacking lion is part of the Mata temple at Bhatal or Bhatund near Jodhpur, Rajasthan (eighth to early eleventh century; fig. 444, below, left). This lion and the way it bites are very realistic, with large canines, piercing its enemy's flesh, manes around the head and small, triangular ears. Very similar but less realistic due to the bulgy eyes are the buttock-biting lions on a stele from Majhauli, Uttar Pradesh (eighth to early eleventh century; fig. 145) and on a much eroded stele from Salad near Karvan, Gujarat (ninth century; fig. 444, below, right).

Again similar is the lion's action on the Durga panel on the south wall of the Ravana ka Khai or Cave 14 at Ellora, Maharashtra (early seventh century; fig. 137).[50] The lion grasps the hindquarters with its right front leg and bites deep into its enemy's flesh. The manes consist of hairs instead of the more commonly seen curly dots or cascading ringlets. The only unrealistic feature are the lion's bulgy eyes. A three-dimensional version of this Ellora setting originates from somewhere from Central India (tenth century; fig. 147). The lion is realistic with manes around the head, clear whiskers and canine teeth, oval eyes and small ears. Its front legs hold the victim firmly while it bites viciously in the buffalo's buttocks. The only invented features are the human-like eyebrows and the strange oval pads on the upper side of its wrists.

Slightly different is the biting lion on the pedestal of a Durga stele from Svaim, Kashmir (seventh to mid-ninth century; fig. 141). The buffalo lies here, and the lion approaches it from behind in the same plane, not from the side as in the other steles. The paws are not in effective use. The lion is realistic, with luxuriant manes indicated by wavy stripes.

Very different in iconography is the attacking lion on a stele from Uttar Pradesh (eighth to early eleventh century; fig. 133). The lion is shown at the right here and is jumping up, reminiscent of the jackal of the goddess Chamunda and the dog of Bhairava in some sculptures. The artist apparently had difficulties fitting the lion into the scene: it is

[50] The same iconography was followed on a panel of the Pipaladevi or Pipla Devi temple at Osian, Rajasthan (ninth century) and a stele from Jondhali Baug near Thane, Maharashtra (eleventh century; Mumbai: Prince of Wales Museum, cat. no. 65.25; figured in Gorakshkar, op. cit. 1979, fig. 10).

very small and standing in an awkward posture. The lion's claws are sunken into the buffalo's buttocks.

Attacking lions in sculptures from ancient Greece (fourth century B.C.E.; fig. 445) closely resemble Durga's lion biting the buttocks, and might have provided the example for the Indian sculptures. However, the realistic depictions appear to originate from northern and central India, regions where lions were once common. It seems thus more appropriate to think of an Indian development. Indian examples with unrealistic lions but following the classic example, can have been based either on an Indian forerunner or an example from Greece through Bactria.

33.2.9.5 *The lion bites the shoulders*

An example of Durga's lion biting the buffalo in its shoulders or back originates from Kashmir (ninth to tenth century; fig. 142), where the lion bites the shoulders of the buffalo. The lion is depicted three times, one time while approaching the buffalo, one time biting its shoulder, and one time ready to devour the emerged demon. Its manes are hardly represented, reduced to a mere circle of hairs around its neck. The whiskers are thin with individually incised hairs, unlike the usual thick moustache. The ears are rounded. This lion is realistic, except for the human-like eyebrows and its angry look with bulging eyes. The panel may have been based upon a Hellenistic forerunner, imported through Bactria.

33.2.10 *The Hero and the Lion*

An ancient tale about the Greek half-god Heracles narrates his fight with the Nemean lion.[51] Heracles was ordered to do so by Cleona, king of Mycenae (Peloponnesus, Greece) after Heracles had subdued the first lion sent to him on the Kithairona mountain, close to Thebe, Greece. The tale was transferred to Greater Gandhara as evidenced by a narrative panel (first century B.C.E.).[52] The lion on this miniature panel is large and has immense claws with individually sculpted nails. Its manes are rather thin, befitting the Asiatic lion. Other realistic fea-

[51] In *E Genealogia Theon kai Eroon*, Mythologike Bibliotheke Apollodoron, 2nd book (Athens: Panagiote Demoylea, 1996).

[52] New York: Metropolitan Museum of Art, cat. no. 1994.114.

tures are the non-bulgy eyes, the plume at the tail's end, and the thin whiskers. Heracles holds the skin of his previously killed lion loosely over his arm.

A somewhat earlier relief on a railing column of the Small Stupa at Sanchi, Madhya Pradesh (second century B.C.E., sandstone) figures a man engaged in a lion hunt.[53] The panel shows a realistic lion, except for its manes, which are in the shape of small round curls, not unlike those of the Buddha. The lion is more standing upright than thrusting forward, but this may be due to lack of space. The hunter or hero wears non-Indian clothes—boots, a skirt till his knees, a kind of T-shirt and a helmet—, which might indicate a foreign hero or story. Theoretically, the story line of this panel may be based on the Greek Heracles myth as well.

In South India, the hero Shala is told to have defeated a lion. Shala, the founder of the Hoysala dynasty of the Deccan, was ordered to kill a tiger by his Jain guru.[54] In stone sculptures, Shala's opponent bears a mane, evidence for a lion, not a tiger. At practically every Hoysala temple a sculpture can be found of Shala fighting the lion as a royal emblem, such as the paired doorway statues at the Keshava or Chennakeshava temple at Belur, Karnataka (c. 1117; fig. 446 and Plate 38). In both statues, the lion is grotesque with bulgy eyes almost popping out of their orbits, horns projecting from the orbits and extremely enlarged canines resembling small tusks protruding from the broad mouth. The manes consist of cascading collars of neatly arranged hairs, and the tail is swept over the lion's back, enclosing either a disc (Plate 38) or a rosette (fig. 446). The thick paws bear conspicuous claws. Shala sits here in an awkward position on the edge of the pedestal, and the lion seems more posing for the sculptor than engaged in serious fighting. The body of the lion is extremely smooth and artificial. The lion is huge, about twice as high as Shala.

A different posture is taken by both lion and hero in a statue originating from the Tripurakantaka temple at Belgavi (Balligrama), Karnataka (c. 1070).[55] Shala fights a rearing lion with shield and sword, assisted by

[53] Figured in Snead, op. cit. (1989), pl. 96.

[54] C. Rao, J. Derrett and B. Joshi, "History of Karnataka-Hoysalas and their contributions," in *History of Karnataka, from pre-historic times to the present*, ed. S. Kamath (Bangalore: Jupiter books, 2001), 123. The scene is said to explain the name of the dynasty ("Hoy (= strike), O Sala!"), and the lion became its emblem.

[55] Mumbai: Prince of Wales Museum, cat. no. 85.

three dogs and a tiny elephant. Beneath the lion lies a wounded boar. The lion is depicted as typical of the southern sculptures and resembling the Belur statue with its combed manes ending in curls and arranged in three cascading layers, its bulgy eyes, its brush-like paws with thick toes, and its broad, wide-open mouth as if roaring. Horns were added also in this case. The lion is about twice the size of Shala.

Another rearing lion attacking Shala decorates a column at the south side of the navaranga of the Nageshvara temple at Mosale, Karnataka (c. 1200; fig. 447). Shala is fighting the rearing lion as in Belgavi, but manages without assistance as in Belur; the lion's manes are artificial as seen in both earlier reliefs.

In fact, Shala fighting a rearing lion is nothing new. Rearing mythical feline beasts (*yalis, vyalas, shardulas*) with a fighting warrior below them are known from several regions and periods; they are strongly reminiscent of the Hoysala prince Shala fighting the lion. Though mythical, and in some cases considered tigers (*shardulas*), they are often very close in depiction to a real lion; the only aberrant feature being the horns. An example is provided by a bracket figure from Bhubaneshwar, Orissa (tenth to thirteenth century; fig. 448, left),[56] which closely resembles Shala fighting the lion on a column at Mosale. The lion turns its head backwards to devour its rider, while a second male figure of reasonable size tries to pierce the lion with a spear from below the rampant lion. The head is massive and short-snouted, the roaring mouth shows clear canine teeth, the claws are those of a cat with a side-toe in the hind feet, the ears are short and round. The only stylized feature are the combed manes which form cascading three layers; the hairs are straight but end in a curl; these curls together form a kind of collar. The only invented and thus purely mythical feature are the horns, arising above the orbit and running parallel with the contour of the head, which makes them hardly visible. A much earlier but similar horned leonine *vyala* decorates a doorjamb from Sarnath, Uttar Pradesh (fourth to sixth century; fig. 448, right).

The earliest examples, possibly close to the origin for the later sculptures, are the leonine rampant *vyalas* in five variations (with straight horns, with antlers, with ram's horns, as leogryph and as lion) with riders as present on the right jamb of the western gateway of the

[56] Extremely similar are the *vyalas* on the wall of the Mahanaleshvara temple near Menal, Rajasthan (eleventh century; figured in Snead, op. cit. (1989), pl. 10).

Great Stupa at Sanchi, Madhya Pradesh (50–25 B.C.E.; outside view). Despite the different appendages on their heads, these lions have a realistic lion body, limbs and claws and lack the often so prominent moustache. These mythical lions are more close to living lions than many non-mythical lions in sculptures.

33.3 Concluding Remarks

The amount of lion sculptures, either as free-standing statues on their own or playing a major or minor role in a narrative friezes or on steles with divinities, is enormous, which makes it practically impossible to take them all into account here. A brief overview is given below, illustrating the most typical examples.

There are several kinds of lion depictions in India. The first type consists of the realistic lion sculptures. They appear already in the Indus Valley of Pakistan from the Harappan period (2,300–1,750 B.C.E.) onwards, and are typical of the first centuries before and after the Common Era in north-western India. These are the regions where lions indeed were common. Apart from these regions, other sites provided realistic lion sculptures as well during the first millennium, e.g. Ellora (Maharashtra), Nagarjunakonda, Amaravati (Andhra Pradesh), and Mammalapuram (Tamil Nadu), respectively on the west and east coast of peninsular India, and on Sri Lanka. These lions may have been based on sightings of local populations of lions, although the region is on the border of where lions could live, except for Sri Lanka which definitely falls outside the lion distribution. Another, more likely explanation for the realism of the coastal lions is overseas contact with either Roman or North Indian art. The east and west coasts of peninsular India formed part of the trading routes with the Mediterranean and the rest of the subcontinent already during the first centuries B.C.E.

Another type of lion sculpture represents the lion with a wide-open gaping mouth (roaring) without visible dentition, a rounded muzzle, bulgy eyes, flat and hardly present manes as seen in the east (Bihar, West Bengal, Bangladesh). Preferably a front leg is raised, possibly meant as a ready-to-attack posture, but in reality lionesses do so in the midst of a disturbed stalking: they simply freeze in that position, and presume stalking as soon as the cause of the alertness disappears. The depiction seems based on accounts of the lion's behaviour, and not so much on a north-Indian sculpture. The absence of manes confirms this, because

stalking is observed in lionesses, not in male lions. This absence can also be explained by the unacquintedness with lions in the east, the region of the tiger and the leopard, both maneless big cats.

Even more unlike the living animal are the typically Indian depictions of lions with bulgy eyes and manes that are arranged as one or more stylized cascading collars around the neck, sometimes ending in nice curls and always neatly combed. They have hardly anything in common with a real lion and were meant to represent a scary monster. The bulgy eyes are typical of demons (*rakshasas*) and ferocious deities. The dentition of these nicely combed lions is often blunt as in herbivores, based on a horse's dentition. The mouth is held wide open as if roaring. In North India this artificial type is typical of Rajasthan and Madhya Pradesh after the fifth century. These regions are known for their lions, so this standard iconography seems to follow a certain convention.

The most fantastic lions are met with in the south, in their most typical form starting in the first half of the second millennium. It seems no coincidence that these fantastic lions are typical of regions outside the lion's (historical) distribution. With their eyes almost popping out, their invented horns over the orbits, their broad paws resembling brushes but with conspicuous nails and their tail sweeping over the back in a loop, sometimes including a rosette or lotus, they are definitely on the edge between a mythical *vyala* or *yali* and a real lion. That a lion was intended and not a fabulous monster can be inferred from sculptures of the historical hero Sala, founder of the southern Hoysala dynasty, fighting a lion.

A type on its own is provided by the lion-faced Hindu god Narasimha, a manifestation of Vishnu. In sculpture, his lion head always combines human and animal qualities and often does not follow the general iconography of lion sculptures of the same region, except for the southern type. Realistic lion faces are found on Narasimha steles from Uttar Pradesh and ancient Kashmir, but they may be found next to very unrealistic ones from the very same region. The majority of Narasimha steles shows bulgy eyes and moustache-like whiskers, and give the impression of a conventional demonic face with a manly moustache, added with some leonine features, in most cases nothing more than the round ears and some indication of the presence of manes.

Many Indian lion sculptures thus bear features that cannot directly be traced back to a living lion. Some of them are human: the moustache-like thick whiskers, the curly hairs and the frowning eyebrows. Others are exaggerated or invented, like the combed cascading manes as collars, the

bulgy eyes and horns. Again others may be based on a leonine feature, like the rosette on the hindquarters and shoulders—likely based on the vague rosette pattern in females and subadult males—, the circle or oval on the upper side of the wrist—possibly confused with the broad soft pad below the feet—, the rosette enclosed by the circling tail—likely based on the tuft of hairs at the tail's tip—. One postural feature is a misinterpretation, namely the uplifted front leg, which is not an attack posture, but a freeze posture during stalking.

Finally, only in rare cases the lion is depicted as actively engaged in fighting. The most accurately depicted postures originate from the north (Greater Gandhara, Uttar Pradesh, Madhya Pradesh, Jammu and Kashmir) with the lion biting the neck, muzzle or nape of a large bovid (a buffalo or a bull). Lion-to-lion fights seem not to have been popular in India, at least as far as stone sculptures are concerned. In cases of a fight between a lion and a man, it is always a hero or divine character and not a gladiator as in ancient Rome.

CHAPTER THIRTY-FOUR

PANTHERA PARDUS, THE LEOPARD

34.1 The Living Animal

34.1.1 *Zoology*

The leopard or panther is a medium-sized cat with a length between 1.85–2.15 m. It has short hairs and lacks the mane and the fringes of hair of the lion. The tail ends without a plume, like the tail of a tiger. The leopard is recognised by its typically spotted coat pattern consisting of a bright coat marked with small close-set black rosettes with a lighter, reddish centre (fig. 449) unlike the massive dark spots of the cheetah (fig. 522).[1] These spots are continued on the tail.

Black panthers (fig. 450) are nothing else than leopards with melanism. The amount of melanine, a black pigment in the coat, appears to increase under a combination of high temperature, great humidity and reduced light. This is the reason why black panthers are quite common in the rain forests of the lower Himalayas and the Western Ghats, but exceedingly rare in the dry open jungles of central India or in the Indian desert zone.

The leopard eats everything that it can kill ranging from middle-sized cattle and deer to birds and reptiles; large and heavy herbivores such as sambar deer and nilgai are not taken. Leopards are amazingly strong and use their power to drag their prey up into a tree into security. They are not afraid of humans, and frequently hunt by day. Leopards living near human settlement prey mainly on domestic animals, including dogs. Leopards attack when pursued, in contrast to a tiger, which flees. This greater courage and strength makes the leopard a greater potential danger for humans than a tiger.

The leopard is found all over the Indian subcontinent, including Sri Lanka. Leopards are able to live almost anywhere, in any habitat. This is their great advantage over the tiger, which is restricted to dense

[1] For a description of the cheetah and its role in society, see section 43.2.4.

forests, and over the lion, which does not tolerate too high temperature and humidity. This adaptability to varied living conditions, combined with its high reproduction rate and its marvellous camouflage made it less vulnerable than the tiger and the lion. In recent years, however, also their population reduced in numbers, mainly because of habitat destruction.

34.1.2 *Related Species*

The snow leopard or ounce (*Panthera uncia*) is about half the size of a leopard with a thick, moderately long tail.[2] What makes this animal so special and wanted, is its extra-ordinary coat. This coat is not only extremely soft and thick, but also nicely spotted (fig. 451). The dark grey spots contrast well on the soft grey to white coat. The spots consist of large rosettes with an open centre as in leopards, but of a much larger size. On the head, nape and the lower parts of the limbs the spots are, however, massive as in cheetahs. As a leopard, the snow leopard has a short muzzle, a high forehead, a vertical chin and broad, massive paws. Snow leopards are found between the precipitous cliffs and rocks above the tree-line and around the snow line in the Himalayas, roughly between Kashmir and Bhutan.[3]

34.1.3 *Role of Leopards in Society*

Leopards and black panthers constitute a real danger for villagers and travellers, because of their courage, strength and day-light hunting. In the recent past, they were so common that virtually every village in or near the forest was haunted by one or more of these beasts, which sometimes became man-eaters. Leopards were always hunted, not only to safeguard the villagers and their cattle, but equally often as a royal amusement.

Hidden in the muscles of the leopard's forearm is a pair of two small unconnected rudimentary bones, called the collar bones, which are about ten cm long and bent like a bow. These collar bones are found only in leopards, tigers and lions. They are considered charms against

[2] The species is sometimes referred to a genus on its own: *Uncia uncia*.

[3] Snow leopards hunt at night, and are seldom seen, although some live near human settlements and turn to preying on domestic sheep, goats and ponies. Their normal prey consists of small herbivores, rodents and birds.

evil, whether they come from a leopard or a tiger, and are believed to be equal to the workings of the tiger's claws. The tribal Bhils of Rajasthan hold the opinion that these bones give more force to the leopard's and the tiger's blow when striking down a prey.

The skin of a leopard is the traditional seat for the wise men and ascetics (*sadhus* and *yogis*) of India (fig. 452).[4] This practice is still in vogue today. However, the habit of using a leopard skin may be relatively new, considering the rarity of stone sculptures (see section 34.2.2 below) and it may be that it is a replacement for the nowadays much rarer tiger skin.[5] In Hinduism, the god Shiva, foremost of all yogis, naturally sits on a leopard skin.

The snow leopard is hunted for its precious fur. The pelt of this animal is one of the softest in the world and appealing to the eye at the same time. Furthermore, its bones are used as substitute for tiger bones in Chinese medicine today.[6] Currently, the snow leopard is an endangered species.[7]

34.2 Leopards in Stone

34.2.1 *Fighting a Leopard*

An extremely realistic portrait of a leopard is that on an elaborately carved pier of the Jalakantheshvara temple in the fort of Vellore, Tamil Nadu (late sixteenth century; fig. 453).[8] The pier is an outer pier of the wedding hall or *kalyana mandapa* in the outer enclosure. The leopard is attacked by two men on the ground and another one on horse-back, and stabbed in its belly and open mouth.[9] The size of the leopard is

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[4] Hindu saints are well-known for their vegetarian life-style, but obviously, they seem to find no problem in the use of the skin of an intentionally killed animal.

[5] After all, the leopard is called a *chota bagh* in Hindi, literally a 'small tiger'.

[6] Y. Liao and B. Tan, "A preliminary study on the geographical distribution of snow leopards in China," in *Proceedings of the 5th International Snow Leopard Symposium*, ed. H. Freeman (Conway, Seattle: International Snow Leopard Trust, Bombay: Wildlife Institute of India, 1988), 51–63

[7] Cat Specialist Group 2002, "*Uncia uncia*," in *2007 IUCN Red List of Threatened Species,* op. cit.

[8] For the view from behind, see Michell, *Hindu Art and Architecture* (2000), pl. 158.

[9] Similar scenes are more often encountered in pillar halls of temples of the Nayaka dynasty in Tamil Nadu, for example at Tersir, Coimbatore (seventeenth to eighteenth century). Typically, these kind of pillar halls figure rearing *yalis* or horses as main

exaggerated, though not much, but for the rest it is very realistic, even the hairs inside its ears are carefully incised. The short-muzzled head is massive and the clawed paws are robust. The body is completely covered with small trifoliate and multifoliate spots with a round centre, not unlike small flowers. The animal marvellously embodies the powerful and agile attack of a large cat.

More to the south, along the Kaveri river, again a similar fighting scene is depicted at an assembly hall. The piers with rearing feline beasts and horses support the roof of the Sheshagirirayar or horse *mandapa* of the Ranganatha temple complex on the island of Shrirangam, Tamil Nadu (late sixteenth century, granite). Here, the theme lost much of its naturalistic vigour, being reduced to a static representation. The leopard stands upright, almost tumbling backwards, while the warrior on the ground seems to stab it merely accidentally. The hooves of the horse rest on the shields held high by minor figures, both in Vellore and here, but in this case the horse's front feet rest on a miniature lotus pedestal instead of on a realistic shield. The front limbs of the horse are awkwardly bent as if made of clay, contrary to the naturalistic bending of the Vellore pillar horses.

34.2.2 *The Leopard Skin*

Sculptures portraying an ascetic sitting on a leopard skin are rare. A possible example is provided by a stele from Varanasi, Uttar Pradesh (seventeenth or eighteenth century; fig. 454), where Shiva—the foremost yogi among the gods—sits with his wife Parvati each on their own animal skin. It leaves no doubt that the skins belong to large, maneless felids, but any coat pattern is missing, which makes it difficult to choose between a tiger, a leopard or a black panther. Black panthers, however, are not found along the Ganges, but live more to the north, in the rain forests of the lower Himalayas. The relative size of the skin favours the leopard.

A statue of a further undescribed deity is adorned with a leopard skin (fig. 455). The skin is tightly wrapped around the waist of a male figure, and is easily distinguished by its claws and head, leaving no doubt about the identification as a leopard. The statue lies detached on the

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theme for the pillars with below the rearing animals a ground encounter with some wild animal, such as in this case with the leopard.

compounds of a deserted Tala temple, somewhere in Chattisgarh, of which the age is unknown to me.

Theoretically, also the robe of a male statuette—commonly referred to as a priest—from Mohenjo-daro in the Indus Valley, Pakistan (c. 2,100–1,750 B.C.E.; fig. 456) could represent a leopard skin. The pattern is trefoil and was originally filled in with a red paste, which makes it resemble the rosettes of leopard skin even more. The design was wider spread as evidenced by potsherds from the area, for example from Harappa (c. 2,300–1,750 B.C.E.; fig. 457). The pattern is generally explained as representing a trifoliate leaf or a flower, but the possibility of a felid coat pattern should not be dismissed, especially when taking the ancient link between ascetism and skins of wild animals into consideration.

Two men wearing a snow leopard skin can be discerned on a fragment of a large vessel from Greater Gandhara, Pakistan (first century B.C.E., schist).[10] The small size of the animal, in combination with short, broad legs and a thick tail are typical of a snow leopard. The skins are tied around the waist of the men. The coat pattern is minutely incised and continued on the tail.

A clear example of a leopard skin is provided by a fragmented Shiva stele from Arjunpur, Mathura region, Uttar Pradesh (c. fourth century, mottled red sandstone).[11] The skin has several perfectly round spots, unrealistically neatly arranged in horizontal arrays. Shiva wears the skin as a lower garment.

34.3 Concluding Remarks

Leopard sculptures appear to fall into two classes, one representing the leopard as the victim of a stabbing scene and one representing only the skin of the leopard. A leopard being stabbed by armed men is a common theme at piers of the pillared halls of the temple complexes of the Aravidu and Nayaka dynasties of Tamil Nadu. Especially the leopard on a temple pier at Vellore is a masterpiece. Later, similar

[10] New York: Metropolitan Museum of Art, cat. no. 2000.284.15.

[11] Mathura: Archaeological Museum, cat. no. 54.3764; figured in N. Joshi, *Mathura Sculptures* (Mathura: Archaeological Museum, 1966), pl. 74. Joshi calls the skin a tiger skin, but the skin bears spots instead of stripes.

scenes are much less lively and seem less-inspired copies or mere mass productions, for example a pier at the Ranganatha temple complex.

Depictions of a leopard skin in reliefs are very rare. A stele from Varanasi, Uttar Pradesh, might show the Hindu god Shiva and his wife Parvati sitting on a leopard or panther skin; another possibility is that the skin belonged to a tiger instead. A very early indication of the use of a leopard skin might be provided by the robe design of a male figure and by potsherds from the Indus Valley, Pakistan (c. 2,000 B.C.E.). The trifoliate design is generally interpreted as a floral motif, which it certainly may be, however, the option that it is based on the rosette pattern of a leopard skin cannot be ruled out without further evidence. Undoubted early evidence of men wearing a snow leopard skin comes from Greater Gandhara, Pakistan.

CHAPTER THIRTY-FIVE

PANTHERA TIGRIS, THE TIGER

35.1 The Living Animal

35.1.1 *Zoology*

The tiger is a large cat with a body length of 2.6–2.9 m, about the same size as a lion. The most characteristic feature of the tiger is its coat pattern consisting of many black stripes against a lighter, golden-reddish background (fig. 458). These stripes run vertical on the body and horizontal on the limbs, form rings on the tail and a compound pattern on the face. The coat is short-haired, and manes and fringes of hairs so typical of the lion are lacking.

Tigers are intolerant to tropical heat. They have to shelter in caves or water to escape the hottest hours of the day. In the mangrove forests of the Sundarbans the tiger leads an almost aquatic life. They swim with ease, and even venture into open sea, swimming to islands in the Gulf of Bengal, 4.5 km offshore. Neither snow forms a barrier for the tiger: they are reported at altitudes of 3 km in the Himalayas. Tigers are solitary animals, contrary to the lions.

Tigers hunt anything, including large animals as the gaur and the wild buffalo. They may even kill and eat leopards and members of their own kind. Killing of domestic cattle, however, occurs increasingly, mainly due to the steady decrease in numbers of wild prey animals; in rare cases tigers turn to man-eating as well. The only animal that can put tigers to flight is the elephant, which does not hesitate to pursue the tiger and kill it. Tigers may, though, occasionally kill an elephant calf or an isolated adult.

On the subcontinent, the tiger is found practically everywhere between the Himalayas and Cape Comorin in the south where there are forests, but not on Sri Lanka. Tigers live in wet and moist evergreen forests, in dry open jungle, in the grassy swamps of the terai and the mangrove forests of the Sundarbans. At present, there are many tigers in the open sal forest of the national reserve Kanha in Madhya Pradesh, although this is not entirely their natural habitat. Habitat destruction

and decrease of wildlife has resulted in the disappearance of tigers from many parts of India where they were once common: large areas of Madhya Pradesh, West Bengal, Tamil Nadu and Maharashtra. The tiger had disappeared completely from western Rajasthan by 1962, and recently also from Sariska Natural Reserve in eastern Rajasthan.[1] The minimal requirements to maintain a viable tiger population are a contiguous area of some three thousand square kilometres with at least three hundred tigers. Sadly enough, no such area exists today, neither in India nor elsewhere.

35.1.2 *Role of Tigers in Society*

Tigers are hunted mainly for their pelts. Tiger hunting (fig. 459), especially in the 20th century, caused their numbers to decrease incredibly. Their skins were equally favoured by sportsmen, collectors and naturalists, who all collected them in great numbers (fig. 460). Tigers were a favourite trophy for princely hunting by the Rajput maharajas and maharanas, the Mughal nawabs and the British alike.[2] The maharana Fateh Singh of Udaipur for example is reported to have killed at least a thousand tigers[3] and certainly he was not the only big game hunter who did so. These large-scale hunts contributed significantly to the drastic decline in tiger numbers and distribution. The *shikar* paintings at Udaipur City Palace, for example, show the maharanas hunting tigers right outside the city walls a little more than a century ago,[4] whilst today tigers do not thrive there anymore.

The tiger is also wanted by the lower classes. Tiger parts are highly valued: the fat is used both as a remedy for rheumatism and as an aphrodisiac. The liver and whiskers is said to give courage and the

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[1] The decline at Sariska seems to be due to several imposing factors: poaching, ecology deterioration by the extensive mining (marble, talc) activities within the park, which fragmentised the forest into patches, and continuous deforestation for timber. On the other hand, already the initial tiger population in 1978, when Sariska became a reserve, was probably fewer than thirty; by 1990 only some twenty were left.

[2] Export of tigers as trophies or curiosa in ancient times may have taken place either as part of a tribute or gift to a foreign ruler, or when intruders took a tiger home. Such was the case with Alexander's general Seleucus, the first to bring a tiger to Athens in the year 323 B.C.E. (R. Ives, *Of tigers and men: entering the age of extinction*, New York: Doubleday, 1996).

[3] V. Thapar, *Tiger: portrait of a predator*, Facts on File (New York, London: Collins, 1986), 14.

[4] Topsfield, op. cit. (1990).

milk would cure eye diseases. The clavicles or collar bones, which are rudimentary small bones found in the neck muscles near the shoulder joints, are considered 'lucky bones' and charms against evil. The claws are used as amulet, especially as a protective charm for boys to keep them safe from the spell of evil eyes and spirits. Hindu gods depicted as boys may wear such claws as pendant around the neck, such as Balagopala, the young Krishna, Kumara, son of Shiva and Uma, and the child-saint Sambandar. Popular belief has it that the spirit of a tiger victim warns the tiger of any danger. A sacred red-painted stone may be placed to mark the spot of the kill. Worship here protects against a similar fate through intervention of the spirit who is associated with the tiger.

In Hinduism, the skin of a tiger is used by terrifying goddesses in ghoulish scenes with demons, blood-drinking and garlands of human skulls. The goddess Kali or Mahakali is such an example. Apart from wearing a tiger skin and a garland of human skulls, she is engaged in devouring demons, licking their blood with her lolling tongue. Chamunda, one of the mother-goddesses and a personification of the wrath of the goddess, may wear a tiger skin as well. Her abode is the cremation ground. In tantric Buddhism, the White Tara (Tarini) in her terrible appearance wears a tiger skin. She holds, amongst others, a human head in one of her hands, is obese and short, has an angry look, and wears a garland of skulls. As Chamunda, she inhabits the cremation grounds. Finally, the Hindu god Shiva in his five-headed forms Nilakantha and Mahesha wears a tiger skin, though generally he uses a leopard skin instead.

In stories, the tiger is neither as clever as the jackal nor as royal as the lion. Similar to the cat and the lion, he is depicted as unreliable when the possibility of food is at stake, for example in Story of the Tiger and the Brahmin,[5]

> Once, a brahmin saw a tiger trapped in a cage. The tiger asked for help, upon which the good brahmin freed the tiger. Once free, the tiger wanted to eat the brahmin. In the brahmin's view, this was not fair. The tiger agreed to ask three witnesses to judge their case. The first to ask was a tree, but the tree decided in favour of the tiger, since humans always cut trees, and therefore deserve suffering. The second witness, a donkey, was of the same opinion, since humans always use donkeys for hard work. The third, a jackal, doubted the story of the tiger, and could not believe

[5] *Panchatantra*. The story illustrates at the same time the cleverness of the jackal.

that such a large tiger fits in such a small case. The tiger got angry, went back into the cage to prove that he was not a liar. The jackal quickly closed the cage and advised the Brahmin to think twice before opening the cage again.

35.2 Tigers in Stone

35.2.1 *Early Evidence*

During the Harappa period (2,300–1,750 B.C.E.), parts of the Indus valley were much greener and lushier than today and were covered with forests and grass-jungles. Evidence for this are the many seals found at Mohenjo-daro figuring a tiger, whereas those with a lion are hardly present. A typical example of such a tiger seal is seen in fig. 461 (above, left). The tiger is depicted very realistic. Its massive head and jaws are well observed, and the same is true for the large claws. The only flaw is found in the direction of the stripes on shoulder and hindquarters. In reality, the stripes over the whole trunk run vertical, and those on the limbs horizontal, whereas on this seal the horizontal stripes continue onto the shoulder and hindquarters. In front of the animal a kind of container can be discerned, possibly indicating a captured tiger for some sort of ritual or referring to practices as luring them to the village with a bait. The object has been explained as a manger or food container, an incense burner or a sacred brazier, or a device to obtain the ritual spirit *soma*.[6] However, without a consensus on the decipherment of the Indus script, any explanation of objects and scenes on Indus seals remains unproven.

Another way to represent the alternating pattern of horizontal and vertical stripes has been followed on another seal from Mohenjo-daro (fig. 12). The seal figures a so-called yogi, commonly referred to as 'Pashupati' or 'Lord of Beasts', surrounded by wild animals.[7] The

[6] Respectively, Atre, op. cit. (1990), 43–51; Ratnagar, op. cit. (1995), 179; Mahadevan, op. cit. (1984), 165–186 and Mahdihassan, op. cit. (1989), 1–8. See further section 6.2.

[7] This epithet is inspired by that for the Vedic god Rudra and his Hindu counterpart Shiva. The proposed continuity between these two deities is, however, only based upon speculation and observed similarities. Without a generally accepted decipherment of the script and the underlying language, such evocative statements can neither be proven nor dismissed. See also sections 8.2.1 (buffalo), 14.2 (ibex), 17.2.1 (elephant), and 37.2.1 (rhinoceros).

stripes on the forepart and on the front limb of the animal run oblique, those on the middle part of the trunk vertical, and those on the hind part horizontal as in the other seal. In total this gives a more realistic impression. The circle around the eye is exaggerated; tigers have unmarked eyes. The tiger is the only jumping or attacking animal, the others, an elephant, a rhinoceros, a water buffalo and a pair of ibexes are simply walking.

The attacking posture of the tiger on the 'Pashupati' seal is also seen on two other seals with an enigmatic subject, also from Mohenjo-daro (2,300–1,750 B.C.E.; fig. 461, above, right and below). Both seals depict a man in between two attacking tigers, seemingly holding them at their throat to keep them at a safe distance from himself or each other. In ancient texts and sculptural representations, heroes fighting a lion are known,[8] but a hero handling two big cats at the same time is as far as I know, unique. Whatever purpose the seals and the scene may have had, in any case it indicates the presence of tigers in the Indus valley. The pattern of the stripes is more like that seen on the first seal, vertical on neck and body, horizontal on limbs, shoulders and hindquarters, and a combination of the two directions on the head. The artists obviously did their utmost best to represent the striped pattern as realistic as possible on these miniature seals. The tigers are represented here as ferocious beasts with their conspicuous claws and roaring mouths, very unlike the tigers as seen on the other seals.

35.2.2 *Tigers in Narrative Reliefs*

Roughly two millennia later, a pair of tigers has been depicted as part of peaceful setting on an *ayaka* frieze from Goli, Andhra Pradesh (third century; fig. 46) narrating the Story of Vessantara[9] about a generous prince in exile. The depicted episode shows several animals, most of them in pairs, including a tiger pair. Though the style of the tiger carvings is somewhat naive, the direction of the stripes is carefully followed, even on the tails. The overall impression is not that of a ferocious carnivore, but rather of large cats with too large, round 'ghostly' eyes. The stalking of the tiger to the right is realistic.

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[8] For sculptures of heroes fighting a lion, see section 33.2.10.
[9] *Vishvantara Jataka, Vessantara Jataka*, Pali *Jataka* 547.

35.2.3 *Fighting a Tiger*

Colonnades with decorations in the form of armed men fighting large cats below an upthrusting horse with rider are typical of assembly halls of Hindu temples of the Nayaka dynasty of Tamil Nadu. A pier in which the large cat is represented by a tiger is seen at the Sheshagiri or Sheshagirirayar *mandapa* in the fourth enclosure of the Ranganatha temple complex on the island Shrirangam in the Kaveri river (late sixteenth century; fig. 462). Most pillars depict a leopard being stabbed, but on a few of them a tiger is the victim. The tiger is static here, like the leopard of the same *mandapa*, and its stripes are discontinuous.[10] Another flaw is the overcomplete dentition. The tiger stands upright, while the warrior on the ground seems to stab it merely accidentally through the skin of its belly. The horse rider plunges his spear into the tiger's open mouth, penetrating the cheeks. The front legs of the horse are awkwardly bent as in the leopard pier of the same *mandapa*.

35.2.4 *The Tiger's Skin and Claws*

Balagopala, or the young Hindu god Krishna, is depicted in Gupta sculpture (fourth to sixth century, north India) with a necklace pendant consisting of two tiger claws.[11] An example of the Hindu war-god Kumara as a child wearing a tiger-claw necklace is provided by a Durga stele from Shahabad district, Bihar (ninth century, schist).[12] The two claws are visible as tiny, irregular round pendants. The Shaiva child-saint Sambandar of Tamil Nadu may as well be depicted with such a tiger-claw necklace, for instance in a bronze statuette from Tamil Nadu (twelfth century).[13] The pendant here is in the form of an elongated pointed object, indicating that it is only a nail, not a complete claw. Two similar tiger nails are set in amulets around the neck of a young Krishna as sculptured on a wall of an unspecified Hindu temple at Paharpur, Bangladesh (eighth to twelfth century; fig. 330). The relief illustrates the episode in which the young Krishna fights the horse demon Kesi.

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[10] For the pillar with two men at arms stabbing a leopord, see section 34.2.1.

[11] T. Biswas and B. Jha, *Gupta Sculptures, Bharat Kala Bhavan* (New Delhi: Books & Books, 1985).

[12] Pasadena: Norton Simon Museum, cat. no. F.1975.16.10.S; figured in Pal, op. cit. (2003), pl. 133.

[13] Pasadena: Norton Simon Museum, cat. no. F.1973.1.3.S; ibidem, pl. 190a.

A sculpture possibly showing a tiger skin is provided by the right half of a Naranarayana panel of the Vishnu Temple at Deogarh, Madhya Pradesh (sixth century; fig. 124) where the seer Narayana, son of Ahimsa, wears a skinned tiger over his left shoulder. The stripes are reduced to mere pairs of curved lines. The skin is unrealistically elongated; obviously the sculptor had no idea how to wrap an animal skin around a body.[14]

35.3 Concluding Remarks

As is the case with the leopard sculptures, there are two types of tiger sculptures. Firstly, the depictions of entire tigers as they are, and secondly, depictions of tiger parts only. The first type is mainly restricted to seals found at Mohenjo-daro in the Indus valley, Pakistan (2,300–1,750 B.C.E.). Here, the tigers are depicted realistically, indicating that this part of the valley was greener and more forested than it is today. The tidal zone of the Indus delta at that time probably extended further inland, constituting a larger ecosystem resembling the Sundarbans of the Ganges delta, an ideal habitat for the tiger. The distance in that case between Mohenjo-daro and the tidal zone would have been very small.

A most interesting seal is that with the yogi-like figure, often called Pashupati or Lord of the Beast, on which a tiger figures. The tiger seems to attack, whereas the other wild animals walk or stand. Two other seals depict an enigmatic scene in which two tigers attack a man; the story or reason behind it is unknown, as the script remained undeciphered until today. A tiger depiction outside the Indus Valley is, for example, seen on a narrative frieze from Goli, Andhra Pradesh, to indicate the setting. The largest tiger sculptures are without doubt those seen on piers of pillared halls of Nayaka temples in Tamil Nadu, in which tigers are stabbed by men-at-arms below rearing horse sculptures to emphasize a martial setting.

[14] On a very similar panel, also at Deogarh, Narayana wears a blackbuck skin, characterised by long, wavy horns. It is not clear to me whether there are tiny horns present in the panel figured in fig. 124 or not; if so, the skin represents a spotted deer. The spots then are indicated by the curved lines. In miniature paintings, however, a tiger skin is often indicated by these curved lines while a deer skin is not.

The second type of tiger sculptures figures either tiger claws or nails as seen in the form of necklace pendants on youthful divinities such as Balagopala, young Krishna and Kumara, or a tiger skin, worn by ascetic deities.

CHAPTER THIRTY-SIX

PLATANISTA GANGETICA, THE RIVER DOLPHIN

36.1 The Living Animal

36.1.1 *Zoology*

River dolphins, also known as blind or side-swimming dolphins, are large aquatic mammals with a length of about 1.5 to 2.5 m. They are related to the sea dolphins, which means that they have lungs, and thus have to come to the surface to breath. They also have the same smooth skin without scales. Their most characteristic feature is their elongated beak which thickens towards the tip, and which bears an impressive row of large and sharp teeth, perfectly adapted to eat fish (fig. 463). In old animals, the teeth are reduced to blunt bony projections.

River dolphins have a stocky body with a rounded belly and a very short neck. The flippers, which are rudimentary front limbs, are large and broad, vaguely revealing the hand through the skin. A low fleshy ridge is present at the middle of their back; this is the rudimentary dorsal fin. The tail flukes are broad and horizontally placed. The forehead is steep and the slit-like blowhole is on the left of the head, above the very tiny eye. River dolphins swim on their sides, which explains the position of the blowhole. Vision is practically lost, as they live in unclear, muddy waters. River dolphins live solitary or at most in small groups.

River dolphins live not only in the Ganges and the Indus,[1] but also in their larger tributaries up to the Himalayan foothills, in the Brahmaputra, the Meghna and even up to the Rapti river in Nepal. In actual fact, they can be found in all larger streams in the northern part of the subcontinent. During the monsoon they may descend to the tidal waters and are often taken there in fishing nets. They reach as far as the brackish zones, but never enter the sea. In the past, river dolphins

[1] Respectively the subspecies *Platanista gangetica gangetica* and *P. g. minor*, originally considered species on their own.

were very common, but at present it is an endangered species.[2] A special reserve for the Indus dolphin exists between the Sukkur and the Guddu-barrage, Pakistan.

36.1.2 *Role of River Dolphins in Society*

River dolphins are caught on a large scale. They are hunted mainly for their meat, especially by tribals in the upper Brahmaputra, but also for their fat, especially by fishermen in the middle reaches of the Ganges. Oil made out of this fat is, amongst others, used for burning lamps and as a fish attractant.

River dolphins play no role in religion or mythology. They may, however, have stood model for some *makaras*, a kind of mythical water-monsters. River dolphins must have been spotted regularly, especially so in the past, but because they are fully aquatic animals they are difficult to observe as a whole unless caught. A number of *makaras* appear to exhibit features of river dolphins, or derivations thereof. These are a long beak with rows of sharp, conical teeth, large and broad flippers or their conversion into a large fan-like ear or paw, and a large fluked tail. Fantasy and misinterpretations may have led to the addition of scales, hind limbs and bulging eyes. The *makara* is especially associated with the river-goddess Ganga, who has it as her personal mount. Once, the Ganges abounded in river dolphins and a link between its dolphin and the personification of the river itself seems appropriate. Not all *makaras* are dolphin-based; other types for example are basically based on crocodiles, elephants or tapirs.[3]

The series of cascading waves preceding a dolphin's bulging forehead when swimming seems to have been interpreted as wrinkles on the muzzle. The only observable features of a swimming dolphin, be it a river dolphin or a sea dolphin, are its forehead, a large bow wave and a series of smaller waves, pushed by the forehead, extending sometimes up to the emerging dorsal fin. When dolphins dive, the fluked tail is visible well above the water level; when they emerge, the elongated beak can be seen. In short, a living dolphin is for the common people

[2] B. Smith and G. Braulik, "*Platanista gangetica*," in *2007 IUCN Red List of Threatened Species*, op. cit.

[3] K. Krishna Murthy, *Mythical animals in Indian Art* (New Delhi: Abhinav, 1984).

nothing more than a pointed beak, series of cascading waves and a fluked tail.

A strong indication for the obvious misinterpretation of the waves caused by the swimming dolphin is the fact that also the ancient Greeks, who are supposed to have been well-acquainted with the common dolphin, sculptured dolphins with a bulgy forehead, a too short snout with thick wrinkles and bulgy eyes (fig. 464). They incorporated the wave pattern into the animal's head, entirely missing the long beak. Whether the bulgy eyes are to be interpreted as monster eyes, is not clear. The more realistic, or even idealistic, depictions of dolphins from cultures around the Mediterranean Sea are extremely restricted in time and region, such as the dolphin frescoes of Crete and Santorini from the Minoan period.

36.2 Dolphin-based Makaras in Stone

A misinterpreted swimming river dolphin decorates the endings of the architraves of the gateway to the stupa at Bharhut, Madhya Pradesh (c. 100 B.C.E.; fig. 466). As in the Greek statue, a series of smaller waves has been mistaken for skin folds, and the forehead is made even more bulging by incorporating the bow wave. The fluked tail erroneously got fish-like details, like the rest of the body. The large and broad flipper has been transformed into a hand, directly attached to the body. The floppy ear has a slit-like opening, possibly representing the slit-like blow-hole in the left side of the head just above the eye in living river dolphins. The beak bears an impressive row of sharp teeth as befits a river dolphin. Bharhut lies in the vicinity of a tributary of the Ganges and its people were likely acquainted with the river dolphin.

Far more aquatic is the *makara* of the goddess Ganga on an architectural element from Besnagar, Madhya Pradesh (fourth to sixth century; fig. 465). The beak is less long here, compared to the earlier sculptures, but full of sharp-pointed teeth. The ear-flipper is present, and the broad flipper is transformed into a hand almost directly attached to the body. The animal ends in a mass of watery waves, much like the impression of a fast swimming real dolphin. An obvious flaw are the bulgy eyes; a river dolphin has very tiny eyes only. Besnagar lies near the banks of the Betwa river, a tributary of the Yamuna, which is on its turn a tributary of the Ganges.

36.3 Concluding Remarks

Generally, the only visible features of a swimming river dolphin are its long, sharp-toothed beak, fluked tail, back fin and a series of waves in front of the forehead caused by the water movement. These features are found in a number of *makaras*, mythical water-monster. *Makaras* with a long beak, full of sharp teeth, a fluted tail, a slit-like opening on the side of the head above the eye, ears as misinterpreted fins, small eyes and wrinkles on the muzzle as a misinterpretation of the cascading waves, similar to what is seen in Greek dolphin sculptures, are likely based upon sightings of river dolphins. Examples of stone sculptures of this type of *makara* are found at Bharhut and Besnagar, Madhya Pradesh. These sites lie along or not far away from tributaries of the Ganges or the Yamuna, rivers where especially in the past river dolphins abounded.

CHAPTER THIRTY-SEVEN

RHINOCEROS UNICORNIS, THE INDIAN RHINOCEROS

37.1 The Living Animal

37.1.1 *Zoology*

The greater Indian one-horned rhinoceros, or simply the Indian rhinoceros, is a large, heavily built animal with an average male shoulder height of 1.7 m; females are somewhat smaller (Plate 39). It is the one but largest animal of the South Asian subcontinent. The Indian rhinoceros has a long boat-shaped head with one horn on its nose, measuring 20 cm on average. The horn is nothing more than a closely-matted mass of horn fibres issuing from the skin. It grows throughout life and if lost is produced again. The Indian rhinoceros has short stumpy legs and a thick folded skin with tubercles. This skin is divided into great shields by heavy folds before and behind the shoulders and in front of the thighs. The fold in front of the shoulders is not continued right across the back. On the flanks, shoulders and hindquarters, the skin bears rounded tubercles. Rhinoceroses are odd-toed ungulates, related to horses and tapirs, bearing three toes on each fore- and hind foot.

Indian rhinoceroses are as fond of mud-baths as water buffaloes and pigs are (fig. 467). As a result of this habit, their bodies are always coated with a cake of mud to protect against insects. They are good swimmers. Indian rhinoceroses live a solitary life and are notoriously bad-tempered, especially when with calf (fig. 468); they are even reported to attack an elephant. When escaping, a rhinoceros burrows its way through the dense undergrowth, leaving large tunnels hollowed through it.

The Indian rhinoceros eats practically speaking only grass. They often enter grain and grass fields of the villages to graze. Once, they were common in riverine grasslands with grass up to 8 m tall, and in the adjacent swamps and forests of much of northern India (the doab), Pakistan (Indus valley), Nepal, northern Bangladesh and Assam. Today, the Indian rhinoceros is restricted to parts, mainly national reserves, of Nepal, West Bengal, Uttar Pradesh, the Doars, and Assam, where it managed to extend its natural habitat into wood jungles up ravines

and low hills, cultivated areas, pastures and modified woodlands in an attempt to survive. Nevertheless, its numbers decline steadily.[1] At present, the species is endangered.[2]

During the third and second millennium B.C.E., the Indian rhinoceros still abounded in the Indus valley. Remains of *Rhinoceros unicornis* are recovered from several archaeological sites: Lothal in Gujarat, Nausharo in Pakistan, Harappa and several other sites in the Indus valley of Pakistan.[3] The climate in the region was much wetter than it is today, but around 2,000 B.C.E. both summer and winter precipitation started to decline;[4] probably, the number of rhinoceroses declined simultaneously. During Timur Lenk's reign in India (1398–1405) though, the Indian rhinoceros was still common in Jammu and Kashmir, where Timur is reported to have hunted it.[5] In the early Mughal period, the rhinoceros still extended as far west as the Punjab foothills, Peshawar, Sindh and the lower Indus.[6]

The earliest evidence in India of a one-horned rhinoceros in a work of art seems to be a rock painting in a Mesolithic cave (c. 6,000–1,000 B.C.E.) at Bhimbetka near Bhopal, Madhya Pradesh.[7] The dating is, however, by no means certain, and the painting may in actual fact be even younger than the seals from Mohenjo-daro, Pakistan (2,300–1,750 B.C.E.; see section 37.2.1 below).

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[1] P. Scott, ed., "Section XIII. Preliminary List of Rare Mammals and Birds," in *The Launching of a New Ark. First Report of the President and Trustees of the World Wildlife Fund* (London: Collins, 1965), 15–207.

[2] Asian Rhino Specialist Group 1996, "*Rhinoceros unicornis*," in *2007 IUCN Red List of Threatened Species*, op. cit. Currently, only a mere two thousand individuals are counted in the wild; see T. Foose and N. van Strien, eds, *Asian Rhinos. Status Survey and Conservation Action Plan*, IUCN/SSC Asian Rhino Specialist Group (Gland, Switzerland: IUCN, 1997).

[3] For Lothal, see Nath, op. cit. (1968), 1–63; S. Banerji and S. Chakraborty, "Remains of the great one-horned rhinoceros, *Rhinoceros unicornis* Linnaeus from Rajasthan," *Science and Culture* 39 (1973), 430–431; Chitalwala and Thomas, op. cit. (1977–8), 14. For Nausharo, see Von Zabern, ed., op. cit. ed. (1987), 261. For Harappa, see A. Mukherjee, *Extinct and vanishing birds and mammals of India* (Calcutta: Indian Museum, 1966). For other Indus Valley sites, see H. Rao, "History of our knowledge of the Indian fauna through the ages," JBNHS 54 (1947), 251–280; Mukherjee, op. cit. (1966); Banerji and Chakraborty, op. cit. (1973).

[4] Kajale and 1997, *Journal of Quaternary Science* 12, 5 (1997). 405–412.

[5] De Clavijo, op. cit. (1859). Timur Lenk is also known as Tamerlane.

[6] Rao, op. cit. (1947).

[7] Y. Mathpal, "Prehistoric rock paintings of Bhimbetka, central India," Ph.D. University of Poona (Pune, 1978).

37.1.2 *Related Species*

Two more rhinoceros species inhabited the subcontinent until recent: the smaller one-horned or Javan rhinoceros (*Rhinoceros sondaicus*) and the Asiatic two-horned or Sumatran rhinoceros (*Dicerorhinus sumatrensis*), both, however, had a very limited range in India (West Bengal, Bangladesh, Assam south of the Brahmaputra). Today, they have disappeared entirely from the subcontinent.

Until the end of the 19th century they were still seen regularly; the Javanese species in the mangrove forests of the Gangetic delta and the Sumatran species in the Chittagong Hills of Bangladesh. The Javan rhinoceros disappeared when its habitat, the mangrove forests of the Gangetic delta, was transformed into cultivated lands with rice and jute.

Both rhinoceros species are smaller than the Indian rhinoceros. The Javanese rhinoceros further differs from the Indian rhinoceros by its curious mosaic-like pattern on the skin instead of the tubercles and a shoulder fold which carries across the back. The Sumatran rhinoceros differs from the Indian rhinoceros by the presence of two horns on its nose and a coat of coarse bristles instead of tubercles.[8] Unfortunately, both rhinoceros species are at present critically endangered.[9]

37.1.3 *Role of Rhinos in Society*

The Indian rhinoceros was a favourite game animal of all times; at present it is intensely protected in India and Nepal and therefore forbidden to hunt. It was hardly hunted for its meat, but the more so for its keratin horn. The horn is, apart from being an impressive trophy, supposed to have magical qualities. The wide-spread superstitions woven around this animal drove it to near-extinction. Not only the horns are believed to possess magical or medicinal powers, but also the blood, flesh, testicles, urine and other parts are considered thus. In Nepal, high caste Hindus and most Ghurkhas are said to have used rhinoceros blood as libation; on some occasions, a mixture of water and milk is poured from a cup made out of a rhinoceros horn as offering to the gods. The ancient

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[8] The Sumatran rhino is the only descendant of the woolly rhinoceros (*Coelodonta antiquitates*) of the Pleistocene of Eurasia. Another unique feature is its habit to sing while taking a bath.

[9] Asian Rhino Specialist Group 1996, "*Dicerorhinus sumatrensis*," and "*Rhinoceros sondaicus*," both in *2007 IUCN Red List of Threatened Species*, op. cit.

medical treatises describe the meat of a rhinoceros as having a positive effect on one's health: it gives strength and longevity.[10] The legal texts recommend rhinoceros meat as the pre-eminent food at an ancestral offering, as it will satisfy the ancestors forever.[11] The custom of eating rhinoceros might go back to protohistoric times as is indicated by the findings of rhinoceros bones at archaeological sites of the Harappan period, for example at Langhnaj (c. 2,495–2,180 B.C.E.),[12] where the long bones of rhinoceros (and of other mammals) appear to have been split for the extraction of marrow.[13]

Contrary to what most people think, the Indian rhinoceros can be tamed, and even trained for work. There are, for example, reports that they were used in war by the kings in pre-Mughal India[14] and to pull ploughs in Assam.[15] Experiences in zoos confirm that the Indian rhinoceros can indeed be tamed and trained.[16]

The first reference to the existence of the one-horned rhinoceros in India was given by the Greek physician Ktesias, who lived at the Persian court of king Artaxerxes at the end of the fifth century B.C.E.[17] Ktesias describes the 'unicorn' (*monokeratos*) as a kind of wild ass with a horn on its forehead.[18] In actual fact, Ktesias was not far from the truth, because the rhinoceros is indeed related to the wild ass, and its whole appearance is an immense exaggeration of a short-eared ass to which one horn has been added on its nose. Much later, the unicorn

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[10] *Charaka Samhita* 1.27.84 and *Sushruta Samhita* 1.46.53, respectively.

[11] *Apastamba* 2.17.1, *Gautama* 15.15, *Manu* 3.272, *Yajnavalkya* 1.260, *Vishnu* 80.14; cited from Olivelle, op. cit. (2002), 25.

[12] G. Possehl and P. Rissman, "The chronology of prehistoric India: from earliest times to the Iron Age," in *Chronologies in Old World Archaeology*, ed. R. Ehrich (Chicago: University of Chicago Press, 1992, 3rd ed.), 465–479.

[13] K. Kennedy, *God-Apes and Fossil Men. Paleoanthropology of South Asia* (Michigan: University of Michagan Press, 2000), 209.

[14] C. Guggisberg, *S.O.S. rhino* (London: André Deutsch, 1966).

[15] R. Schenkel and E. Lang, "Das Verhalten der Nashorner," *Handbuch der Zoologie* 8, 46 (1969), 1–56.

[16] E. Lang, "Beobachtungen am indischen Panzernashorn (*Rhinoceros unicornis*)," *Zoologischer Garten* 25 (1961), 369–409.

[17] Pliny the Elder (23–79), *The natural history of Pliny*, transl. J. Bostock and H. Riley, 5 vols., Bohn's Classical Library (London: Henry G. Bohn, 1855). Ktesias is said to have returned to Greece around 398 B.C.E.

[18] Other wild animals Ktesias may have referred to are the Arabian oryx with its long and virtually straight horn in side-view, the aurochs or a wild goat like the ibex seen from the side and the markhor with its spiralled horn. However, the Arabian oryx lives not further eastwards than the Arabian peninsula, and the aurochs, ibex and markhor occurred also in Persia, and could therefore not have been exotic for the people at Artaxerxes' court.

gradually got transformed from the horned wild ass to a hairy one-horned goat and finally to the elegant one-horned horse in medieval Europe, very unlike the plump and real 'unicorn'.

37.2 Rhinoceroses in Stone

37.2.1 *Early Evidence*

The earliest depictions in stone of a rhinoceros originate from the Indus Valley, Pakistan, where they were made during the Harappa period of the Bronze Age (2,300–1,750 B.C.E.) in the form of steatite seals. Most of them, if not all, originate from Mohenjo-daro (fig. 469). The rhinoceroses differ between the various seals, but share the characteristic tubercles on the skin. The skin folds are sculpted very precisely; the front part of the shoulder fold indeed does not extend onto the back. The animal is portrayed very accurate on all seals, indicating that the artists were well acquainted with the rhinoceros. At that time, rhinoceroses must have been common in the Indus valley as is evidenced not only by these seals but by bone remains from archaeological sites as well (see section 37.1.3 above).

The so-called Pashupati seal from Mohenjo-daro figures a rhinoceros as well (see Introduction, fig. 12). The tubercles on the skin are missing here, but this is best explained by the tiny size of the carving. Here, the rhinoceros is one of the animals surrounding a horned male figure, also described as Pashupati, lord of beasts, or as a yogi, based upon his posture. The function of the seal and the meaning of the depicted figure are unknown, because of the still undeciphered script.[19] The combination of the wild animals, a buffalo, an elephant, a tiger and a rhinoceros, indicate that the ecology of the lower Indus was comparable to that of Bangladesh today.

The image of the Indian rhinoceros appears to have travelled to the west as is evidenced by a glazed steatite cylinder seal from the Sumerian

[19] Many attempts have been made to undecipher the script, but at present there is a lot of controversy on this matter. The only remaining clue as to unravel the meaning of the images is offered by comparison with similar subjects. Superficial resemblance of the yogic figure surrounded by wild beast with Shiva or Rudra as Pashupati lies behind a similar designation of this seal, but this may be far from the truth. The rhinoceros has, as far as I know, no relation with any form neither of Shiva nor of Rudra. See further sections 8.2.1 (buffalo), 12.2 (ibexes), 17.2.1 (elephant), and 35.2.1 (tiger).

site Tell Asmar, the ancient city of Eshnunna, Iraq (c. 2,000–1,800 B.C.E.; fig. 470), a city along the ancient trade routes between Iran and Mesopotamia.[20] The rhinoceros depiction on this seal is very similar to that of the 'Pashupati seal', where the tubercles are missing as well. However, the whole image of the Tell Asmar seal is less precise. Not only the tubercles are missing, but also the folds are just linear, straight subdivisions of the animal. They seem to have been interpreted as large scales. Furthermore, the head is triangular and not boat-shaped as is done so marvellously on the seal as depicted in fig. 469 (below). The rounded belly is not rendered either. The fact that the rhinoceros on the Tell Asmar seal lost its details may indicate either that this seal was carved on the spot based upon an Indian seal or that the seal is imported but of a much later date than the other Mohenjo-daro seals. The other animals, the Indian elephant and the gavial, are equally carved imprecise, indicating that the seal was carved on the spot after examples.

37.2.2 *Rhino Statues*

A beautiful pair of rhinoceros statues is found in Nepal, where they flank the steps leading towards the brick podium of the Nyata Poul or Siddhi Lakshmi temple at Bhaktapur (seventeenth century, Malla period; Plate 40). The animals are portrayed in much detail, and especially the nose and mouth are evidence of acquaintance with the animal. The rhinoceroses are chained, but whether that is proof of any kind of use, be it in war or to plough the fields, is very uncertain. Two of the other animal pairs are domestic animals (horses and dogs) but two others are not (mythical figures and sloth bears),[21] which does not provide us any further clue. The rhinoceros pair stands on the third level, the middle one of the in total seven levels, preceded by a pair of horses and followed by a pair of human-faced lions.

[20] The Tell Asmar depiction cannot have been based upon one of the African rhinoceroses, neither the black rhinoceros (*Diceros bicornis*) nor the white rhinoceros (*Ceratotherium simum*) because these two African species bear two horns, not one.

[21] For the sloth bear statues, see section 29.2.1.

37.2.3 *Rhinos in Narrative Reliefs*

Hardly any rhinoceros relief is known from post-Harappan periods. A modern rhinoceros sculpture is provided by the Peace Stupa (Shanti stupa) on the Dhaulagiri near Bhubaneshwar, Orissa (1972; fig. 439).[22] The rhinoceros carving is part of a narrative relief, illustrating the Visit of Indra to the Buddha, known as Indrashailaguha Visit. The gods, led by Indra, float on clouds towards the Buddha, while five monks or disciples pay homage to him on another (part of the) mountain. Several animals are depicted on the mountains, amongst others a rhinoceros in the left corner. The skin foldings of the rhinoceros are incorrect, which is not amazing considering the total absence of this animal from Japan and the greater part of India alike. The other animals are all realistic, and obviously better known.[23]

37.3 Concluding Remarks

Rhinoceros sculptures are extremely rare and limited to regions where rhinoceroses once were abundant: the Indus Valley three to four thousand years ago and Nepal until the twentieth century. The sculpted rhinoceroses are all very naturalistic with carefully rendered details. An exception is provided by a modern carving at Dhaulagiri, Orissa, where the rhinoceros is not very realistic. A seal from Tell Asmar, Iraq, shows an Indian one-horned rhinoceros, further evidence for the travel to the west of the rhinoceros seals.

[22] The stupa is built as one of a series (e.g. in Darjeeling, New Delhi and Vaishali) through an Indo-Japanese collaboration with the aim to spread the message of peace. Dhaulagiri was chosen because in 261 B.C.E. emperor Ashoka is said to have converted to Buddhism after witnessing the massacre of the Kalinga war on the plains of Orissa below him. See further section 33.2.8.

[23] These animals are a lion and a lioness, a taurine cow (not a zebu), an elephant, a hare, a hedgehog, a squirrel and pig or boar.

CHAPTER THIRTY-EIGHT

SEMNOPITHECUS ENTELLUS, THE COMMON LANGUR

38.1 The Living Animal

38.1.1 *Zoology*

The common langur or Hanuman monkey is a small and elegant Old World monkey with long limbs and a very long tail (Plate 41) as all langurs.[1] It has a head and body length ranging between 40 and 80 cm and a tail length of about 70 to 110 cm. Langurs are extremely agile, though they lack the grasping tail of the New World monkeys. On the ground, langurs walk on four feet. Their hands are much like ours, with which they thus can hold objects and manipulate them as we do, although their thumb is small. The common langur has long, whitish hairs around a blackish face with prominent, shelf-like brow ridges carrying forward directed brow hairs.

Langurs feed mainly on leaves, complemented with flowers, fruits, buds and so on. When they spot a tiger or a leopard, they follow it at a safe distance among the tree tops meanwhile talking excited to each other. They typically live in troops of 15–25 individuals of both sexes and mixed ages, though all-male troops also occur. When the forest consists of tall trees, langurs seldom come to the ground, and live almost entirely on the high branches.

The common langur is the commonest monkey on the Indian subcontinent after the rhesus monkey. It is found in extreme southern Tibet, Nepal, Sikkim, northern Pakistan, Kashmir, India, Bangladesh, and Sri Lanka, where it lives in practically every forests of India, on sea level as well as 3.5 km high in the Himalayas, and not shunning human settlements and buildings. Currently, however, the common

[1] Often the species is considered a member of the genus *Presbytis*, but at present it is regarded as the (single) representative of a separate genus; langurs of the genus *Presbytis* are restricted to Indonesia and the Malay peninsula.

langur is a near threatened species, mainly due to loss of habitat.[2] Its frequent crop raids often make it an undesired species.

38.1.2 *Related Species*

There are five more langur species on the subcontinent, all very restricted in their distribution. They resemble each other more or less with minor specific difference. These five species belong to the genus *Trachypithecus*, the brow-ridged langurs or leaf monkeys and are the following: the golden langur (*Trachypithecus geei*) of Nepal, Bhutan and north-eastern India, the capped langur (*T. pileatus*) of Assam and Bangladesh, the Nilgiri langur (*T. johni*) of south-western India, Phayre's langur (*T. phayrei*) of eastern Assam and Bangladesh, and the purple-faced leaf monkey (*T. vetulus*) of Sri Lanka. The langurs of the genus *Trachypithecus* have prominent brow ridges, resembling raised eyebrows. Their thumb is particularly short, and their hinds limbs are relatively shorter, compared to the common langur.

38.1.3 *Role of Langurs in Society*

The common langur is sacred to the Hindus, who relate it to the monkey-god Hanuman, son of the wind god Vayu and a popular hero in the epic *Ramayana*.[3] In the epic, Hanuman is the general of the monkey army (for fighting langurs, see fig. 471), which assists Rama in recovering Sita, who was abducted by Ravana, the king of Lanka. Hanuman discovers Sita, after which he sets the city of Ravana ablaze. He is one of the most popular deities of Hindus today, especially as remover of obstacles (*samkat-mochan*), much like the elephant-headed god Ganesha. He is often depicted running after the demon Ravana

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[2] A Eudey and Members of the Primate Specialist Group 2000, "*Semnopithecus entellus*," in *2007 IUCN Red List of Threatened Species*, op. cit.

[3] For the complex theology around Hanuman, see e.g. S. Nagar, *Hanuman: Through the Ages*, 3 vols. (Delhi: B.R. Publishing, 2004) and J. Narula, *God and Epic Hero: The Origin and Growth of Hanuman in Indian Literary and Folk Tradition* (New Delhi: Manohar, 2005). Hanuman is a folk-god, an incarnation of Shiva, a warrior-god, an ideal human and a perfect statesman. He plays a prominent role in the devotional *bhakti* cult as well as in esoteric tantric cults. Hanuman is known in several forms: entirely theriomorphic, monkey-headed and multi-headed. Hanuman is especially popular in South India, but the origin of his cult is not clear. It is, a.o., believed that it was originally associated with sun worship, see R. Ponnu, "Hanuman Cult in South India," *Quarterly Journal of the Mythic Society* 81, 1–2 (1990), 107–125.

with a mountain in his hands, or opening his chest with his bare hands to show the sheltered Rama and Sita within.

The common langur is the main source of meat for the Bir-ho tribes of southern Bihar and northern Orissa. Their method of capturing this animal can be summarised as follows.[4] The Bir-ho are acquainted with the behaviour of the langur, and know the favourite branches and the leaping spots they choose to bridge a gap between trees. When the troop is far away, one of the hunters carefully cuts through the underside of the take-off branch until it hangs only by a thread. The others hang a net out of creepers beneath the branch. As soon as the monkeys arrive, some Bir-ho create an uproar behind them so that they get scared and rush to the branch to leap across the gap to the safe side. The branch breaks and some langurs fall into the bag-nets, while others flee away but are shot with arrows. The captured monkeys are not killed on the spot but when the need for meat arises. Young langurs may be kept as pet.

38.2 Langurs in Stone

38.2.1 *Langurs in Narrative Reliefs*

An early sculpture of a langur is part of a narrative frieze at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 366). The frieze illustrates the Story of the Hare on the Moon about three animals each of which brings food for a guest as part of an observance.[5] The monkey on its turn brings a large fruit. The long limbs and extremely long and thin tail are typical of a langur. The sculpture is realistic; even the way the monkey sits, is accurate.

38.2.2 *Hanuman in Narrative Reliefs*

About half the number of narrative reliefs with an episode of the *Ramayana* as subject is devoted to the story of Hanuman or his monkey

[4] K. Kirkpatrick, "Aboriginal Methods employed in killing and capturing game," JBNHS 52, 2–3 (1955), 285–300.

[5] *Shasha Jataka*, *Shashapandita Jataka*, Pali *Jataka* 87; for the story, see section 26.2.

army (fig. 472).[6] An early example of such a relief is provided by a panel from the region of Sarnath, Uttar Pradesh (fourth to sixth century; fig. 383). The depicted episode is that in which Hanuman meets Rama. Here, however, the monkeys, including Hanuman, are rhesus monkeys with their short tails (see further section 28.2.3).

A very tiny Hanuman holds the ground for Rama, Lakshmana and Sita on a pedestal of a statue from Ganeshpur, Bangladesh (tenth to twelfth century; fig. 473). Details are hardly present, but the long, swinging tail are evidence enough for a langur. In stone sculptures from Tamil Nadu, Rama, Lakshmana, Sita and Hanuman are worshipped together, whereas in northern India Hanuman plays a minor role as in this example.

The Amriteshvara temple at Amritapura or Amruthapura near Tarikere, Karnataka (c. 1196) is decorated with several *Ramayana* panels illustrating Hanuman's actions. On a panel on the south side of the mandapa Rama blesses Hanuman (fig. 474, above). The monkey general has a long snout and a long, uphold tail of which the tip seems to be broken off. Hanuman kneels before Rama in a human way. On a panel at the east side of the southern entrance, Hanuman is engaged in fighting with the multi-headed demon Ravana, assisted by monkey soldiers (fig. 474, centre). Hanuman's snout is long, and his tail is very long, rolled up for convenience. The ears of Hanuman are elongated as typical of royal persons, whereas his monkey soldiers have normal monkey ears. A soldier to the left holds its tail ready to swing a stone with it. The same side has a panel on which Hanuman is teaching Ravana after his defeat (fig. 474, below). Here, Hanuman has an extremely long tail, rolled up as a seat to reach the height of Ravana's throne. His ears are, again, elongated. The snout of Hanuman is now particularly elongated and not rounded as it should. Hanuman sits in a relaxed posture, typical of humans but not of monkeys. His extremely exaggerated long tail also plays a role in his capture of Ravana as depicted on a pillar on the Sheshagirirayar or horse *mandapa* of the Ranganatha temple complex on the island of Shrirangam in the Kaveri river, Tamil Nadu (late sixteenth century; fig. 478).

[6] The subject of Hanuman in stone sculptures and other art forms is extensively covered in K. Aryan, *Hanuman In Art and Mythology* (Delhi: Rekha Prakashan, 1975, revised 1994). This section is necessarily limited to a rather *ad hoc* presentation of Hanuman in stone sculptures to provide a basic overview only.

Stone reliefs of Hanuman ready to attack with his tail swept above him and in front and holding his right hand high in the air are extremely common, especially so in the south. A typical example is provided by a rock-boulder among the ruins at Hampi, Karnataka (sixteenth century; Plate 42). To the right Rama and Lakshmana are depicted, with next to them Sita in a kind of enclosure. Most of such reliefs are more simple, portraying only Hanuman, such as three different steles from the same site (fig. 475). They differ from each other to some extent: in the first two, for example, Hanuman seems to have his tail tip ablaze, ready to set fire to the palace of Ravana. In the third, Hanuman is running over the rocks that were put into the sea to form a bridge to Sri Lanka. Contemporaneous with the Hampi steles is a similar Hanuman relief on a pillar at Shrirangam, Tamil Nadu (late sixteenth century; fig. 472). The object he holds with his tail tip is unclear but might represent something that is useful to kindle a fire.

Equally common are reliefs depicting Hanuman actually engaged in the fight, holding a club in his right hand and stepping on a subdued victim. An example is seen at Gwalior, Madhya Pradesh (seventeenth to eighteenth century; fig. 476). Hanuman has giant proportions compared to the small size of the fallen warrior below his left foot.

Apart from the thousands of temple reliefs depicting Hanuman engaged in fighting are the uncountable rural stones with this iconography, such as two steles at a small temple at Sajjangarh, Maharashtra (Plate 43). Only the long tail reveals that this Hanuman is basically a monkey. Hanuman holds a club in his left hand on the stele to the left, whereas no weapons are represented on the stele to the right. Hanuman steps on a fallen warrior on the stele to the left and on an unclear object on the stele to the right; this may be either a subdued warrior or a step stone to Lanka. A similar rural Hanuman stele is found along a local road at Dholpur, Rajasthan (Plate 44). The tail seems lacking, but the face is more monkey-like than in the former rural steles. Hanuman carries a club in his right hand and steps on the rock-bridge to Sri Lanka.

A *Ramayana* episode closely related to Hanuman is that of the fight between the two brothers Vali and Sugriva. Vali was the king of the monkeys and Hanuman was his general. One day, Sugriva believed that his brother the king was killed while fighting a demon in a deep cave. He thus took over the kingdom. Vali, however, returned alive upon which the brothers became bitter enemies. Their fight is said to be illustrated on the Kailashanatha temple or Cave 16 at Ellora,

Maharashtra (eighth to ninth century; fig. 477). The figure to the left indeed is a monkey with its rounded muzzle and large mouth, but the figure to the right is a demonic human. In my view, the scene rather represents the preceding fight between the monkey king Vali and the demon in a deep cave.

Very different are the sculptures of Hanuman in a peaceful posture. A rare example of a relief with Hanuman reading palmleaf manuscripts is found in one of the nine shrines or tombs (Navabrindavanam) for Madhva saints at Anegundi along the northern bank of the Tungabhadra river, Karnataka (fourteenth to sixteenth century; fig. 479). The place is believed to be the ancient Kishkinda, the forest where Rama and Lakshmana met Hanuman and Sugriva. The Anjanadri hill to the west of Anegundi is taken for the birthplace of Hanuman. Hanuman sits peacefully here, holding his long tail upright while reading. Hanuman is often considered a teacher and it is this aspect which has been portrayed here.

Another peaceful type is Hanuman standing with his hands in a worshipping posture. This representation is very common, not only on architecture and steles but also in statues (see below). A peaceful Hanuman stands in a niche of the Undavalli Cave shrine, Andhra Pradesh (seventh to eighth century; fig. 481). His long tail rests on the ground, ending in a loop. The muzzle is realistic and sculpted in detail. Two worshipping standing langurs decorate the Hazara Rama temple at Hampi, Karnataka (sixteenth century; fig. 480, left). Their tails are held upright, ending in a loop. The monkey muzzles are unrealistically round. Most likely, this monkey pair represents Hanuman and Sugriva. A four-armed peaceful Hanuman further is found on the Keshava temple at Somnathpur, Karnataka (c. 1268; fig. 480, right).

38.2.3 *Hanuman Statues*

Colossal statues of Hanuman are at present popular throughout entire India.[7] As a rule, they are vividly painted. The vast majority of these modern statues are, however, made of concrete, fibre glass or other materials and fall thus outside the scope of this book. A typical example is the twentieth century statue along the trail up to the

[7] The tallest of these modern Hanuman statues has a height of 32 m and stands at Nandura, Maharashtra.

sixteenth century Hanuman temple on the Tirumala hills of Tirupati, Andhra Pradesh (see Introduction, fig. 17). The hills are said to be the place where Hanuman's mother Anjana did penance, as described in the *Ramayana*.

Commonly, Hanuman stone statues depict the monkey-god in a peaceful posture, standing or sitting with folded hands (*namaskaramudra*), much like the modern concrete and fibre glass statues. Hanuman's face generally bears the prominent and undulating eyebrows so typical of langurs. Such is seen, for example, on a loose head from Uttar Pradesh (eleventh century, sandstone), and once belonging to a life-sized statue.[8]

A Hanuman statue from South India (thirteenth to sixteenth century; fig. 482) has a detailed sculpted langur head. Hanuman is as usual portrayed with folded hands in adoration of Rama. His very long tail extends well above his head, and makes a loop to resemble the pinnacle of a crown. Practically all stone statues of Hanuman follow this iconography, with the position of the long tail as the most variable feature.

Possibly representing Hanuman is a small statue from Gujarat (tenth to thirteenth century, grey schist).[9] The statue is a portrait of a seated langur with a fruit in its right hand. The upturned tail rests on its back. The ears are round instead of pointed and held tight against the head; the muzzle is protruding as in macaques. The whole sculpture gives a rather naive impression. A similar sculpture from the same region and time is more realistic, representing the langur with pointed ears and a short, rounded snout.[10]

38.3 Concluding Remarks

Langurs are easily recognised in reliefs by their long limbs and extremely long tail. Apart from Hanuman sculptures, sculptures of common langurs are very rare. They figure mainly in narrative reliefs (e.g. at Nagarjunakonda, Andhra Pradesh). Sculptures of Hanuman, on the

[8] Pasadena: Norton Simon Museum, cat. no. M.1975.18.2.S; figured in Pal, op. cit. (2003), pl. 86.

[9] Mumbai: Prince of Wales Museum, cat. no. 549; figured in Gorakshkar, op. cit. (1979), fig. 31.

[10] Mumbai: Prince of Wales Museum, cat. no. 548; ibidem, pl. 32.

other hand, are extremely common. In fact, there are so many examples that several detailed studies already appeared on this subject. In this book, I therefore limit myself to a representative selection.

Depictions of Hanuman form either part of narrative reliefs illustrating relevant episodes of the epic *Ramayana* or function as independent statues. Episodes in which Hanuman plays a role are very popular and a much appreciated subject for temple friezes. An early frieze originates from Sarnath (Uttar Pradesh); later friezes are greatly restricted to the south. A number of southern temples abounds in Hanuman carvings, such as at Amritapura (Karnataka), Shrirangam (Tamil Nadu). Apart from the *Ramayana* reliefs many panels are more restricted in iconography and depict only Hanuman. On these panels, Hanuman either proceeds towards Sri Lanka, ready to attack—sometimes stepping on the bridge of stones to Sri Lanka, sometimes with his tail ablaze—, or is actively engaged in fighting, holding a club and crushing an enemy below his feet. Especially the latter iconography is found on panels in the north as well, whereas the former seems restricted to the south. A third type of depictions of Hanuman on his own is in a peaceful manifestation. As such he is either a teacher or worshipping his master Rama.

Statues of Hanuman are also generally restricted to the south; only in the twentieth century his popularity seemed to have reached the north and often gigantic statues of concrete, fibre glass or other materials are erected in his honour. Earlier northern statues may depict Hanuman on a pedestal or as a minor figure next to Rama and his consorts. The iconography of Hanuman statues commonly follows that of the peaceful manifestations as seen on religious architecture, that is, standing with his hands folded in worship of Rama. His face generally bears the typical prominent and undulating eyebrows of langurs.

CHAPTER THIRTY-NINE

SUS SCROFA, PIGS AND BOARS

39.1 The Living Animal

39.1.1 *Zoology*

To start with, swine is the generic term for the species, wild as well as domestic. *Pig* refers to domestic swine of which the female is a *sow* and the male a *boar*. The same word *boar* is used for wild swine, males as well as females. *Hog* is a synonym for *pig*.

Swine are medium-sized even-toed animals with a shoulder height of about 90 cm in boars, but either smaller or larger in domestic pigs depending on breed. They are easily recognised by their rounded, barrel-shaped body and elongated, extremely strong snout, ending abruptly as if truncated (Plate 45) and reinforced by a flat disc containing the nostrils. The whole purpose of this strong, mobile snout is to dig the earth for edible roots and insects. Though the side toes are completely developed, they do not reach the ground. The most obvious difference between boars and pigs is the coat, which is dark brown to black in boars but ranges in colour from whitish pink to black and patterns thereof (fig. 483).

Unlike deer and bovids, swine have incisor teeth and a pair of tusks in the upper as well as in the lower jaw. The lower tusks are especially large in the males, curving upwards and then outwards, reaching a length of up to 30 cm in wild boars. The upper tusks are smaller, and also project upward from the mouth. From a distance it thus seems that two canines protrude at each side from the corner of the mouth corner and curving upwards (fig. 485).

Wild boars, male as well as females, bear a prominent crest or mane of black erect bristles on neck, shoulders, and part of the back (fig. 484), while pigs have at most a thin mane, if at all; in general, hairs are much less developed in domestic pig. A further difference between wild and domestic swine is that the latter may have a tightly-curled tail.

Swine are omnivorous animals, which therefore do not ruminate their food as the other South Asian artiodactyls.[1] They live on roots, crops, tubers, insects, snakes, carrion, and even on household waste, garbage—see Plate 45 for boars and fig. 483 for pigs—and droppings, including those of humans. They cause a lot of damage to crops, especially in those areas from which tigers and leopards have disappeared. Another difference with the other even-toed animals is that swine have large litters of up to ten young at a time; the piglets are relatively immature at birth and stay in the nest for a few weeks. Swine are intelligent animals with an amazing courage: they may even kill a tiger.

Wild boars are common all over the subcontinent, including Sri Lanka, wherever there is grass or scanty bush jungle, forests or mangrove forest. Remains of *Sus scrofa* are recovered from the mature Harappan site of Lothal in Gujarat (c. 2,300–1,750 B.C.E.) and the post-Harappan sites of Rangpur, Khanpur and Somnath in Gujarat.[2] It is not clear whether these remains belong to boars or pigs, because Indian boars have a shorter snout than the European boars.[3] By lack of unambiguous evidence, they have to be attributed to boars. Nowadays, the area around these archaeological sites is open and tree-less, but the presence of boars implies that the vegetation cover three millennia ago was denser, and that marshy conditions probably were present along the river or streams. This confirmed by geological studies: the rainfall in that area was thrice that of today in the period 8,000–1,500 B.C.E.[4] but around 2,000 B.C.E., both summer and winter precipitation started to decline.[5]

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[1] Other non-ruminating artiodactyls are the hippopotamuses of Africa and the peccaries of South America. Both families are not represented in South Asia today; the hippopotamuses went extinct towards the end of the Pleistocene, whereas the peccaries are endemic to South America.

[2] For swine remains from Lothal, see Nath, op. cit. (1968), 1–63 and Chitalwala and Thomas, op. cit. (1977–8), 14.; from Rangpur, see Nath, op. cit. (1963), 153–160; from Somnath, see Thomas, op. cit. (1974), 195–210.

[3] The Indian boar is sometimes referred to as *Sus cristatus*. The shorter snout of the Indian boar makes it difficult to classify skull remains from archaeological sites, because a shortening of the snout is also one of the general features of domestication.

[4] Singh et al., op. cit. (1974), 467–501.

[5] Kajale and Deotare, op. cit. (1997), 405–412.

39.1.2 *Related Species*

Closely related to boars and pigs is the pygmy hog (*Sus salvanius*).[6] It is easily distinguished from the larger species by its small size with a shoulder height of only about 25–30 cm and the lack of tusks. Pygmy hogs are nocturnal. They used to live in the grass jungles and forests of the Himalayan foothills in southern Nepal and Bhutan and adjacent parts of north-eastern India, possibly including northern Bangladesh, but their habitat is gradually being destroyed by the deliberate annual burning of thatchlands.[7] At present, the species is critically endangered, and restricted mainly to two protected reserves in north-western Assam, where they survive in remnant tall grasslands.[8]

39.1.3 *Role of Swine in Society*

Swine constitute a widely appreciated source of meat and fat. Their skins, milk and dung are, contrary to those of other domestic artiodactyls, not used. Neolithic remains indicate that the domestication of swine began around 7,500 B.C.E. in Western Asia, but did not spread rapidly probably because it cannot subsist only on grass and tends to compete with people for food. Later, with growing settlements and growing amounts of household scraps, this seems to have changed, and pigs became abundant. Archaeological sites in Iraq show that small pigs were common domestic animals at the beginning of the third millennium B.C.E. The settlements of the Indus Valley belong to the same period or later, and the remains of *Sus scrofa* from Lothal and other sites might thus belong to domestic swine. On the other hand, the remains belong to large animals; in addition, a terracotta figurine from Mohenjo-daro, Pakistan, clearly bears manes, indicating a wild boar rather than a domestic pig.[9]

The spaying—the removing of the ovaries through a surgical operation—of sows was a common practice for the Romans but whether

[6] Earlier treated as separate genus, *Porcula*.

[7] W. Oliver, "The doubtful future of the pigmy hog and the hispid hare," JBNHS 75 (1978), 341–372.

[8] Pigs and Peccaries Specialist Group 1996, "*Sus salvanius*," in *IUCN Red List of Threatened Species*, op. cit.

[9] Figured in Marshall, *Mohenjo-daro and the Indus civilization* (1931), pl. 96 nos. 21, 22.

this was done in South Asia as well is unknown to me.[10] The operation surely was cruel, without anaesthesia, disinfection, or stitching, disproved also by some Romans—e.g. Columnella himself—, which makes it likely that if it was ever practised in India, it would have been mentioned or discussed in ancient texts. Another ancient habit, that of keeping two types of pigs, a very small, long-legged breed that was herded in the forest and a larger breed that was fattened as sty pig, is not recorded from India either. Nowadays, pigs in India roam relatively freely around (fig. 483) or are fenced within an enclosure that turns into an insect-plagued mud bath within days.

In the ancient legal texts (*dharmashastras*), the wild pig is considered edible, whereas the village pig is not. The inclusion of the wild pig in the class of edible animals is based upon its classification as having incisors only in the lower jaw (*anyatodat*), being double-hoofed (*dvishapha*) and living in the wild (*mriga*). This is only partly true, because in reality, all species of the pig family bear incisors in both lower and upper jaw (*ubhayatodat*), which should thus have made them inedible.[11] The village pig, on the contrary, is considered inedible, because of its close association with humans. It seems though that also village pigs were eaten well before the Common Era. For example, Ugga is said to have cooked a good meal of pork (*sukhara mamsa*) for the Buddha, which the Buddha accepted in order not to disappoint his host.[12] He permitted the eating of meat and fish by his followers, provided that the animal was not killed specifically for them.[13]

Pigs symbolize greed, lust and the lack of moral shame for Buddhists.[14] This is probably best explained by their social behaviour: pigs like to huddle together and enjoy bodily contact. They use nose-to-nose touching to recognize each other. Furthermore, they are believed to enjoy bathing in their own faeces, which in reality is not the case: swine prefer clean mud if available.

Despite the negative symbolism of swine, the sow-headed deity Sukarasya or Svetavarahi protects the southern gate of Kathmandu,

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[10] The operation is described by Columella, *Lucius Junius Moderatus Columella on agriculture*, transl. E. Foster and E. Heffner, Loeb Classical Library 407 (London: Heinemann, 1968), 291.

[11] It might be that here an observation has been changed deliberately in order to sanctify an existing habit.

[12] *Abhidhamma Pitaka* 3.491.

[13] *Metta Sutta* 55.

[14] *Abhidhamma Pitaka* 2.

Nepal. Seven boars or pigs further draw the vehicle of the Buddhist goddess Marichi, goddess of the Dawn.[15] Marichi herself may have multiple heads, of which one is that of a sow. For Tantric Buddhist of the Vajrayana school, the sow is a giver of life and represents fertility. A sow is believed to feed her litter at the risk of her own life, and will nurse her young on blood should her milk run dry. As Vajravarahi, the sow is the goddess of abundance but also the destroyer of ignorance. Finally, as we will see below, boars are found on decorative friezes and moonstones of early Buddhist architecture, which is definitely in conflict with the supposed negative attitude towards swine.

For Muslims, pig constitute a food taboo. This originally Semitic taboo has often been attributed either to the health risks of eating underdone pork or of pork infested with parasites (*trichinosis*) or to the pig's reputed disgusting habit of eagerly eating human excrements. A more practical explanation is that humans and pigs occupy practically the same environmental niche, using resources and calories in much the same way as humans do so that to raise one pig means to deprive one baby.[16] The taboo may have originated from ancient Egypt as described by Herodotus, who wrote that swine in Egypt were considered unclean, and swineherds a class of untouchable people.[17] Yet, swine were sacrificed to Bacchus and to the moon. The taboo is certainly ancient, and though many theories have been brought forth for its explanation, at present there is no consensus.

Swine play a prominent role in Hinduism. The most famous divine boar is Varaha, the third incarnation (*avatar*) of the god Vishnu. He came down in this form to rescue the earth, the goddess Bhu or Prithvi, from below the primeval ocean. This genesis myth[18] is told as follows,

> The demon Hiranyaksha once got a boon from Brahma. His wish was to be king of the world and that no animal enumerated by him would be able to hurt him. Unfortunately for him, he forgot to mention the boar,

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[15] The number seven may stand for the Seven Pleiades, the 'eye' in the constellation of the bull, visible at the onset of spring. The ancient text *Taittiriya Samhita* (c. 900 B.C.E.) indicates that the Pleiades were visible at the winter solstice at that time (*TS* 6.5.3), so originally they may have been considered a herald of the earth's return to days of light. Why exactly swine are considered symbolic for the seven stars is unclear.

[16] M. Harris, *Cows, Pigs, Wars and Witches: The Riddles of Culture* (New York: Random House, 1974).

[17] Herodotus. *The histories of Herodotus*, transl. G. Rawlinson, 2 vols, Everyman's Library 405 (London: Dent, 1964) vol. 1, 137–138.

[18] According to the version in the *Vishnu Purana.*

> and when he took the Earth as a hostage, hidden in the deep muddy waters, Vishnu came to rescue her in the form of a boar. He lifted her up with his white tusk, calmed her, and shaped the earth for human use by moulding the mountains and the continents.

The association of Vishnu with a boar is also evident in his cosmic form Vishvarupa as well as in his four-headed manifestation as Vaikuntha Chaturmukhi. In both these forms his left head is that of a boar. A sow-headed goddess is Varahi, the female form of the name Varaha and one of the mother-goddesses. Varahi has not only the head of a swine, but may also have the boar as her personal vehicle.

The proverbial ferocity of the wild boar is nicely illustrated in the tale on the Self-defeating Forethought,[19] which can be summarised as follows. Once, a hunter came across a boar and shot it, but the boar ripped open the hunter's belly with its fangs upon which the hunter died. Due to the arrow wound, the boar died as well.

The same ferocity may underlie the reason why a boar was chosen as royal insignia of the Vijayanagara dynasty of South India of the fifteenth and sixteenth century. The boar is accompanied by a sun and a moon and either a dagger or a conch. The conch might refer to Vishnu, the Hindu god who is clearly linked to the boar.

39.2 Swine in Stone

39.2.1 *Boars as Decoration*

An early example of a beautiful and realistic stone carving of a wild boar decorates a stupa panel at Nagarjunakonda, Andhra Pradesh (third century; fig. 487). The running boar forms part of a series of running lions. The animal has the elongated snout of a swine, ending in a flat disc, and a heavy body with large belly. The boar is carefully represented with all typical features of a wild boar: a bristled coat as is indicated by dashed vertical lines, a large and erect mane on head, neck and shoulder and a massive and large tusk. The only small mis-

[19] *Panchatantra* (ed. Vishnusharma). For other versions of the story, in which an elephant and a python play the role of the boar, see sections 11.1.3 and 17.2.7, last paragraph.

take is found in the direction of the tusks, which go forward instead of upward.

A similar, and possibly related boar carving, is provided by a moonstone depicting a running boar and a bull from the same site and period (c. 250, limestone).[20] The snout of this boar is longer; also the mouth is longer, approaching that of a carnivore. As on the stupa panel, it has a distinct mane on head, neck and shoulder. On this sculpture, however, the boar has an angry look, caused by a fold above its eye.

A decorative relief on a column at Aihole, Karnataka (seventh century; fig. 486) shows a wild boar. The other three carved symbols are a sun with a cross-mark, a round disc on a pillar and a kind of conch. This conch, as well as the boar itself, might be interpreted as a link to Vishnu. The setting is reminiscent of the royal insignia of the much later Vijayanagara dynasty of the fifteenth and sixteenth century of Karnataka and might very well be an early forerunner.

39.2.2 *Vishnu as a Boar*

The Hindu god Vishnu is directly related to a boar in three of his manifestations: his boar-incarnation Varaha, his cosmic form Vishvarupa, and his manifestation as Vaikuntha Chaturmukha. Stone sculptures of Varaha are countless, and this is not the place to mention and describe them all. A mere overview of the most typical sculptures is the least that can be done here. From the reliefs it is evident that Varaha can be represented in two forms, either as a complete boar—zoomorphic form—or as a boar-headed god—anthropomorphic form—. Stone sculptures of his other two forms, Vishvarupa and Chaturmukha, are much rarer. In these sculptures, his left head is that of a boar. Sculptures of the hybrid form Harihara, in which the two major gods Shiva and Vishnu are combined in one, may show Vishnu as boar-headed as well.

39.2.2.1 *Zoomorphic Varaha*

The oldest surviving stone sculpture of a zoomorphic Varaha is the colossal statue at Eran, Madhya Pradesh (c. 490 or 510; fig. 488).[21] This

[20] Ray, op. cit. (1975), figs. 85, 86.

[21] The colossus was commissioned by Dhanyavishnu, feudatory of the Huna king Toramana.

may be the earliest representation of Varaha with the body and head of a boar. The entire colossus is static, and does not resemble a living swine. Many details though, are in fact realistic: the snout is elongated and ends in a flat disk, the eyes are tiny, the side-toes are clearly present, the limbs are short and the body massive. Not realistic are the tusks, being placed too much towards the corner of the mouth, almost straight below the eye, and the body, which is covered with 1,185 little images, representing the creation. The position of the earth goddess Bhu hooked over a tusk seems to have been copied from the nearby contemporaneous anthropomorphic Varaha statue (see section below) or vice versa.

Two more zoomorphic Varaha statues, very similar to the Eran sculpture, are a colossus of 2.5 m at Muradpur in West Bengal at the border with Madhya Pradesh (sixth to eighth century; fig. 489), still worshipped in situ, and a small statue from nearby Badoh, Madhya Pradesh (ninth century; fig. 490). In both these cases, the animal leans somewhat awkwardly backwards, its side-toes are missing, the head is much more rounded and the eyes are more pronounced. They look like moderate copies of their big brother; only the ears are more realistic and the body is covered with 'only' 765 images in the Badoh statue. In the latter statue, the goddess hangs in exactly the same way as seen in Eran.

Several extremely similar statues were sculpted, for example at Jhansi in Uttar Pradesh,[22] Apsadh in Bihar,[23] Gwalior in Madhya Pradesh,[24] and a colossal statue in the Varaha mandir of the Lakshmana Temple at Khajuraho, Madhya Pradesh (c. 900–925). In total, there are some 29 zoomorphic Varaha statues in Madhya Pradesh, dating from the fifth to the fourteenth century.[25]

39.2.2.2 *Anthropomorphic Varaha*

One of the earliest anthropomorphic Varaha sculptures is an—again—colossal relief on the facade of the Varaha Cave or Cave 5 at Udayagiri, Madhya Pradesh (c. 401–450; fig. 492), predating the known zoomor-

[22] Lucknow: State Museum.

[23] A much eroded statue; this Varaha is covered with vertical series of figures instead of horizontal series.

[24] Gwalior: State Archaeological Museum.

[25] H. Rangarajan, "Varaha Images in Madhya Pradesh, an iconographic study," *Journal of the Asiatic Society of Bombay* 72 (1997), 100–119.

phic sculptures by half a century or more. This Varaha has a too small head (proportionally), although the upper half of muzzle is broken off. His mouth is held slightly opened, showing his cheek teeth. The earth goddess Bhu hangs below his right tusk. She supports her body weight on his left shoulder, yet seems to glide off. The eyes of the boar are much too large. His head is uneasily joined to the powerfully thrusting body:[26] the back part of the head merges with the right shoulder through a muscular mass, while a neck is missing.

A life-size anthropomorphic Varaha statue originates from Eran, Madhya Pradesh (late fifth century, sandstone).[27] The goddess Bhu hangs in the same strange way at his right tusk as in the zoomorphic colossus from the same place and period: her body curves to the left, and her supporting hand hangs loosely over the tusk as if it were a cord over a nail, or, as Williams states it, like a coat on a hook.[28] The tusk is placed too far towards the corner of the mouth, and sits at the position of the cheek teeth. The muzzle is very stylized, with folds as straight lines. Manes are not present. The whole head is very schematic, though, it gives a very friendly impression because of the rounded cheeks, the deep-incised eyes and the prominent, round ears. There is no real neck, and the back of the skull merges somehow with the muscular mass above the shoulder, quite similar to the Udayagiri Varaha.

The problem with the neck seems to have been solved in the Varaha relief of Cave 2 at Badami, Karnataka (late sixth century; fig. 491). This Varaha has a distinct neck: the head does not merge directly with the back. He further has an elongated snout, ending in a broad disc and bearing prominent tusks. The goddess stands on a lotus carried by Varaha and leans comfortably on his snout, very unlike the hooked-coat situation as seen at Eran. A similar sculpture is seen at the rock-cut Ravana ka Khai temple or Cave 14 at Ellora, Maharashtra (early seventh century), where the goddess stands as a beautiful maiden with crossed legs on one of his left hands.

A totally different and very personal, comforting Varaha is the main subject on the left wall of the Varaha cave temple at Mammalapuram, Tamil Nadu (seventh to mid-eighth century; Plate 46). As a variation on the theme, Varaha looks now to the left. Varaha holds the goddess

[26] Williams, op. cit. (1982), 46.

[27] Sagar University Museum; figured in Harle, op. cit. (1974), pl. 26 and op. cit. (1987), pl. 75.

[28] Williams, op. cit. (1982).

in his arms and seems to talk to her as a close friend. His snout is as tubular as in most examples. The tusks are on the right place, more in front than in most examples. The eyes are tiny as they should. There is no place for a mane, because a high crown, typical of Vishnu, covers his head. This doubtlessly is a masterpiece and one of its kind.

Much different is Varaha on a stele from Gadhwa or Garhwa, Uttar Pradesh (tenth century; fig. 493). The snout is tubular as well, though ends now in a nice disk. The wrinkles around the eye give the boar the impression of a reassuring smile. The goddess sits on his high-held folded elbow, holding him affectionately at his small tusks. On top of his head are manes, neatly arranged in a plume, not unlike the plume seen in some horse sculptures. A similar iconography has been followed at Khajuraho, Madhya Pradesh (Plate 47), except that the whole image is more smooth and displays a very different style.

An interesting Varaha carving is provided by a stele from Rajasthan (c. 1100; fig. 494). The snout is merely a large tube, the eye has no depth, the slightly open mouth shows a continuous series of miniature cheek teeth, the ear sits too low, and the tusks are placed too close to the corner of the mouth. In fact, the overall impression of the head is that it resembles a conch, similar to the conch in one of his left hands. The goddess sits very high on his folded elbow, and gently touches the upper part of his snout. Despite its highly stylized form, this Varaha did not loose its affinity with a wild boar, and represents a gentle boar. The conch shape of the head may very well have been intentional.

Again different is another Varaha stele from North India (eleventh–twelfth century; fig. 495). The artist apparently did his utmost best to render the boar realistic, and sculpted the individual wrinkles around the insertion of the lower tusk and those along the underside of the muzzle in much detail, indicating the fringe of hairs below the throat as seen in wild boars. The disk has a prominent rim, and the head has a triangular shape as seen in wild boars. Even the upper jaw tusks are present, which is rarely the case in sculpture. Though carefully reproduced, these tusks take a wrong direction: in boars, both upper and lower tusks curve upwards (fig. 485). Another failure are the ears, which are reminiscent of the elephant ears of Ganesha; even the wrinkles within the ears are present. A bristly coat is missing. The goddess sits on his high-held folded elbow, far away from the boar's snout. She folds her hands in adoration (*namaskaramudra*).

Somewhat different in the details is a Varaha stele from Bargaon, Bihar (eighth to twelfth century; fig. 496, left). The eyes are too large,

the snout resembles that of a bear, the tusks are placed too close to the corner of the mouth, and the hairs on top of the head are the matted hairs of a yogi. The goddess sits comfortably on his elbow, and leans casually on the disc of his snout, using it as a support. The whole image breaths a peaceful atmosphere. A very similar stele, though less elaborate, is the Varaha from Surjan Giri in the Barabar Hills, Bihar, currently worshipped along the road towards a Shiva temple. The same iconography, but with a left-facing Varaha, is also followed on another Pala stele (ninth to twelfth century, black stone).[29] Left-facing Varaha's are rare, and it is not clear whether they are restricted to a certain region, period or purpose.[30]

Basically similar but less elaborate is another Varaha stele from North India (tenth to thirteenth century; fig. 496, right). Varaha holds his head now more horizontal instead of looking up; in this way, the upward movement is lacking completely. The tusk, only one, is too much in front, but the ear is more realistic. On his cheek a kind of floral decoration seems to be present, bringing to mind the rosettes seen so often on flanks and shoulders of lion sculptures. The goddess sits in the same position, with her hands folded in admiration. A Varaha from Orissa (fourteenth century; fig. 497) is similar to this stele but somewhat more naive.

The Varaha of the Keshava or Chennakeshava temple at Belur, Karnataka (c. 1117; fig. 498) differs essentially from the northern examples. The latter invariably showed Varaha either standing on a snake or on the ground with a snake somewhere on the stele to indicate the waters, but now Varaha tramples on the demon Hiranyaksha, by whom Bhu had been hidden. The goddess sits comfortably on Varaha's left bent elbow. He looks down, much in the same way as seen in Mammalapuram, Tamil Nadu (Plate 46) with as main difference that now he looks to the right as in the majority of Varaha reliefs. The face of the boar is realistic, likely modelled upon the living animal. An even more martial iconography is followed for the Varaha on the contemporaneous Hoysaleshvara temple at Halebid, Karnataka (mid-twelfth century; fig. 499). Here, Varaha tramples not only the demon, but

[29] New Delhi: National Museum.

[30] Two more examples of reliefs with a left-facing Varaha are a much eroded stele from Assam (Gauhati: Assam State Museum) and the rock-cut relief at Mammalapuram, Tamil Nadu.

also several minor figures. Bhu sits safe high on his shoulder, leaning against his head.

Finally, large Vishnu steles which represent the god surrounded by his incarnations (*avatars*), include a miniature depiction of Varaha, generally above that of Narasimha, his man-lion incarnation. A typical example is provided by a large stele from eastern India (eleventh century; Plate 48). Vishnu's ninth and tenth incarnations (Buddha and Kalki respectively) are missing. Due to the small size of the individual forms, details are not represented or difficult to observe. Varaha is, however, easily recognised by its stepping posture and upward directed tubular head. On this stele, Varaha is present at the left side as the uppermost incarnation just below the flying celestial garland bearer.

39.2.2.3 *Vishvarupa, Vaikuntha and Harihara*

An early example of the boar-headed Vishvarupa in stone sculpture comes from Bhankari near Aligarh, Uttar Pradesh (c. 430–460; fig. 500, left). His boar head, which is his left head, is depicted in profile. The head is rather stylized, with a tubular snout resembling a thick pipe. Either the tusks are placed too close to the corner of the mouth, or the snout is too long.

Another early Vishvarupa sculpture comes from the ancient kingdom of Kashmir (sixth century).[31] The boar-face resembles that of an aggressive carnivore, and seems to have been modelled upon the lion-face to the right. The snout is not long enough, the eyes are too large, and the open mouth shows its dentition. The tusks are too close to the corner of the mouth. The inflated snout, however, is rather realistic, and resembles that of a wild boar of the colder regions (fig. 485). Very similar is a stele with Vishnu as Vaikuntha Chaturmukhi, also from the ancient kingdom of Kashmir, but somewhat later (c. 750–800).[32] The left face is, again, that of a boar, and differs not much from that of the Vishvarupa from the same region, although here the snout is more tubular and the ears are more natural. The nose-ridge, however, is suspiciously similar to that seen in the lion face. The open mouth shows the upper tusks; the lower tusks are missing. A slightly more realistic boar face is that of Vaikuntha on an interior wall of the assembly hall (*mandapa*) of the Lakshmana temple at Khajuraho, Madhya Pradesh

[31] New York: Metropolitan Museum of Art, cat. no. 1986.506.15.
[32] New York: Metropolitan Museum of Art, cat. no. 1991.301.

(c. 930–950). The snout is inflated as in the Kashmiri Vishvarupa stele.

Vishnu may also have his right head instead of his left head in the form of a boar head as seen in a stele representing another cosmic multi-headed and multi-armed form of Vishnu with consort—possibly Lakshmi—along the south part of a small courtyard shrine of the Narayana temple at Changu, Nepal (thirteenth century; fig. 500, right).[33] This very realistic boar has a friendly appearance; the only short-coming is the too much elongated mouth. The Vishvarupa stele (ninth century) from the same courtyard lacks a boar face; all Vishnu's heads are anthropomorphic here.

A rare example of a boar head representing Vishnu in a sculpture of Harihara, the combined form of Vishnu—Hari—and Shiva—Hara—is provided by a stele from, again, Kashmir (ninth century, green soapstone).[34] On the Sas Bahu temple at Nagda near Udaipur, Rajasthan (tenth century; fig. 501), a three-headed form of Vishnu decorates a plinth. His left head is that of a boar, his right head that of a lion. Vishnu is eight-armed and rides his eagle Garuda, which is totally anthropomorph here.

39.2.2.4 *Zoomorphic reference to Varaha*

In some sculptures of Varaha, a tiny boar is present below or between the feet of a relatively giant Varaha. The animal clearly refers to the boar manifestation, and cannot be interpreted as Varaha's vehicle. It seems that the iconography of this additional boar was much more free, and the sculptor did not have to follow prescribed rules or examples.

An appealing example is found in Bangladesh (eleventh to thirteenth century; fig. 502). The tiny boar is sleeping between Vishnu's feet, and has nothing ferocious at all. The elongated muzzle, the sharp tusks, the small eyes, the triangular ears, and manes all over the back are incised with great care, revealing an affection of the artist or commissioner for the animal.

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[33] The dating of the fragment is under discussion, and may be either early ninth century or thirteenth century; see, respectively Singh, op. cit. (1969), 189 and Pal, op. cit. (1974), 59.

[34] Berlin: Museum für Völkerkunde, cat. no. MIKI 5835; figured in Härtel, op. cit. (1960).

A much less cute example comes from North India (twelfth to thirteenth century, black stone).[35] Here, the boar is standing instead of resting. As in the previous stele, the boar is not ferocious but rather a nice, round pig. The mane, bristles and long tusks are missing, indicating a domestic pig. The snout is too short, both for a boar and for a pig. The miniature boar seems to attack a small figure on a Varaha stele from West Bengal (thirteenth century, black stone).[36]

39.2.3 *The Sow-headed Varahi*

One of the earliest examples of a stone sculpture representing the sow-headed mother-goddess Varahi is provided by a panel from North India (sixth to eighth century; fig. 503). Her snout is tubular, the tusks are small and curved but a bit too close to the corner of the mouth. The snout is slightly inflated midway. The whole image is full of life and tenderness, and is certainly a masterpiece. Varahi sits on her buffalo with a child on her lap.

A Varahi on another stele from North India (tenth century; fig. 504) is somewhat similar to a Varaha from Rajasthan (eleventh century (fig. 494). Her snout, too, is a mere tube, and the shape of the head is not unlike a conch. The relief of the eyes is, however, much more realistic; the same is valid for the position of her ears. Her tusks, though, are shifted even further towards the corner of the mouth; in addition, she bears matted hair instead of a crown. The snout is slightly inflated midway as seen in the British Museum stele. The row of cheek teeth as seen in the Varaha stele is not represented here.

A southern example is found in the Bala Brahma temple at Alampur, Andhra Pradesh (c. 650–750; fig. 505, above, left). The stele forms part of a series with the seven mother-goddesses (*saptamatrika*) worshipped in a shrine at the left of temple, and is found at the left end. Varahi's tubular snout ends in a prominent rim, showing the nasal apertures. Her tusks are very small. She is reminiscent of the Varahi on the British Museum stele, except for the sword or club and shield she is holding, which are more typical of the Buddhist version of Varahi (see below).

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[35] London: Victoria and Albert Museum.

[36] Calcutta: Bangiya Sahitya Parishad Collection. This stele is for the rest very similar to the Victoria and Albert Museum stele.

A similar stele, also part of a seven mother-goddesses series, originates from Nolamba, Andhra Pradesh (c. ninth century, black stone).[37] Varahi seems to have a more stereoscopic view here: her eyes are too much in front as in humans instead of to the side as in swine. The snout is strong and ends in a disc with a pronounced rim. The same is valid for another southern stele (early ninth century).[38] Varahi has here a highly stylized muzzle with only small impressions at both sides to indicate the presence of modest tusks. More realistic are her tiny eyes, but her ears, on the other hand, are human ears, elongated by the weight of heavy jewellery. A frieze with the seven mother-goddesses from North India (tenth to thirteenth century; fig. 337) includes a Varahi with a realistic sow-muzzle, ending in a disc with a prominent rim. The large tusks are set at the mouth corner.

The Buddhist version of Varahi—Vajravarahi—sitting with her consort Chakrasamvara or Heruka at the east side of the water shrine in the Sundhari Chowk at Patan, Nepal (seventeenth century; fig. 505, above, right) has a somewhat similar face, also with relatively large tusks.[39] The sow-headed Vajravarahi plays an important role in the initiation rites of esoteric Buddhism and is associated with triumph over ignorance. Like the Hindu Varahi, she has the water buffalo as personal mount here.

An extremely short-muzzled Varahi (Vajravarahi) is portrayed on a double-sided stele from eastern India (eighth to twelfth century; fig. 505, below, left). The sow-headed goddess is here represented in front view, instead of the usual side-view. Her eyes are elongated, and not very swine-like. She holds a sword, a shield and a cup, as Vajravarahi on the stele at Patan.

39.2.4 *Swine as Divine Vehicle*

As a mother-goddess, the sow-headed Varahi may also have the boar as a vehicle as seen on the second frieze with the seven mother-goddesses from Samalaji, Gujarat (c. 525).[40] The boar is very realistic, has an angry look caused by folds above the eye, short erect bristles on its

[37] Figured in Gorakshkar, op. cit. (1979), fig. 20.
[38] Figured in Nakacami, op. cit. (2003), pl. 78.
[39] The image sits in the middle row on the 19th position to the left of the stairs.
[40] Baroda Museum and Art Gallery.

back, tiny eyes, but the tusks are too close to the corner of the mouth. Her common vehicle is, however, the water buffalo.

Stone sculptures of the Buddhist goddess Marichi with her boar-cart are limited to the northeast of the subcontinent. An example is provided by a stele from Varanasi, Uttar Pradesh (eighth to twelfth century; fig. 506). Though she stands in the so-called archer's position with one leg bent and the other drawn back stiffly, which is typical of the angry (*krodha*) manifestations of the gods,[41] she looks friendly. The seven boars on her pedestal are realistically sculptured. They run in fast gallop with their front limbs in mid-air. The erect manes over their entire back indicate that they represent wild boars. Their eyes and ears are small; their tails curl upward over the back. Their snouts end in a disc, but tusks are not shown; maybe they should thus be interpreted as sows. Marichi's left head is that of a sow as well. A similar set of boars is present on the pedestal of a Marichi stele from Nalanda, Bihar (tenth century, basalt).[42] Below the goddess sits a chariot driver with below her the head of Rahu, symbol of the lunar eclipse.

Marichi's boars on a stele from Sarnath, Uttar Pradesh (tenth to thirteenth century; fig. 507) on the other hand, do bear clear tusks, but they are positioned too much in front. They are not galloping, and seem to have difficulties to bear the weight of the goddess. Their front legs are too long and they stand in a rather awkward position. Realistic features are their long snouts ending in a disc, and their small ears and eyes. Erect manes or bristles cannot be discerned. The goddess herself has a sow-head as left head as in the other cases.

Only depicted in half are the boars on a Marichi (Vajravarahi) stele from West Bengal or Bangladesh (eleventh century; Plate 49). They emerge from the stone, but lack the motivated gallop of the previous two steles. The snout ends in a disk, but neither tusks nor manes are present. The swine seem based on domestic pigs. The lack of tusks may indicate sows also here. Rahu sits here below the central pig. The goddess herself has a boar head as her left head (fig. 505, below, right).

39.2.5 *Boar-Hunting in Reliefs*

Hunting boars befits Revanta, the Hindu god of the hunt and son of the sun god Surya. On the majority of Revanta reliefs, however, only

[41] Harle, op. cit. (1974), 215.
[42] Figured in Snead, op. cit. (1989), pl. 120.

his dogs are figured. On a few reliefs game animals are depicted as well, mainly boars. An example is provided by a Revanta stele from North India (ninth to tenth century; fig. 313). The swine are long-legged miniature boars with prominent tusks. Their coats are smooth, and the way of depiction of the feet, ears, eyes and body posture follows the same style as that of the horse and the miniature dogs, revealing a lesser artistic quality.

A far more realistic and very cute boar is present below Revanta on a panel from eastern India (tenth to twelfth century, basalt).[43] The boar's body is massive and round, and merges smoothly into its triangular head. The erect mane continues over its entire back. The whole image fits a wild boar admirably well. The boar resembles the miniature boar below Varaha's feet on a stele from Bangladesh (eleventh to thirteenth century; fig. 502), possibly indicating a similar period and region.

A very different boar stands below a more naive sculpted Revanta on a panel at Nalanda, Bihar (ninth to twelfth century). The boar is much more realistic than the horse and its rider, with a coat consisting of clear bristles, and well-indicated manes. The animal seems to sniff at the head of a dead antelope. The boar on another Revanta pedestal from Bihar (tenth century, chlorite), is more stylized and has a short, triangular face and a round barrel-shaped body.[44]

From the Himalayas a rock-carving or bruising of a boar is known from Kila in Jammu and Kashmir (fig. 508). The front part of the head is missing, but the shape and massivity of the body leaves no doubt. The ears are large, and the tail is thin and rather short. The dating of the carving is unknown, but this carving may be the oldest evidence of a wild boar carving in stone. The rest of the carving is missing, though it is likely that the scene once formed part of a representation of a hunt.

Warriors on horses engaged in killing a wild boar decorate the pillars of the tortoise *mandapa* of the Arulmigu Vedagireshvara temple at Tirukkalikundram, Tamil Nadu (seventeenth to eighteenth century; fig. 509).[45] This boar is convincingly ferocious and is recognized by its bristly mane and long muzzle. The longitudinal stripes, however, are a

[43] Calcutta: Indian Museum.

[44] Pasadena: Norton Simon Museum, cat. no. M.1975.14.14.S; figured in Pal, op. cit. (2003), pl. 140.

[45] The iconography is not rare for colonnades of temples of this period and region, though in general it are large felids that are killed instead of boars; for example, at Vellore a leopard and at Shrirangam a leopard and a tiger (all late sixteenth century).

mistake since they are in reality restricted to piglets. The boar's limbs are too long, and their posture resembles that of a human instead of a boar. Another failure can be found in the mane: it encircles the ear instead of following the back.

A hero stone in memory of a man who died while killing wild boars stands at the village Palamangalam near Erode, Tamil Nadu (tenth century).[46] The boar has a very round belly, lacks tusks, and runs in full gallop towards the hero. The lack of tusks and the impressive belly supposes a pregnant wild female, which indeed can get dangerously irritated. Another hero stone was erected for some brave dogs at Kattigenhalli, Karnataka (tenth century). Here, a large swine is attacked by either four dogs or two that are depicted twice. Such stones illustrate that since long wild swine provided a serious and severe problem to villagers.

39.2.6 *Boars in Other Narrative Reliefs*

A wild boar figures in an illustration of the Story of Vessantara[47] on the lower architrave of the northern gateway to the Great Stupa at Sanchi, Uttar Pradesh (c. 50–25 B.C.E.; fig. 212). The boar is realistic with a massive body and high shoulders.

In another depiction of the same story on an *ayaka* frieze from Goli, Andhra Pradesh (third century; fig. 46), there are two boars instead of one, as is the case with the other animals depicted on this *ayaka* frieze. The triangular heads of the boars and their elongated muzzle are skilfully reproduced. Manes are lacking, and only the larger of the two, possibly the male, has faintly sculpted tusks, indicating that probably domestic pigs stood model. This is further confirmed by their too rounded, barrel-shaped bodies. Around the eye, on the muzzle and below the neck deep wrinkles are present, maybe to stress the animals' wild nature. The other animals are supposed to represent wild animals as well, because the setting is an *ashram* deep in the forest.

On a narrative relief illustrating the Hindu goddess Parvati performing penance from Kathmandu, Nepal (c. sixth to seventh century), a

[46] Figured in Nakacami, op. cit. (2003), pl. 10. There seems to be a Tamil poem about this hero and his deeds.

[47] *Vishvantara Jataka*, *Vessantara Jataka*, Pali *Jataka* 547.

wild boar is present.[48] The setting is supposed to be the alpine landscape of the Himalayas, home of the goddess. Below to the right, a wild boar emerges from behind the rocks. It is portrayed in a realistic way with erect bristles on its back, small ears, small eyes, and an elongated snout.

39.3 Concluding Remarks

Swine are very common animals on the subcontinent, wild as well as domestic. It is therefore not surprising that they are often encountered in sculpture, be it as part of a narrative scene, as divine symbol, attribute or vehicle, but also as divine beings. The latter case is almost always in the form of one of the boar-headed deities. Only Vishnu in his boar manifestation as Varaha may be represented by a complete zoomorphic boar. Common boar-headed deities in stone sculpture are three forms of the Hindu god Vishnu—Varaha, Vaikuntha, Vishvarupa—, the mother-goddess Varahi and the Buddhist goddesses Marichi and Vajravarahi.

In most depictions of Vishnu as Varaha rescuing the earth goddess Bhu, Varaha has a human body—anthropomorphic—with the head of a boar, either with or without a clear neck. In a few early sculptures, Varaha has the complete body and head of a boar—zoomorphic or theriomorphic—.[49] In the surviving sculptures, however, the body is covered with gods, demigods, celestial beings, heroes, all arranged in hierarchical rows as a representation of the cosmos. The goddess Bhu is either a tiny little creature on or at the left elbow or clings herself to the boar's right tusk.

Boars or wild sows are further present on pedestals of Marichi as draught animals to drag her chariot. Such sculptures seem to be limited to the Pala period of eastern India.

The hunting of wild boars in a Hindu context is evidenced by some stone sculptures of the god of hunt Revanta, by colonnades representing

[48] Figured in K. Deva, "Gupta Impact on the Art of Nepal," in *The Golden Age: Gupta Art-Empire, Provence and Influence*, ed. K. Khandavala (Bombay: Marg Publications, 1991), 45–54, fig. 11.

[49] This type is referred to as an alternative to the anthropomorphic type in *Vishnudharmottara Purana*; the text prescribes that the image in that case should be covered with demons (Chapter 99, line 10).

martial scenes in Nayaka temples of Karnataka and by hero stones in memory of those who died while fighting or hunting a wild boar. Pigs and boars play further hardly any role in narrative friezes. It seems that their role is limited to indicators of the setting, such as a forest or a hunting scene.

The majority of the boar sculptures seems to have been modelled upon domestic swine. In rare cases, swine carvings are realistic portraits of wild boars, recognized by their evident manes, bristles, and large protruding tusks. The tusks, such a prominent feature of a boar, are, however, hardly ever reproduced correctly. They are positioned either too much in front or too close towards the corner of the mouth. In extremely rare cases both lower and upper tusks are represented.

CHAPTER FORTY

TAPIRUS INDICUS, THE ASIAN TAPIR

40.1 The Living Animal

40.1.1 *Zoology*

The Asian or saddle-backed (fig. 510) is a short-legged, massive, medium-sized animal with a shoulder height of about 75–120 cm.[1] It is easily recognized by its short trunk or proboscis, black short-haired coat with white saddle, and distinct hooves. Its streamlined body is round in the back, tapers in the front and ends in a massive and strong neck without manes. The tail is short and thick. The trunk is formed by its nose and upper lip together as in elephants but to a much lesser extent (fig. 511). Tapirs are not related to elephants; they are odd-toed ungulates, closer related to rhinoceroses than to horses, with four toes on their forefeet and three on the hind feet, all bearing small hooves.[2] In both fore- and hind feet, the third or middle toe is the largest. The ears are oval-shaped and erect.

Tapirs are solitary forest dwellers, most active at night; therefore they are hardly ever seen. They are excellent swimmers and can walk along river bottoms much like a hippopotamus with only part of their head emerged, holding their prominent trunk well above the water to serve as a snorkel.[3] Disturbed tapirs grunt like pigs and bite nastily to defend themselves; both characteristics, added to their seemingly angry look and the deep black colour, may be mistaken for aggressiveness. In reality, however, they are shy creatures, which are easily tamed.

Originally, the Asian tapir lived in the humid tropical forests and forest swamps of the lower elevations of northern India, but at present

[1] Alternative common names are the Malayan and banded tapir.

[2] The fourth toe of the front feet is much smaller than the others and touches the ground only on soft substrates.

[3] Prothero and Schoch, op. cit. (2002).

it has disappeared from here entirely. Its last occurrence in India seems to have been in historical times;[4] in Southeast Asia it still lives.

40.1.2 *Role of Tapirs in Society*

Tapirs may have been hunted for their meat in prehistoric times, though there is no evidence for this. They play no role in religion or folklore. It might, however, be that the sighting of a swimming tapir, completely submerged except for the trunk and part of its head, may have contributed to the origin of the variety of mythical water monster (*makara*) with a trunk, although swimming elephants may have given rise to these trunked *makaras* as well.

40.2 Tapirs in Stone

A coping stone from Bharhut, Madhya Pradesh (c. 100 B.C.E.; figs. 512 and 513) figures an angry, attacking sturdy animal with short limbs with clear hooves, two in the front feet and three in the hind feet, a small trunk, oval-shaped and erect ears, and a smooth tail ending in a whisk. The most closest in appearance is the tapir. Seen alive and hidden in the jungle, the number of toes cannot be easily estimated, which could explain the lack of a third large toe in the front feet. An obvious mistake is the presence of long-haired manes as in the horse. It is not likely that the sculptor knew about the tapir's remote relation to the horse, but just invented the manes. The large ears and the bent trunk are very accurate, though the posture of the body is reminiscent of that seen in decorative bands with running lions at Amaravati and Nagarjunakonda, Andhra Pradesh.[5] It seems that this is the only sculptural representation of this rare animal.

40.3 Concluding Remarks

Tapir sculptures seem not to exist on the subcontinent, except possibly for an early Buddhist frieze from Bharhut, Madhya Pradesh of the last

[4] Grubb, op. cit. (1993), 369–372.
[5] For decorative bands with running lions, see section 33.2.2.2.

century before the Common Era. The tapir may thus still have roamed the dense jungles of northern and central India by that time. A tapir is recognized in sculpture by a short trunk and distinct hooves. It may be that some *makara* reliefs in fact are based on swimming tapirs; their disappearance from India already in the early historical period certainly added to their mythical status.

CHAPTER FORTY-ONE

TETRACERUS QUADRICORNIS, THE CHOUSINGHA

41.1 The Living Animal

41.1.1 *Zoology*

The chousingha or four-horned antelope is a small antelope with a shoulder height of only c. 0.65 m. The male bears short horns, up to four in total (fig. 514), hence its Greek (*tetra-cerus*) and Latin (*quadri-cornis*) name, though the front pair is often missing. These horns are keeled and smooth, unlike the grooved horns of the true antelopes (Antilopini), spiky and short, with a length of 8 to 10 cm for the posterior pair and only 1 to 2,5 cm for the anterior pair.[1] In the living animal, even less of the horns is seen, the lower part being covered by the coat. Females are hornless. They are solitary animals, which live at most in pairs. Chousinghas flee in the way of many other antelopes by bouncing off in a series of quick, high jumps.

The chousingha has a wide distribution and is found in the undulating or hilly grasslands, open jungles and forested hills of the entire subcontinent, except for the northeast and the Malabar coast. They avoid too densely forests. A favourite shelter is the edge of the jungle around a village tank. Due to the steady deforestation of India, their numbers decrease alarmingly and at present the species is listed as vulnerable with only few thousand individuals left in the wild, distributed in scattered populations over most of India.[2]

[1] The chousingha is closely related to the much larger nilgai, partly based upon similarities in features of the horns.

[2] D. Mallon, "*Tetracerus quadricornis*," in *2007 IUCN Red List of Threatened Species*, op. cit.

41.1.2 *Role of Chousinghas in Society*

In the past, the chousingha was a much hunted and favourite game animal, because its flesh is considered delicious, and superior to that of any other ruminant. At present, the species is totally protected by law, though illegal pouching still occurs. The chousingha plays no role in religion or folklore, except maybe as part of the broad class of *mriga* (game).[3]

41.2 Chousinghas in Stone

A frieze illustrating a further undetermined hunting scene from Greater Gandhara, Pakistan (first to fourth century; fig. 515) figures a chousingha. A small horned antelope bounds off in a high jump, while the hunter aims an arrow at it. The body size and the large ears of the antelope favours the chousingha. The rock and the trees indicate a forested mountain. Hidden in a cave below the rock a bear sleeps, typical of the Himalayas and its foothills.

Another carving of a chousingha might be present on a panel narrating the Indrashailaguha Visit episode of the Buddha legend from Loriyan Tangai in Greater Gandhara, Pakistan (c. 50–250; fig. 516). The animal to the right of the meditating monkey has the size and overall appearance of a chowsingha, but lacks the horns. This is, however, not conclusive, considering the small size of the horns in the living animal and the fact that horns are entirely missing in the females. The only other small and elegant ruminants are Indian spotted mouse deer and musk deer.[4] The first can be excluded as it is restricted to South India and Sri Lanka; the second is excluded on the ground of its huge, elongated ears, resembling those of a hare. It further lives in the high altitudes of the Himalayas.

[3] For *mriga* (game) in Indian religion, see sections 1.1.3 (antelope), 2.1.3 (spotted deer), 7.1.2. (nilgai) and 22.1.3 (gazelle).

[4] Respectively *Moschiola memminna* (see section 2.1.2) and *Moschus moschatus* (see section 43.2.2).

41.3 Concluding Remarks

The only stone sculptures of the chowsingha appear to be part of narrative friezes from Greater Gandhara, Pakistan (first to fourth century). It might be, however, that some of the small undetermined animals depicted in a forest setting in actual fact represent chowsinghas. Apart from their four tiny horns in the males, chowsinghas are of a small size, and have a roundish body and rather large ears, though not as large as in the musk deer. In sculpture, horns may or may not be present.

CHAPTER FORTY-TWO

VULPES BENGALENSIS, THE INDIAN FOX

42.1 The Living Animal

42.1.1 *Zoology*

Foxes are the smallest members of the dog family with a body length of about half a metre.[1] They have a well-shaped head with a long, pointed muzzle and large erect ears, which are sharply pointed. They further have a deep-chested muscular body, a long and very bushy tail, and slender, sinewy limbs, which are relatively shorter than in the other canids. Foxes walk on their toes—digitigrade—, which bear short and blunt claws. Their soft-padded feet are small and compact.

Foxes grasp their victim at the throat and let it bleed to death. They do not hunt in packs, and can thus kill only small animals, such as rodents, birds, reptiles and insects. Indian foxes are attracted by flights of termites or white ants before the onset of the rains. Apart from meat, foxes eat also fruits, nuts, and even the combs and honey of wild bees. Foxes hide and sleep in burrows, or under or among rocks.

The Indian or Bengal fox is the common fox of the open country, plains, and the waste and scrub zones of the deserts throughout India from the foothills of the Himalayas to Cape Comorin. The Indian fox rarely enters forest and true desert. Foxes are culture followers: they venture into cultivated lands, especially along irrigation channels where there are small animals to eat.[2] Currently, the Indian fox population is on the decline due to habitat destruction and occurs in low densities throughout its range.[3]

[1] Canidae: wolves, jackals, dogs, foxes. See also Chapters 11 (jackals and wolves), 12 (domestic dogs) and 16 (red dogs).

[2] Clason, op. cit. (1979).

[3] A. Johnsingh and Y. Jhala 2004, "Indian fox *Vulpes bengalensis* (Shaw, 1800)," in *Canids: Foxes, Wolves, Jackals and Dogs—2004 Status Survey and Conservation Action Plan*, ed. C. Sillero-Zubiri, M. Hoffmann and D. Macdonald (Gland, Switzerland: IUCN, 2004), 219–222.

42.1.2 *Related Species*

There are four more fox species on the Indian subcontinent: the red fox (*Vulpes vulpes*, fig. 517),[4] the corsac fox (*V. corsac*), the Tibetan sandfox (*V. ferrilata*), and Blanford's fox (*V. cana*). Only the red fox is rather common, whereas the other three fox species are more restricted in distribution. The red fox is larger than the Indian fox, and has a remarkably bushy tail, compared to the Indian fox. Red foxes occasionally raid poultry yards, something the Indian fox rarely does. The red fox is found in the arid zones of Ladakh, Kashmir and the Himalayas as far east as Sikkim, extending its range into the desert zone of northwestern India. It is found along streams, in brushwood and cultivated lands, sand dunes, dry rivers, and scrub zones.

42.1.3 *Role of Foxes in Society*

Foxes play no role in South Asian culture and religion. In the Himalayan foothills, they are hunted for their pelts, but whether they are hunted for their meat as well is not known to me. Foxes may raid poultry yards, especially the red fox.

42.2 Indian Foxes in Stone

A fox plays a role in the Story of the Hare on the Moon[5] as illustrated on a panel at Nagarjunakonda, Andhra Pradesh (third to fourth century; fig. 366). The story tells about three animals which want to honour a guest. Each animal is depicted twice: to the right they are discussing what to bring as food for the guest and to the left they are actually bringing the promised food item. The canid-like animal resembles a fox most with its small size, compared to that of the otter and the hare. The differences between the individual canid species are, however, minimal. The relatively short limbs are further suggestive of a fox, and the type of gift, a lizard, befits the Indian fox. The place of origin favours the Indian fox as well.

[4] The red fox is the common fox of Eurasia.
[5] *Shasha Jataka, Shashapandita Jataka*, Pali *Jataka* 87; for the story, see section 26.2.

42.3 Concluding Remarks

Despite the common occurrence of the red fox in the Himalayan region and the Indian fox in the rest of the subcontinent, depictions in stone of foxes are extremely rare, and apparently limited to narrative reliefs, for example a panel from Nagarjunakonda, Andhra Pradesh. The absence of the fox in religion and folklore likely underlies the reason for its almost total absence in sculptures.

CHAPTER FORTY-THREE

WHO ARE MISSING?

43.1 Introduction

Some forty-five mammal species can be distinguished in South Asian rock and stone sculptures in a period of time spanning roughly the last four and a half thousand years. Bringing to mind the almost 365 mammal species living today in South Asia, this implies that the vast majority of Indian mammals is not depicted in stone. However, this is hardly surprising, since the majority of these missing mammals is rarely seen or recognized, living deep in the jungle, high in the mountains or in otherwise restricted and isolated areas, such as most monkeys. Furthermore, most of them are very small in size, such as weasels and civets. Only a few species that are sufficiently known to Indian peoples but about which Indian stone art is silent remain unexplained. I describe these well-known animals and their role in society below, making an attempt to explain why these animals are missing in South Asian lithic art.

43.2 Missing Wild Animals

43.2.1 *Bats*

Most bat species are small to very small, and cannot be expected in sculptures. However, some bats are definitely large enough, for example the Indian flying fox with a wing span of 1.2–1.5 metres.[1] It lives in tropical and subtropical forests and swamps on the entire subcontinent,

[1] The Indian flying foxes (*Pteropus giganteus*) are considered sacred near Madurai, Tamil Nadu. They are believed to get protection from the deities associated with the roosting sites and are therefore not hunted by the local people out of fear of these deities (G. Marimuthu, "The Sacred Flying Fox of India—a few privileged colonies of flying foxes are protected by time-honoured tradition," *Bat Conservation International* 6, 2 (1988), 10–11.

including Sri Lanka. They roost in large numbers, up to a thousand individuals, in huge trees, such as banyans (fig. 518). Bats are so characteristic that they cannot be missed in sculpture, yet I could not find a single example. It may be that they have a bad connotation in India, because fruit bats are habitual raiders of plantations. All Indian bats are either insect-eaters or fruit and nectar eaters, and do therefore not constitute any real danger to humans or their live-stock; true vampire bats do not occur in South Asia. They are even advantageous to some degree: nectar-eating bas fertilize certain flowers, and insect-eating bats are valuable pest-controls. In one recorded case, frugivorous bats had an economic value: in parts of former Bengal, the ground below roosts of flying foxes was so thickly covered with seeds from the eaten fruits that it was rented annually for the right of seed collection.[2] Nevertheless, bats and their colonies seem to have escaped depiction in stone.

43.2.2 *Musk Deer*

Other missing wild mammals do play an economical role in society, but are shy, solitary animals of the deep forests, for example the musk deer. The musk deer is a very small and elegant ruminant, restricted to the high Himalayas. It is easily distinguished by its huge, elongated ears, resembling those of a hare. The musk deer is highly prized for its aromatic secretion which is used for perfumes. For this it is hunted on a large scale, even though this is hampered by its solitary lifestyle, hidden in the undergrowth of the birch forests on the foothills of the Himalayas. Its most remarkable features are its long tusk-like canines and its two well-developed toes on each foot with smaller, but complete petty or side toes. The limbs give thus the impression as if they are split, compared to those of a goat. In my view, the mythical *sharabha* or eight-legged deer, which is said to live in the Himalayas, originally may have been just a musk deer. The fact that the post-sacrificial goat is the *sharabha*[3] makes even more sense when the musk deer's coat is taken into account: the bristly and thick hairs resemble those of a goat. It seems to me that gradually the *sharabha* was moved to the realm of mythology, with the eight legs taken too literally. In medieval and modern paintings, the *sharabha* is often a hybrid creature.

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[2] Prater, op. cit. (1971), 181.
[3] *AitB* 2.18; see also section 13.1.2.

43.2.3 *Sea Cows*

Another example of an economically important animal with a limited distribution is the sea cow. Sea cows are known and caught only in the shallow waters along the coasts. Most typical of a sea cow are its roundish massive head and body, a fluked tail, low herbivorous molars and a trunk-like protruding upper lip (fig. 519). They have hand-like forelimbs that are comparable to our hands, very unlike the fins of fishes; they give the impression of a hand being tightly wrapped in skin. Sea cows are caught in large numbers for their meat, and are thus known to people at the coastal areas. I found only one realistic depiction of a sea cow, made of terra-cotta, from North India, probably region of Mathura (fourth to sixth century).[4] It is supposed to represent a mythical water monster (*makara*) but carries all the characteristics of a sea cow: a small, folded trunk-like upper lip, a very thick tongue, a toothless thick pad in the lower jaw, indistinct, broad and flat molars in the upper jaw, and clumsy plump front limbs with thick fingers reduced to a kind of fin. Its hind part dissolves into a kind of curly water wave. The short trunk-like upper lip of this type of *makara* may gradually have transformed into a longer structure, eventually reaching the length and shape of an elephant trunk. Such *makaras* with elephant trunks are seen everywhere, e.g. on a Varuna stele from Karnataka (eighth century; fig. 520) and may originally have been based upon a description of a sea cow.

43.2.4 *Cheetahs and Hyenas*

A few other missed wild animals are both large and remarkable, yet are amazingly enough entirely missing from stone sculpture. These are the cheetah and the striped hyena.

The cheetah is a fabulously fast, elegant and large cat. It is easily distinguished from the other large cats by its compact rounded face, long tail, long limbs and its spotted coat (fig. 521) in which the spots are filled and not open (fig. 522) as in the leopard. The cheetah was a popular animal between roughly the twelfth to the early twentieth century, the time of the maharajas, nawabs and Mughals, who kept it in large numbers and trained it for hunting gazelle and blackbuck.

[4] Oxford: Ashmolean Museum; figured in Harle, op. cit. (1974), pl. 148.

The wild cheetah did not frequent human settlements, nor provided a good fur, and this, together with its absence from mythology, might explain its total lack from sculpture. Its representation in the arts of India seems to be limited to Mughal and Rajput court paintings. The original distribution on the Indian subcontinent ranged from the north-western regions deep into peninsular India as far as the Deccan and Mysore. Once numerous, nowadays it has disappeared completely from the subcontinent. The last wild cheetahs, being three males, were shot in 1948 at Korea in the Bastar District, Chhatisgarh.[5] But already by the early 1940's, cheetahs were so rare that they had to be imported from Africa to replenish the princely collections.[6] This import was expensive, and soon the art of cheetah hunt died out completely.

The striped hyena is a well-known scavenger, though it also hunts actively. Hyenas are easily distinguished from jackals and wolves by their rounded and compact heads, striped coat, long hairs on neck and back, and their sloping back (fig. 523). The reason for its total absence from stone sculpture may be found in its much abhorred scavenging behaviour, although such behaviour would befit the personal mount of deities that inhabit the cremation grounds perfectly well, such as Chamunda and Kali. Yet, it apparently did not. Jackals seem to have monopolized this role in sculpture.

43.2.5 *Pangolins*

One of the most fabulous wild animals is without doubt the pangolin, the scaly anteater of India, of which there are two species, the Indian pangolin and the smaller Chinese pangolin (fig. 524). They live on the plains and low hills throughout the subcontinent including Sri Lanka, and do not avoid humans. They even make nice pets. In most villages, pangolins are common visitors. Their diet consists exclusively of ants and termites, and they thus do not interfere in any way with humans or their cattle. Furthermore, various beliefs and legends surround the scaly anteaters; its scales are said to work as charms against rheumatic diseases.[7] Yet, the pangolin seems to be entirely lacking in stone sculpture. This is the more amazing taking its extremely innocent character

[5] Prater, op. cit. (1971), 81.
[6] S. Cutting, *The Fire Ox and Other Years* (London: Collins, 1947).
[7] Prater, op. cit. (1971), 303.

and striking appearance into account. The pangolin's body is entirely covered with large, overlapping scales, and when in danger, it curls itself into a protective ball much like the armadillo does. Possibly their nocturnal behaviour explains its notorious absence from Indian arts.

43.3 Missing Domestic Animals

One very obvious domestic mammal cannot be traced back to stone sculpture: the so intensively used donkey. The donkey is distinguished from the horse mainly by its large ears and more massive head; it further has a smaller size, short erect manes and a tail that ends in a bushy tip. The absence of donkeys from stone sculpture may be explained by the fact that they typically belong to the poorer households (fig. 525), for example the many clans of wanderers and outcasts found all over India, such as the Doms, Ghassias, Bhujs, and Kooravers, who have no settled habitation, and are seen on the outskirts of most Indian villages with a few donkeys to carry their household pots and other luggage.[8] Donkeys are further used by working classes such as potters and washermen. Also mules, the hybrid offspring of donkeys and horses, seem lacking from stone sculpture, but they, too, belong to poorer households. The mule resembles a horse, but has larger ears and a more massive head, in between that of a horse and a donkey. The horses that are depicted in stone invariably have smaller ears than both donkeys and mules have. Small horses with a relatively large head are regularly depicted, but these are local breeds, closer in morphology, and possibly in quality and endurance as well, to the indigenous wild khur of the arid zones, and to the hardy Mongolian ponies of the Himalayas. They certainly are neither mules nor donkeys.

43.4 Concluding Remarks

Many mammal species have been portrayed in Indian stones and rocks, but not all. This is not surprising on itself, considering the immense

[8] A similar explanation holds for African Art, see Blench, "The history and spread of donkeys in Africa," in *Donkeys, people and development*, ed. Fielding and Starkey (Wageningen, 2004).

species richness of the subcontinent. The absence of a few of the missing species, however, does surprise us, because these species are common and found everywhere. These are the hyena, the pangolin, the bats, the weasels, the civets and the donkey. Why these mammals were not depicted in stone sculptures, is not clear. Possibly they have a negative connotation; this can be imagined in the case of the hyena and the bats, but for the pangolin this is much less obvious. The donkey belongs to the poorer households and occupations of a low status such as potters and washermen. This may very well explain its absence from stone sculptures, which for the greater part was commissioned by and meant for the upper classes.

Species that could be expected to be missing are the shy and solitary jungle creatures, such as musk deer, which might have been the original *sharabha* before it became a mythical, winged eight-legged deer. Others have a limited distribution, such as the river dolphin and the sea-cow; they may have contributed to the image of the type of water monster (*makara*) with a small trunk. These three species, the musk deer, the river dolphin and the sea cow, are economically important and hunted in great numbers until recently, which explains why they are not entirely missing, but only transformed into mythical beings.

The total absence of the cheetah in stone carving is surprising, considering its important role from roughly the twelfth up to the early twentieth century in princely hunting. This large cat has been painted in innumerable miniature paintings commemorating such hunts (*shikar*). The fact that Islamic stone sculptures of animals are in general extremely rare explains their absence only partly, because also the Hindu royalty kept large herds of captive cheetahs and hunted with them on a large scale.

CHAPTER FORTY-FOUR

CONCLUDING REMARKS

On an impressive rock-cut panel at Mammalapuram in Tamil Nadu an assemblage of animals is advancing towards a cleft in the rock (figs. 527 and 528). The panel is known as Arjuna's Penance, after the popular poem *Kiratarjuniya* by Bharavi, a native poet of nearby Kanchipuram. The sculpted animals include nearly every wild mammal, reptile and bird known to Indian iconography, except for the wild boar as Harle remarked already.[1] These commonly known wild animals turn out to be elephants, lions, deer, bears, monkeys, cats, mice, turtles, lizards, geese, and peacocks.

As becomes clear from this book, this spectrum is indeed common, not only in Tamil Nadu during the reign of the Pallavas, but in the rest of the subcontinent as well. Other wild species do, however, occur in Indian stone sculpture, but to a much lesser extent. Depictions of wild bison, nilgai, ibexes and bezoar goats, antelopes and gazelles, squirrels, jackals, dholes, hares, otters, leopards and snow leopards, tigers, rhinoceroses, and foxes are extremely rare, especially taking the vast amount of sculptural remains into account.

The wild animals that are depicted in Indian stone sculpture are often unrealistic, lacking the characteristic details of the species or showing a mixture of the features of two different species, which makes it difficult to identify them properly. For example, the animals that traditionally flank the wheel (*dharmachakra*) in front of the Buddha in illustrations of the life episode in which he teaches for the first time, also known as the First Sermon, are either explained as gazelles, antelopes or deer, and in analogy the park in which the scene takes place is called such. The Sanskrit and Pali texts are not very helpful in distinguishing these animals, since they are simply referred to as respectively *mriga* or *miga*, meaning nothing more than game, an animal that can be hunted. Looking at the available depictions of this episode we see that in most

[1] Harle, op. cit. (1987), 282.

cases a medium-sized even-toed animal is shown with horns of varying length and morphology, typical of bovids. The horns always sweep backwards, and are either short, slightly curved, smooth or ringed or longer and wavy. The first group can best be explained as gazelle or nilgai, the second group as blackbuck. In a very few cases, these horns are branched, which is found only in deer. A seal from Mohenjo-daro in the Indus Valley (2,300–1,750 B.C.E.), known as the Pashupati seal, shows a similar scene, with a seemingly meditating or ascetic figure sitting in a yogic posture on a throne in front of which a pair of ibexes stand. A direct link between the two scenes cannot be made as long as the Indus script remains undeciphered, but cannot be discarded either. It might theoretically be that a long-term tradition of associating a pair of even-toed wild animals with a spiritual figure survived well into the first centuries.

Another interesting depiction of a wild animal is the one which accompanies Shiva in some of his manifestations from South India, generally translated as an antelope. The animal, again simply a *mriga*, is extremely small in depictions, and can be explained as a young chital before the development of its first antler, or as the Indian spotted mouse deer of South India and Sri Lanka. The spotted mouse deer looks like a miniature spotted deer, but without antlers and with long limbs, thin as a pencil. It may be that Shiva's 'antelope', which jumps to or on his hand in some of his manifestations, is such a spotted mouse deer, instead of a tiny antelope or true deer. On a modern wooden panel from South India, however, it is an adult spotted deer which figures as Shiva's *mriga*: the animal does not only bear many round spots all over its body, but carries an antler as well. This seems to indicate that the stone carvings depict a spotted deer as well, but this is not proven. The hypothesis cannot be dismissed that the shy mouse deer stood model for Shiva's *mriga* in the earlier periods and that it got confused much later with the spotted deer, based on the spots.

The most unrealistic mammal sculptures can be found among the many lion sculptures. A good number of these sculptures is realistic, mainly those from northern India and Pakistan and the east and west coasts of peninsular India and in Sri Lanka. The more fantastic lions can be found in several varieties. A roaring variety with bulgy eyes, rounded muzzle with hardly any manes and often a raised front leg as is typical of stalking lionesses, is met with in the east. Another roaring variety with bulgy eyes has cascading manes, often ending in fashioned

curls; this type was popular in north-western and central India. The most fabulous lions come from the south; they are characterized by very bulgy eyes, horns, and broad brushy paws with large nails.

However, the majority of depicted animals is domestic or tamed. Among these, the animals with a high status, either in society—the elephant and the horse—or in religion—the zebu—, constitute the majority of animal sculptures. The numerous instances of the water buffalo are only thanks to the many reliefs illustrating its role as a demon, which is killed by the goddess Durga. The smaller and lower ranked domestic animals such as dogs, cats, goats, sheep, mongooses, and pigs hardly occur in stone sculpture, and if so, preferably in association with a deity, for example the dog with Shiva, the cat with Sasthi, the goat with Naigamesha, the ram with Agni, the mongoose with Kubera, and the pig with Marichi; dogs and cats also figure in stories. In the early Buddhist reliefs, goats and sheep still figure regularly as riding or as draught animal. After that, sheep continued to be depicted in narrative reliefs, sometimes with an erotic touch, whereas goats disappeared almost completely, despite their wide-spread use in daily life and in sacrifice. Pigs only occur in larger numbers in the form of Vishnu's boar-headed manifestation Varaha.

The sculpted large domestic animals are practically always decorated, garlanded, saddled and so on. Representations of horses without any type of harness or tacks are hard to find; rare examples are abacus of the lion-capital from Sarnath, Uttar Pradesh (third century B.C.E.) and a panel with the fowl Kanthaka and its mother from Greater Gandhara (first to fourth century). This is also valid for zebu bulls, camels and elephants, the majority of which are depicted with some kind of harness, cord, clothing, rugs, garlands and bells. It applies to one small animal as well: Ganesha's rat is more often than not adorned with at least a bell around its neck.

The horse sculptures reveal the presence of a small, pony-sized horse in the last centuries before the Common Era, which gradually got replaced, as far as stone sculpture is concerned, by a somewhat larger horse. A large part of horse sculptures from northern and eastern India show a small horse with a relatively large head with rounded muzzle and often completely shaved manes. A truly large, modern-sized horse appears in carvings from the sixteenth century onwards, but carvings of small horses continued to be made nonetheless. These small horses should not be underestimated; in fact, the local Marwari breed of Rajasthan and Kathiawari of Gujarat are much more hardy and have

greater stamina than most large breeds. They are perfectly adapted to their local environment, in which another member of the *Equus* family still thrives in the wild: the khur or onager.

The elephant always played an important role in Indian society, as can be concluded from the multitude of elephant sculptures ranging from the Harappa period (2,300–1,750 B.C.E.) to the twentieth century. The elephant is the most often depicted animal in stone. They are the symbols of worldly royal pomp and power, of the Buddha's last birth, and of rain; in connection with the bull, horse and lion they are either simply auspicious or symbol of part of the eternal cycle of rebirths (*samsara*). They carry the rain god and his wife and support the eight cardinal directions. They are used in war and battle and as guardians at entrances and gates. They give showers to Lakshmi, the goddess of fortune and prosperity in early Buddhist as well as in Hindu art. The elephant-headed god Ganesha is the god of wisdom but also of war, and is the remover of obstacles. Ganesha is today one of the most popular Hindu gods. Stone sculptures of this god in several varieties constitute about half of the elephant stone sculptures in total. The elephant plays further a variety of roles in narrative reliefs, ranging from noble and self-sacrificing to evil and mad.

Almost all sculpted cows and bulls are zebus, the humped cattle of the subcontinent. Their basic shape with abundant skin, a prominent dewlap, a distinctive hump and large, drooping ears did not change during the last four millennia, seen their depiction on seals from the Indus Valley dated to the Harappa period. At present, there are several distinct breeds or types, such as the bulging forehead type with short horns from parts of northern India and the elongated head type with long, thin and pointed horns from parts of southern India. A number of these breeds can be traced back in stone sculpture from their respective regions as far back as the first centuries, which implies that these breeds are perfectly adapted to their local environment. About half the zebu sculptures is dedicated to a calf, more precisely to the bull calf Nandi of the Hindu god Shiva. Its rounded head, broad muzzle, small hump and extremely short horns are typical calf-like; only the hump and the large, drooping ears reveal that it is a zebu. The major part of the other half of the zebu sculptures deals with bulls, which makes the total number of cow sculptures in stone very low, despite the fact that cows are supposed to have such a high esteem in Hindu society. Cows are entirely limited to the background of narrative reliefs, in which they never figure alone, but only as part of a herd or nursing

their calf. Bulls, on the contrary, play an active role in a number of narrative reliefs, and apart from that, bulls are depicted on their own since four millennia ago.

In conclusion, what animals are to be found in the menagerie in stone? The overwhelming majority of the sculptured animals appear to belong to domestic or tamed species. These are cattle, elephants, horses, water buffaloes, goats, sheep, and dogs. Extremely rarely depicted, and almost limited to the early historical period, are camels and dromedaries. The section devoted to wild life is much more limited, especially when we exclude the overrepresented lion. The depicted wild animals fall for the greater part into the category of game animals: blackbucks, deer, wild goats, gazelles, tahrs or Nilgiri ibexes, and wild boars. The remaining part of the wild animals is almost entirely covered by lions, and only sparsely by jackals, dholes, khurs, wild cats, gibbons, hares, otters, bears, leopards, tigers, river dolphins, and foxes. The few wild animals that live in and around the villages hardly made it into sculpture. The credit goes first of all to the monkeys, followed by the bandicoot rats, and only distantly followed by the palm squirrels and common house mice. Animals which were sculptured in the remote past, but seemed to have disappeared greatly or even entirely from the sculptured world in stone, are the Indian rhinoceros, the Indian bison, the nilgai or blue bull, the markhor, the tapir, and the tiger, likely directly related to their drastically dwindling numbers in Indian wildlife. Only the nilgai is still a common guest in cultivated terrains, but also this species has decreased significantly in numbers.

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GLOSSARY

Agni	Vedic and Hindu god of fire, and one of the *dikpalas*, protectors of the eight cardinal points.
Aiyanar	Hindu saint of Tamil Nadu.
Arjuna	hero in the great epic *Mahabharata*.
artiodactyl	member of the order of even-toed ungulates, comprising bovids, deer, camels, pigs, hippopotamuses and their extinct relatives.
Aruna	charioteer of Surya.
Ashoka	Mauryan ruler of northern India (reign c. 272–231). Ashoka converted to Buddhism and is responsible for the first Buddhist monumental stone sculpture.
Avalokiteshvara	Bodhisattva of compassion, the most important Bodhisattva in Buddhism, known as Guanyin in China and Kannon in Japan.
avatar	incarnation of Vishnu. Ten *avatars* are known, in this order: fish (Matsya), tortoise (Kurma), boar (Varaha), man-lion (Narasimha), dwarf (Vamana), Parashurama, Rama, Krishna, Buddha, and the apocalyptic horse-rider Kalkin who is yet to come.
Bhairava	fearful manifestation of Shiva.
Bhikshatanamurti	manifestation of Shiva as wandering naked ascetic.
bodhi tree	banyan tree in Bodh Gaya (Bihar) beneath which the Buddha reached enlightenment (*Ficus religiosa*).
bodhisattva	a being who postpones his enlightenment in order to help others to attain enlightenment; the historical Buddha prior to his enlightenment.
Brahma	major Hindu god, representing the creation of the universe.
Brahmin	priest; member of the highest caste.
browser	herbivore mammal which feeds on leaves, twigs and herbs. Browsers are generally inhabitants of forests and jungles.
Buddha	historical founder of Buddhism, c. 6th–5th century B.C.E., born as Siddhartha, prince of the Shakya clan.
Buddhism	Indian religion, propagated by the Buddha and based on ethical living and the middle path.
Chamunda	terrifying form of the female principle (*shakti*) and one of the *yoginis*.
Dakshinamurti	manifestation of Shiva as a teacher of the sacred texts.
dharma	law, order and duty.
dikpalas	guardian deities of the eight cardinal directions.
domestication	the process during which the animal becomes adapted to and even dependent on humans (tame) and in which the breeding of the animal is under control of humans (selective breeding).
Durga	Hindu goddess, the martial form of Shiva's consort.
endangered/critically endangered	the population level below which survival of the species as such is not guaranteed anymore.

gana	kind of benevolent dwarf, generally associated with Shiva.
Ganesha	elephant-headed son of Shiva, and god of beginnings.
grazer	herbivore mammal which feeds on grasses and weeds. Grazers are the typical inhabitants of grasslands.
Hanuman	Hindu monkey god who assisted Rama as told in the epic *Ramayana*.
Hinduism	Indian religion, worshipping the three main gods Brahma, Shiva and Vishnu and a host of minor dieties and semi-gods. Hinduism knows no historical founder, but is based on a body of philosophical and mythological texts, such as the *Puranas*, the *Vedas*, and the *Bhagavadgita*.
Indra	Vedic god of the sky and Hindu god of rain.
Jainism	Indian religion, propogated by Mahavira, and based upon non-injury to living creatures, strict penance and compassionate living.
jataka	story about a former birth of the Buddha, generally written in Prakrit.
Krishna	*avatar* of Vishnu. He is worshipped as Arjuna's charioteer and counsellor in the epic *Mahabharata*, mainly in the book *Bhagavadgita*, as divine lover of Radha and as the child-god who grows up in a rural village.
Lakshmi	goddess of fortune and prosperity and consort of Vishnu.
linga	phallic or aniconic emblem of Shiva.
Mahabharata	the greater epic of India, narrating the dynastic battle between the Pandavas and the Kauravas; includes an abridged version of the *Ramayana*. An important part is formed by the *Bhagavadgita*.
Mahavira	historical founder of Jainism, who lived during the 5th century B.C.E. Also known as the 24th or last of the Jinas.
Maheshvari	buffalo-headed mother goddess.
Mahishasuramardini	epithet of Durga slaying the buffalo demon.
makara	aquatic monster, vehicle of the river goddess Ganga.
Marichi	Buddhist goddess of dawn.
matrika	mother goddess; as described in the Puranas, the seven mother goddesses (*saptamatrikas*) are conceived as blood-thirsty warriors, helping Shiva in his battle against Andhakasura, or for the destruction of the demon Nriita or helping Ambika/Kaushiki in her battle against Raktavija. In iconographic texts and sculptures, however, they are generally depicted in pacific forms which stress their maternal nature. The seven mother goddesses are generally known as Brahmi, Maheshvari, Kaumari, Vaishnavi, Indrani, Varahi and Chamunda.
Mughals	Islamic dynasty of northern India, c. 1526–1858, descendants of the Mongols. They replaced the previous Turkish sultanates (c. 1206–1526).
naga	mythical snake, often multi-headed (female: *nagini*); also just 'cobra'.
Nandi	bull calf mount of Shiva.
Narasimha	man-lion *avatar* of Vishnu.
Narayana	other name of Vishnu.
Pabuji	martial folk god of the pastoral Charans of Rajasthan.
Parvati	Hindu goddess, the peaceful form of Shiva's consort.
Pashupati	epithet meaning "lord of the animals"; applied to Rudra, Shiva and an unidentified Harappan male figure.

perissodactyl — member of the order of odd-toed ungulates, comprising horses, rhinoceroses, tapirs and their extinct relatives.

Puranas — Hindu religious literature compiled during the first millenium.

Rahu — god of the eclipse.

Rajputs — Hindu rulers of northwestern India.

Rama — heroic *avatar* of Vishnu and main hero of the Ramayana.

Ramayana — the lesser epic of India, narrating the story of king Rama; included in abridged form in the *Mahabharata*.

Ravana — king of Lanka, enemy of Rama.

Revanta — Hindu god of hunt and son of Surya.

ruminant — cud-chewing artiodactyl, characterized by a three or four-chambered stomach. The food is gathered fast, hardly chewn. Later, when there is no danger, the food regurgitated and chewn more thoroughly. Ruminants are all artiodactyls except for pigs, peccaries and hippopotamuses.

sagati — living goddess of the Charan tradition; in colonial literature often erroneously translated as "witches". They are commonly thought to be full or part incarnations of the Charani goddess Hinglaj and her classical counterpart, the goddess Hanglaj.

Sanskrit — classic language of India, sister language of Latin and classic Greek, and ancestral language of several modern languages of North India.

saptamatrikas — fixed group of seven mother goddesses; see further *matrika*.

shakti — the female principle of Hindu deities; in tantric spheres *shakti* is the principal cult goddess.

Shiva — major Hindu god, representing the destruction of the universe.

Sita — wife of Rama in the epic *Ramayana*.

stupa — Buddhist hemispherical memorial mound, symbolizing the Buddha, his life and teachings, and often containing relics of the Buddha or a Buddhist teacher.

Surya — Hindu sun god.

Tantras — esoteric texts on the worship of the female principle (*shakti*).

vahana — animal mount of deities.

Varaha — boar *avatar* of Vishnu.

Varahi — boar-headed mother goddess.

Vishnu — major Hindu god, representing the sustainment of the universe.

vyala — fantastic leonine beast (North India).

yaksha — auspicious being, associated with nature and fertility but also with abundance and wealth (female: *yakshi* or *yakshini*).

yali — fantastic leonine beast (South India), often with horns and bulging eyes.

Yama — Hindu and Buddhist god of death.

yogini — manifestation of the female principle (*shakti*) in tantric cults.

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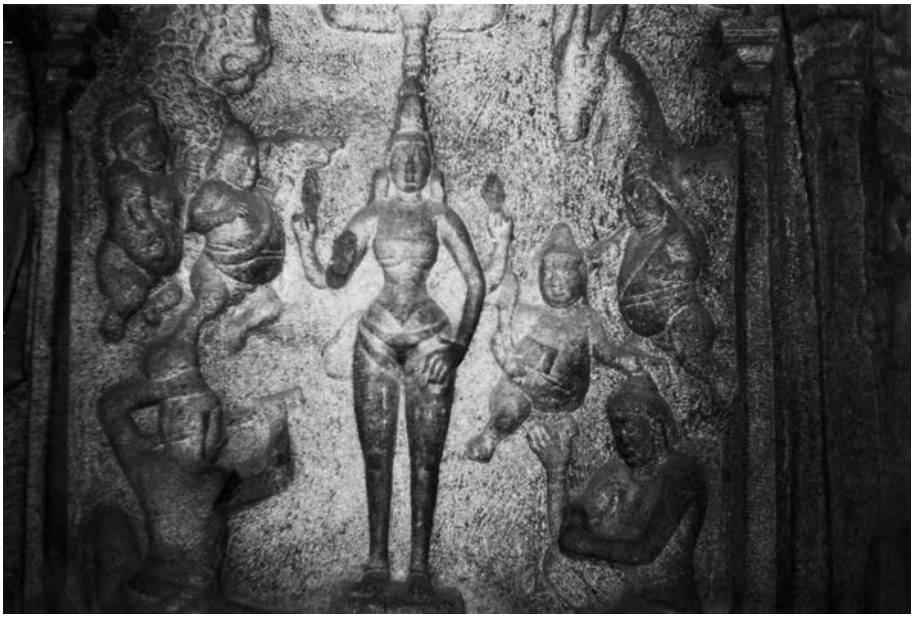

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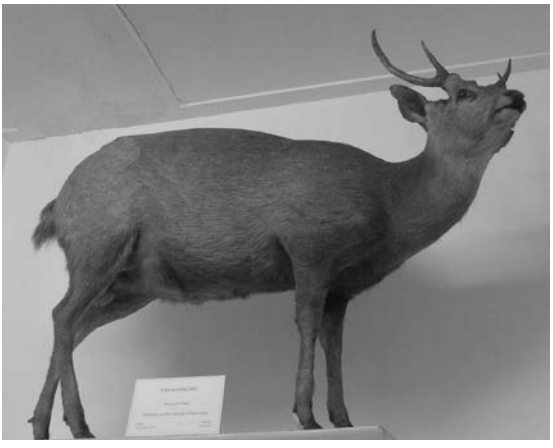

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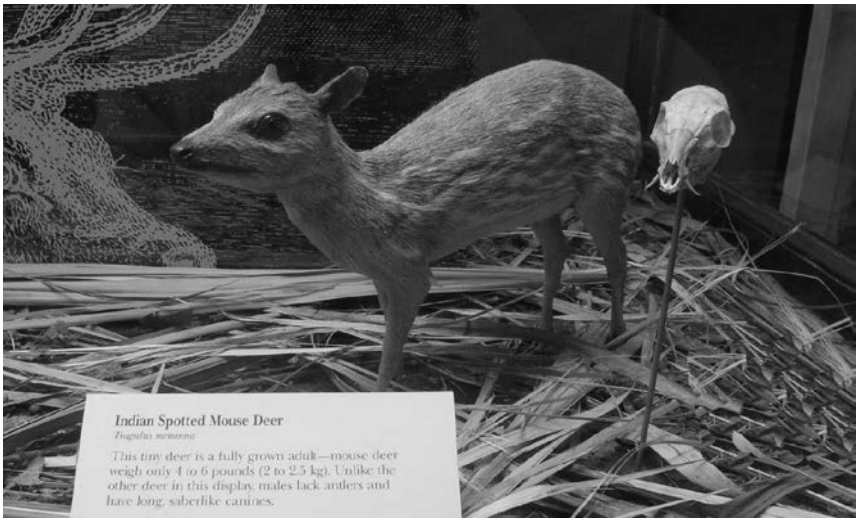

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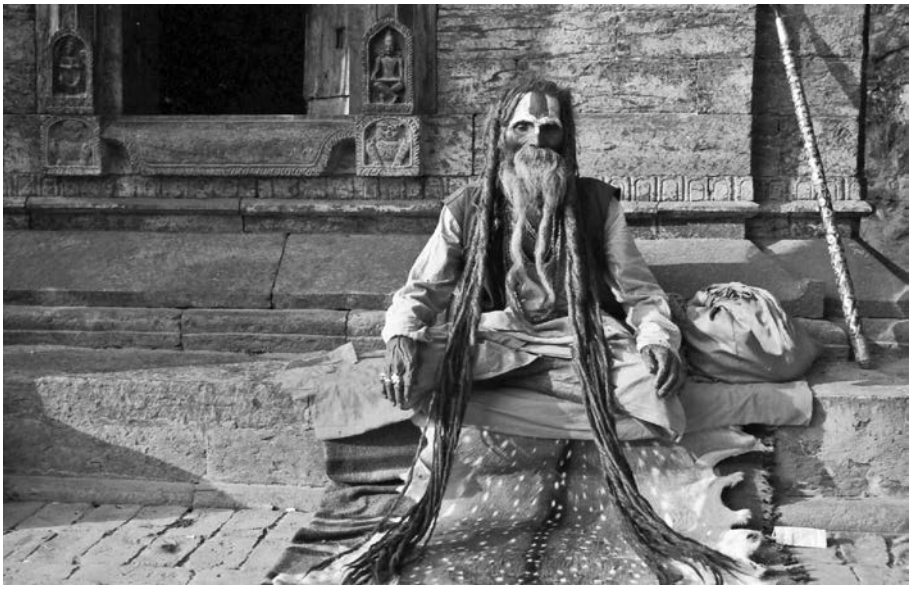

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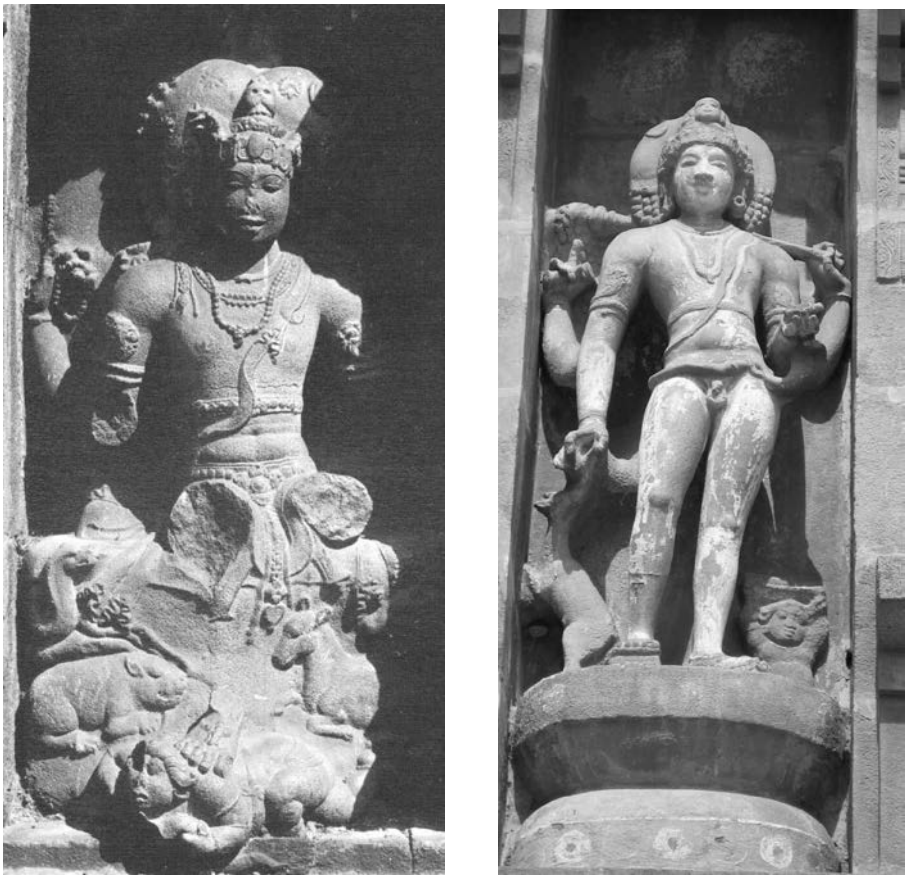

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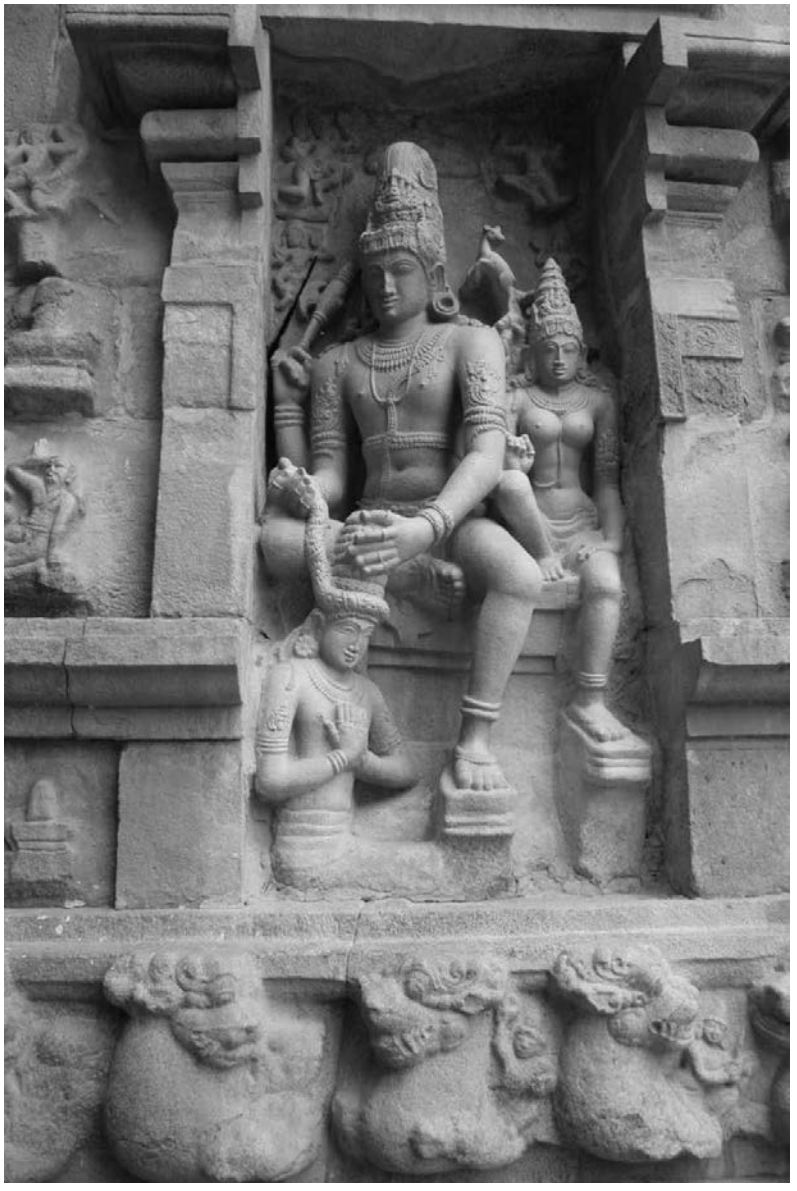

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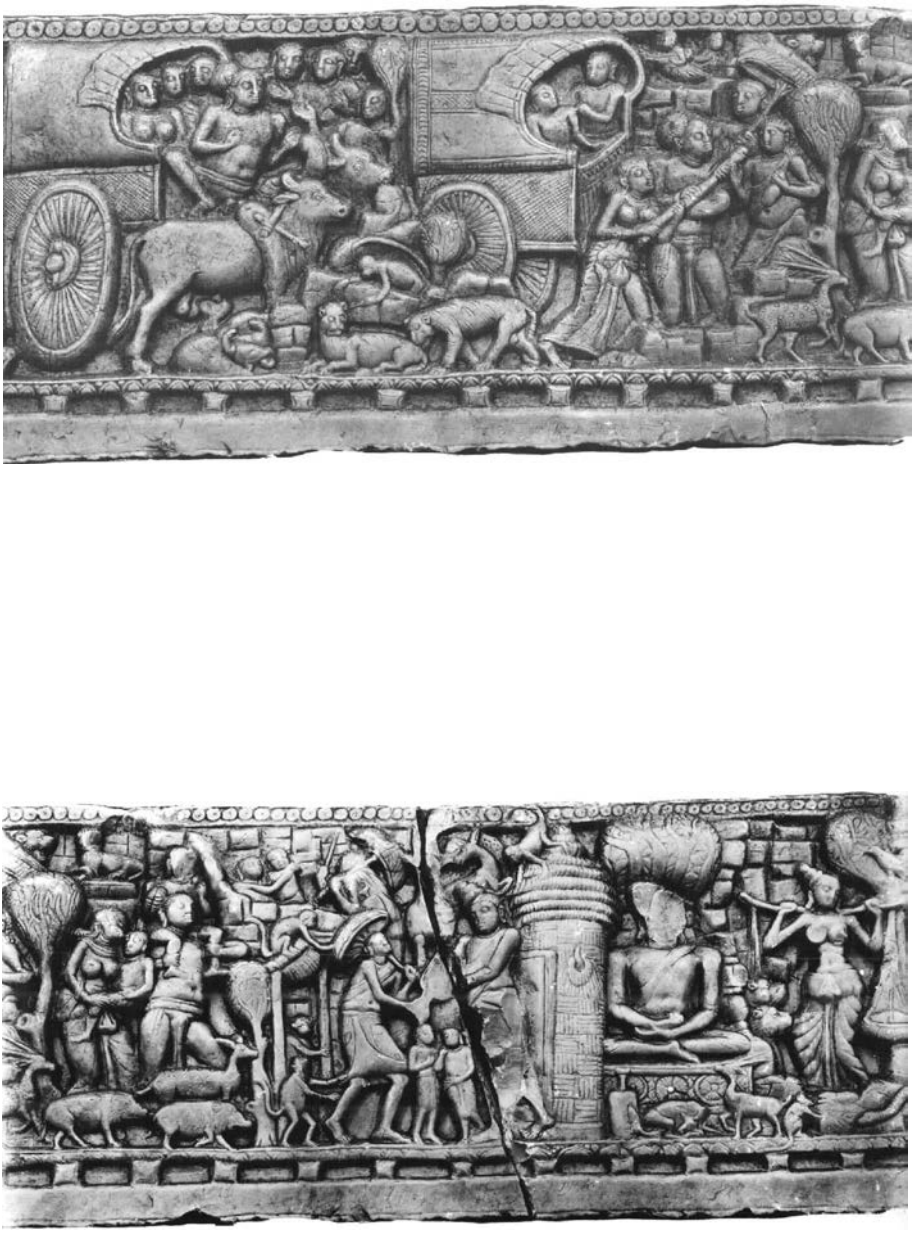

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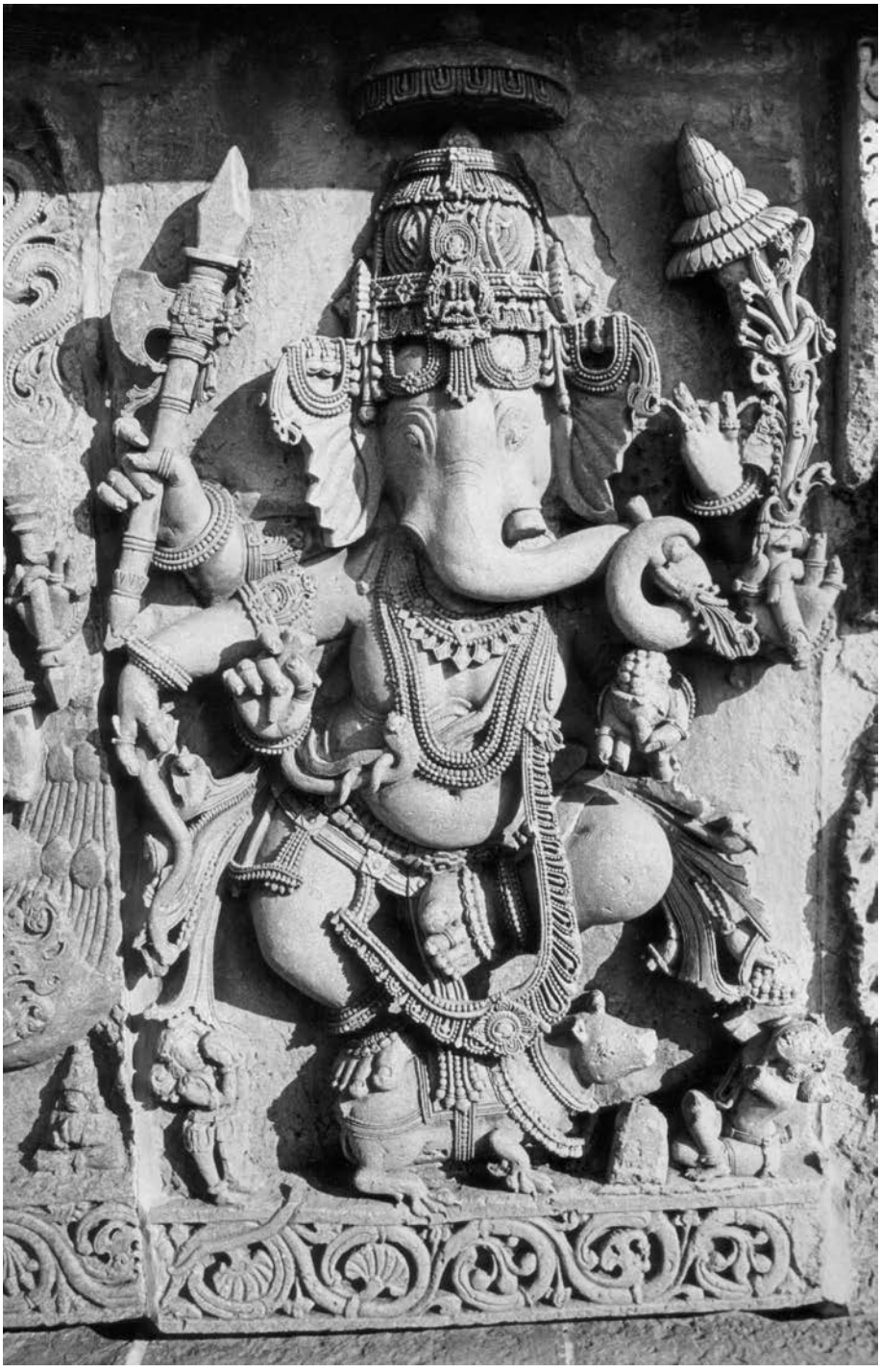

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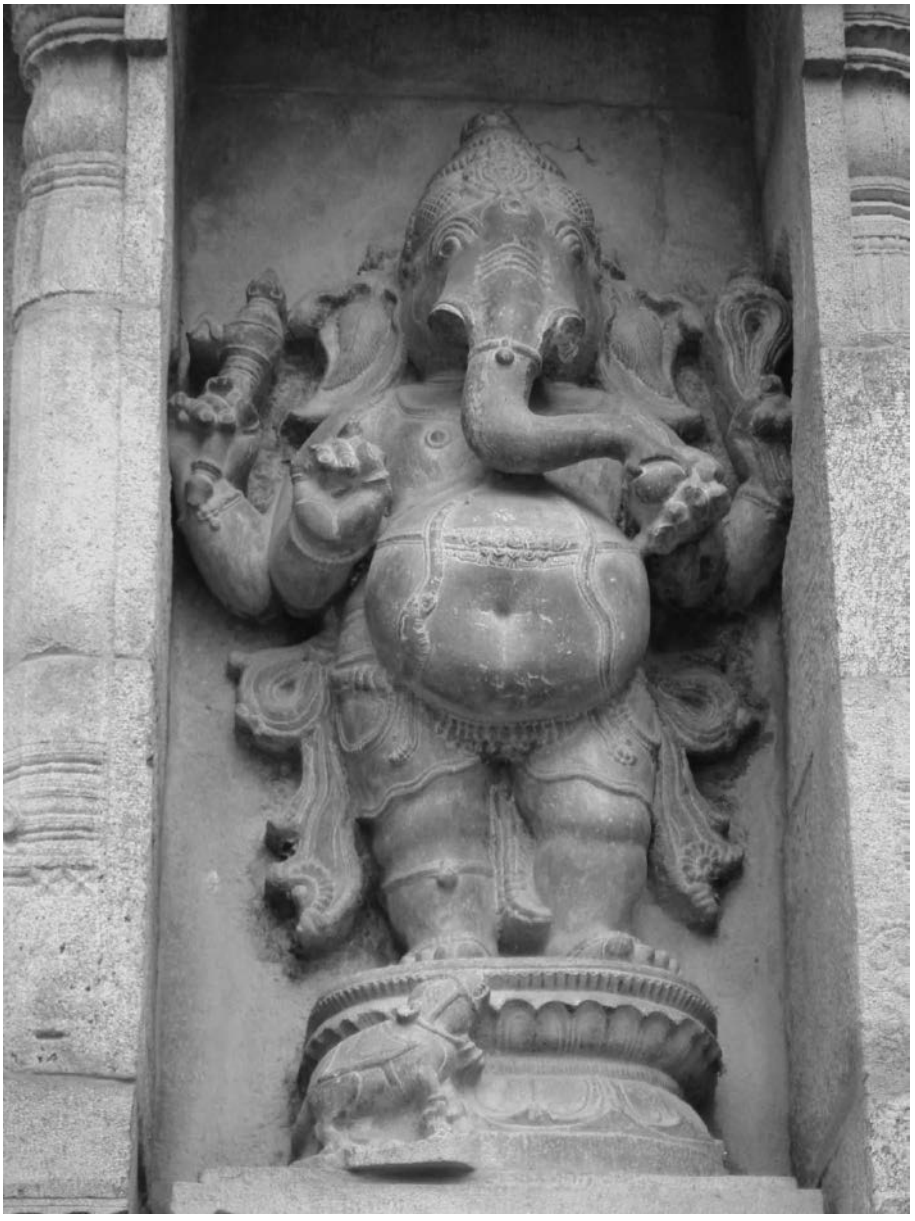

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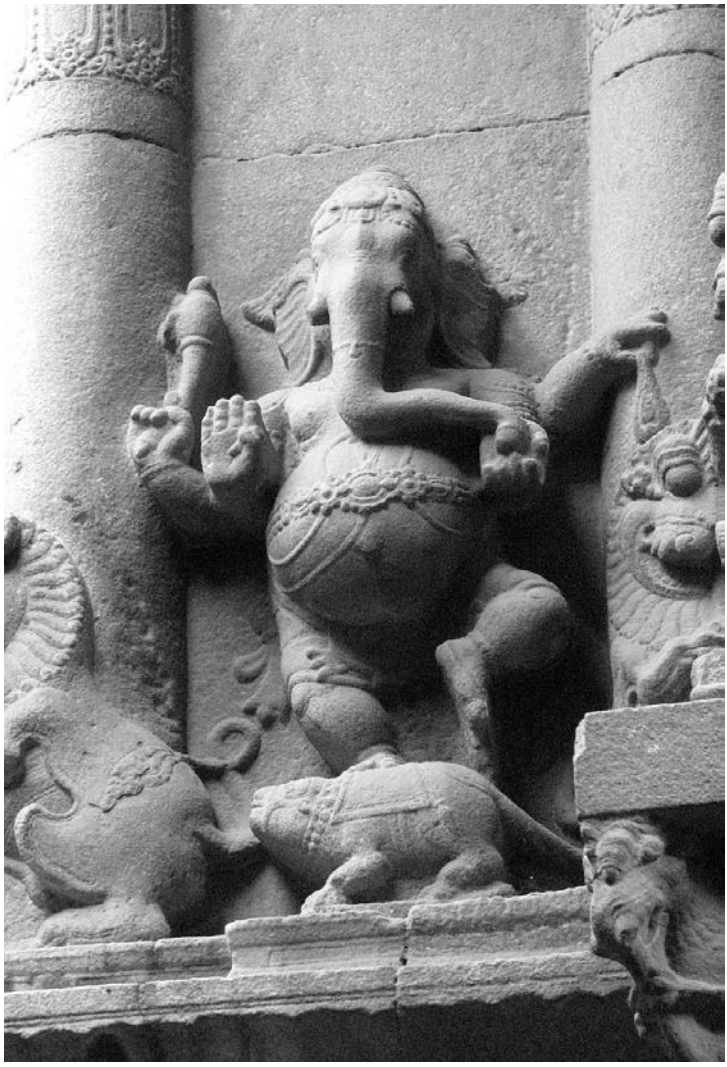

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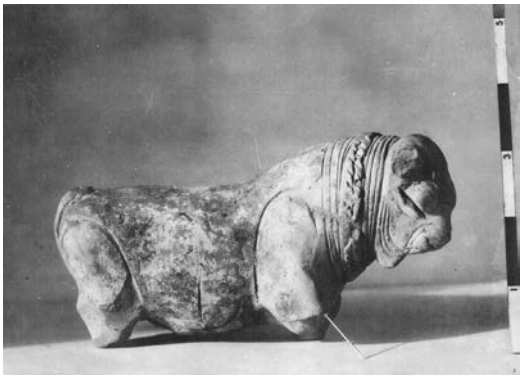

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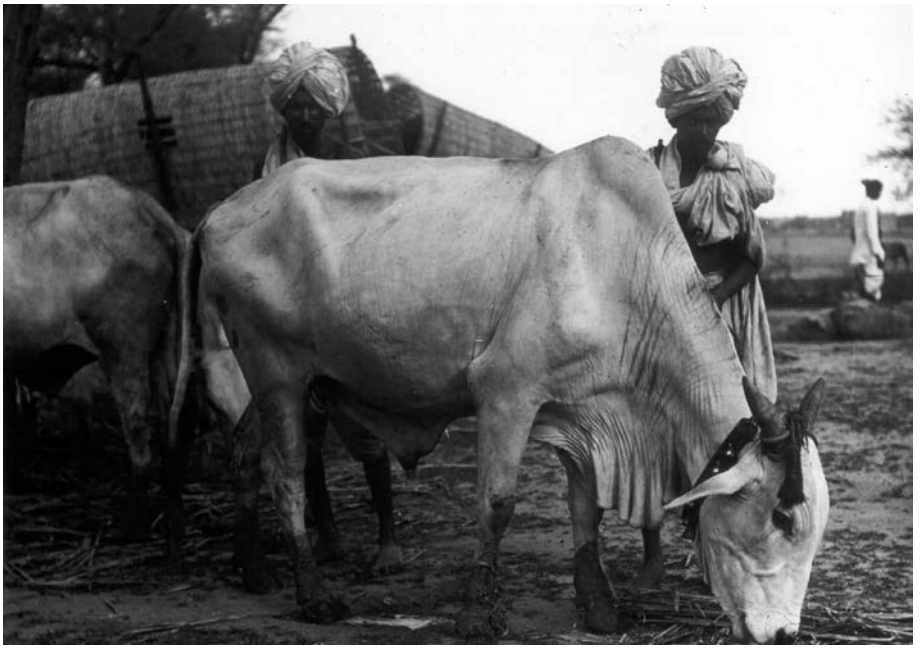

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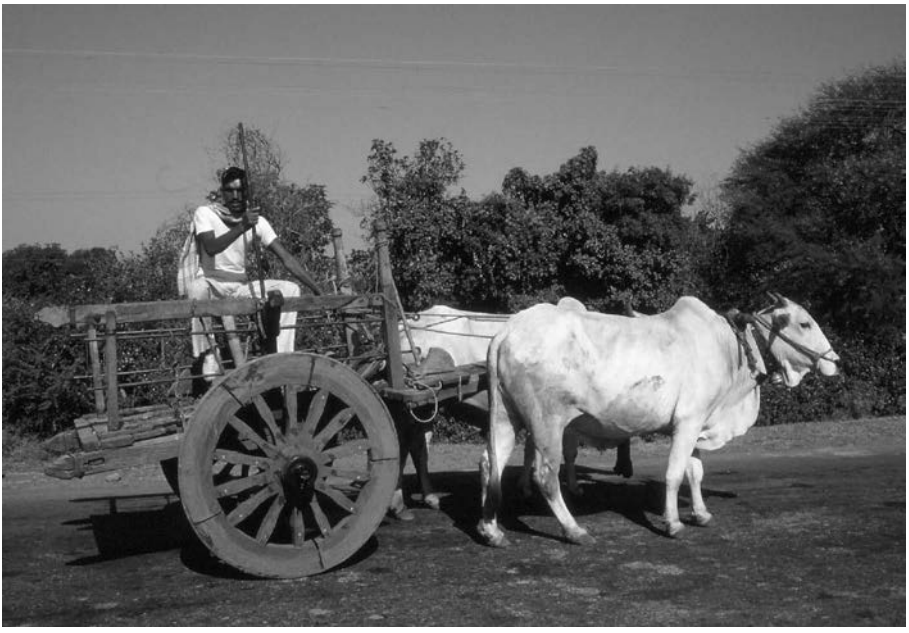

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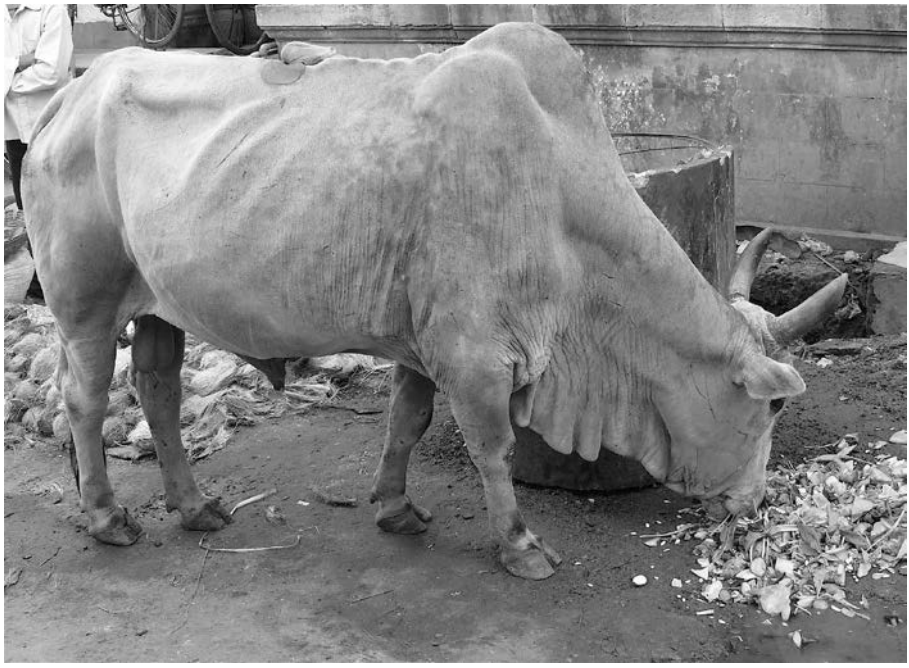

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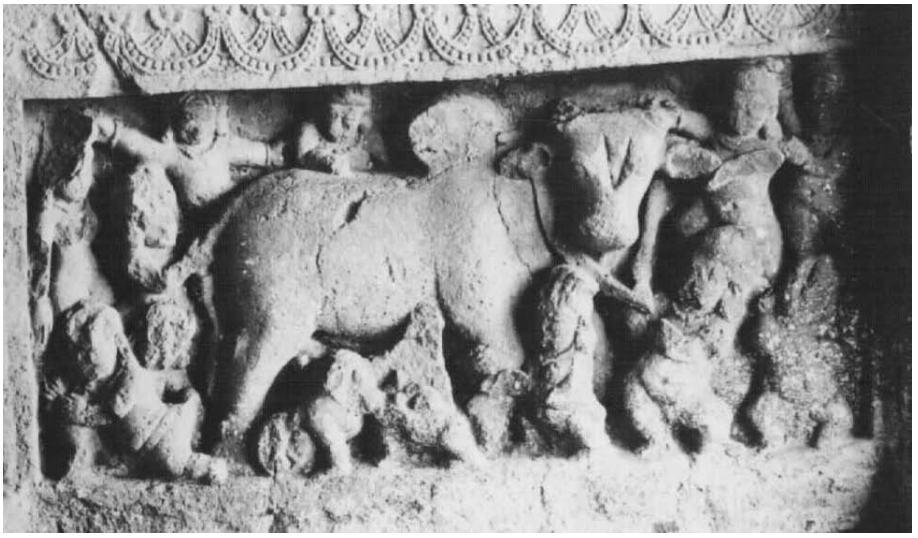

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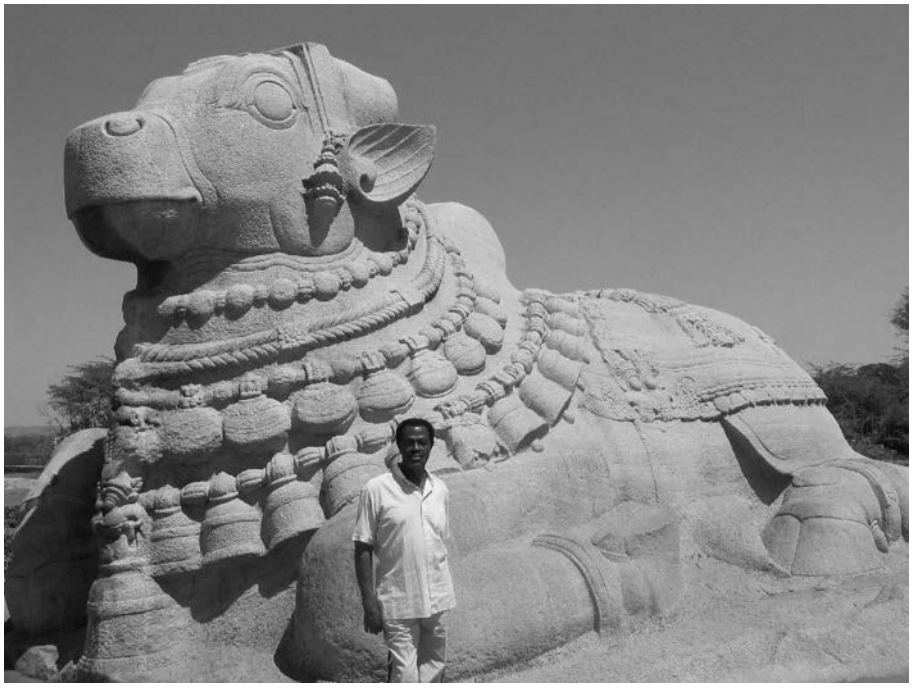

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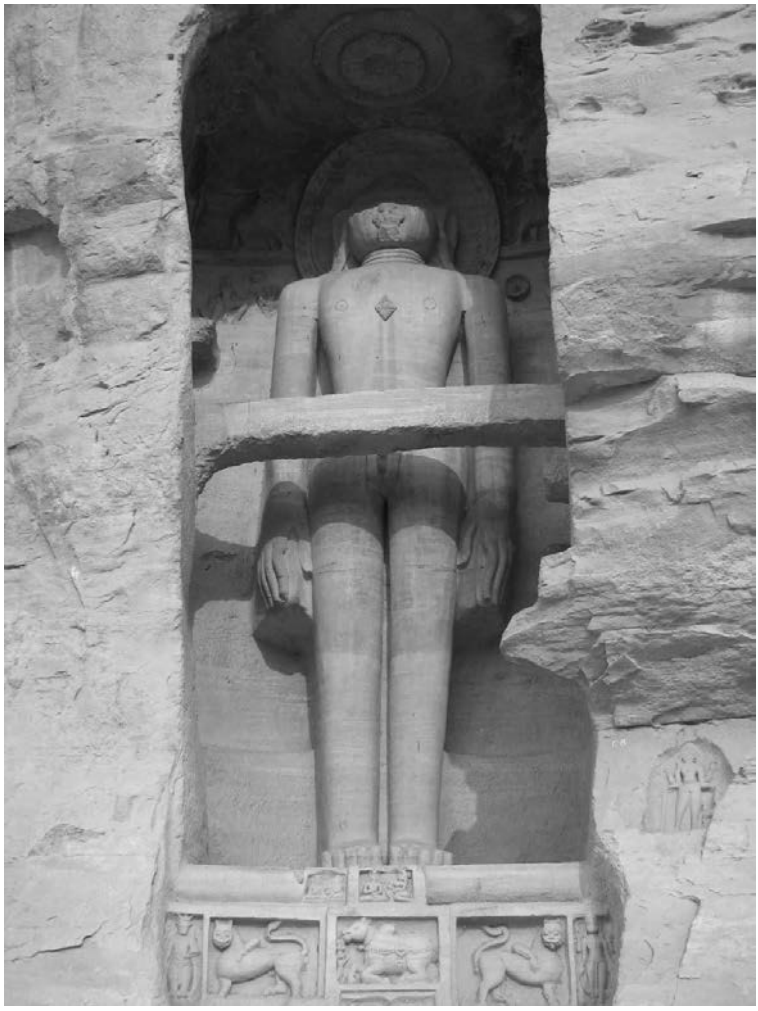

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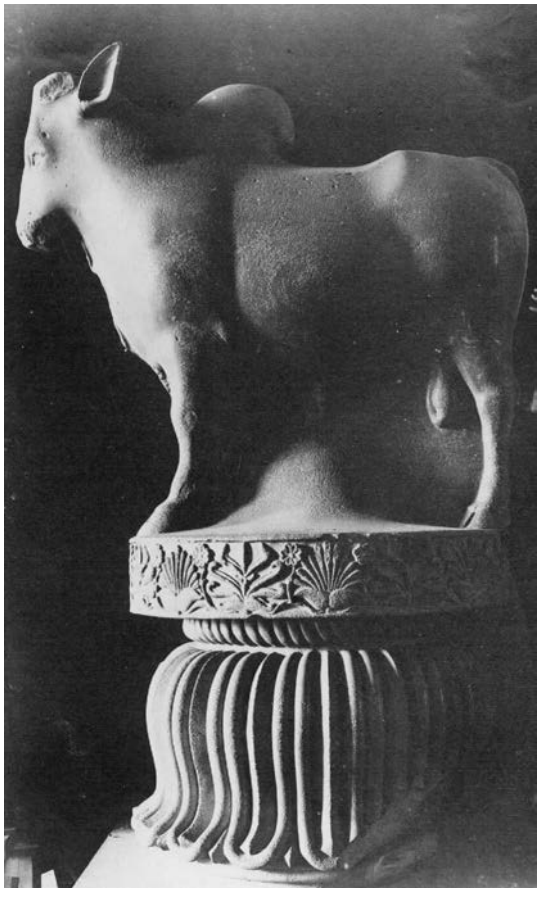

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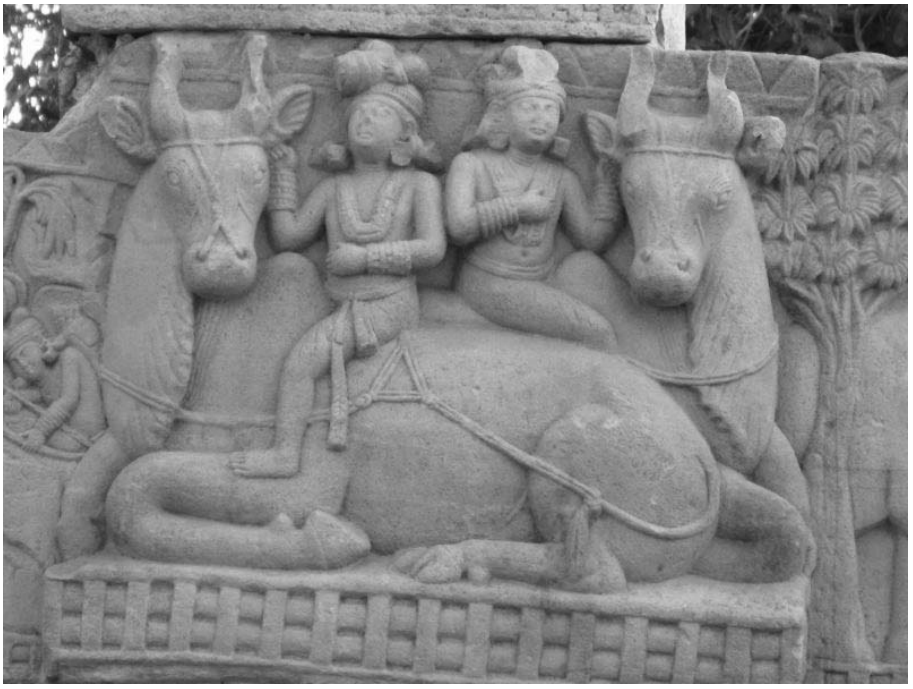

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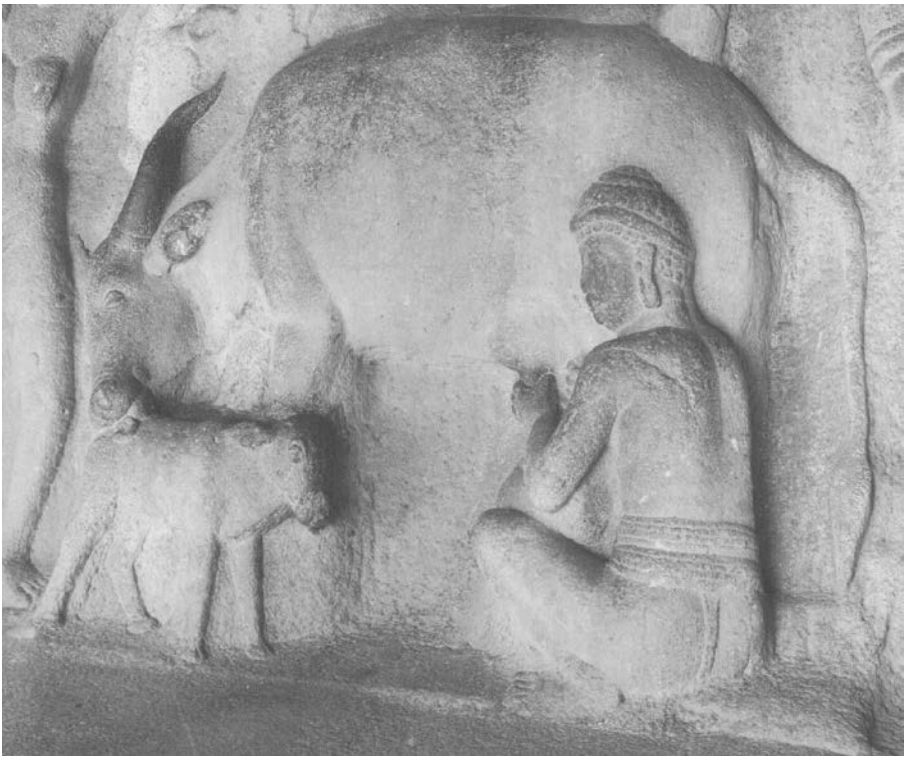

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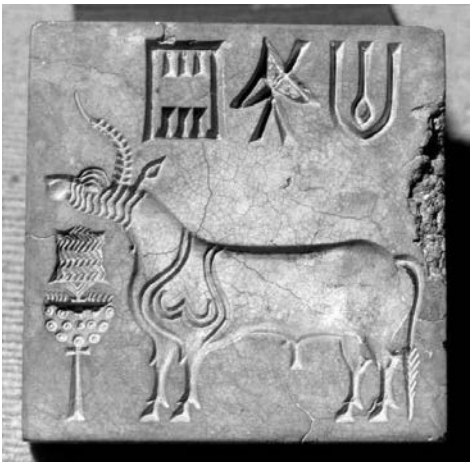

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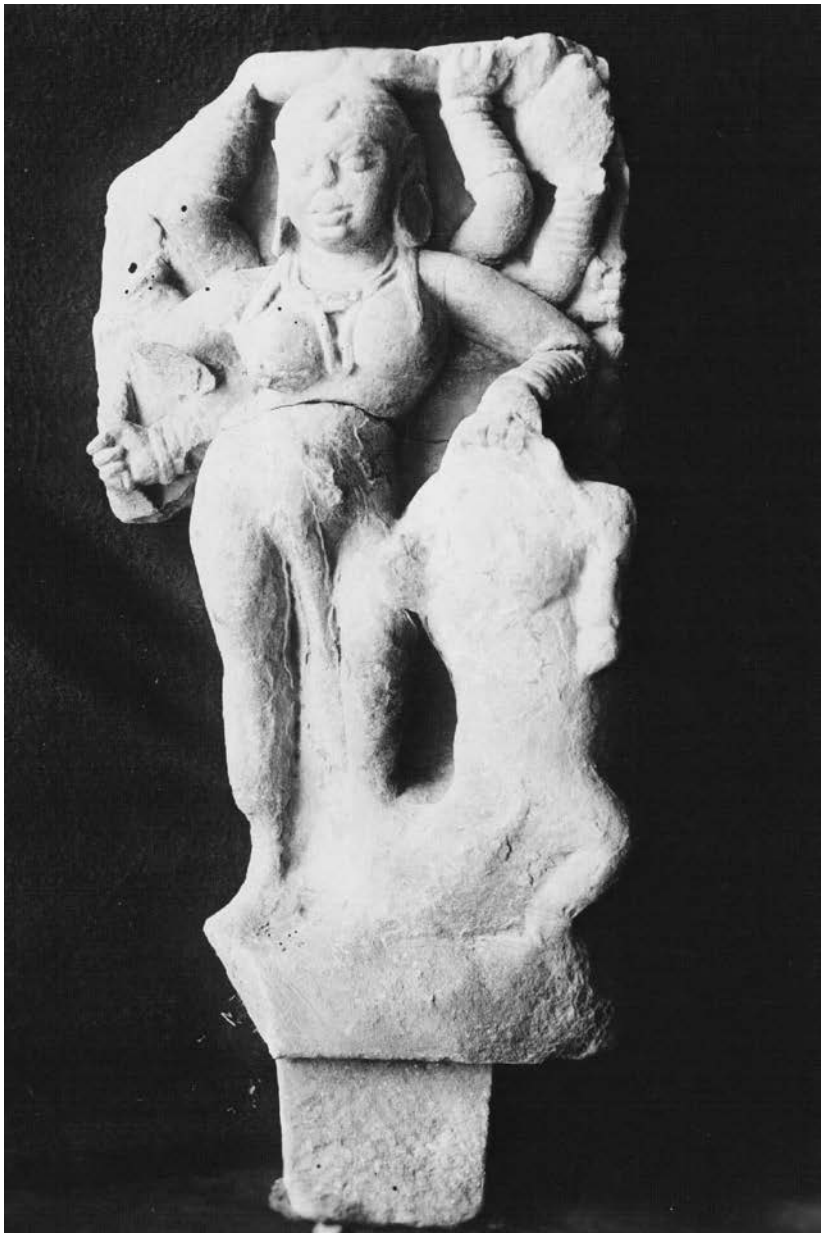

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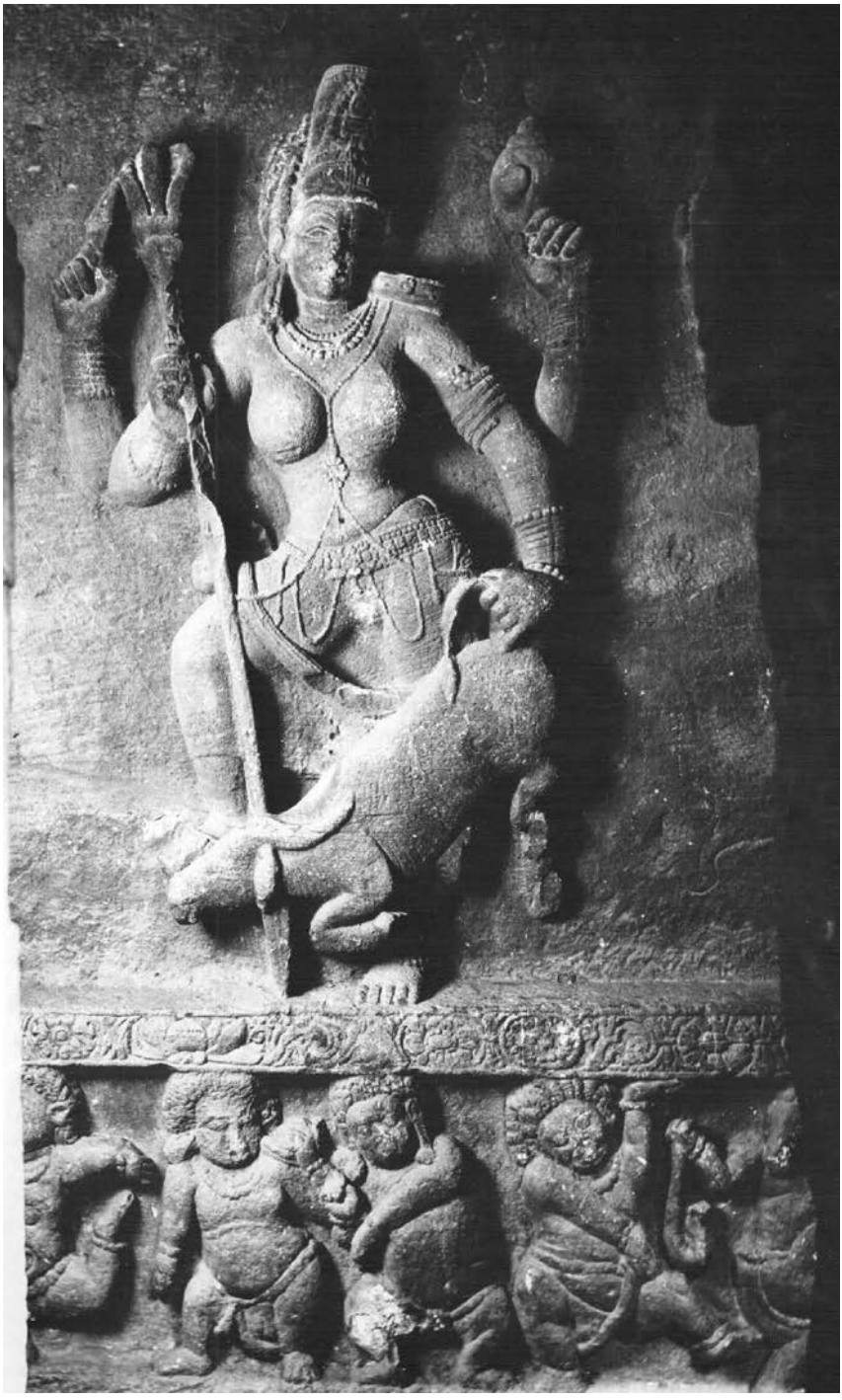
Fig. 131. Durga Slaying the Buffalo Demon. Isolated stele from Bhumara, Madhya Pradesh, 4th-6th century. Photograph: ASI, 1919-1920, courtesy Kern Institute, Leiden, the Netherlands



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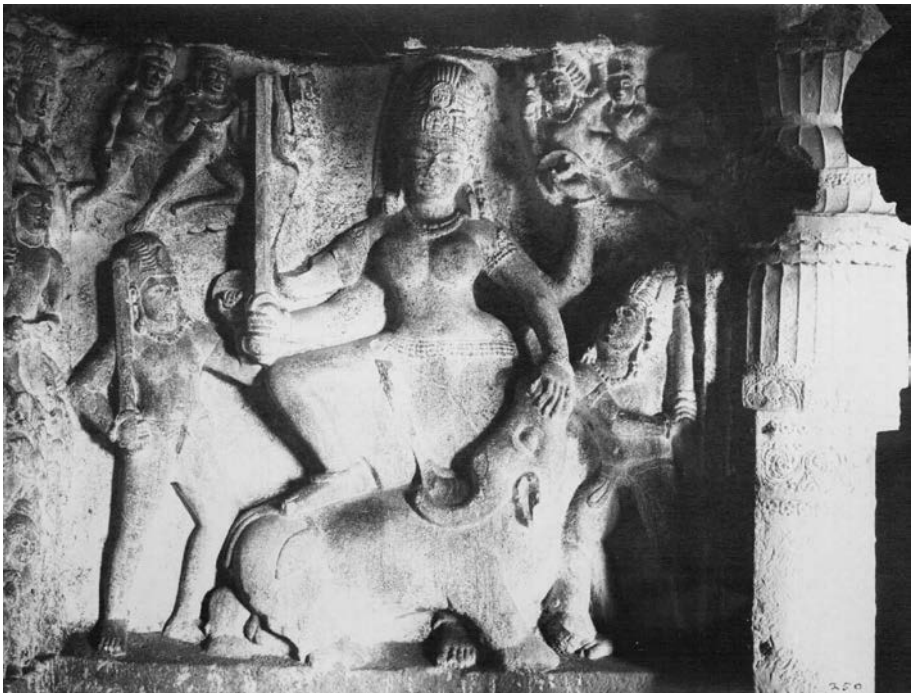

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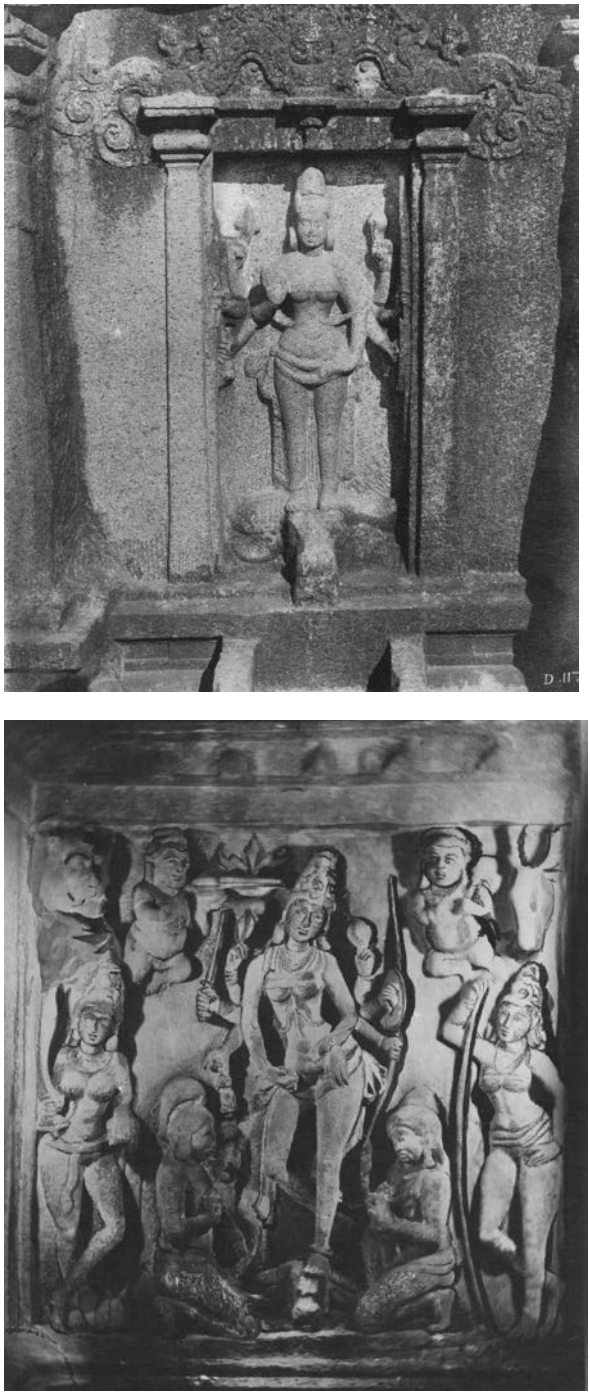

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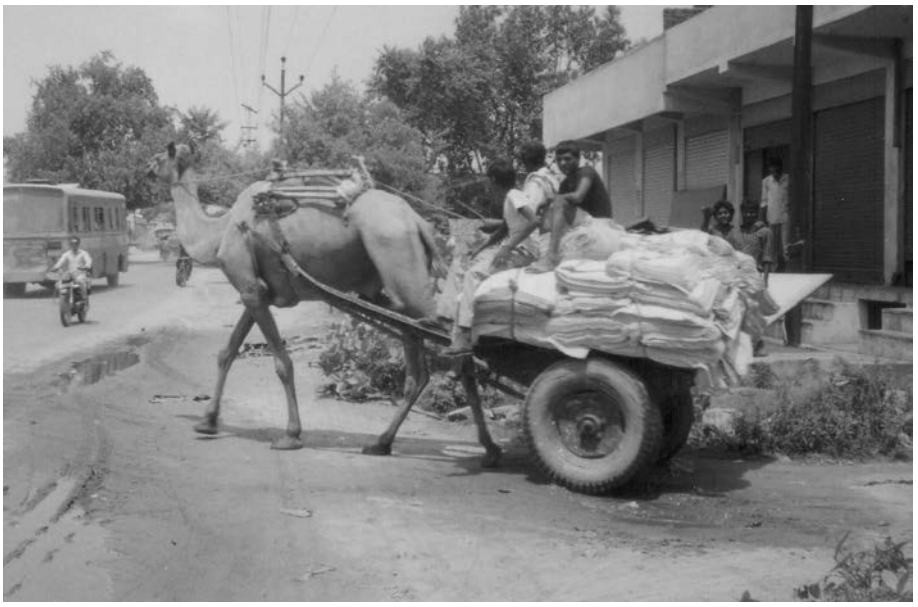

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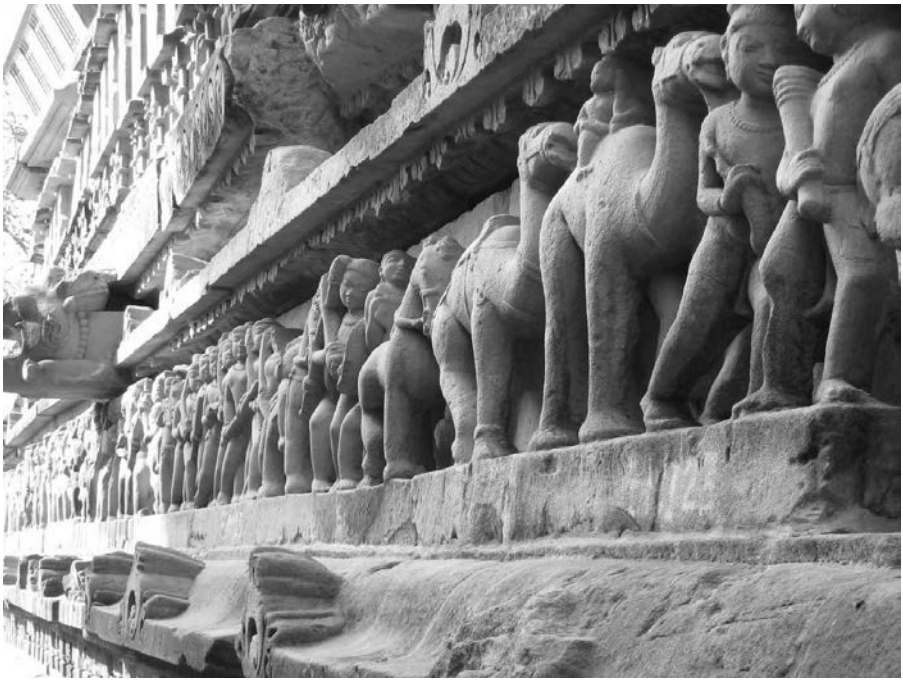

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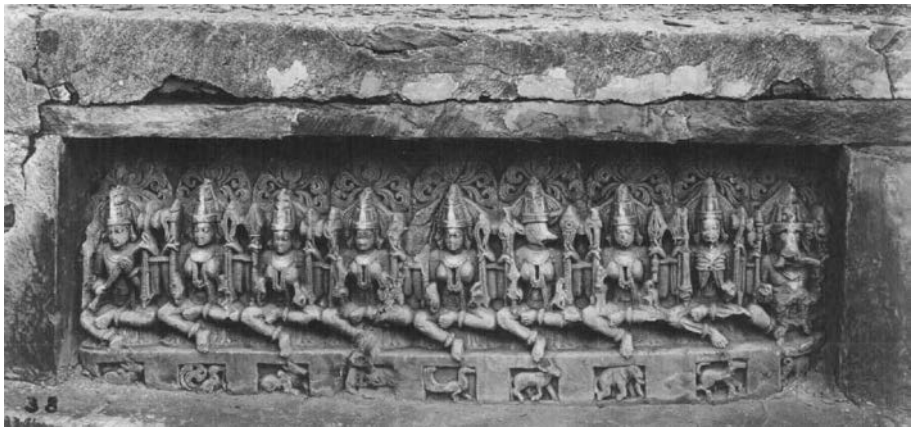

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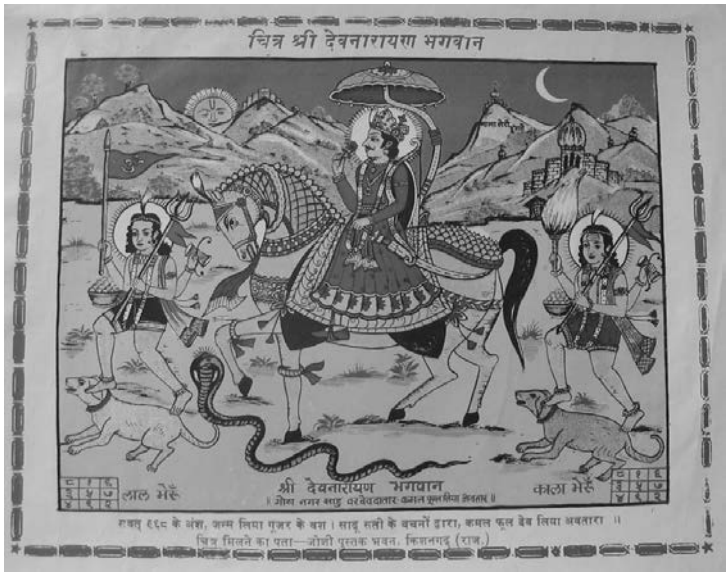

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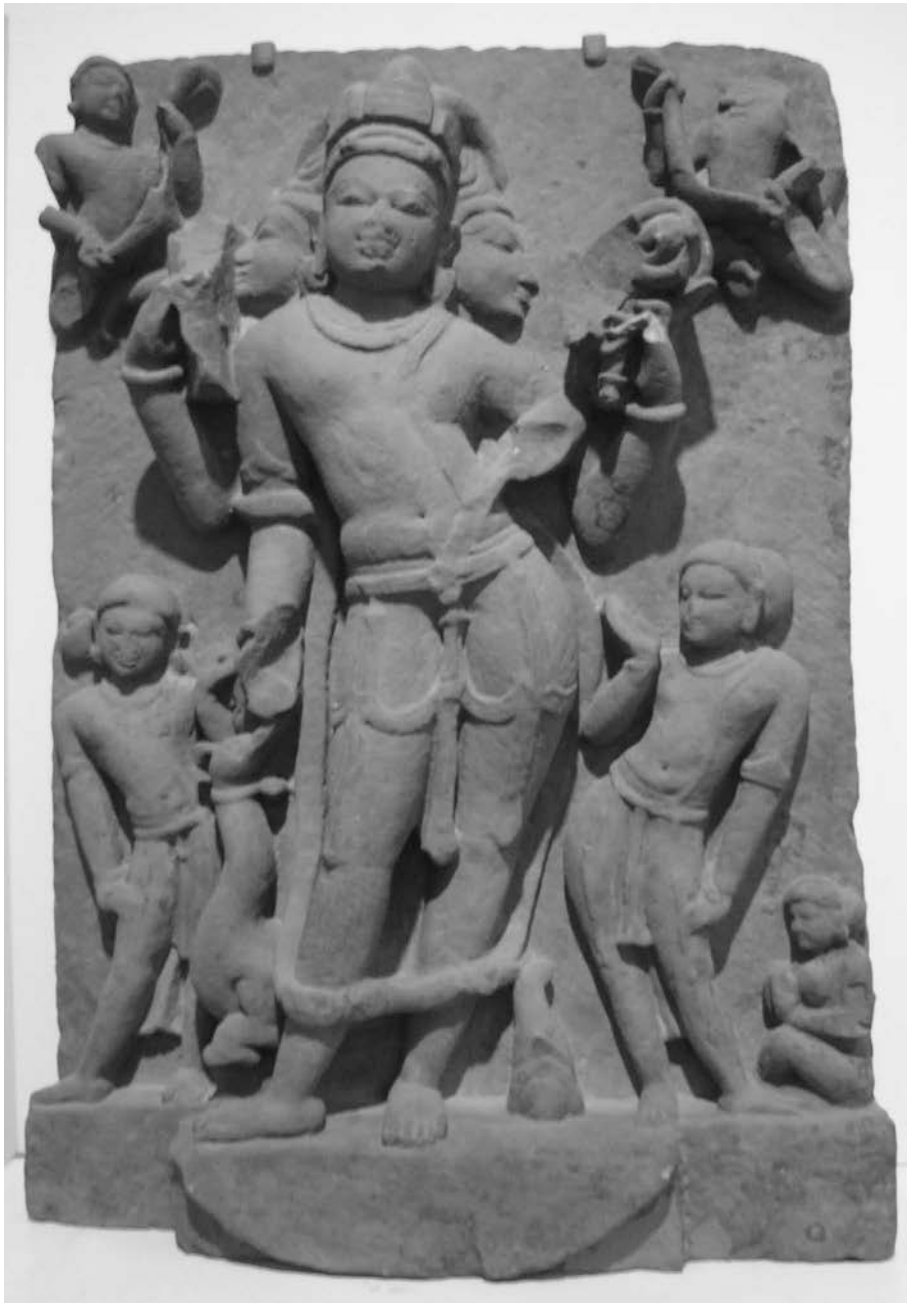

Fig. 183. Three-headed form of Karttikeya (?) from Central India, 9th-10th century, sandstone. Brooklyn Museum of Art, 1994.199.1, New York. Photograph: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

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Fig. 190. Attack by Mara's Army. Greater Gandhara, 3rd century, schist. Staatliche Kunstsammlungen, MIKI 10.198, Berlin, Germany. Above: overview. Below: detail with a dog. Photographs: A. van der Geer

Fig. 191. Short-haired white milk goats (*Capra hircus*). Photograph: A. van der Geer

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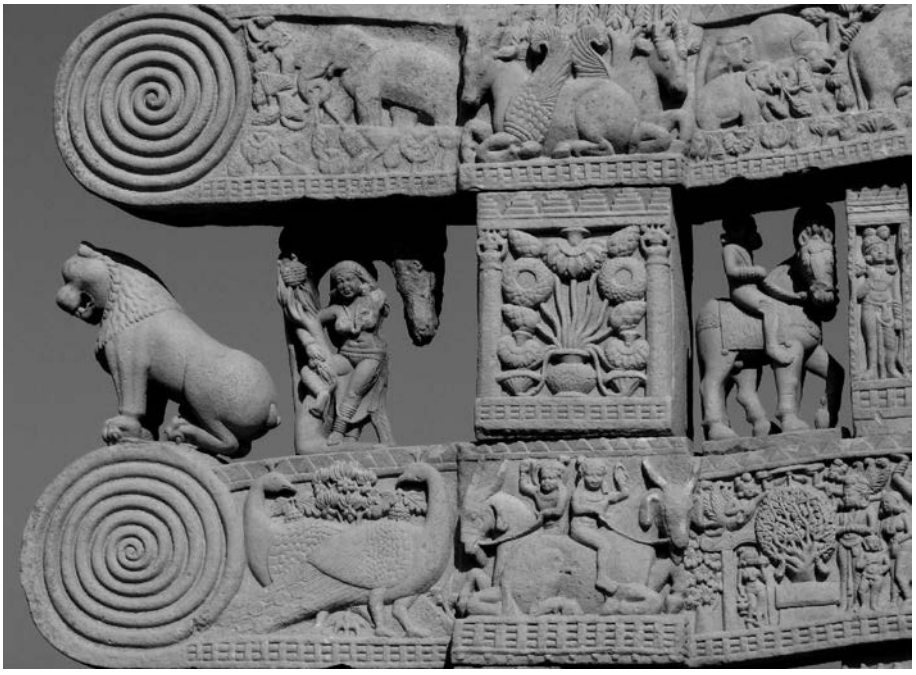

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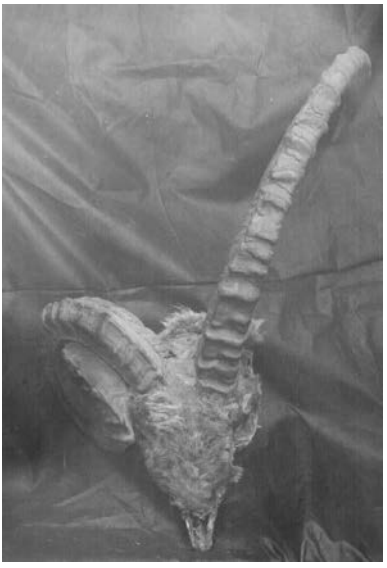

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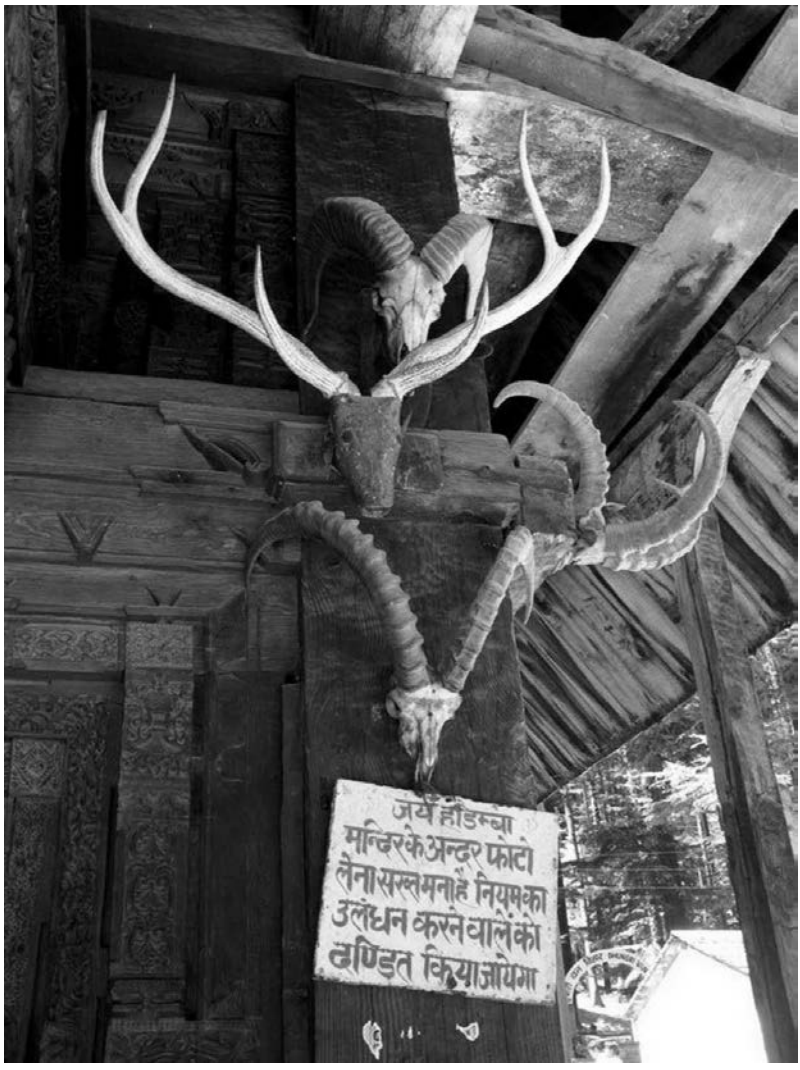
Fig. 209. Sambar herd in Jim Corbett National Park, Uttaranchal. Photograph: courtesy N. Kamphorst



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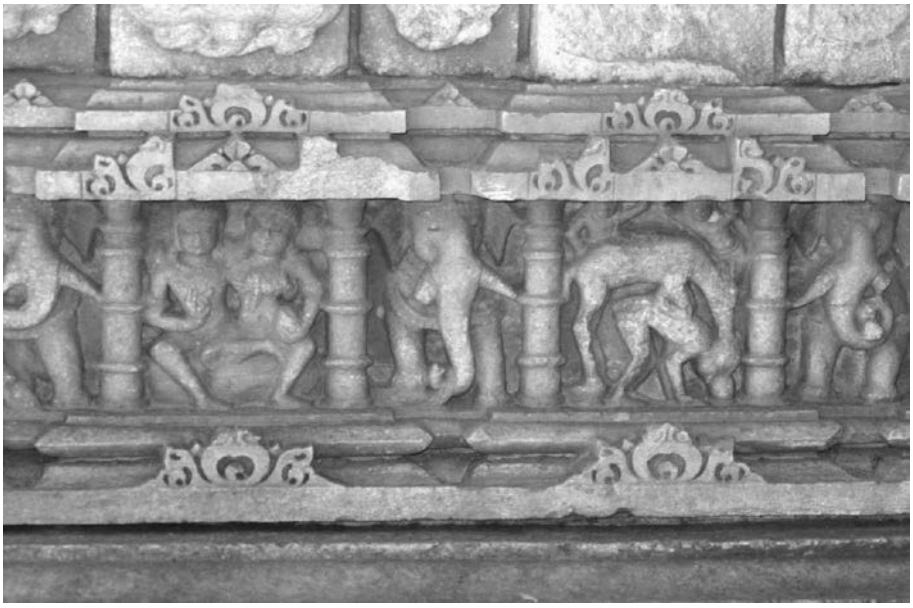

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Fig. 223. Elephants taking a bath. Nepal. Photograph: courtesy J. Kamphorst

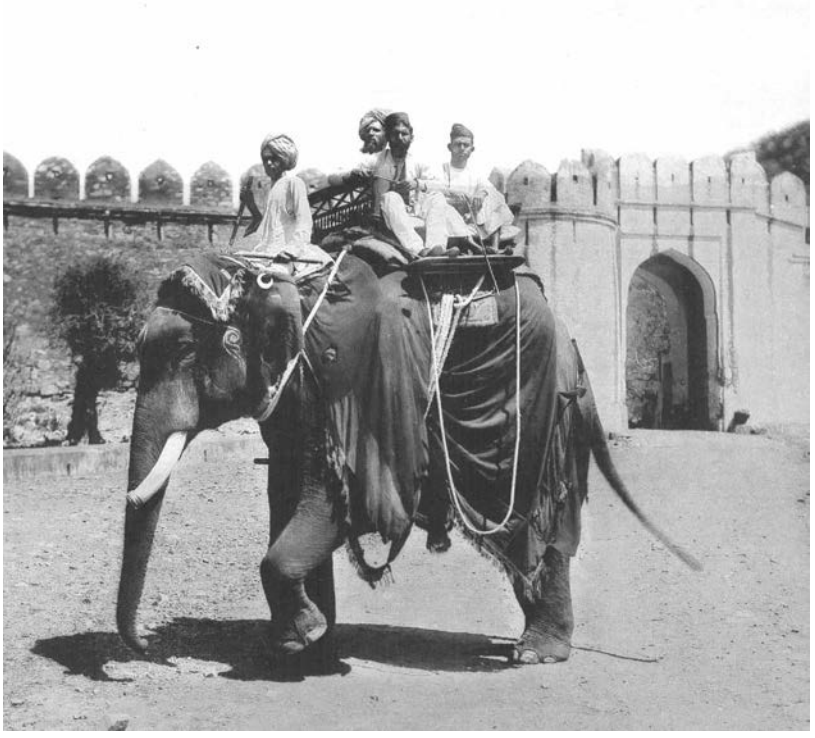

Fig. 224. Jaipur State elephant at Ambar Fort, 1900-1920. Photograph: Clifton and Co, Bombay, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

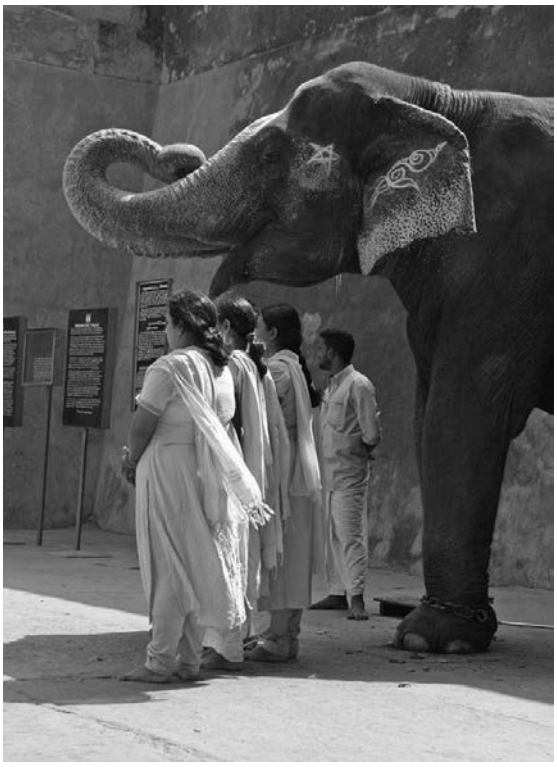

Fig. 225. A temple elephant at Thanjavur, Tamil Nadu. Photograph: Paul Veltman and Antje Brunt

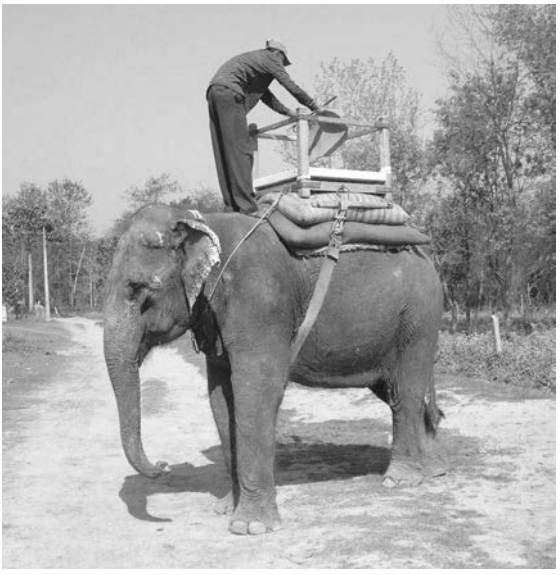

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Fig. 227. Seal with an elephant from Mohenjo-daro, Pakistan, 2300-1750 BCE, steatite. National Museum, Karachi. Photograph: ASI, 1925-1930, courtesy Kern Institute, Leiden, the Netherlands

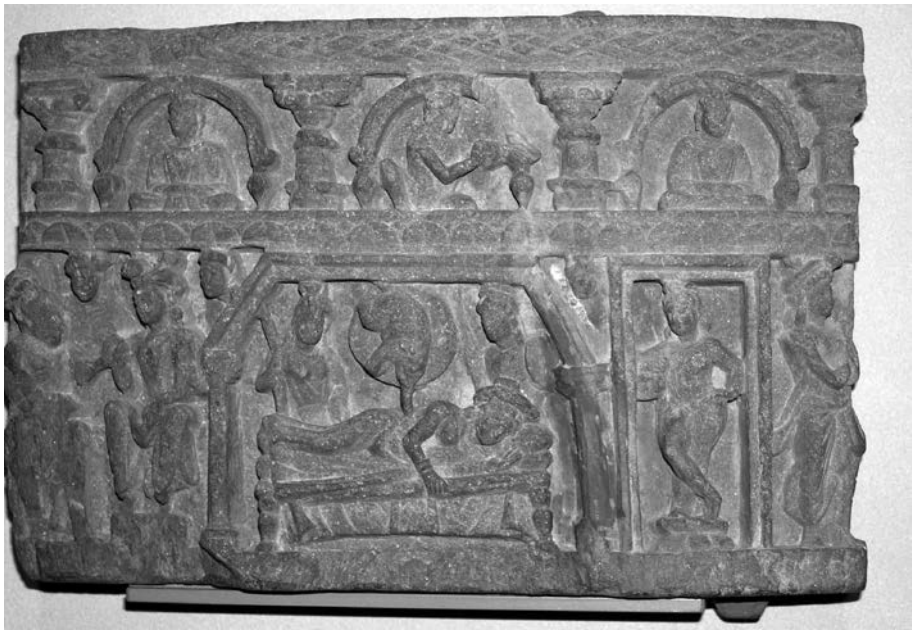

Fig. 229. The Dream of Queen Maya. Greater Gandhara, 2nd-3rd century. Staatliche Kunstsammlungen, Berlin, Germany. Photograph: A. van der Geer

Fig. 230. The Dream of Queen Maya. Sikri, Pakistan, mid-1st-4th century, schist. Central Museum, Lahore. Photograph: ASI, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 231. The Dream of Queen Maya. Stupa 9, Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI, 1929-1930, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 233. Young elephant in the procession hall, Arunachaleswar Temple, Tiruvannamalai, Tamil Nadu. Photograph: courtesy Sue Magee

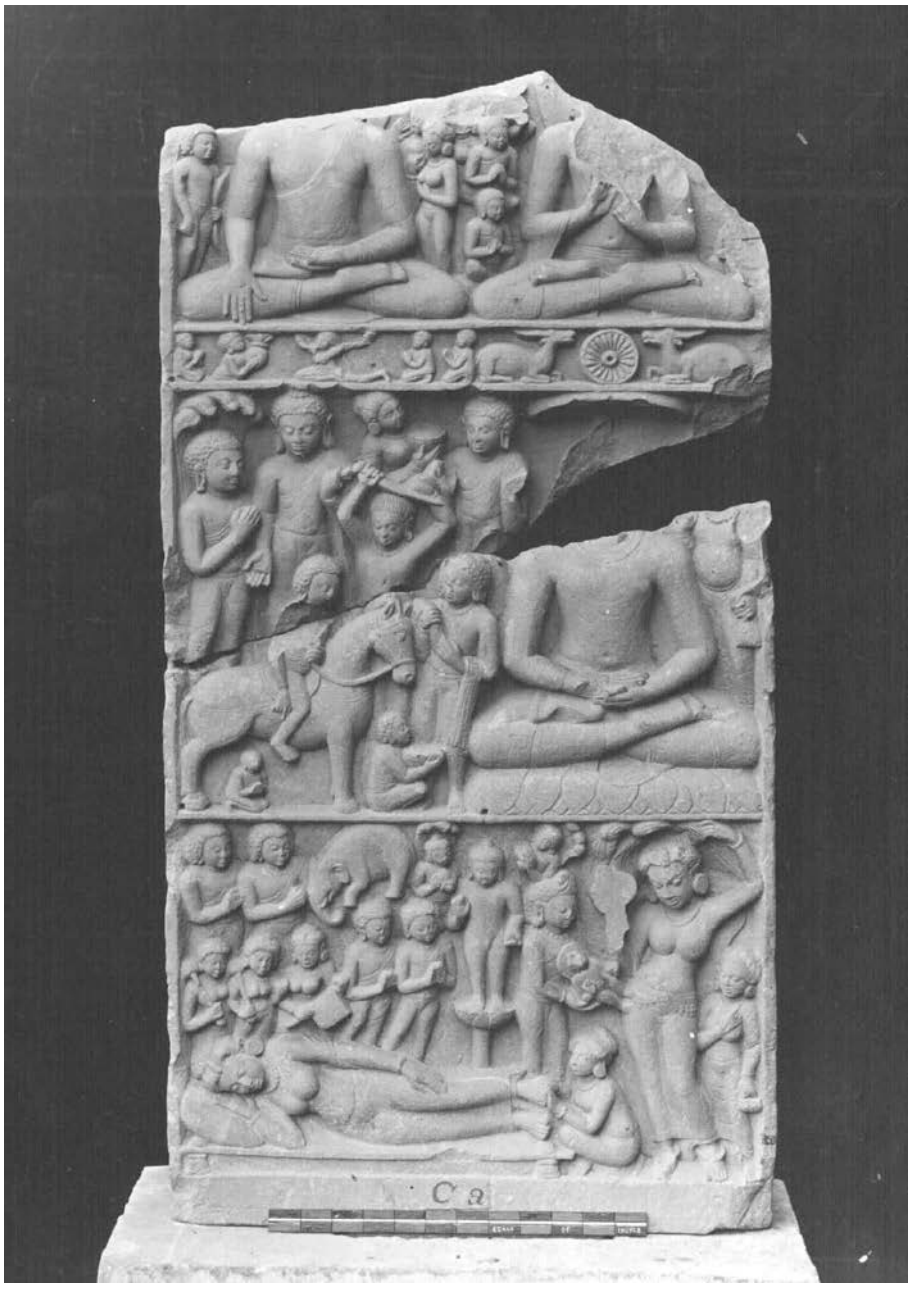

Fig. 234. Panel with Life Scenes of the Buddha. Sarnath, Madhya Pradesh, 4th-6th century. Photograph: ASI, 1922-1925, courtesy Kern Institute, Leiden, the Netherlands

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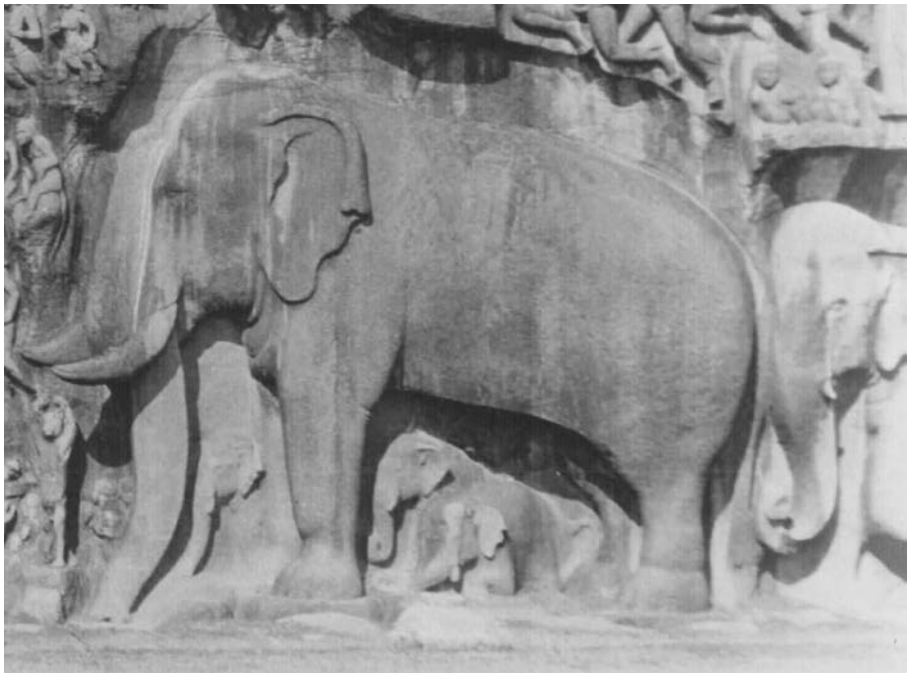

Fig. 237. Elephants at the shore. Detail of Arjuna's Penance. Mammalapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: ASI SC, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

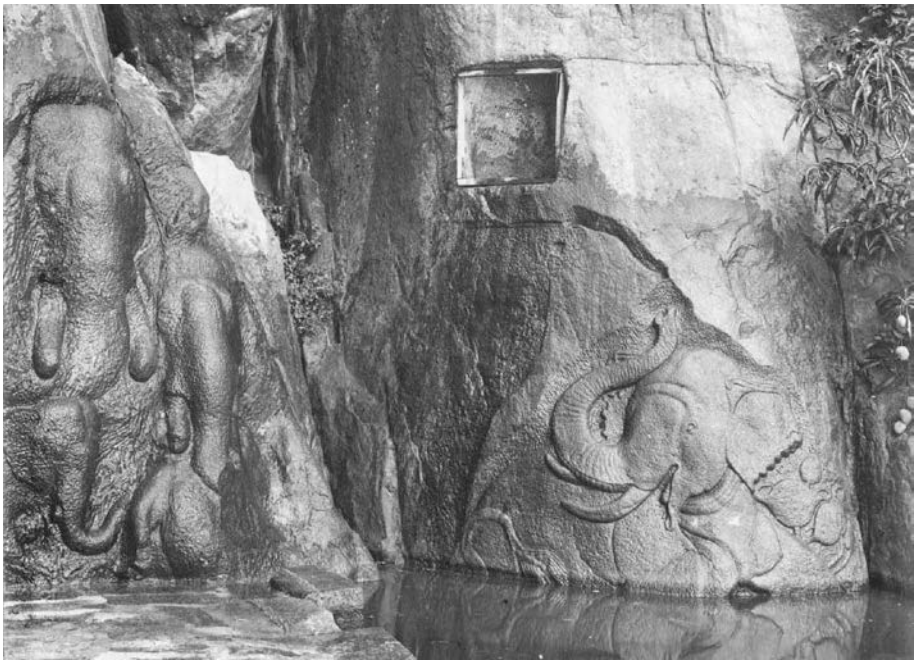

Fig. 238. Bathing elephants at the Naga Pokuna, Tisawewa Lake, Isurumuni, c. 6th-10th century. Photograph: ASC, 767, 1922-1923, courtesy Kern Institute, Leiden, the Netherlands

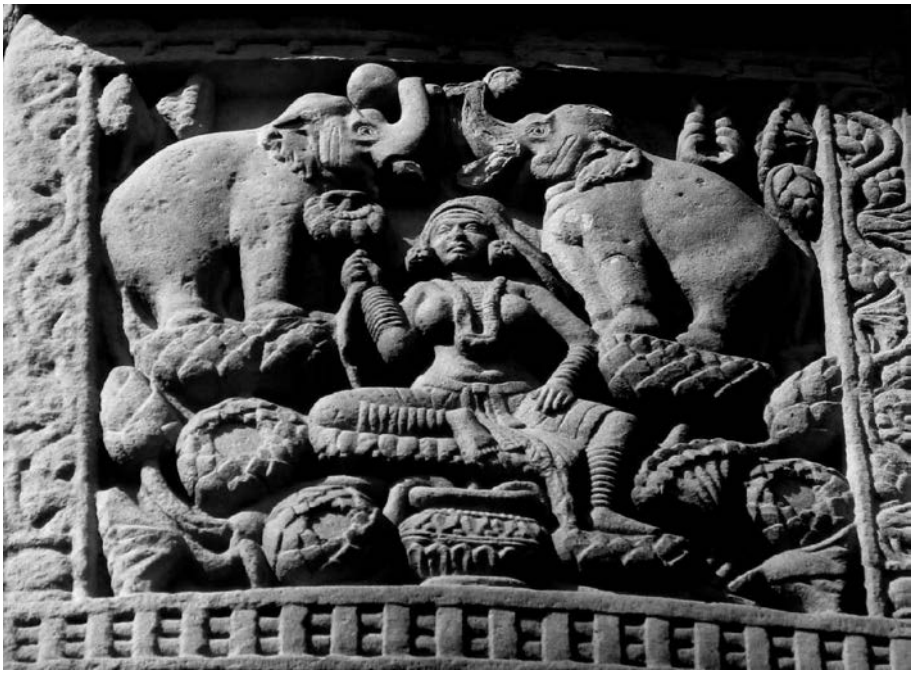

Fig. 239. Lakshmi Being Bathed by Elephants. Gateway to the Great Stupa at Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy Zach Hessler

Fig. 240. Lakshmi Being Bathed by Elephants. Cave 1, Badami, Karnataka, late 6th century, red sandstone. Photograph: ASI, 1921-1922, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 244. Life-size rock-cut wall relief with Gajalakshmi. Adipurishvara or Adivaraha Cave, Mammalapuram, Tamil Nadu, late 7th century, granite. Photograph: ASI, 1910-1930, courtesy Kern Institute, Leiden, the Netherlands

Fig. 245. Shiva Killing the Elephant Demon. Hoysaleshvara temple, Halebid, Karnataka, mid-12th century, soapstone. Photograph: courtesy Paul Veltman and Antje Brunt

Fig. 246. Shiva Killing the Elephant Demon. Chennakeshava temple, Belur, Karnataka, mid-12th century, soapstone. Photograph: courtesy Sriram Lakshminarayanan

Fig. 247. Krishna Killing the Elephant (?) on a plinth at Mandor, Rajasthan, 10th-14th century. Photograph: ASI, 1908-1909, courtesy Kern Institute, Leiden, the Netherlands

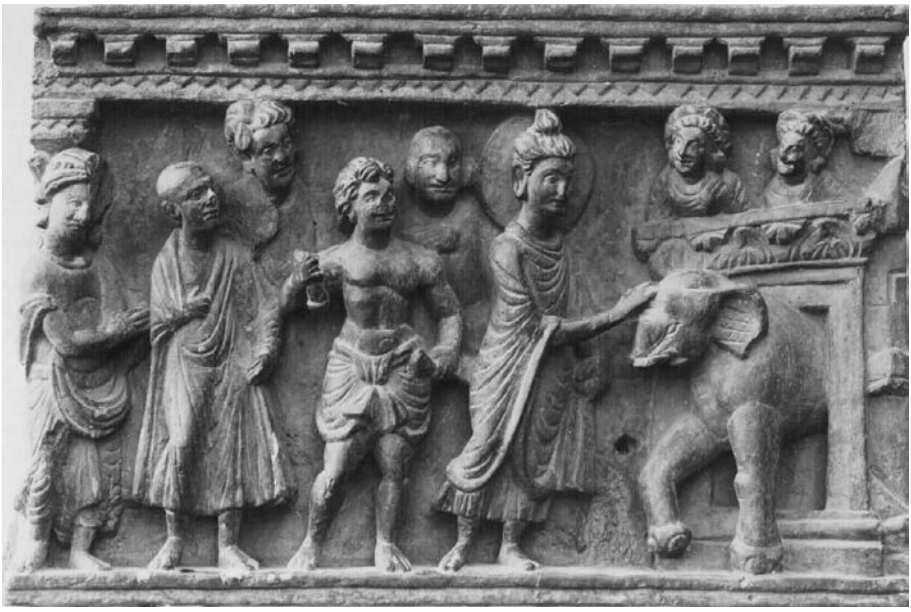

Fig. 248. Frieze with the Story of the Buddha Taming the Mad Elephant Nalagiri. Greater Gandhara, 1st-4th century, schist. Central Museum, Lahore. Photograph: ASI, 1900-1930, courtesy Kern Institute, Leiden, the Netherlands

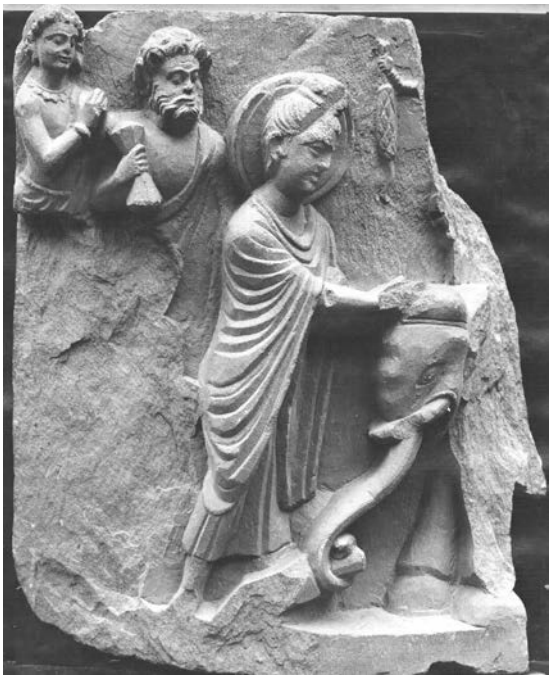

Fig. 249. Buddha Taming the Mad Elephant. Greater Gandhara, 1st-4th century, schist. Victoria and Albert Museum, London, UK. Photograph: ASI, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

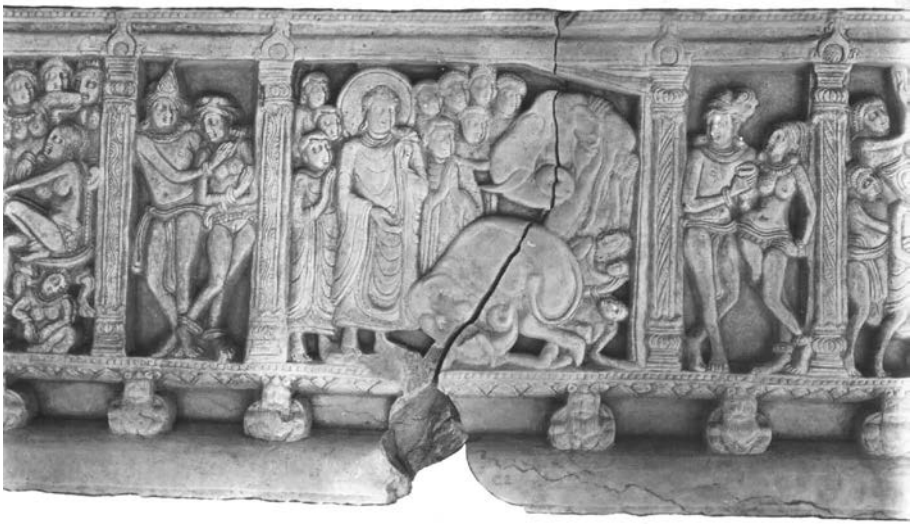

Fig. 250. Buddha Taming the Mad Elephant Nalagiri. Panel C2, Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI, 1927-1928, courtesy Kern Institute, Leiden, the Netherlands

Fig. 251. Buddha Taming the Mad Elephant Nalagiri. Cross-bar from Amaravati, Andhra Pradesh, 1st BCE-2nd century, limestone. Government Museum, Chennai. Photograph: ASI, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

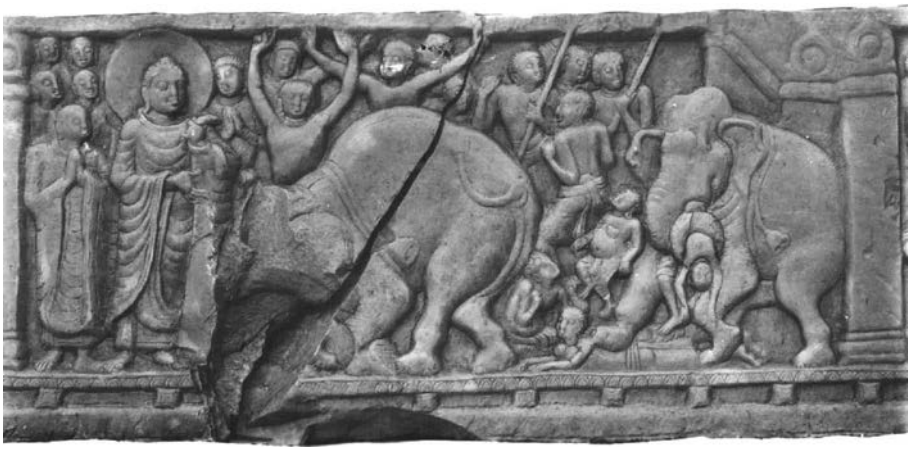

Fig. 252. Buddha Taming the Mad Elephant Nalagiri. Goli, Andhra Pradesh, 3rd century limestone. Government Museum, Chennai. Photograph: ASI, 1926-1929, courtesy Kern Institute, Leiden, the Netherlands

Fig. 253. Buddha Taming the Mad Elephant. *Ayaka* platform of stupa 9, Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI, 1928-1930, courtesy Kern Institute, Leiden, the Netherlands

Fig. 254. India, Bihar, Stele with Buddhas and Tara, Pala period, 10th century, Black chlorite, 76.2 x 44.5 x 17.8 cm, Private Collection, 80.1965, The Art Institute of Chicago. Photography © The Art Institute of Chicago

Detail of the stele with Buddhas and Tara, showing a miniature version of Nalagiri, the tamed elephant, with a wheel on its back. Photograph: A. van der Geer, courtesy The Art Institute of Chicago, New York

Fig. 255. Wall panel with the Story of Vishnu Rescues the Elephant King. Northern wall of the Vishnu (=Dashavatara) temple, Deogarh, Madhya Pradesh, early 6th century, sandstone. Photograph: ASI, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

Fig. 256. Vishnu Rescues the Elephant King. Northern wall of a later Vishnu temple, Deogarh, Madhya Pradesh, 8th century, sandstone. Photograph: ASI, 1900-1930, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 258. The Story of the Six-tusked Elephant. Upper architrave of the northern gateway, inner view, of the Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: IO List 1900, 1881-1883, courtesy Kern Institute, Leiden, the Netherlands

Fig. 259. The Story of the Six-tusked Elephant. Medallion of a cross-bar of the outer railing, Amaravati, Andhra Pradesh, mid-2nd century. Government Museum, Chennai. Photograph: ASI, 1911-1912, courtesy Kern Institute, Leiden, the Netherlands

Fig. 260. The Story of the Six-tusked Elephant. *Ayaka* frieze from Goli, Andhra Pradesh, c. 250, limestone. Government Museum, Chennai. Photograph: ASI, 1926-1929, courtesy Kern Institute, Leiden, the Netherlands

Fig. 261. Coping stone with the Story of the Lotus Stalk. Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, Calcutta. Photograph: IO List 1900, 1075, courtesy Kern Institute, Leiden, the Netherlands

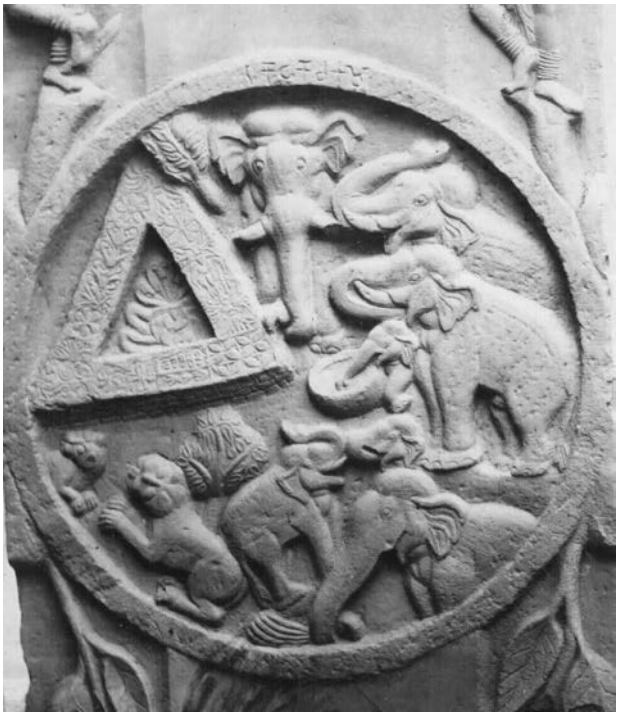

Fig. 262. Medallion with the Story of Tikutiko Chakamo. Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, Calcutta. Photograph: IO List 1900, 1028, courtesy Kern Institute, Leiden, the Netherlands

Fig. 263. Temple pillar illustrating the capturing of wild elephants in a nagavana. Bhubaneshwar, Orissa, c. 8th century, sandstone. Photograph: courtesy Rita Willaert

Fig. 264. Elephants Worship the Stupa. Lower architrave of the eastern gateway at Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: ASI, 1915-1925, courtesy Kern Institute, Leiden, the Netherlands

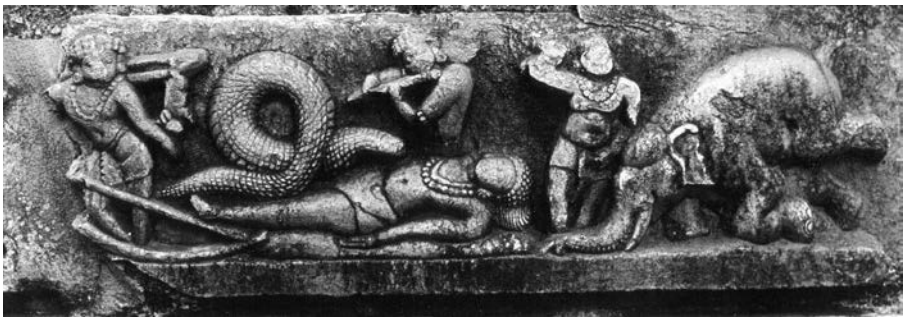

Fig. 265. Story of Self-defeating Forethought on the Tripurantakeshvara temple at Belgavi, Karnataka, c. 1070, soapstone. Photograph: Gerard Foekema, courtesy Kern Institute, Leiden, the Netherlands

Fig. 266. Mara's Army on the western gateway of the Great Stupa at Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy A. Kamphorst

Fig. 267. An elephant and its rider coming back from war. Architrave of the gateway to the Great Stupa, Sanchi, c. 50-25 BCE, sandstone.
Photograph: courtesy Patrik M. Loeff

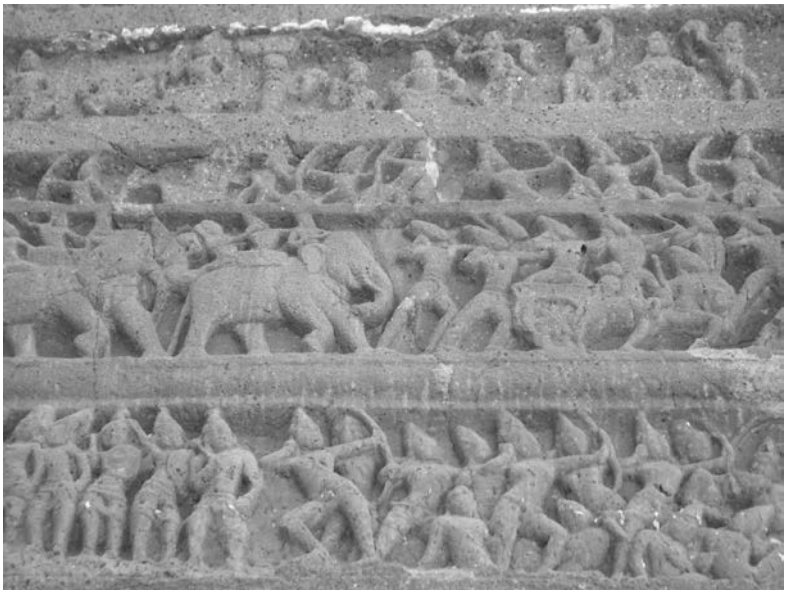

Fig. 268. Panel with *Mahabharata* episodes on the northern wall of the main hall of the Kailashanatha temple or Cave 16, Ellora, Maharashtra, 8th-9th century, basalt. Photograph: courtesy Ken .S. Wilson

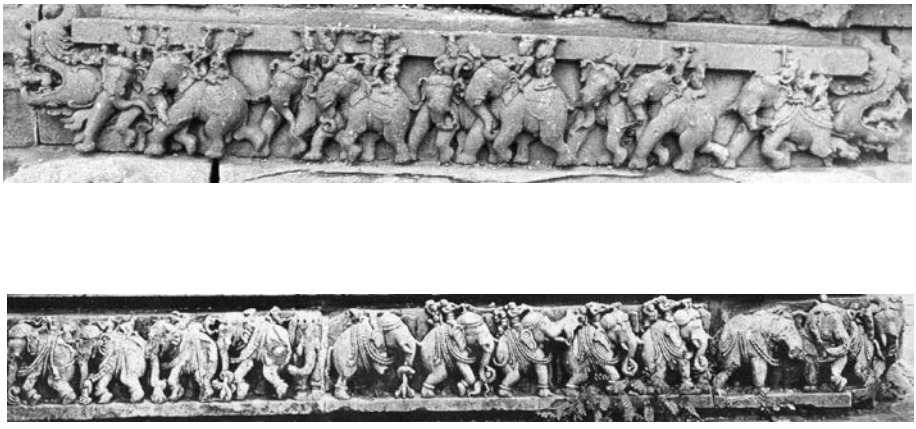

Fig. 269. Two temple plinths with series of war elephants, Karnataka. Above: Santinatha basti, Kadambahalli, 11th-mid 14th century. Below: Hoysaleshvara temple, Halebid, mid-12th century, soapstone. Photographs: Gerard Foekema (above) and ASI WC, 1900-1920 (below), courtesy Kern Institute, Leiden, the Netherlands

Fig. 270. Life-sized elephant statues outside the Sun Temple at Konarak, Orissa, 13th century, khondalite. Photograph: anonymous photographer, c. 1970

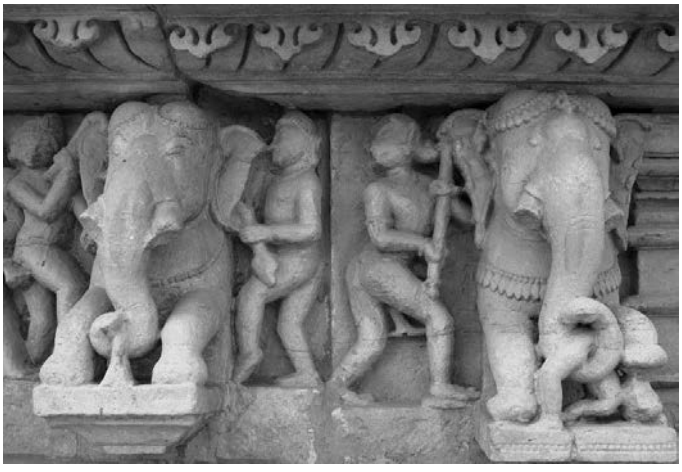

Fig. 271. Body-grasping war elephants on the plinths of the Chandella temples at Khajuraho, Madhya Pradesh, 10th-11th century, sandstone. Photograph: courtesy Chiels Liu

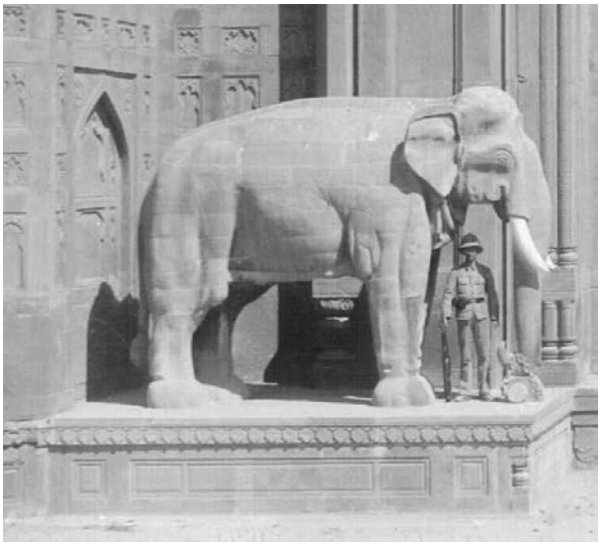

Fig. 272. Elephant statue at the Delhi Gate of the Red Fort of Old Delhi, built in 1903 by Lord Curzon after the originals of 1638-1648 that were destroyed by Aurangzeb. Photograph: H.R. Mirza and Sons, Delhi, 1903-1930 15, courtesy Kern Institute, Leiden, the Netherlands

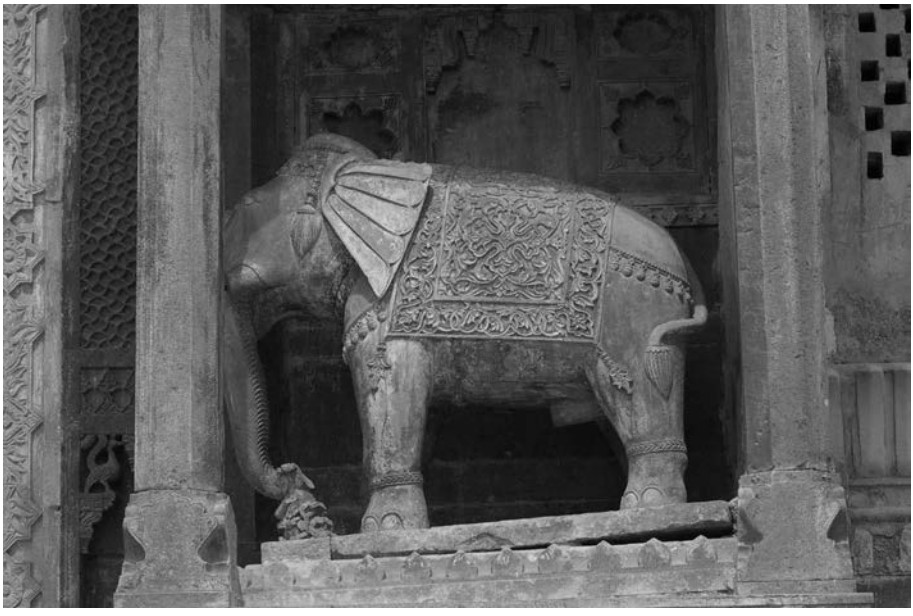

Fig. 273. Elephant statue at Orchha fort, Madhya Pradesh, 17th century, sandstone. Photograph: courtesy Dingeman Steijn

Fig. 274. Elephant statue at Jaipur Fort, Rajasthan, early 18th century, sandstone.
Photograph: courtesy Chiels Liu

Fig. 275. Rashtrapati Bhavan, formerly the Viceroy's House, New Delhi, 1931, designed by Edwin Lutyens.
Photograph: courtesy Dey Alexander

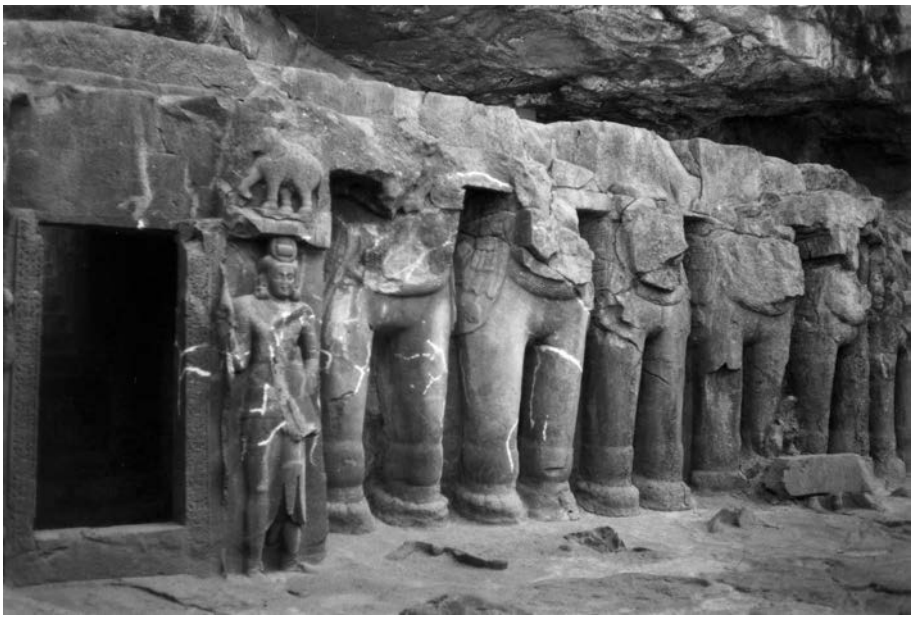

Fig. 276. A series of life-sized elephants and two miniature elephants above the heads of door guardians flanking the entrance of the Buddhist rock-cut cave at Pitalkhora, Maharashtra, c. 100 BCE, volcanic trap rock. Photograph: A. van der Geer

Fig. 277. Elephant emerging from the rock at Ajanta, Maharashtra, late 5th-early 6th century. Photograph: courtesy Mark Kobayashi-Hillary

Fig. 278. Elephant as pillars, alternated with a lion attacking an elephant. Kailashanatha temple or Cave 16 at Ellora, Maharashtra, 8th-9th century, basalt. Photograph: courtesy Ken S. Wilson

Fig. 279. Elephants carrying the superstructure of the northern gateway of the Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy A. Kamphorst

Fig. 280. Abacus with walking elephant. Free-standing pillar with lion capital from Sarnath, Uttar Pradesh, 3rd BCE, sandstone. Photograph: ASI NC, 1269, 1911-1912, courtesy Kern Institute, Leiden, the Netherlands

Fig. 281. Moonstone at the Abhayagiri Vihara, Anuradhapura, c. 5th century, granulite. Photograph: Platee Ltd Colombo, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

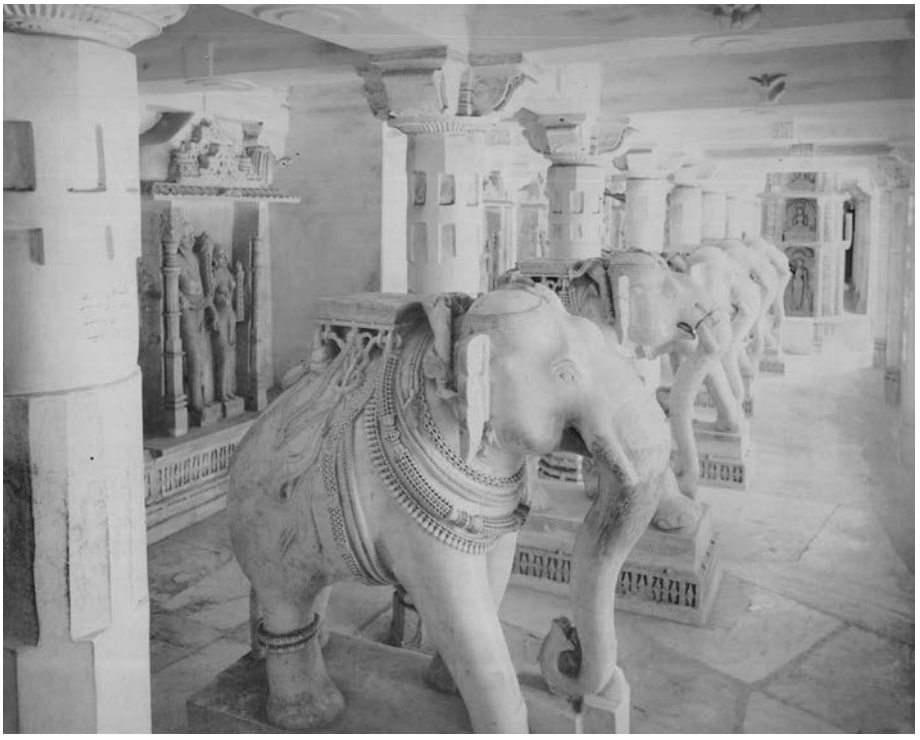

Fig. 282. Elephant statues in the corridor of the Luna-vasahi, Mount Abu, Rajasthan, 1232-1248, built by minister Tejapala, marble. Photograph: ASI, 1900-1901, courtesy Kern Institute, Leiden, the Netherlands

Fig. 283. Memorial stone with an elephant and three *satis* (women who were burnt alive on the funeral pyre of their husband) found near a Jain temple at Hampi, Karnataka, unknown date, granite. Photograph: ASI, 1916-1917, courtesy Kern Institute, Leiden, the Netherlands

Fig. 284. Indra sitting on his elephant. Indra Sabha Cave, Ellora, Maharashtra, 10th century, basalt. Photograph: courtesy Mark Kobayashi-Hillary

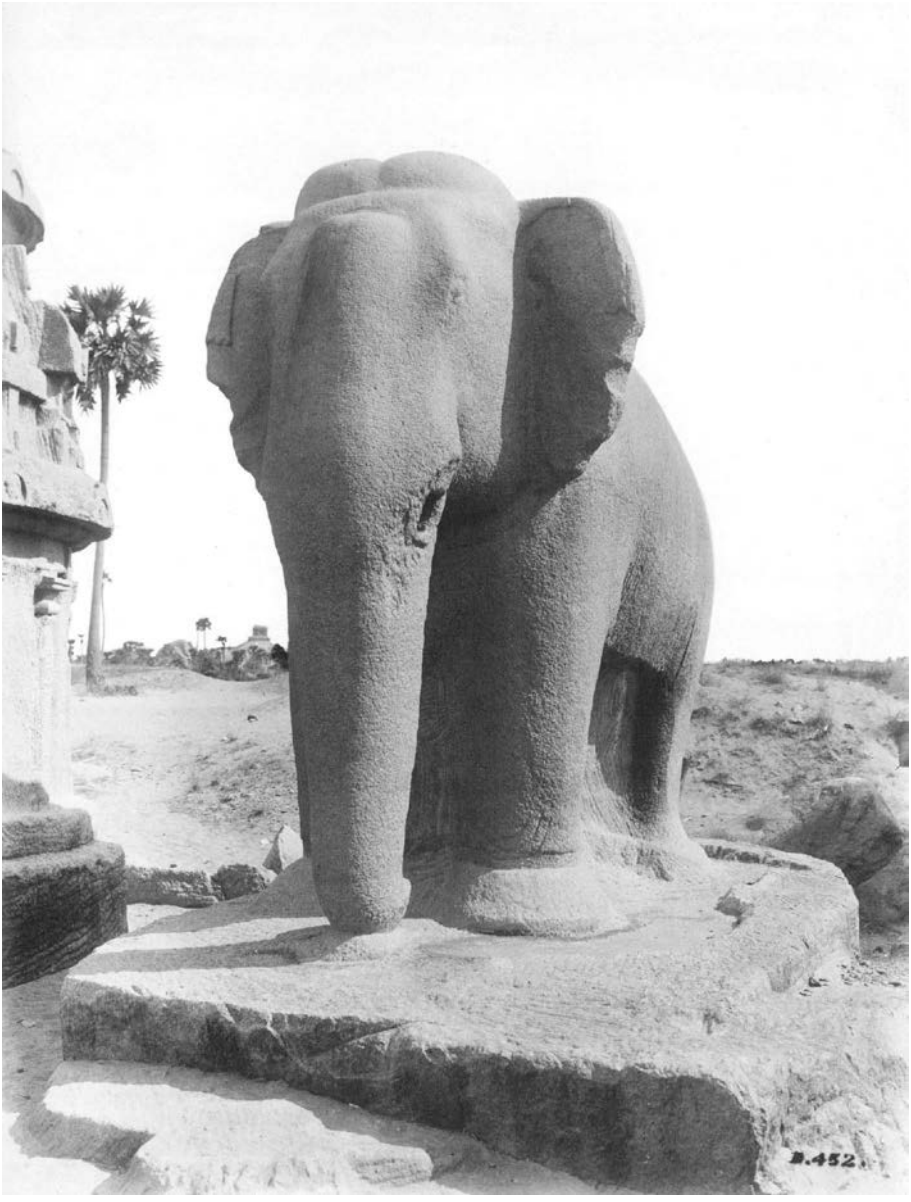

Fig. 285. Elephant statue at Sahadeva's shrine, Panchapandavarathas, Mammalapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: ASI SC, 1912-1913, courtesy Kern Institute, Leiden, the Netherlands

Fig. 286. Stele of the mother-goddess Indrani with her elephant. North India, 6th-8th century. Photograph: ASI, 1919-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 287. Stele of the mother-goddess Indrani with her elephant. North India, 8th-early 11th century. Musée National des Arts Asiatiques Guimet, Paris. Photograph: ASI, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 290. The mother-goddess Indrani sitting on her elephant. Paogachha, Bangladesh, 8th-12th century. Varendra Research Museum, 656, Rajshahi, Bangladesh. Photograph: Varendra Research Museum, 1925-1926, courtesy Kern Institute, Leiden, the Netherlands

Fig. 291. Yaksha Gangita standing on an elephant. Railing pillar before transport to the Indian Museum, Calcutta. Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Photograph: IM List 1900, courtesy Kern Institute, Leiden, the Netherlands

Fig. 292. Dancing Ganesha from Central India, 10th century, sandstone. Brooklyn Museum, L68.35.1, Lent by Anthony A. Manheim, New York, USA. Photograh: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

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Fig. 294. Sitting Ganesha with his rat on the pedestal. Eastern India, 10th century, basalt. National Museum, 60.1300, New Delhi. Photograph: courtesy Hideyuki Kamon

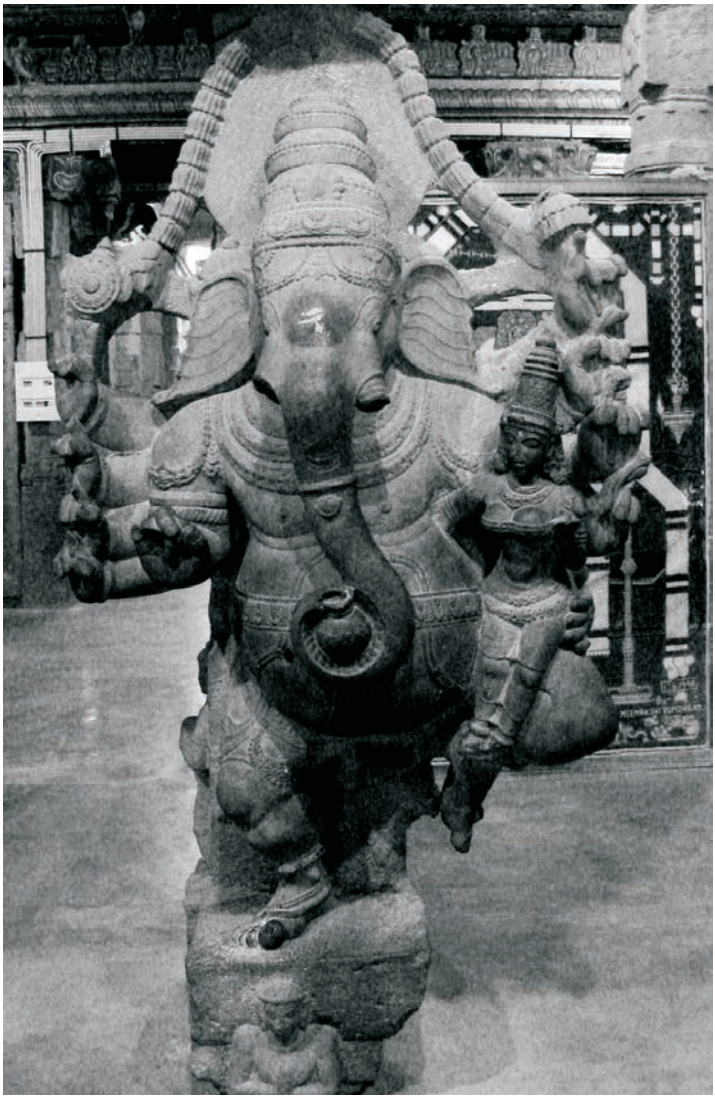

Fig. 295. Dancing Ganesha as column decoration in the Hall of the Thousand Pillars, Minakshi-Sundareshvara temple complex, Madurai, Tamil Nadu, 17th century, granite. Photograph: courtesy Paul Bilinger

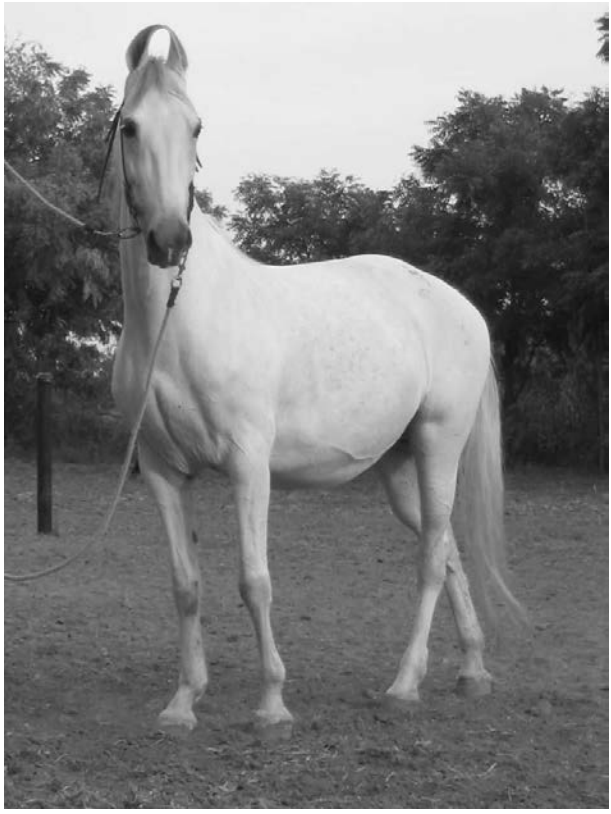

Fig. 296. The Marwari or Mewari breed of Rajasthan, the famous war horse of the Rajputs. Photograph: courtesy Snehal Patel

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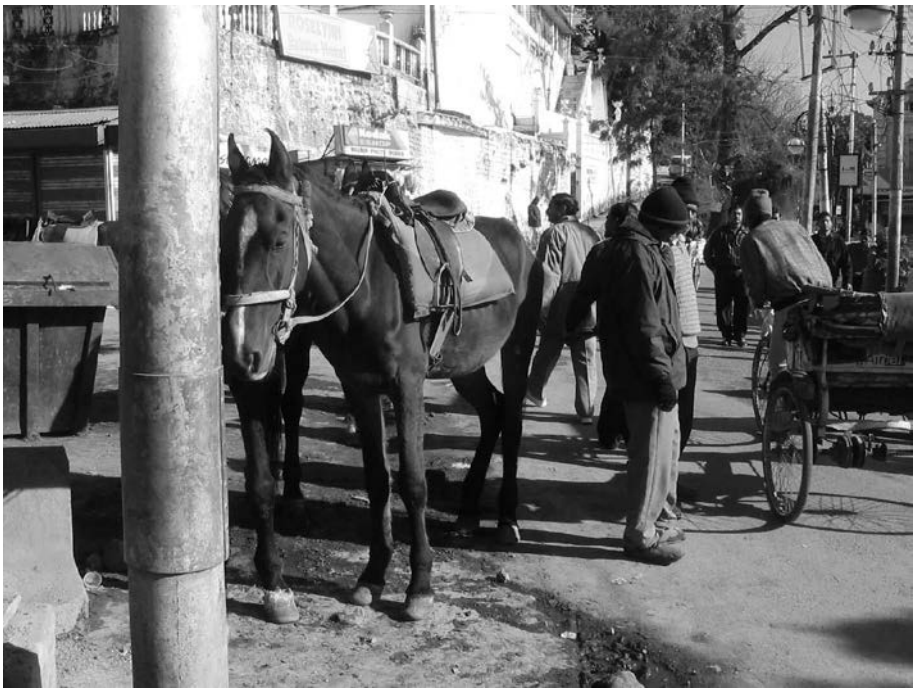

Fig. 298. A mixed breed revealing a certain amount of Arabian or Kathiawari blood. Mussorie, Himanchal Pradesh. Photograph: courtesy J. Kamphorst

Fig. 299. The English thoroughbred mare Coquette, Chennai, 1925. Photograph: E.H. Hunt, 1925, courtesy Kern Institute, Leiden, the Netherlands

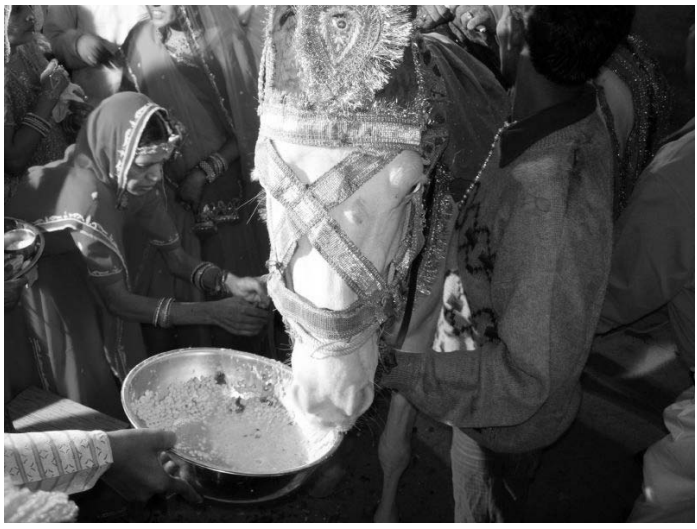

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Fig. 301. Clay horses are found on altars for local deities in the Thar desert, Rajasthan, 20th century. Photograph: courtesy J. Kamphorst

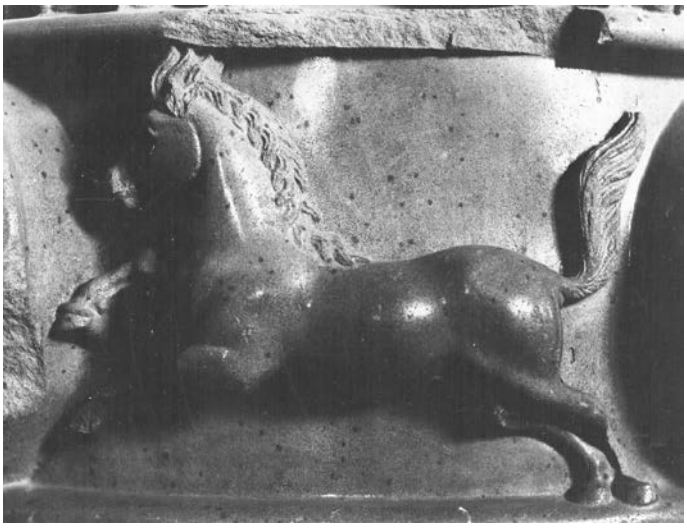

Fig. 302. Abacus of a free-standing pillar, Sarnath, Uttar Pradesh, 3rd BCE, polished sandstone. Photograph: ASI NC, 1265, 1911-1912, courtesy Kern Institute, Leiden, the Netherlands

Fig. 303. Two horse-riders on a corner of the eastern gateway, Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, Calcutta. Photograph: IO List 1900, 1062 and 1478, courtesy Kern Institute, Leiden, the Netherlands

Fig. 304. Horse capital of the western *vahaldaka*, Kantakachetiya stupa, Mihintale, Sri Lanka, 2nd-1st BCE. Photograph: ASC, 1910-1911, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 307. Frieze with the Transport of the Buddha's Relics. Shahr-i-Bahlol, Greater Gandhara, Pakistan,1st-4th century, schist. Peshawar Museum. Photograph: ASI DGA, 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

Fig. 308. Sport scene with nude riders from Greater Gandhara, Pakistan, 1st-4th century, schist. Photograph: Musée Guimet, Paris, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 309. Birth of the fowl Kanthaka. Greater Gandhara, Pakistan, 1st-4th century, schist. National Museum, 1966, Karachi. Photograph: ASI NC, 1432, 1912-1913, courtesy Kern Institute, Leiden, the Netherlands

Fig. 310. Return of the Buddha's horse Kanthaka and his servant Chandaka. Greater Gandhara, Pakistan, 3rd century, schist. Central Museum, Lahore. Photograph: courtesy Scott Christian

Fig. 311. Great Departure of the Buddha on his steed Kanthaka. Greater Gandhara, Pakistan, 1st-4th century, schist. Indian Museum, 5043, Calcutta. Photograph: ASI DGA, 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

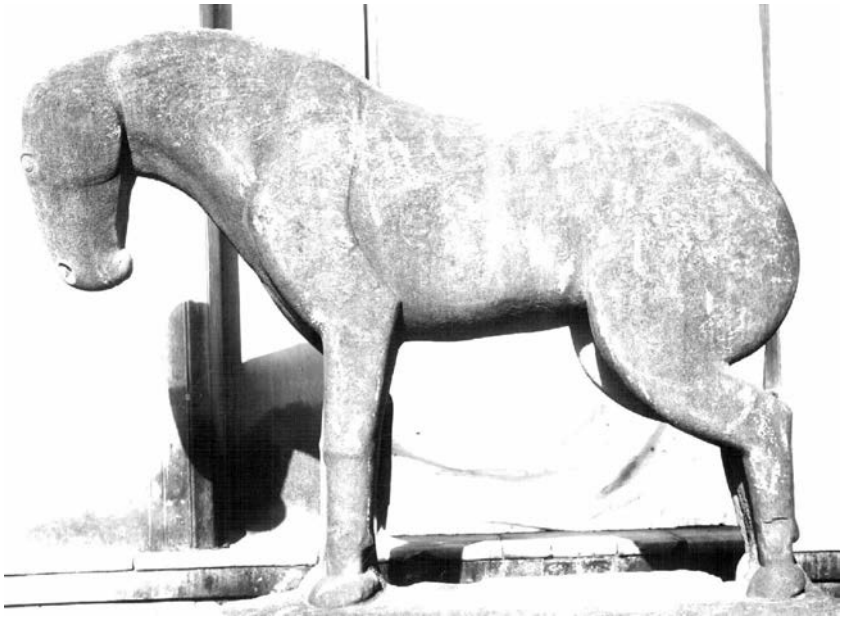

Fig. 312. Statue of the horse of Samudra Gupta at Khairigarh, Uttar Pradesh, 4th-6th century. State Museum, M219, Lucknow. Photograph: ASI, 1908-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 314. Stele of the god of hunt Revanta. Ghatnagar, Bangladesh, 10th-13th century. Varendra Research Museum, 726, Rajshahi, Bangladesh. Photograph: Varendra Research Museum, 1927-1928, courtesy Kern Institute, Leiden, the Netherlands

Fig. 313. Stele of the god of hunt Revanta on his horse. Northern India, 9th-10th century, sandstone. Linden Museum, Stuttgart, Germany. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart

Fig. 315. Stele of the sun god Surya on his chariot drawn by seven horses. Bangladesh, 8th-12th century, basalt. Varendra Research Museum, 1475, Rajshahi, Bangladesh. Photograph: ASI, 1932-1933, courtesy Kern Institute, Leiden, the Netherlands

Fig. 316. Marichi, the Buddhist goddess of dawn, on a chariot drawn by seven horses. Bodhgaya, Bihar, 9th century, grey sandstone. Above: detail of the pedestal showing the seven uproaring horses. Below: overview of the stele. Staatliche Kunstsammlungen, Berlin, Germany. Photograph: A. van der Geer

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Fig. 318. Detail of one of the rearing horses, showing the wide-open mouth. Horse mandapa, Shrirangam temple complex, Tamil Nadu, 17th century, granite. Photograph: courtesy Byron Aihara

Fig. 319. Panel with a horse and an elephant from Govardhan, Uttar Pradesh, c. 1600. Government Museum, S 43, Mathura. Photograph: ASI NC Hindu and Buddhist Monuments, Lahore 1319, 1911-1912, courtesy Kern Institute, Leiden, the Netherlands

Fig. 320. Attack by Mara's Army. Architrave of the southern gateway, Great Stupa, Sanchi, Madhya Pradesh, c.50-25 BCE, sandstone. Photograph: courtesy A. Kamphorst

Fig. 321. Frieze with the Transport of the Relics of the Buddha. Kankali Tila near Mathura, Uttar Pradesh, 1st-3rd century, sandstone. State Museum, J 535, Lucknow. Photograph: ASI DGA, 383-692, 1908-1909, courtesy Kern Institute, Leiden, the Netherlands

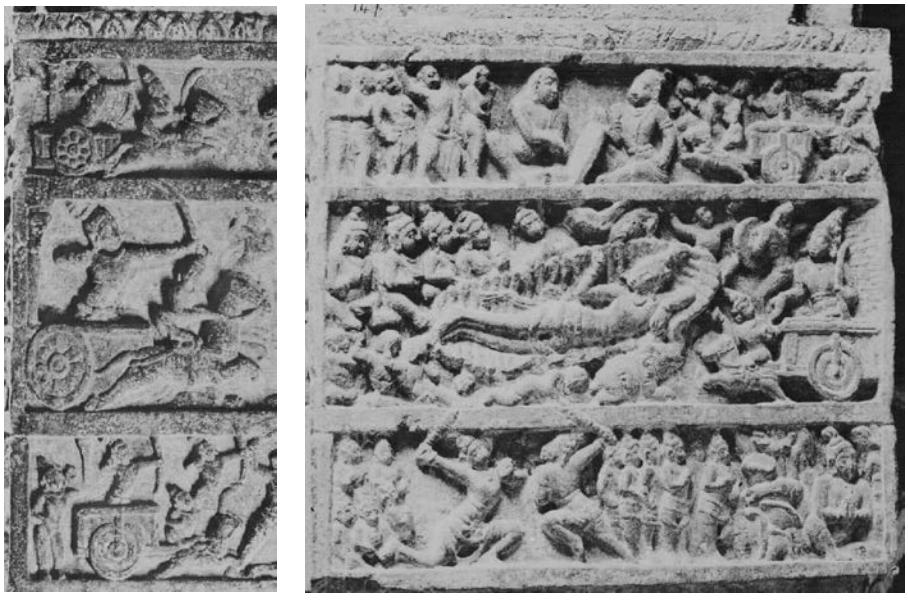


Fig. 322. *Mahabharata* scenes on columns of the Virupaksha temple at Pattadakal, Karnataka, c. 733-744, sandstone. Photographs: ASI 1874-1900, courtesy Kern Institute, Leiden, the Netherlands

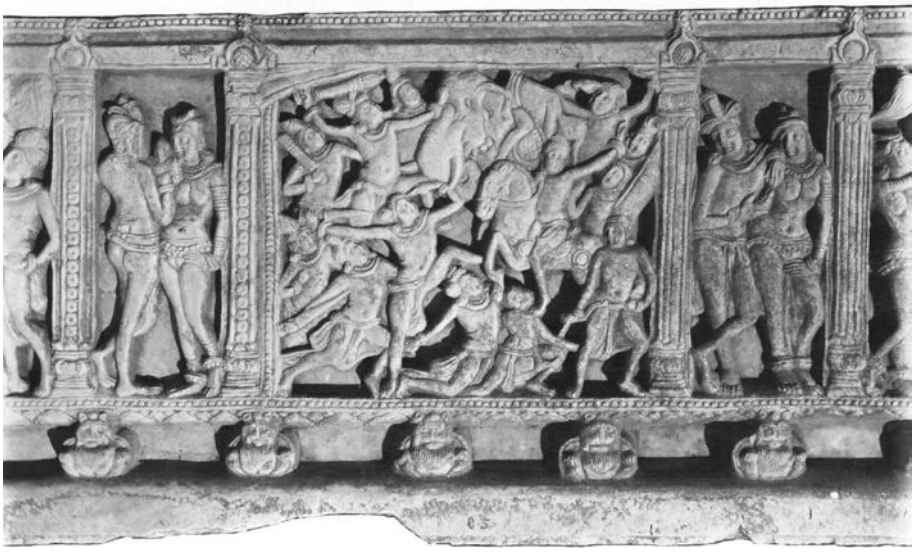


Fig. 323. Combat scene on panel C5 of the *ayaka* frieze at Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI, 1927-1928, courtesy Kern Institute, Leiden, the Netherlands

Fig. 324. Hero stone in the memory of Sri Godadadeva from Dumad, Gujarat, inscription dated to 1298. Baroda Museum. Photograph: ASI, courtesy Kern Institute, Leiden, the Netherlands

Fig. 325. Hero stone dedicated to Pabuji, Rajasthan. Kolu, new shrine, c. 1987, herostone itself 18th-19th century, sandstone. Photograph: courtesy J. Kamphorst

Fig. 326. Hero stone dedicated to Pabuji, Rajasthan. Kher, 17th-18th century, sandstone. Photograph: courtesy J. Kamphorst

Fig. 327. Hero stone dedicated to twin folk-gods, Keru, Rajasthan, c. 14th-15th century, sandstone. Photograph: courtesy J. Kamphorst

Fig. 328. Votive relief in honour of the oriental god Kaka(s)bos, Palace of the Knights, Rhodes, Greece, 3rd-4th century, limestone. Photograph: A. van der Geer

Fig. 329. Great Departure of the Buddha. Greater Gandhara, northern Pakistan, 1st-4th century, schist. Staatliche Sammlungen, Berlin, Germany. Photograph: A. van der Geer

Fig. 330. Krishna Fights the Horse Demon. Unspecified Hindu temple, Paharpur, Bangladesh, 8th-12th century. Photograph: ASI, 1925-1934, courtesy Kern Institute, Leiden, the Netherlands

Fig. 331. Erotic scene involving a mare on the plinth of the Lakshmana Temple at Khajuraho, Madhya Pradesh, c. 930-950, sandstone. Photograph: courtesy Ja-Yeon Jeong

Fig. 332. Detail of the head of a khur, showing the lack of a forelock. Diorama of the Staatliches Museum für Naturkunde, Stuttgart, Germany. Photograph: A. van der Geer

Fig. 333. The *Valahassa Jataka* on a railing pillar from Bhuteshvara near Mathura, Uttar Pradesh, 1st-3rd century, sandstone. Indian Museum, A 24946, Calcutta. Photograph: ASI, 1910-1930, courtesy Kern Institute, Leiden, the Netherlands.

Fig. 334. Running horses or khurs on a domeslab of stupa 2, Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI SC, 1928-1930, courtesy Kern Institute, Leiden, the Netherlands

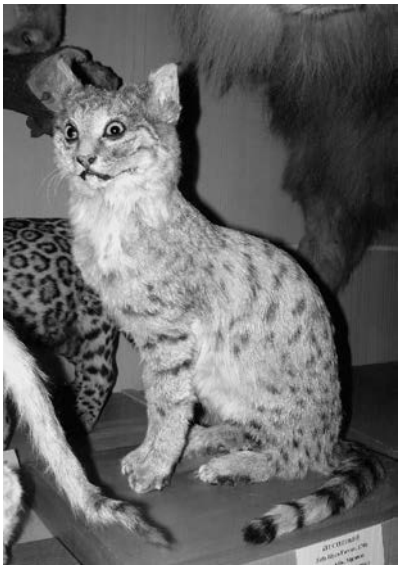
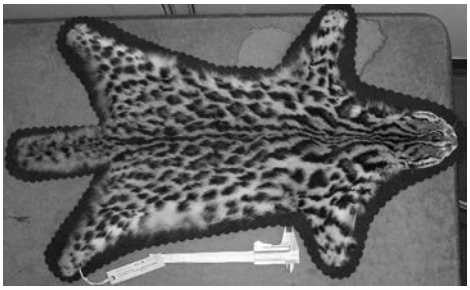
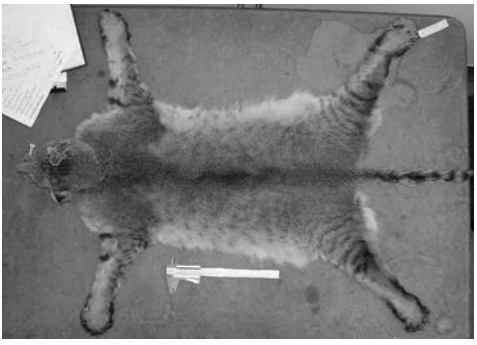


Fig. 335. The desert cat (*Felis libyca*). Zoological Museum, National Museum of Natural History, Kiev, Ukraine. Photograph: courtesy E.M. Pisanets





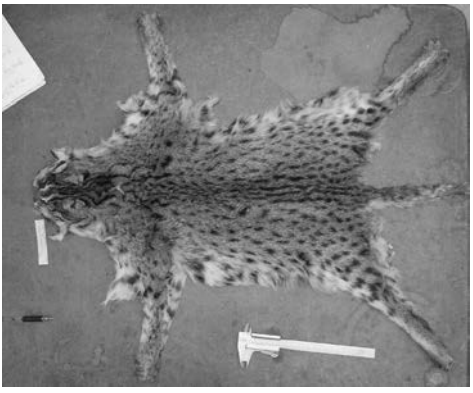


Fig. 336. Skins of three wild cat species from South Asia. Above: the leopard cat (*Felis bengalensis*), Assam, AMNH(M) 186957. Centre: the jungle cat (*F. chaus*), Nilgiri Hills, AMNH(M) 163140. Below: the fishing cat (*F. viverrina*), Bangladesh, AMNH(M) 244437. American Museum of Natural History, Department of Mammalogy, New York. Photograph: G. Lyras, courtesy The American Museum of Natural History, New York

Fig. 337. Frieze with the seven mother-goddesses (*saptamatrikas*) with Shashthi as third figure from the left. North India, c. 950-c. 1300. British Museum, London, UK. Photograph: ASI, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

Fig. 338. Story of the Rooster and the Cat on a coping stone from Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, Calcutta. Photograph: IO List 1900, 1973, courtesy Kern Institute, Leiden, the Netherlands

Fig. 339. The Indian giant squirrel (*Ratufa indica*). Staatliches Museum für Naturkunde, Stuttgart, Germany. Photograph: A. van der Geer

Fig. 340. The giant flying squirrel (*Petaurista petaurista*). Zoological Museum La Specola, Florence, Italy. Photograph: A. van der Geer

Fig. 341. Medallion with the Story of the Monkey King. Railing pillar from Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, 407, Calcutta. Photograph: IO List 1900, 1033, courtesy Kern Institute, Leiden, the Netherlands

Fig. 342. Reverse side of a *yakshi* stele. Mathura, Uttar Pradesh, 1st-3rd century, sandstone. Government Museum, Mathura. Below: overview of the front side, amongst other sculptures. Photographs: ASI, 1905-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 343. The chinkara or Indian gazelle (*Gazella bennetti*), buck with doe. Diorama of the Field Museum for Natural History, Chicago. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

Fig. 344. Detail of the pedestal of next figure. Brooklyn Museum of Art, 86.227.24, gift of the Ernest Erickson Foundation, New York.

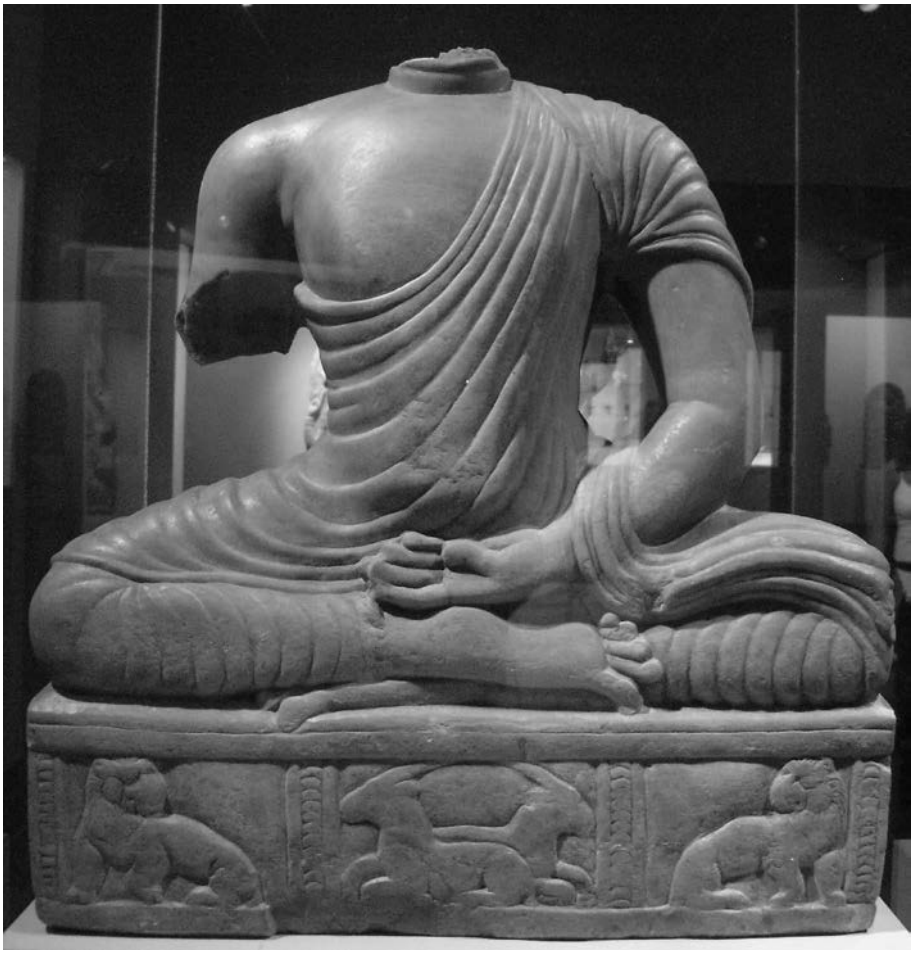


Fig. 345. Seated Buddha torso from Andhra Pradesh, probably Nagarjunakonda, late 3rd century, pale green limestone. For detail of the pedestal, see previous figure. Brooklyn Museum of Art, 86.227.24, gift of the Ernest Erickson Foundation, New York. Photographs: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

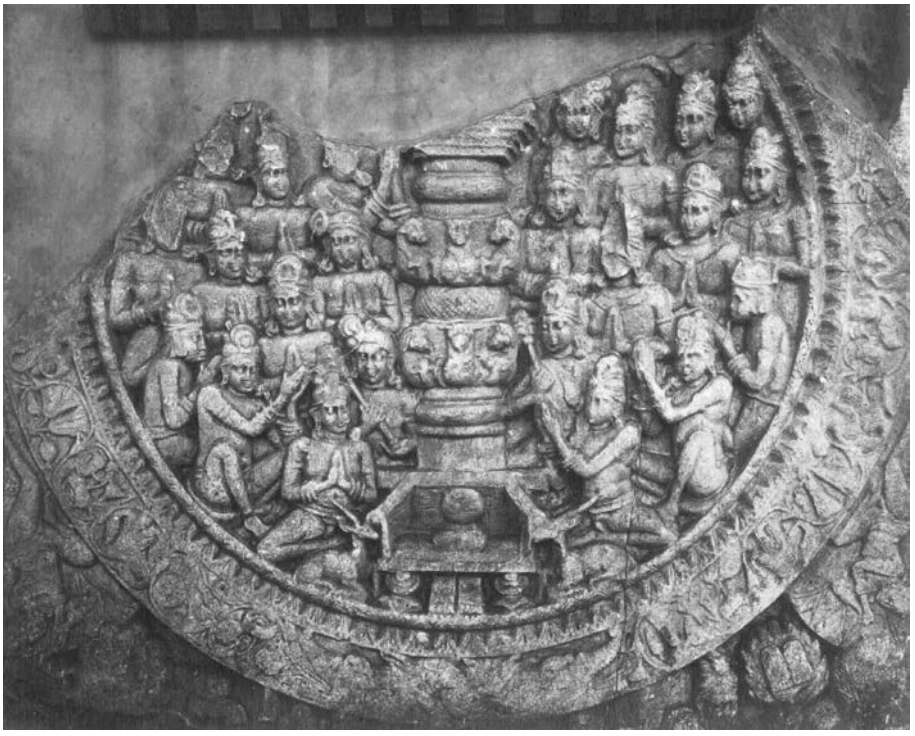


Fig. 346. Medallion with the story of The Buddha Visiting the Shakyas. Railing pillar from Amaravati, Andhra Pradesh, 1st-2nd century, limestone. Government Museum, Chennai. Photograph: ASI SC, B162, 1916-1917, courtesy Kern Institute, Leiden, the Netherlands

Fig. 347. Buddha Visiting the Shakyas. Panel from Stupa 9, Nagarjunakonda, Andhra Pradesh, 3rd-th century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI SC, 1928-1930, courtesy Kern Institute, Leiden, the Netherlands

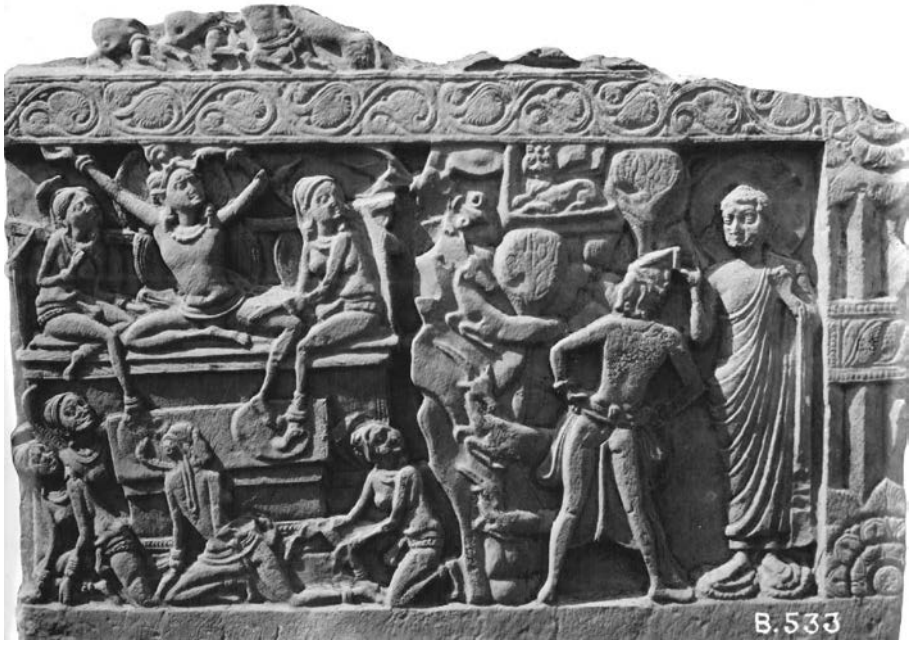


Fig. 348. Buddha Visiting the Resort of Naga Apalala in the Himalayas. Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Photograph: ASI SC, B533, 1930-1934, courtesy Kern Institute, Leiden, the Netherlands

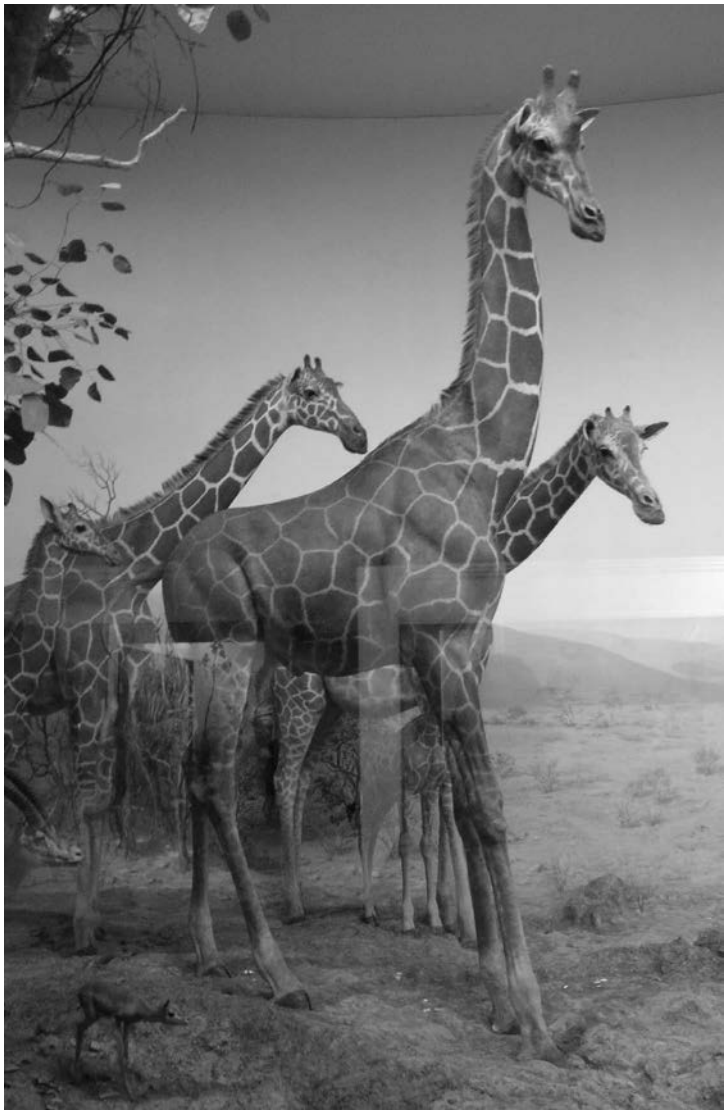


Fig. 349. The giraffe (*Giraffa camelopardalis*). Diorama of the Field Museum for Natural History, Chicago, USA. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

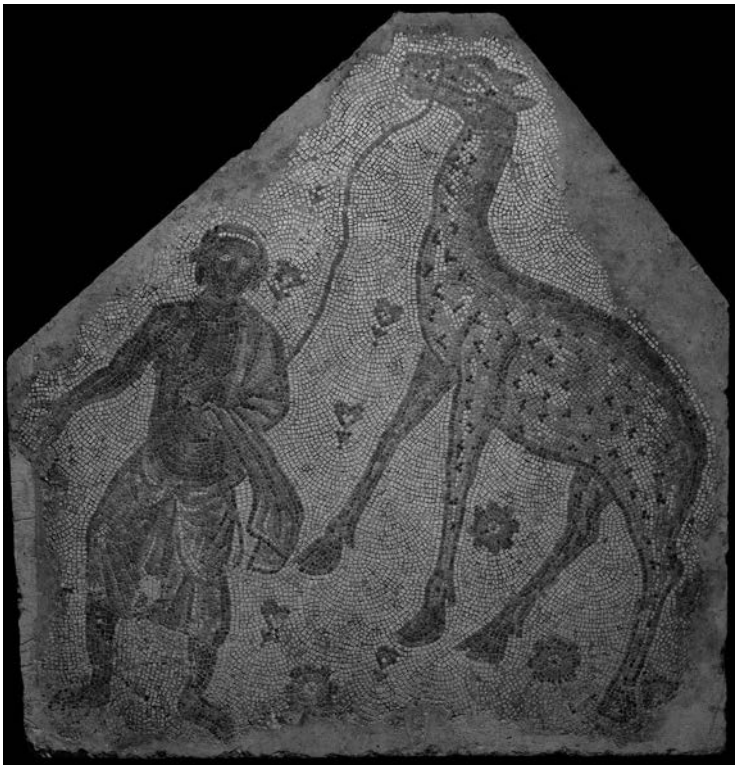


Fig. 350. Roman, Section of a Mosaic Floor, Late Imperial Period (5th century C.E.), Stone, mosaic, 170.8 x 167 cm, Gift of Mrs. Robert B. Mayer, 1993.345, The Art Institute of Chicago. Photography © The Art Institute of Chicago

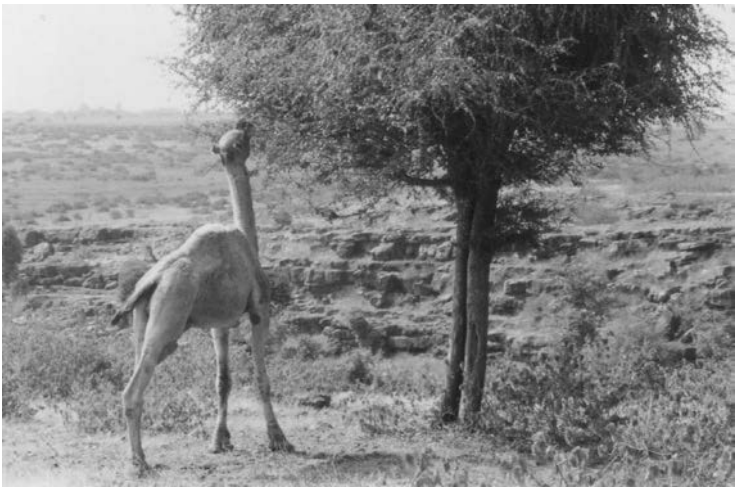


Fig. 351. Young dromedary browsing a tree. Rajasthan. Photograph: courtesy J. Kamphorst

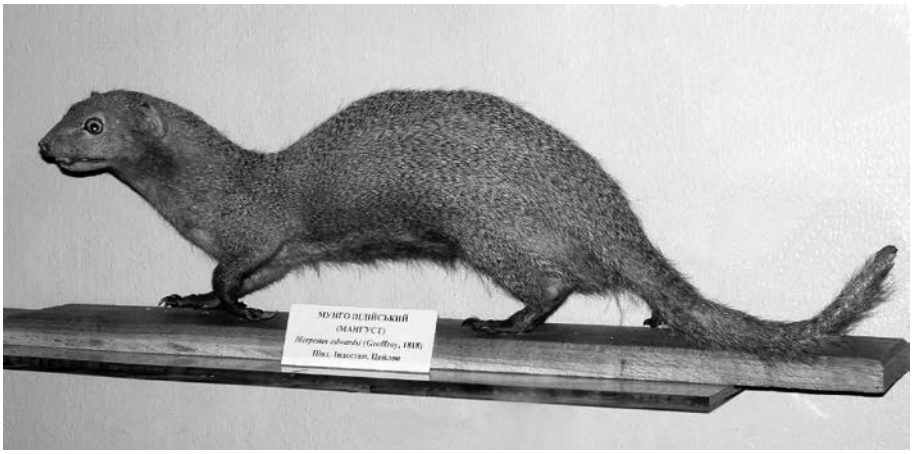


Fig. 352. The common or grey mongoose (*Herpestes edwardsi*). Zoological Museum, National Museum of Natural History, Kiev, Ukraine. Photograph: courtesy E.M. Pisanets

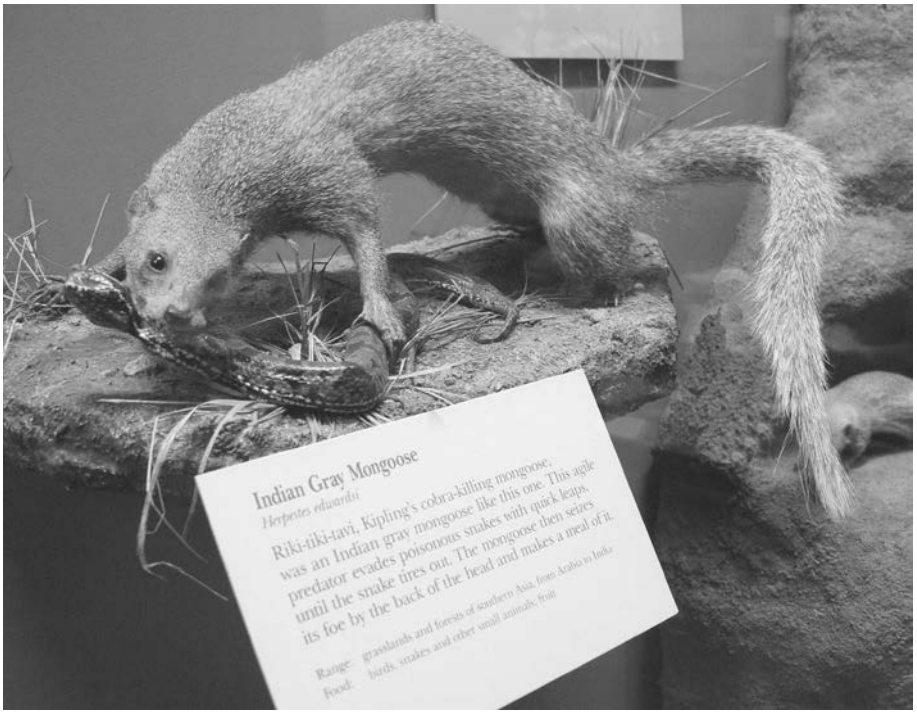


Fig. 353. The common mongoose preying upon a snake. Field Museum of Natural History, 34854, Chicago, USA. Photograph: A. Goswami, courtesy The Field Museum, Chicago

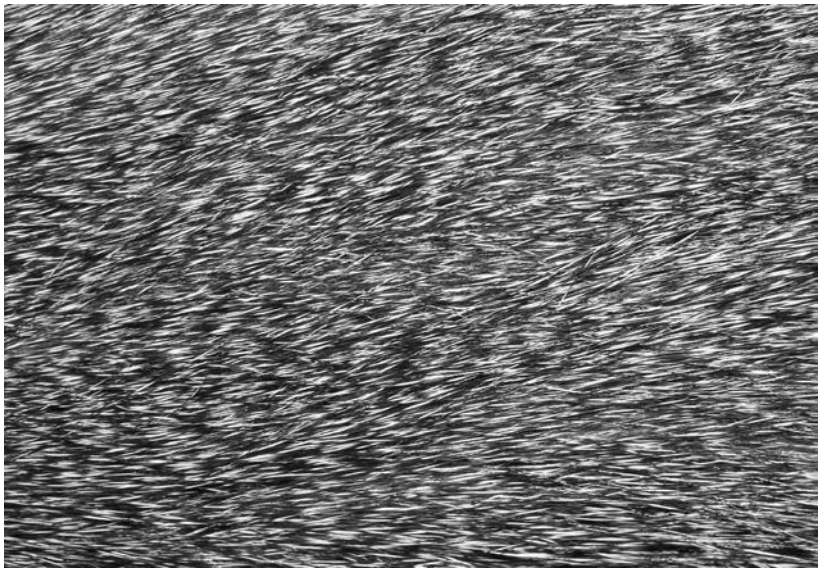


Fig. 354. Skin of the common mongoose, India. American Museum of Natural History, Department of Mammalogy, AMNH(M) 70006, New York. Photograph: G. Lyras, courtesy The American Museum of Natural History

Fig. 355. Panel with the Visit to the Indrashailaguha Cave, Mathura, Uttar Pradesh, 1st-3rd century, sandstone. Indian Museum, Calcutta. Photograph: ASI DGA, 1909-1910, 61, courtesy Kern Institute, Leiden, the Netherlands

Fig. 356. Stele of Jambhala, the Buddhist god of riches, holding a mongoose. Kurkihar near Bodhgaya, Bihar, 10th century. Indian Museum, A 24139, Calcutta. Photograph: ASI, 1905-1920, courtesy Kern Institute, Leiden, the Netherlands

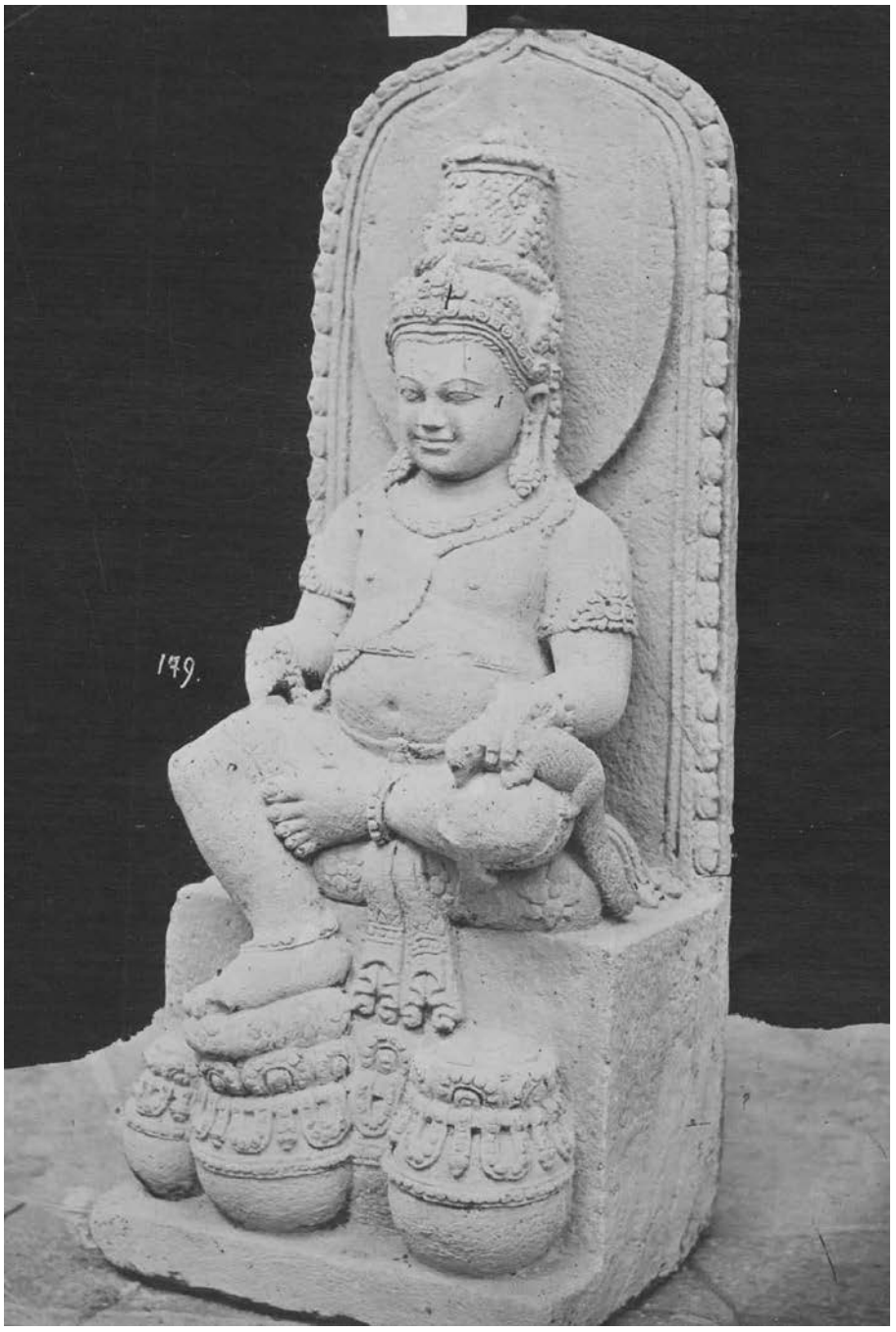


Fig. 357. Stele of Kubera, the Hindu god of riches, holding a mongoose. Yogyakarta, Java, 13th-16th century. Photograph: Isidore van Kinsbergen, 1865, courtesy Kern Institute, Leiden, the Netherlands

Fig. 358. Kubera / Jambhala with jewel-spitting mongoose. Satna, Madhya Pradesh, 8th-early 11th century, sandstone. Indian Museum, 6499, Calcutta. Photograph: ASI, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 363. Stele with the Story of The Monkey Offering Honey to the Buddha. Bihar, 10th century. Indian Museum, N.S. 2074/A25150, Calcutta. Photograph: ASI, 1910-1930, courtesy Kern Institute, Leiden, the Netherlands

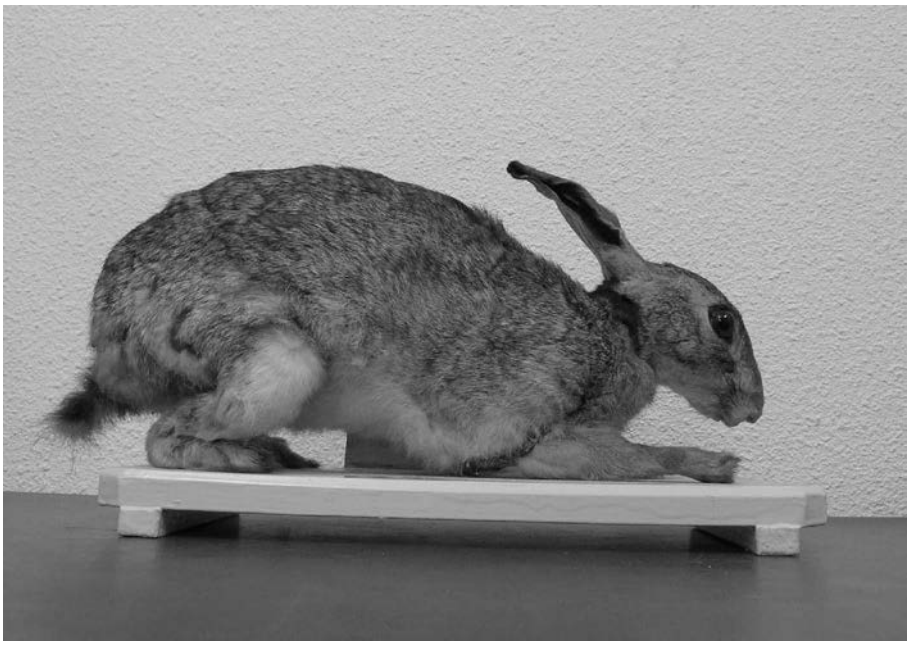

Fig. 364. The Indian hare (*Lepus nigricollis*). National Museum of Natural History Naturalis, Leiden, the Netherlands. Photograph: A. van der Geer, courtesy Naturalis, Leiden

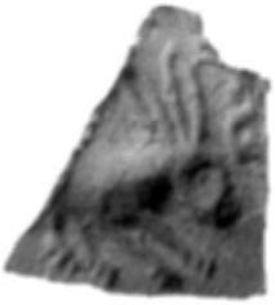

Fig. 365. Seal impression in baked clay, Harappa, Pakistan, 2,300-1,750 BCE. Photograph: ASI, 1930-1933, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 367. Story of the Hare on the Moon. Goli, Andhra Pradesh, 3rd century, limestone. Government Museum, Chennai. Photograph: ASI, 1926-1929, courtesy Kern Institute, Leiden, the Netherlands

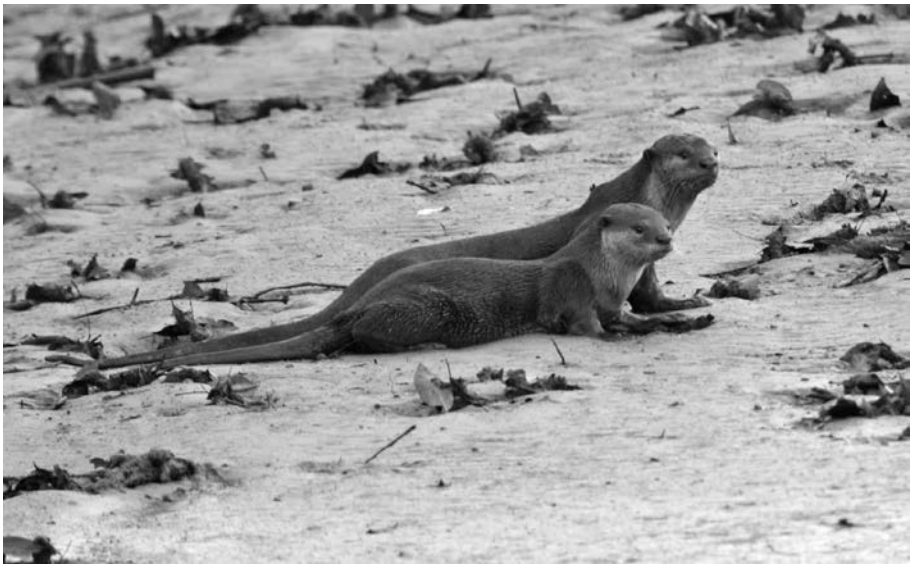

Fig. 368. The smooth Indian otter (*Lutrogale perspicillata*). Sungai Buloh Wetland Reserve, Thailand. Photograph: courtesy Lip Kee Yap

Fig. 369. The common otter (*Lutra lutra*). Naturmuseum Basel, Basel, Switzerland. Photograph: A. van der Geer

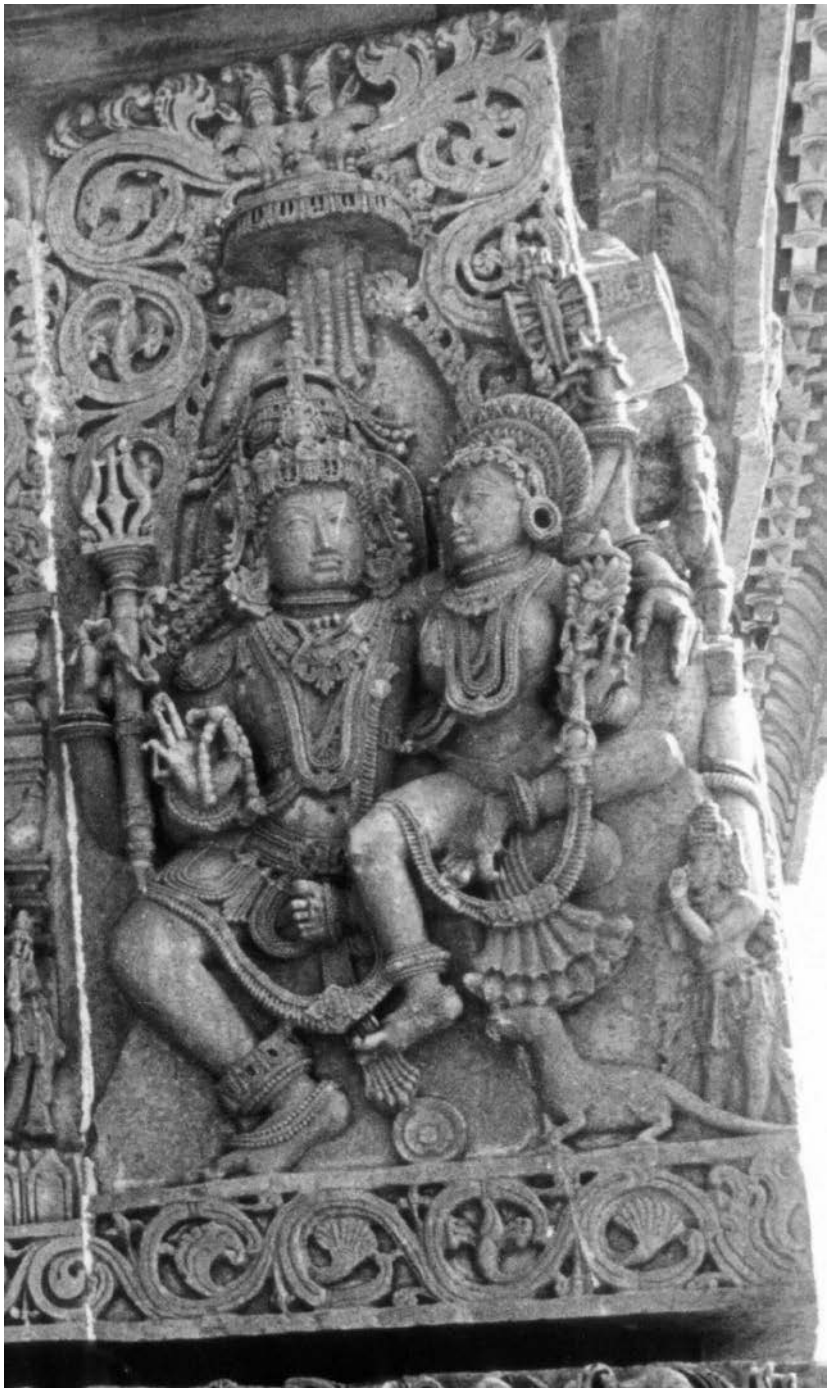

Fig. 370. Shiva and Parvati Sitting Together. South-western wall of the southern *navaranga* of the Hoysaleshvara Temple at Halebid, Karnataka, mid-12th century, soapstone. An otter is present below Parvati. Photograph: Gerard Foekema, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 376. Panel with the Story of the Monkey King. Right jamb of the western gateway to the Great Stupa at Sanchi, Madhya Pradesh, c. 50-25 BCE. Photograph: courtesy Susannah Stevens

Fig. 378. Coping stone with the Story of the Monkeys and the Gardener. Bharhut, Madhya Pradesh, c. 100 BCE, sandstone. Indian Museum, Calcutta. Photograph: IO List 1900, 1079, courtesy Kern Institute, Leiden, the Netherlands

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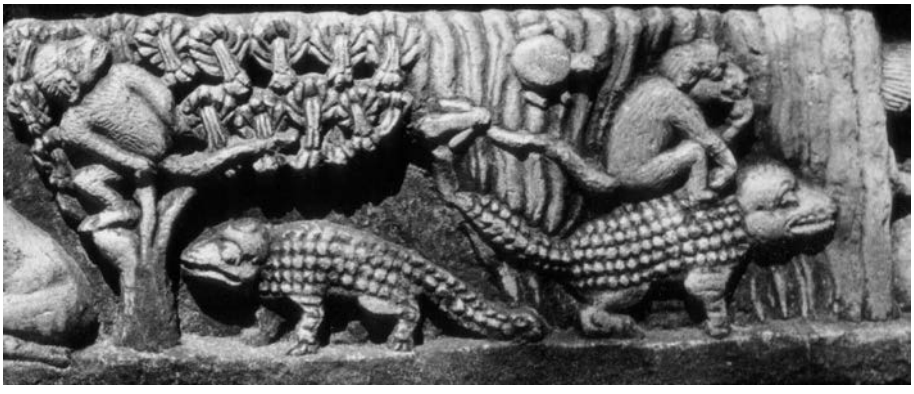

Fig. 381. Story of the Monkey and the Crocodile. Tripurantakeshvara temple, Belgami, Karnataka, c. 1070. Photograph: Gerard Foekema, courtesy Kern Institute, Leiden, the Netherlands

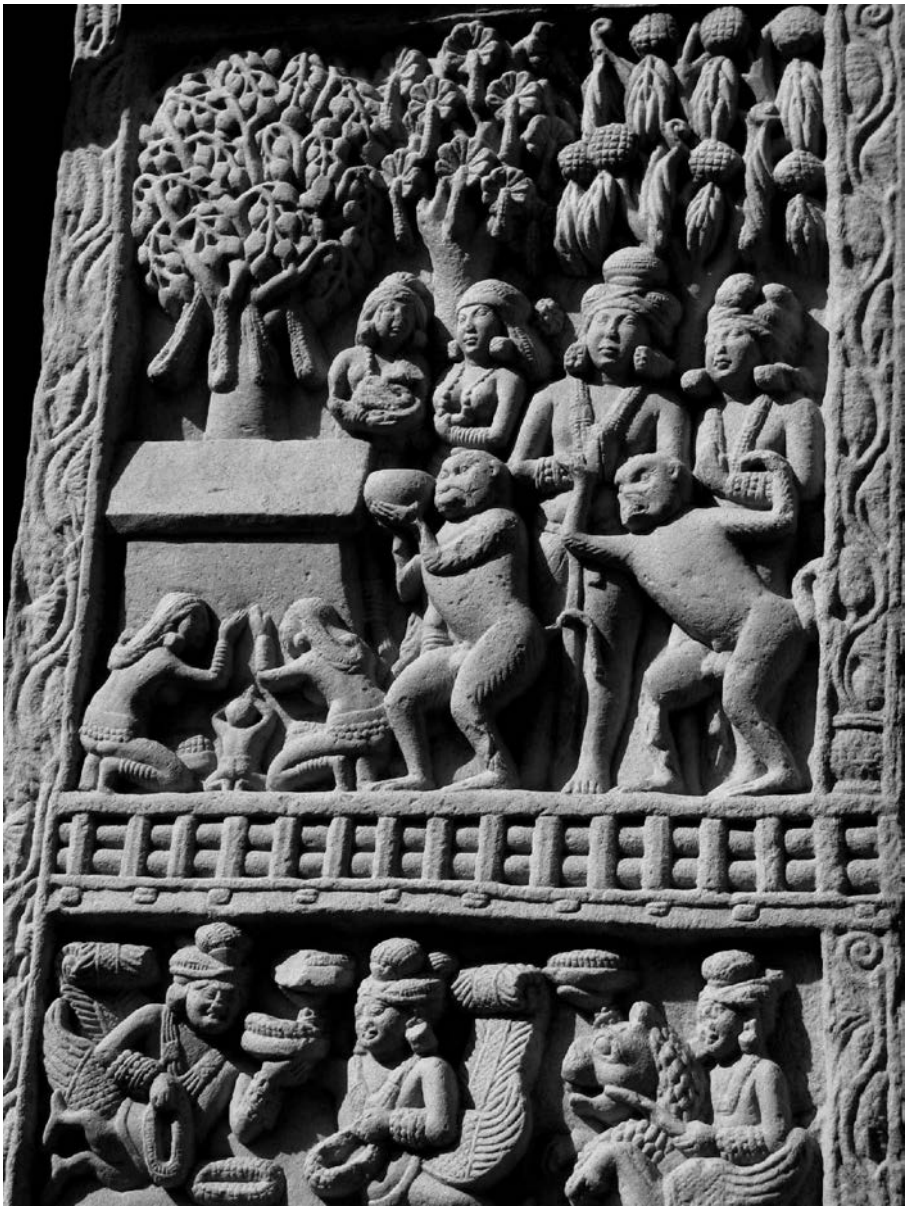

Fig. 380. Panel with the Story of the Monkey Offering Honey to the Buddha. Northern gateway, west pillar, east side, Great Stupa, Sanchi, Madhya Pradesh, c. 50-25 BCE, sandstone. Photograph: courtesy Zach Hessler

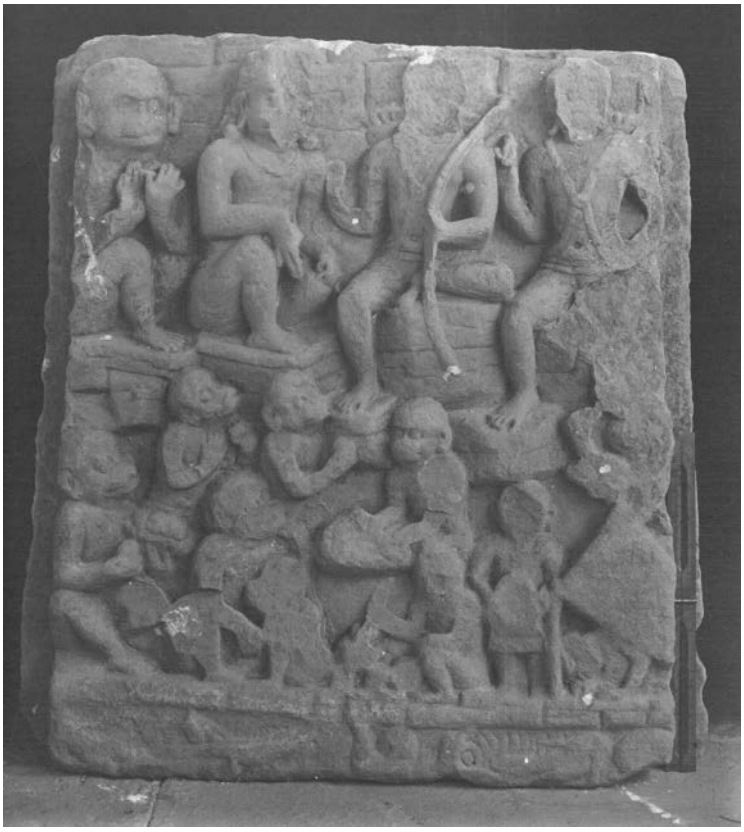

Fig. 383. Hanuman Meets Rama. Panel from Sarnath, Uttar Pradesh, 4th-6th century. Archaeological Museum, Sarnath. Photograph: ASI, 1910-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 382. Hanuman Goes To Lanka. Baghbhairava temple, Bhaktapur, Nepal, 16th century. Photography © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA

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Fig. 390. A muntjac crossing a lane in Jim Corbett Natural Park, Uttaranchal. Photograph: courtesy N. Kamphorst

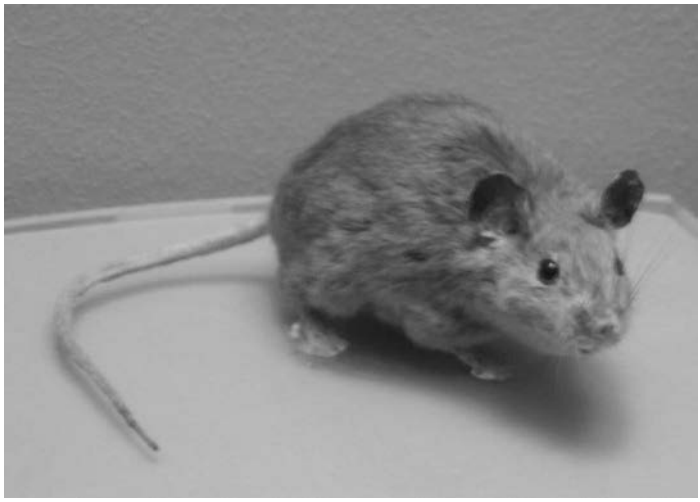

Fig. 391. The common house mouse (*Mus musculus*). Naturmuseum, Basel, Switzerland. Photograph: A. van der Geer

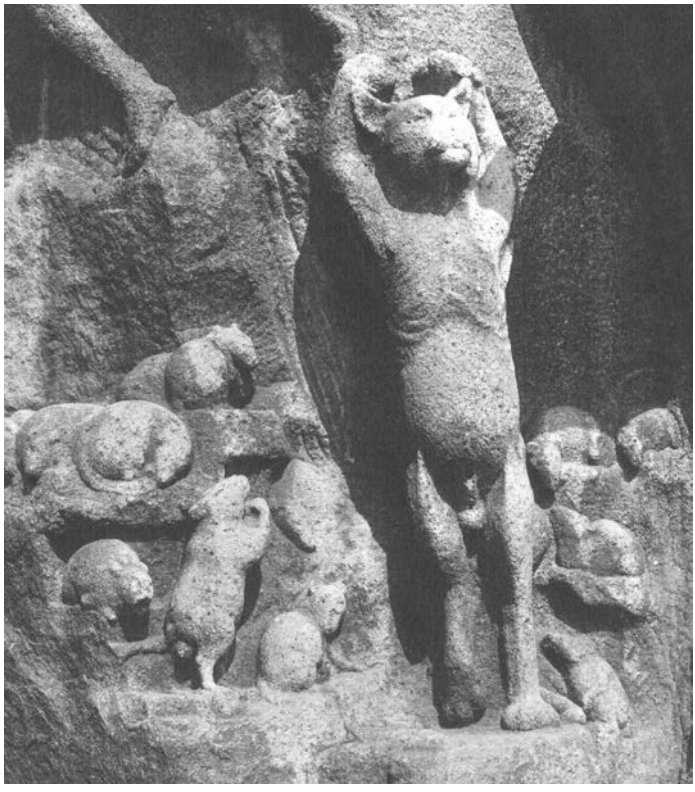

Fig. 392. Story of the Mice as detail of the monolithic relief of Arjuna's Penance, Mammalapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: ASI SC, D428, 1912-1913, courtesy Kern Institute, Leiden, the Netherlands

Fig. 393. Pastoralists with their domestic sheep (*Ovis aries*) on the move in Rajasthan. Photograph: courtesy A. Kamphorst

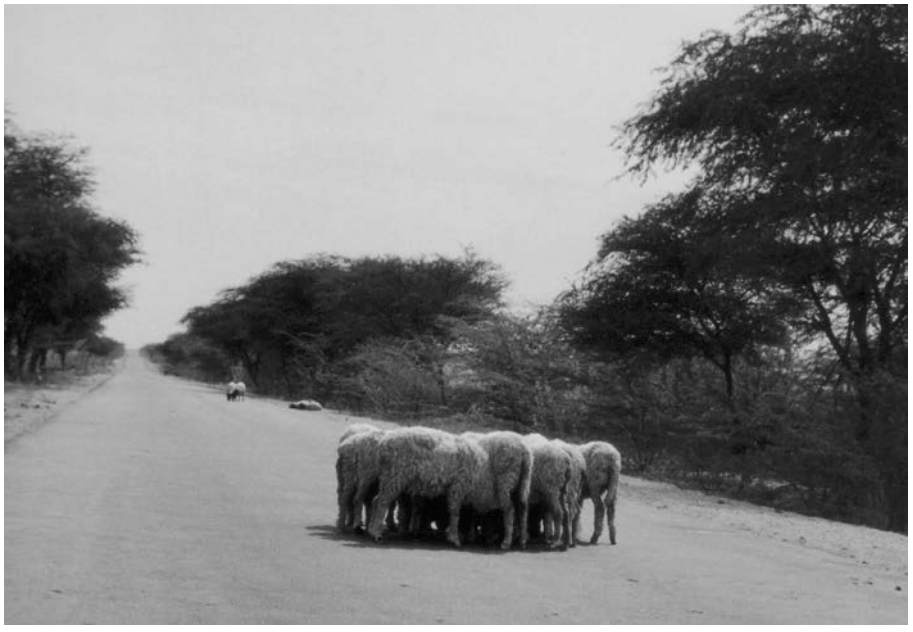

Fig. 394. Sheep hold their heads together to prevent overheating. Photograph: courtesy J. Kamphorst

Fig. 395. Wild sheep of the Indian subcontinent, the argali or nayan (*Ovis ammon*). Diorama, Field Museum for Natural History, Chicago, USA. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

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Fig. 401. Sheep-headed bracket figure. Chennakeshava temple, Belur, Karnataka, c. 1117, soapstone. Photograph: B. Aihara

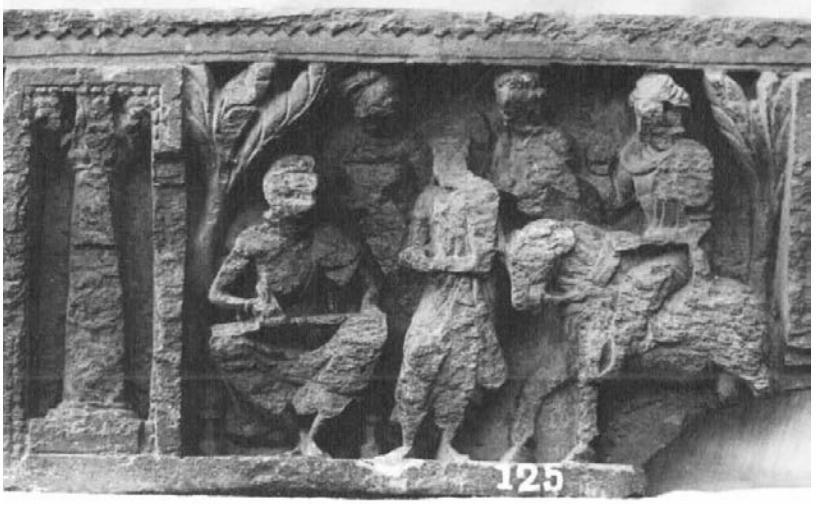

Fig. 402. Siddhartha Going To Shool on a ram. Stupa drum, Greater Gandhara, Pakistan, 1st-4th century, schist. Central Museum, 125, Lahore. Photograph: ASI, 1871-1897, courtesy Kern Institute, Leiden, the Netherlands

Fig. 403. Story of the Ram that Laughed and Wept. Panel C6 of the *ayaka* frieze, Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunkonda. Photograph: ASI SC, 1928-1930, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 413. Pakistan (Ancient Gandhara), Stupa Reliquary, c. 200, Gray schist, 30.5 x 19.7 x 19.1 cm, The James W. and Marilynn Alsdorf Collection, 2006.18, The Art Institute of Chicago. Photography © The Art Institute of Chicago

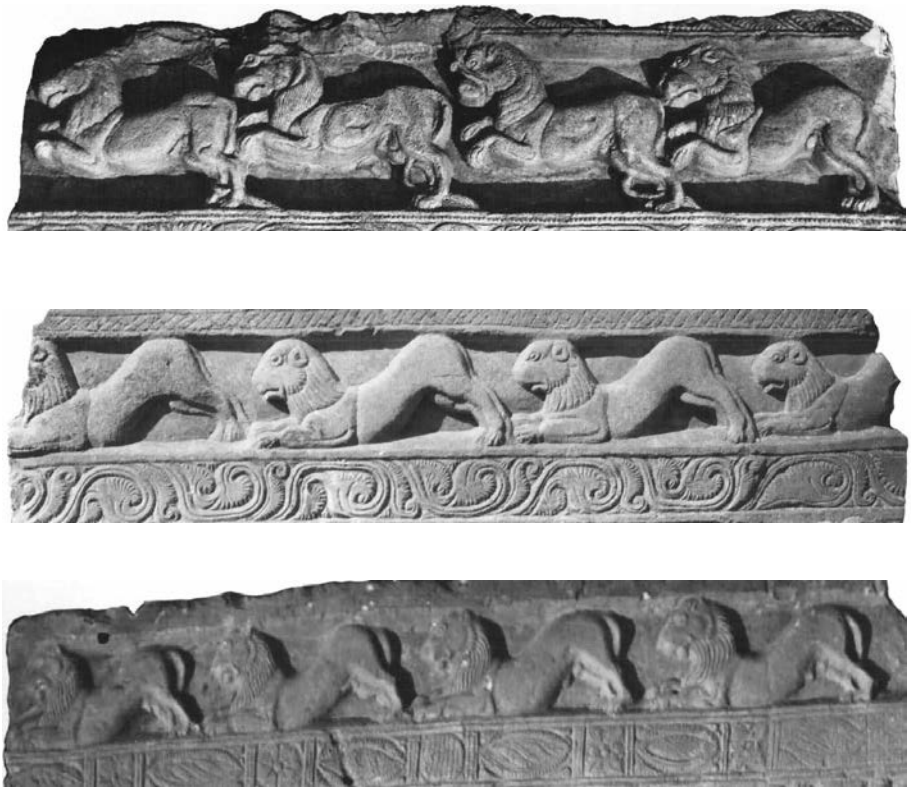

Fig. 414. Three friezes with running lions from Nagarjunakonda, Andhra Pradesh, 3rd-4th century, limestone. Site Museum, Nagarjunakonda. Above: panel F3, stupa 3. Centre: panel D1, stupa 3. Below: drum panel, stupa 2. Photographs: ASI SC B535 1930-1934, ASI 1928-1930 and ASI 1930-1934, courtesy Kern Institute, Leiden, the Netherlands

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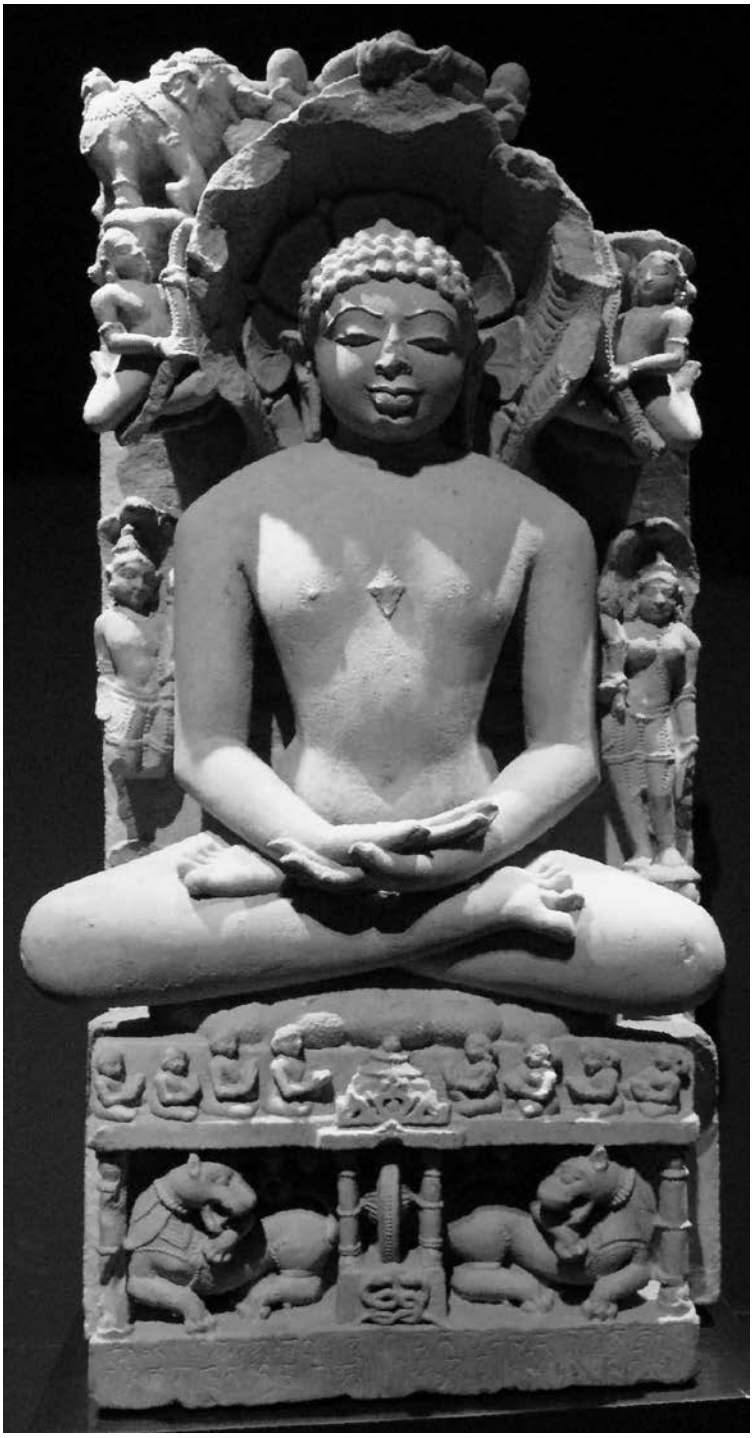

Fig. 420. Parshvanatha Tirthankara from Rajasthan, 10th-11th century, sandstone. Linden Museum, SA.017271, Stuttgart, Germany. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart

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Fig. 422. Stele of Tara with a lion pedestal. Bengal, 10th century, grey schist. Brooklyn Museum of Art, 76.179.5, gift of Martha M. Green, New York. Photograph: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

Fig. 423. The Goddess Durga with Two Lions, Southern Uttar Pradesh, c. 850-900, sandstone. Brooklyn Museum of Art, 79.254.2, anonymous gift, New York. Photograph: A. van der Geer, courtesy The Brooklyn Museum of Art, New York

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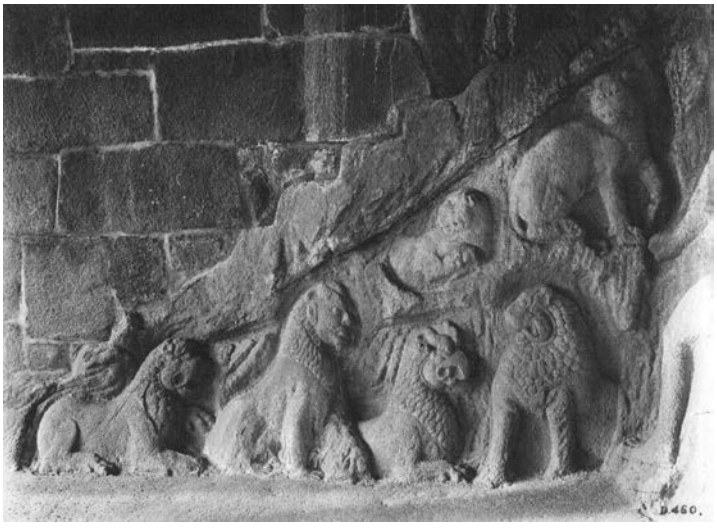

Fig. 428. Various lion-reliefs in the Krishna Cave. Mammalapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: ASI SC, D460, 1912-1913, courtesy Kern Institute, Leiden, the Netherlands

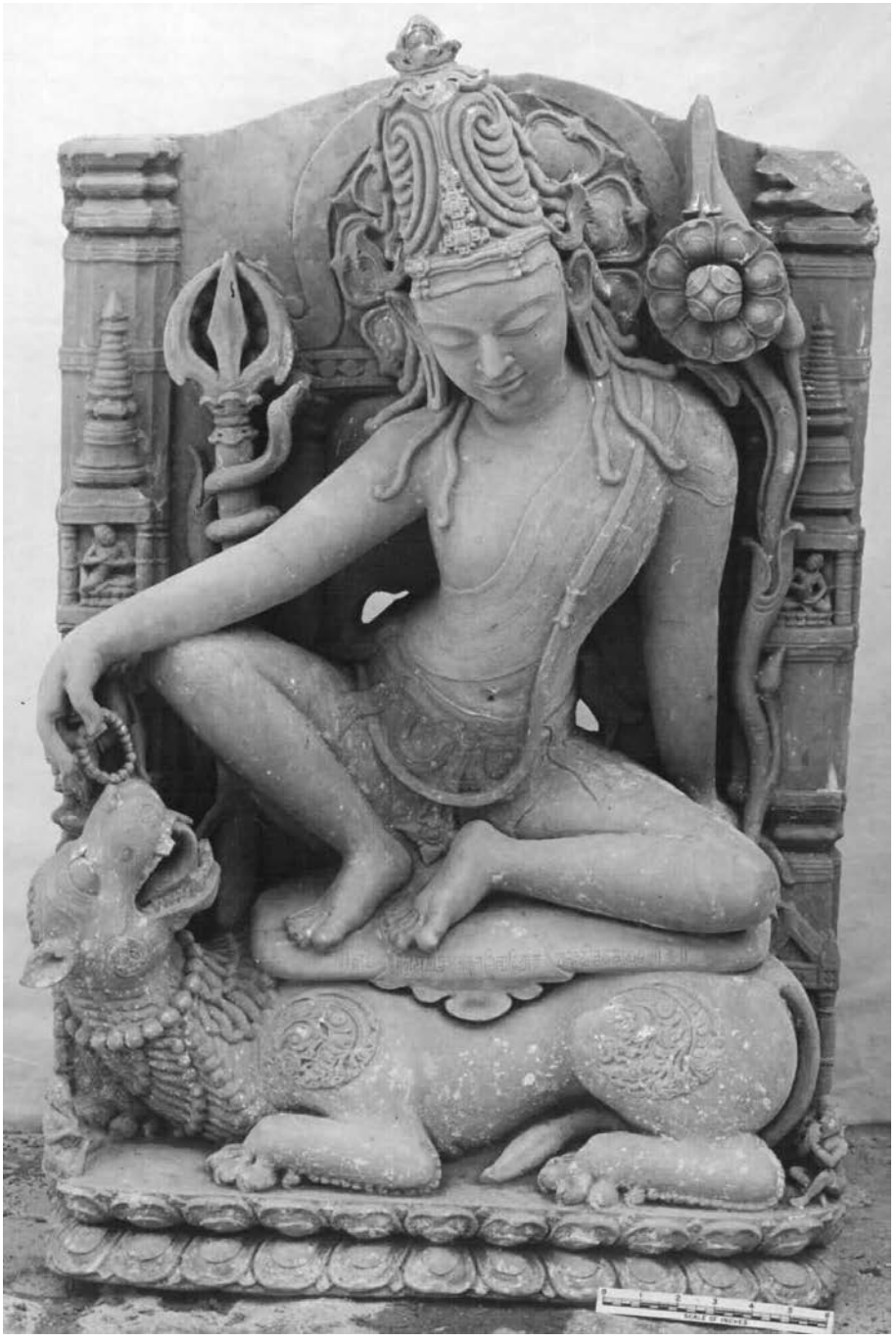

Fig. 429. The Bodhisattva Simhanada Lokeshvara on his lion. Mahoba, Uttar Pradesh, 10th-13th century, sandstone. State Museum, Lucknow. Photograph: ASI, courtesy Kern Institute, Leiden, the Netherlands

Fig. 430. The Bodhisattva Simhanada Lokeshvara on his lion. Sultanganj, originally from the Rajmahal Hills, Bihar, 12th century. Photograph: City of Birmingham Museum, UK, 1920-1926, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 432. The lion of Dionysus. Yusufzai, Greater Gandhara, Pakistan, 1st-4th century, schist. Indian Museum, Calcutta. Photograph: ASI DGA, 65, 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

Fig. 433. Two steles of Vishnu's lion-headed manifestation Narasimha from Verinaga, Jammu and Kashmir, 10th-12th century. Sri Pratap Singh Museum, Srinagar. Photographs: ASI, 1936-1938, courtesy Kern Institute, Leiden, the Netherlands

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Fig. 438. Panel with the Attack by Mara's Army, showing detail of the lion. Greater Gandhara, 3rd century, schist. Staatliche Kunstsammlungen, MIKI 10.198, Berlin, Germany. Photograph: A. van der Geer

Fig. 439. Panel with the Story of the Indrashailaguha Visit. Shanti stupa, Dhaulagiri hill near Bhubaneshwar, Orissa, 1972. Photograph: courtesy Rita Willaert

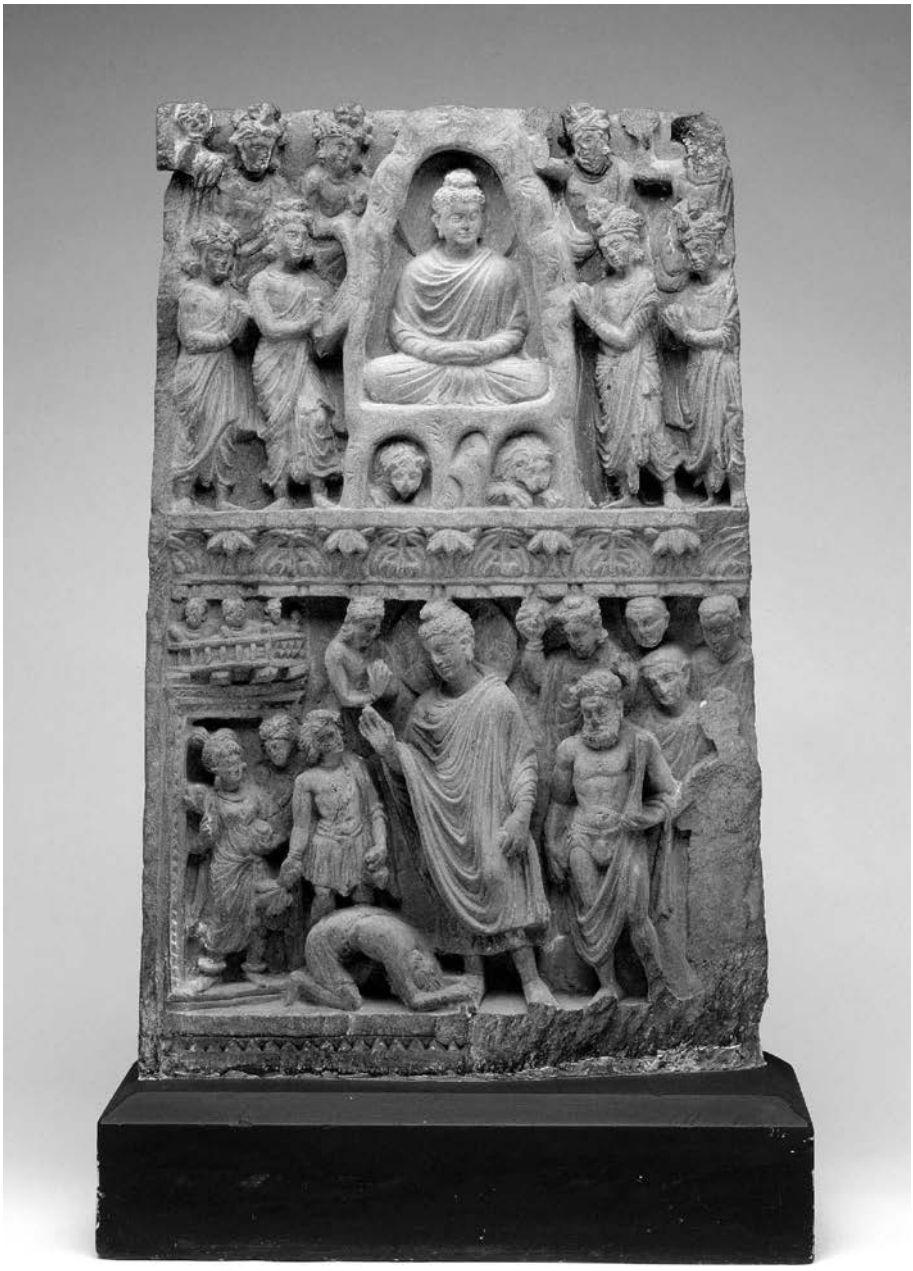

Fig. 440. Pakistan (Ancient Gandhara), Relief with Scenes from the Buddha's Life, 2nd/3rd century, Gray schist, 60 x 37.1 x 7.3 cm, Private Collection, 180.1997, The Art Institute of Chicago. Photography © The Art Institute of Chicago

Fig. 441. Women on a balcony looking to a fighting lion. Sarnath, Uttar Pradesh, 6th-8th century, sandstone. Photograph: ASI, 1904-1905, courtesy Kern Institute, Leiden, the Netherlands

Fig. 442. A lion hunt on a frieze from Jamalgarhi, Greater Gandhara, 1st-4th century. Indian Museum, Calcutta. Photograph: ASI, 1872-1873, courtesy Kern Institute, Leiden, the Netherlands

Fig. 443. Fighting lion and bull. Doorjamb, Uttar Pradesh, 4th-6th century. State Museum, B.107, Lucknow. Photograph: ASI DGA, 1908-1909, 383-632, courtesy Kern Institute, Leiden, the Netherlands

Fig. 444. Four different steles with Durga Slaying the Buffalo Demon. Above, left: Sundarbans, West Bengal or Bangladesh, 13th-16th century, granite. Indian Museum, Sn.2, Calcutta. Above, right: Raniganj, West Bengal, 12th century. Below, left: Mata Temple at Bhatal or Bhatund near Jodhpur, Rajasthan, 8th-early 11th century, sandstone. Below, right: Salad near Karvan, Gujarat, 9th century, Baroda Museum, AS.2.421. Photographs: ASI, 1900-1920, 1935 and 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

Fig. 445. Panel with a lion attacking a warrior (centre) and a warrior wearing a lion skin over his shield (left). Delphi, Greece, 4th BCE, marble. Photograph: A. van der Geer

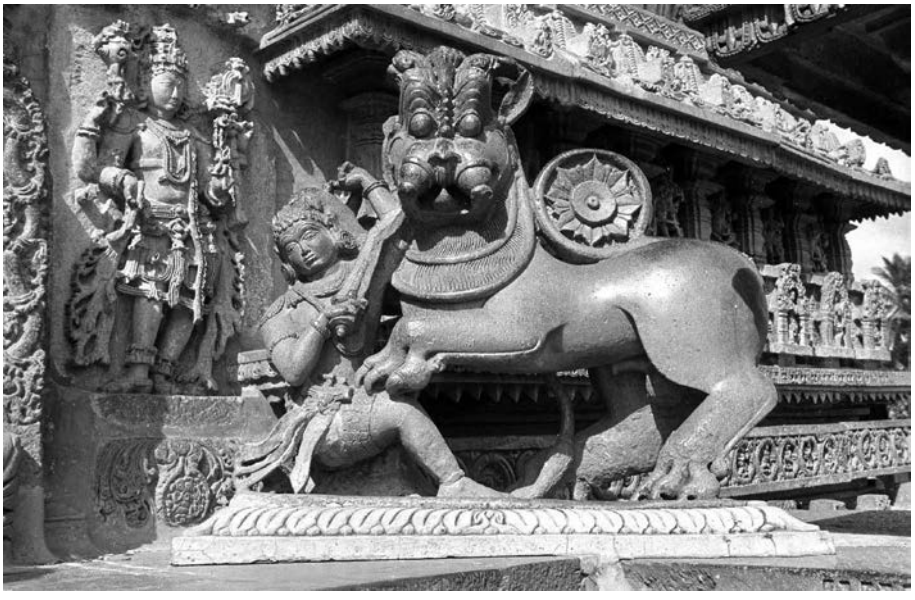

Fig. 446. Shala Fighting the Lion. Chennakeshava temple, Belur, Karnataka, c. 1117, soapstone. Photograph: Gerard Foekema, courtesy Kern Institute, Leiden, the Netherlands

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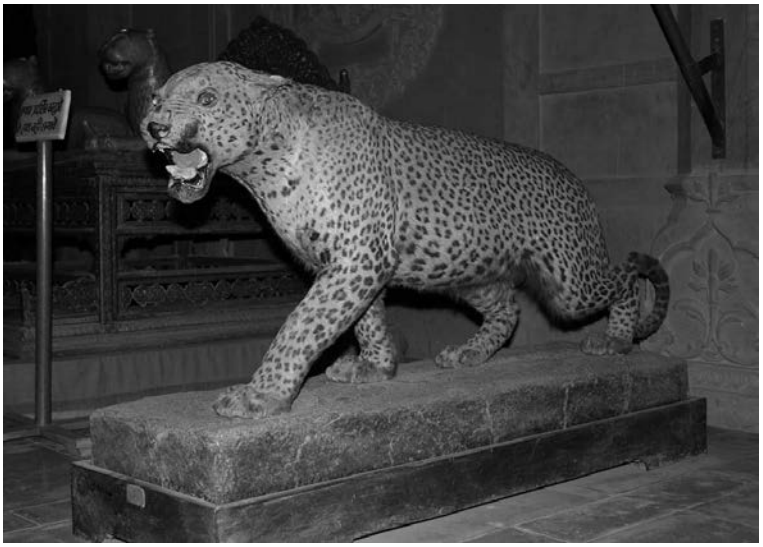

Fig. 449. A leopard (*Panthera pardus*) as hunting trophie. Junagarh Fort, Bikaner, Rajasthan. Photograph: courtesy Paul Veltman and Antje Brunt

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Fig. 451. The snow leopard or ounce (*Panthera uncia* or *Uncia uncia*). Padmaja Naidu Himalayan Zoo, Darjeeling, West Bengal. Photograph: courtesy J. Kamphorst

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Fig. 454. Stele of Shiva and Parvati sitting on a leopard skin. Varanasi, Uttar Pradesh, 17th-18th century. Indian Museum, 8561, Calcutta. Photograph: ASI, 1930-1931, courtesy Kern Institute, Leiden, the Netherlands

Fig. 455. Unidentified male figure wearing a leopard skin around his waist. Detached statue lying on the compounds of a Tala temple, Chattisgarh. Photograph: courtesy Akhilesh Bharos

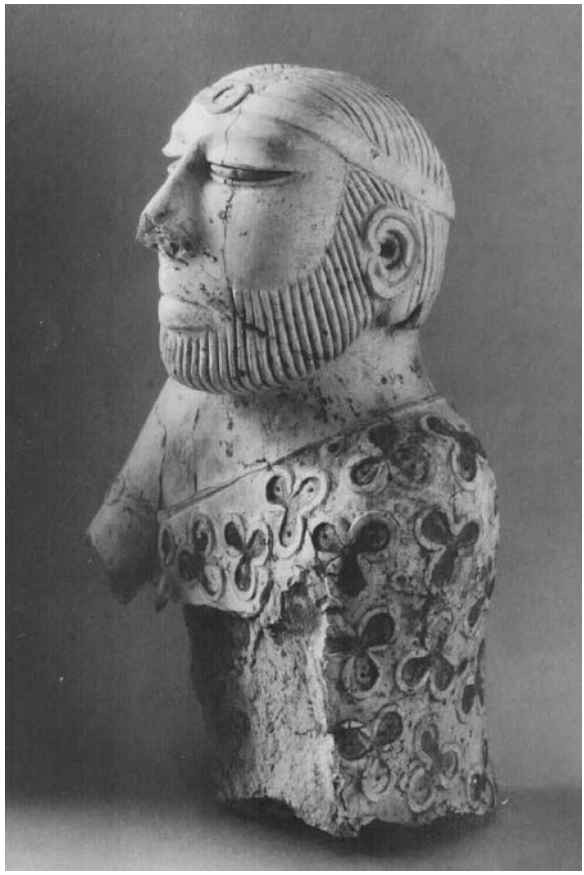

Fig. 456. Torso of a male figure, often referred to as a 'priest'. DK-area, Mohenjo-daro, Pakistan, c. 2,100-1,750 BCE, limestone. National Museum, Karachi. Photograph: ASI DGA, 1925-1926, courtesy Kern Institute, Leiden, the Netherlands

Fig. 457. Potsherd with trifoliate or rosette pattern from Harappa, Pakistan, c. 2,300-1,750 BCE. Photograph: ASI, 1933-1934, courtesy Kern Institute, Leiden, the Netherlands

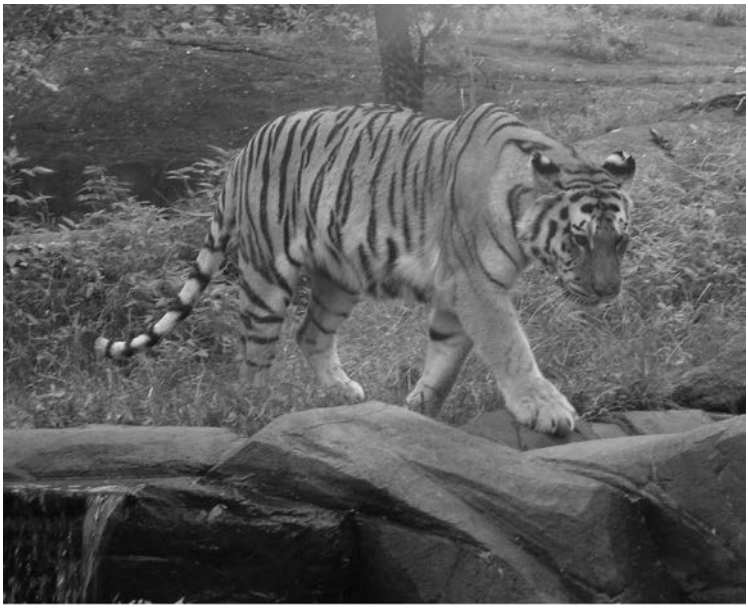

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Fig. 460. Tiger skins were collected in great numbers. Photograph: G. Lyras, courtesy The American Museum of Natural History, Department of Mammalogy, New York

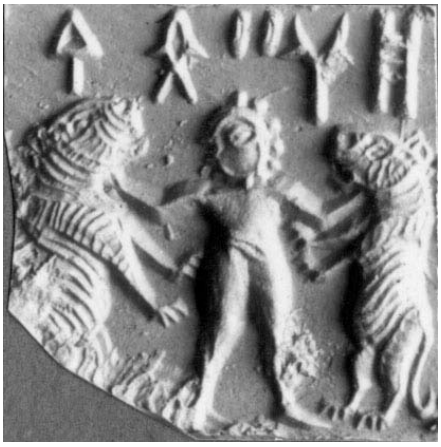

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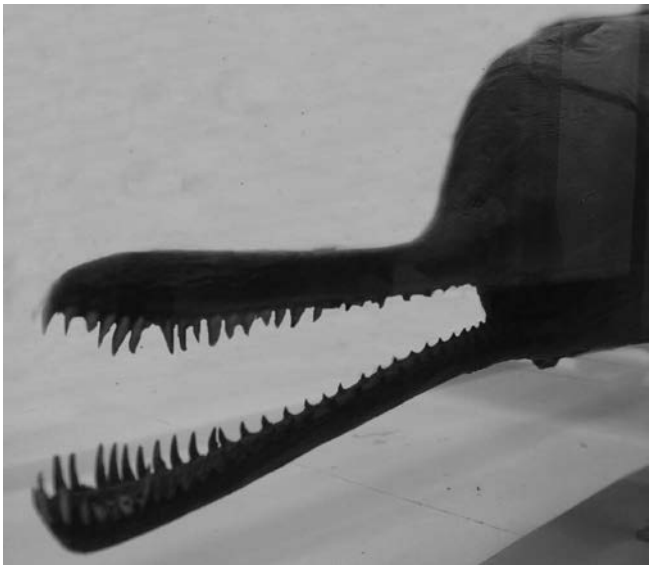
Fig. 462. Killing a tiger. Pier of the Sheshagiri *mandapa* of the Ranganatha temple, Shrirangam, Tamil Nadu, late 16th century, granite. Photograph: courtesy Byron Aihara. Below: overview. Photograph: © 2006 Y Giridhar Appaji Nag <giridhar@appaji.net>



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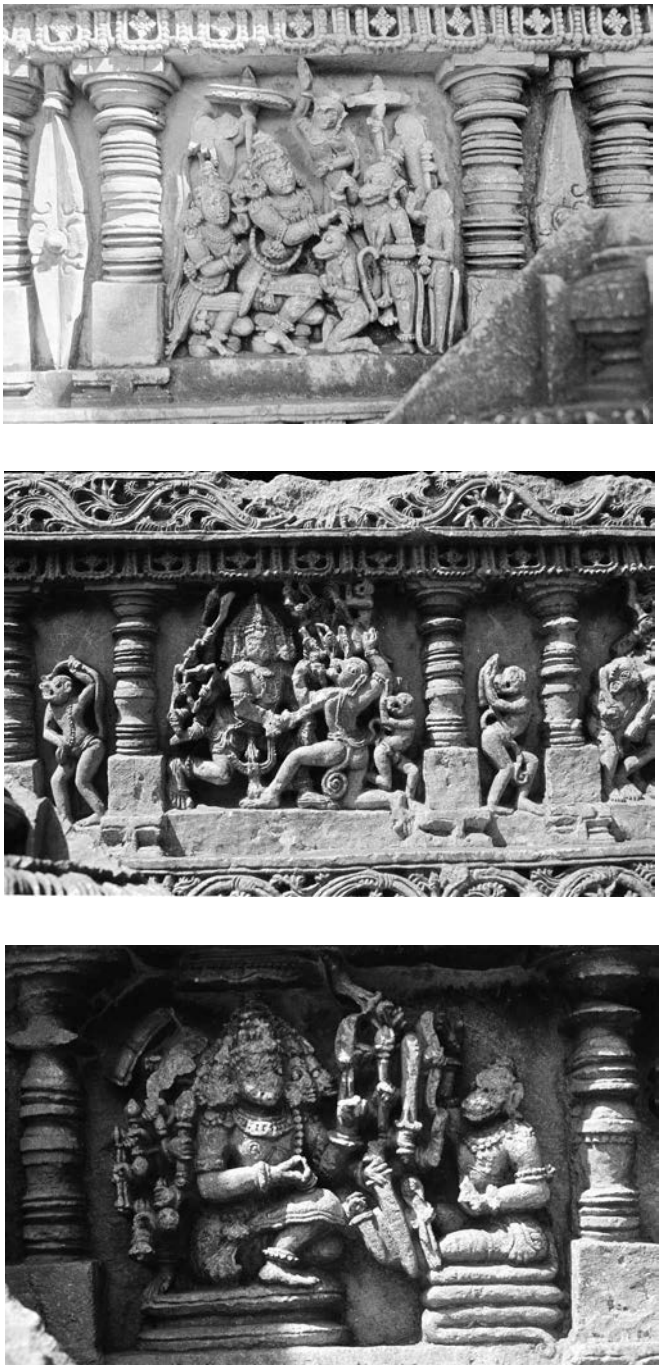

Fig. 474. Three friezes with *Ramayana* episodes. Amriteshvara temple, Amritapura, Karnataka, c. 1196, granite. Above: Rama Blesses Hanuman, south side of the main hall. Centre: Hanuman Fights Ravana, southern entrance, east side. Below: Hanuman Teaches Ravana, southern entrance, east side. Photographs: Gerard Foekema, courtesy Kern Institute, Leiden, the Netherlands

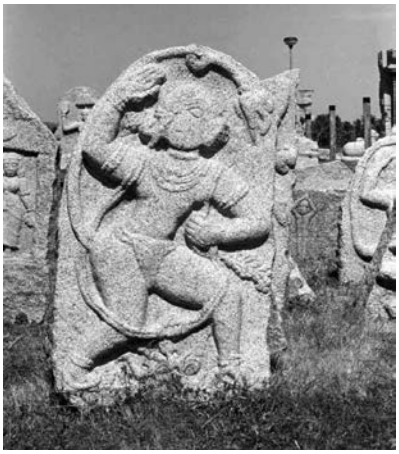

Fig. 475. Three steles of Hanuman Going to Lanka. Hampi, Karnataka, 16th century, granite. Above, left: Site Museum, Hampi. Photography: © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA. Above, right: Archaeological Museum, Kamalapuram. Photograph: courtesy Yann. Below, left: Hanuman temple. Photograph: courtesy Lee Meerson

Fig. 476. Hanuman Goes to Lanka. Madhya Pradesh, 17th-18th century, painted sandstone. Archaeological Museum, Gwalior. Photograph: courtesy Ed Sentner

Fig. 477. Fight Between Vali and the Demon. Kailashanatha temple or Cave 16, Ellora, Maharashtra, 8th-9th century, basalt. Photograph: courtesy Luc Seurin

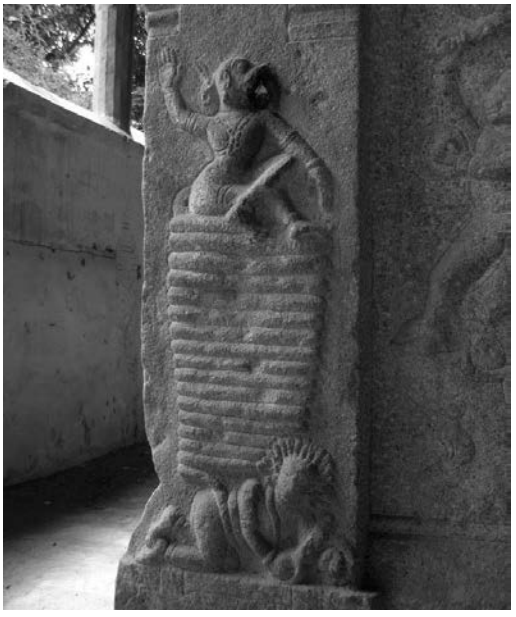

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Fig. 479. Hanuman Reads a Manuscript. Navabrindavanam, Anegundi, Karnataka, 14th-16th century. Photograph: courtesy Balaji Srinivasan

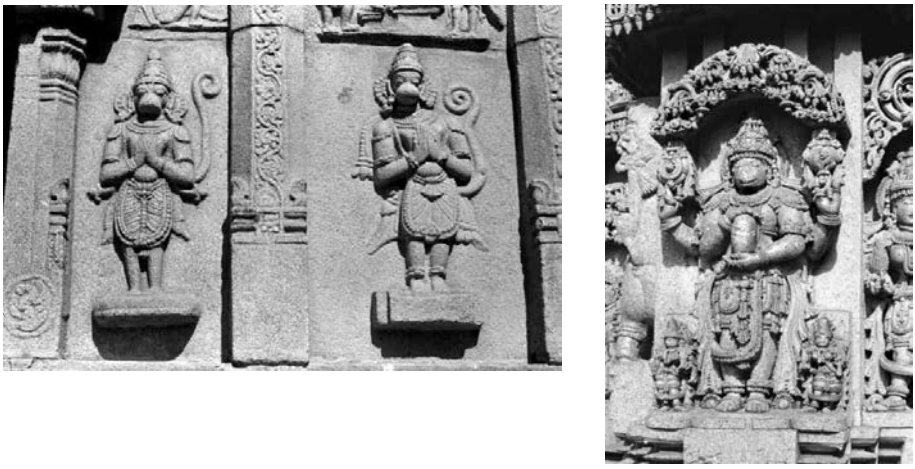

Fig. 480. Hanuman Standing Peacefully. Right: Four-armed Hanuman, Keshava temple, Somnathpur, Karnataka, c. 1268. Left: Hanuman and Sugriva. Hazara Rama temple, Hampi, Karnataka, 16th century, granite. Photography: © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA

Fig. 481. Hanuman Standing Peacefully. Undavalli Cave, Andhra Pradesh, 7th-8th century, sandstone. Photograph: courtesy Brock Henderson

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Fig. 483. Domestic pigs (*Sus scrofa*) lack a mane. Mammalapuram, Tamil Nadu. Photograph: courtesy Paul Veltman and Antje Brunt

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Fig. 487. A running wild boar with a prominent mane and protruding tusks as decoration. Panel C1 of stupa 3, Nagarjunakonda, Andhra Pradesh, 3rd century, limestone. Site Museum, Nagarjunakonda. Photograph: ASI SC, B561, 1929-1931, courtesy Kern Institute, Leiden, the Netherlands

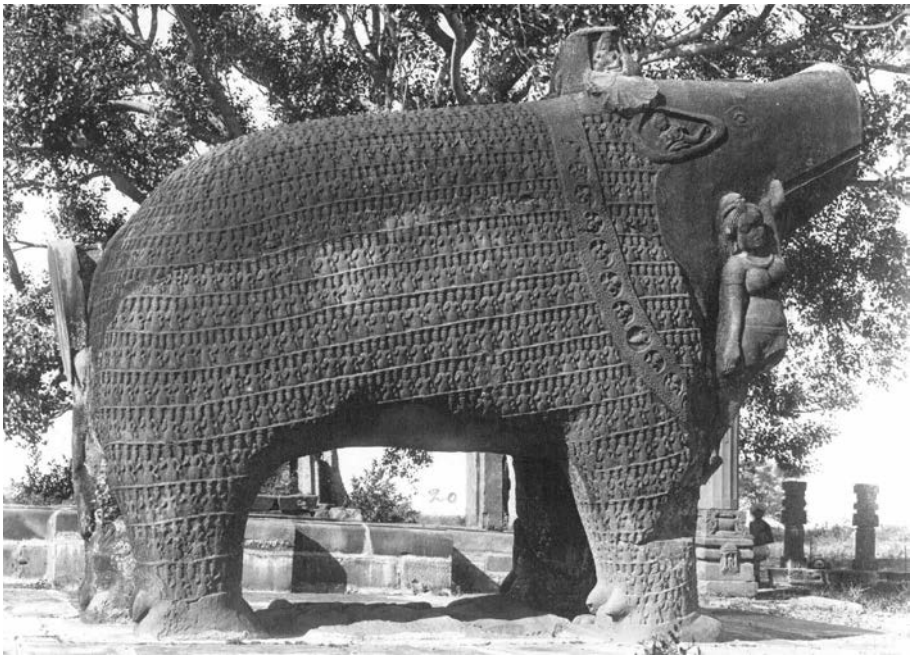

Fig. 488. Colossal zoomorphic Varaha statue at Eran, Madhya Pradesh, c. 490 or 510, sandstone. Photograph: ASI DGA, 25, 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

Fig. 489. Colossal zoomorphic Varaha statue at Muradpur, West Bengal, 6th-8th century. Photograph: ASI, 1905-1920, courtesy Kern Institute, Leiden, the Netherlands

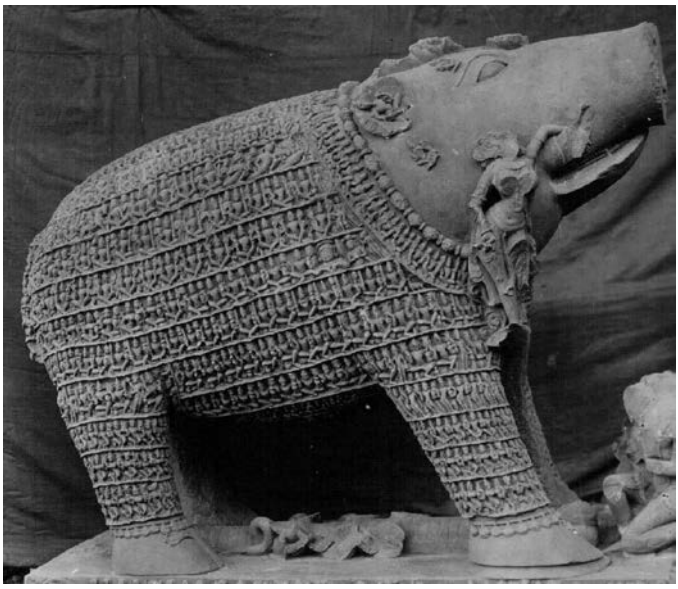

Fig. 490. Zoomorphic Varaha statue from Badoh-Pathari, Madhya Pradesh, 9th century. Archaeological Museum, Gwalior. Photograph: ASI, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 491. Anthropomorphic Varaha. Cave 2, Badami, Karnataka, late 6th century, red sandstone. Photograph: courtesy Rachit Prasad

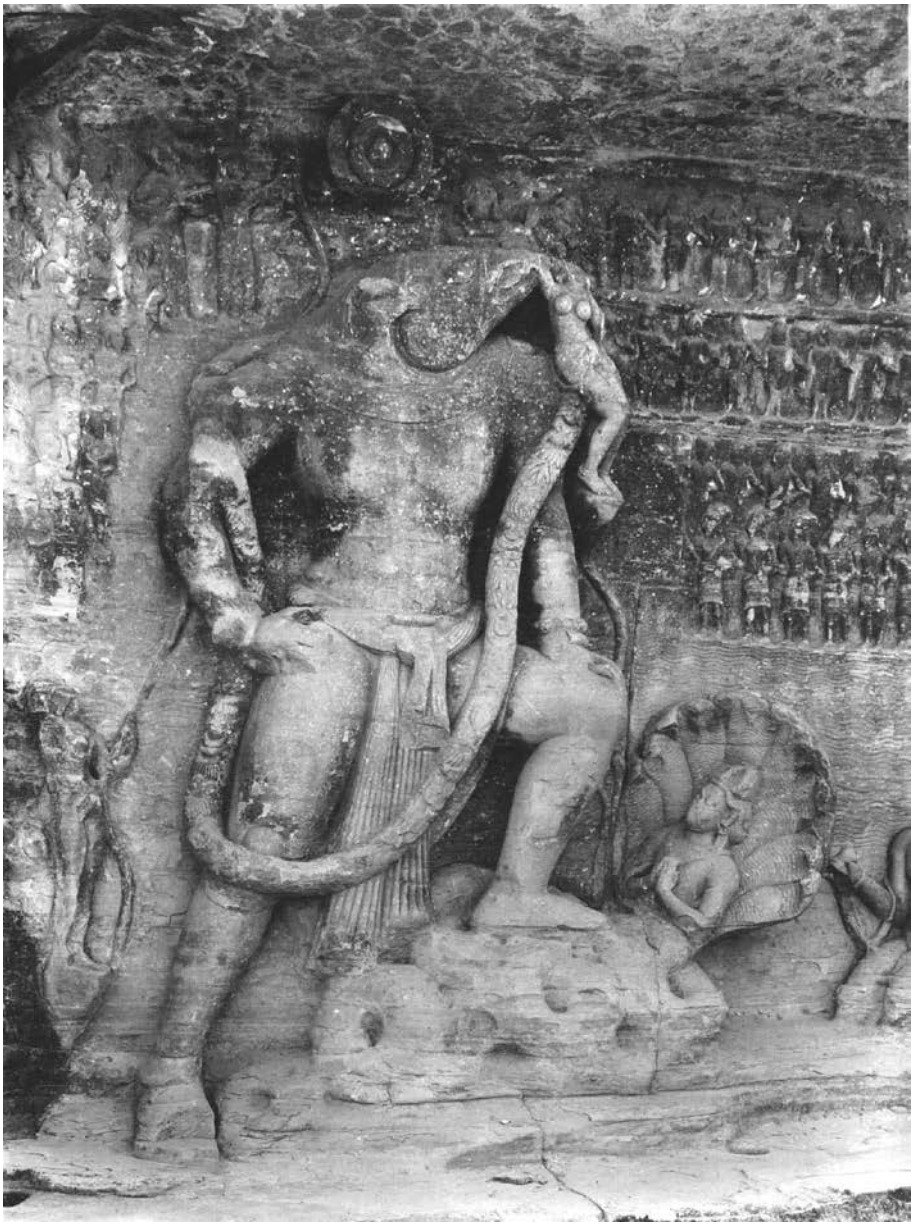

Fig. 492. Varaha Rescues the Earth. Facade of Cave 5 at Udayagiri, Madhya Pradesh, c. 401-450, sandstone. Photograph: ASI, 1908-1909, courtesy Kern Institute, Leiden, the Netherlands

Fig. 493. Varaha Rescues the Earth. Garhwa, Uttar Pradesh, 10th century, sandstone. Photograph: ASI, 1909-1910, courtesy Kern Institute, Leiden, the Netherlands

Fig. 494. India, Rajasthan, Boar (Varaha) Incarnation of Vishnu, c. 11th century, Red sandstone, 132.1 x 58.5 x 29.3 cm, Gift of Marilynn B. Alsdorf, 1997.707, The Art Institute of Chicago. Photography © The Art Institute of Chicago

Fig. 495. Varaha Rescues the Earth. North India, 11th-12th century. Victoria and Albert Museum, London. Photograph: V&A Museum, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

Fig. 496. Varaha Rescues the Earth.. Left: Bargaon, Bihar, 8th-12th century. Indian Museum, Calcutta. Photograph: courtesy Kyle Brannic. Right: North India, 10th-13th century. British Museum, London. Photograph: British Museum, 1920-1940, courtesy Kern Institute, Leiden, the Netherlands

Fig. 497. Varaha Rescues the Earth. Orissa, 14th century, basalt. Staatliches Museum für Völkerkunde, 43, Munich, Germany. Photograph: A. van der Geer

Fig. 498. Varaha Rescues the Earth. Keshava temple, Belur, Karnataka, c. 1117, soapstone. Photograph: courtesy Matthew Logelin

Fig. 499. Varaha Rescues the Earth. Hoysaleshvara temple, Halebid, Karnataka, mid-12th century, soapstone. Photograph: Anita Moorjani

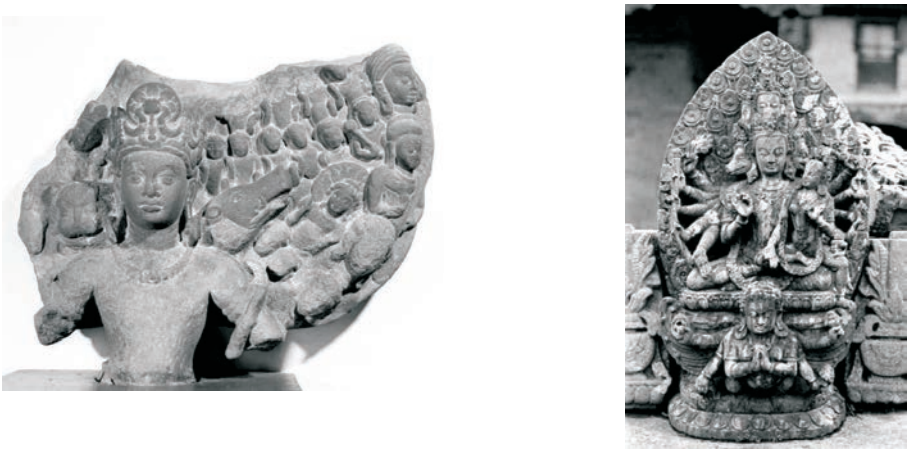

Fig. 500. Cosmic boar-headed forms of Vishnu. Left: Vishvarupa from Bhankari, Uttar Pradesh, c. mid-5th century, pink sandstone. Government Museum, 42.43.29.89, Mathura. Right: Vishnu and Lakshmi(?) on Garuda, Narayana temple, Changu, Nepal, 13th century, stone. Photography: © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA

Fig. 501. Three-headed form of Vishnu with a boar and lion head. Sas Bahu temple at Nagda near Udaipur, Rajastan, 10th century, sandstone. Photograph: courtesy Fairouz Hammache

Fig. 502. Varaha stele with a miniature boar between Varaha's feet. Bangladesh, 11th-13th century, basalt. National Museum of Bangladesh, Dhaka. Photography: ASI, 1900-1930, courtesy Kern Institute, Leiden, the Netherlands

Fig. 503. The boar-headed mother-goddess Varahi. North India, 6th-8th century. British Museum, London, UK. Photograph: British Museum, 1910-1930, courtesy Kern Institute, Leiden, the Netherlands

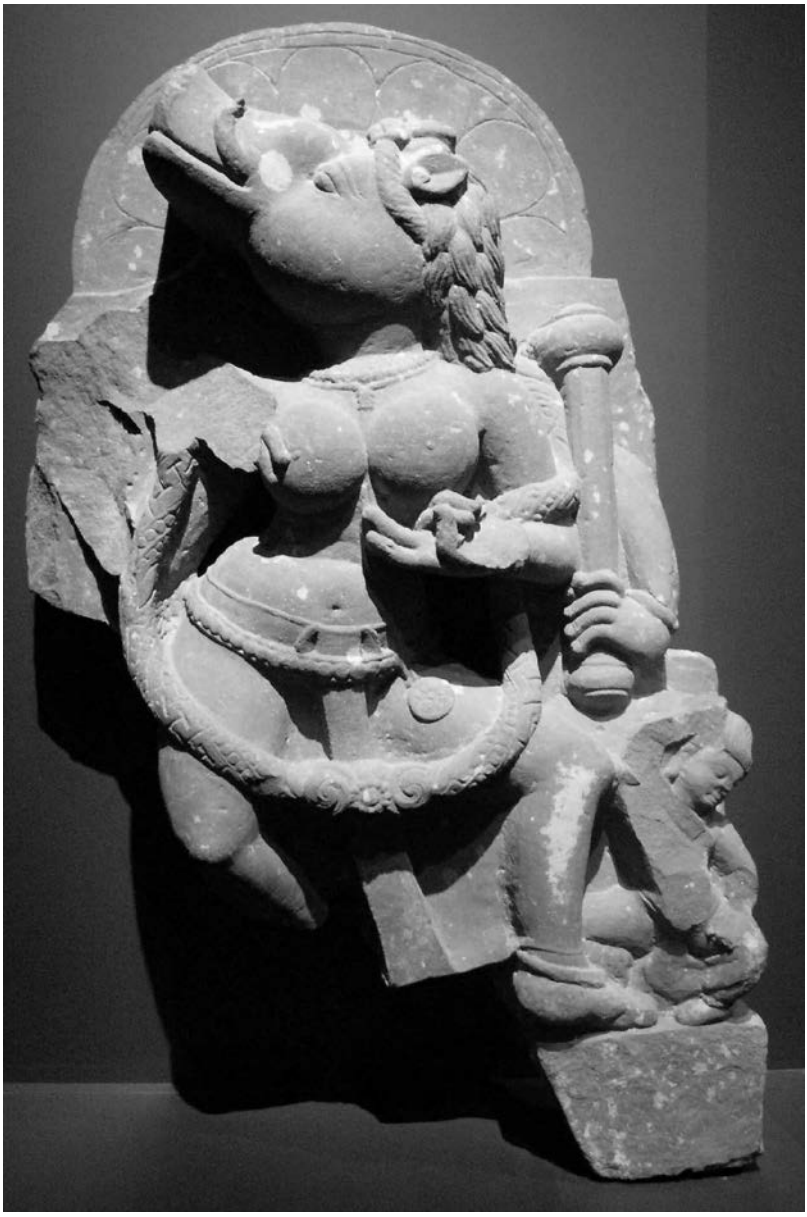

Fig. 504. The boar-headed mother-goddess Varahi. North India, 10th century, red sandstone. Linden Museum, SA 32628 L, Stuttgart, Germany. Photograph: A. van der Geer, courtesy Linden Museum, Stuttgart

Fig. 505. The boar-headed mother-goddess in various iconographies. Above, left: Varahi as part of a *saptamatrikas* series, Bala Brahma temple, Alampur, Andhra Pradesh, c. 650-750. Above, right: Vajravarahi with Chakrasamvara, Sundhari Chowk, Patan, Nepal, 17th century. Below, left: Vajravarahi from eastern India, 8th-12th century, black stone. Ashutosh Museum, Calcutta. Photography: © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA. Below, right: Marichi, West Bengal or Bangladesh, 11th century, chlorit-graphit schist. Staatliches Museum für Völkerkunde, L115, Sammlung Lamare Picquot, Munich, Germany. Photograph: A. van der Geer. For overview and detail of the boar chariot, see Plate 48.

Fig. 506. Marichi, the Buddhist goddess of dawn, on her boar chariot. Varanasi, Uttar Pradesh, 8th-12th century, black stone. Photograph: ASI DGA, 1903-1904, courtesy Kern Institute, Leiden, the Netherlands

Fig. 507. Marichi on her boar chariot. Sarnath, Uttar Pradesh, 10th-13th century. Archaeological Museum, Bf23, Sarnath. Photograph: ASI, 1905, courtesy Kern Institute, Leiden, the Netherlands

Fig. 508. Rock-carving of a wild boar at Kila near Khalatse, Jammu and Kashmir. Photograph: ASI FC, 585, 1909, courtesy Kern Institute, Leiden, the Netherlands

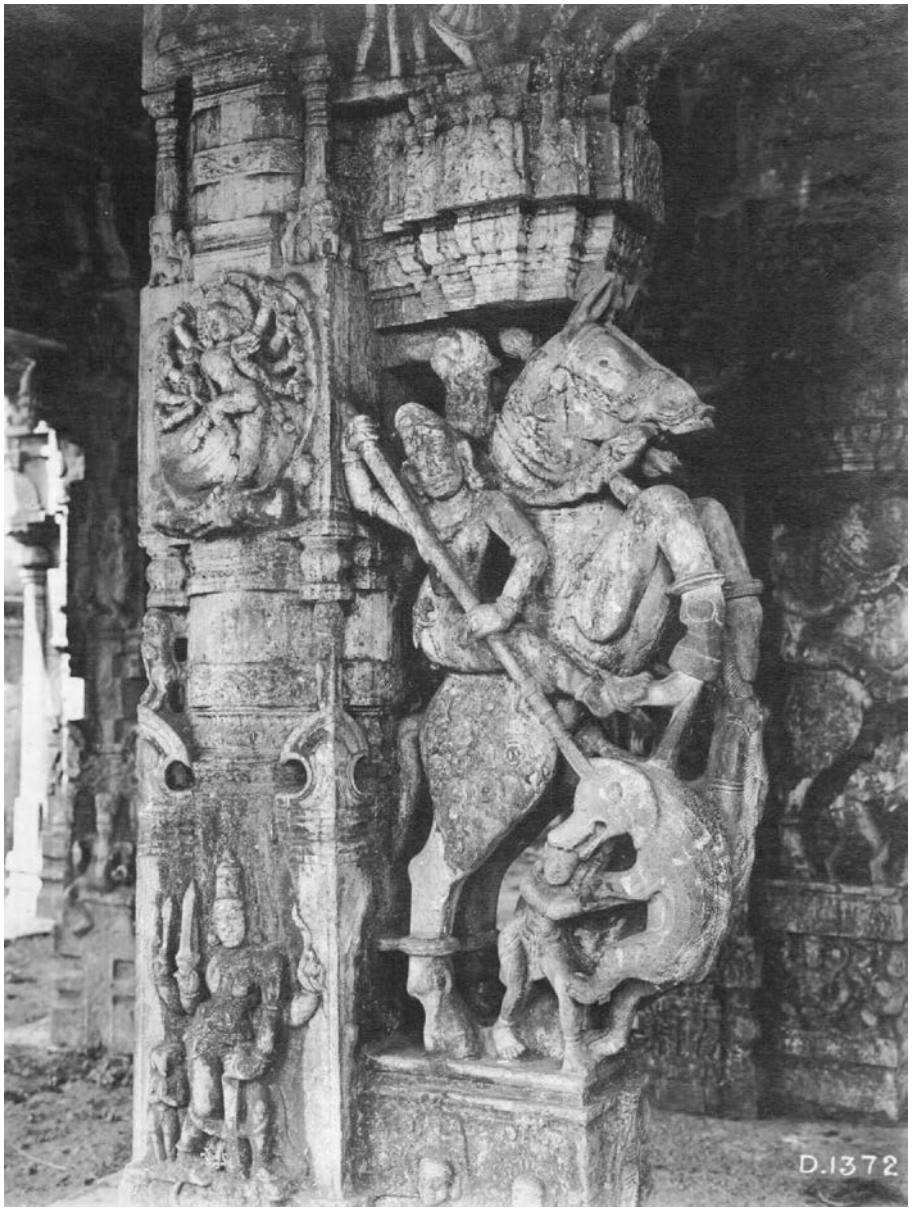

Fig. 509. Killing a Boar on a pier of the tortoise *mandapa*, Arulmigu Vedagireshvara temple, Tirukkalikundram, Tamil Nadu, 17th-18th century, granite. Photograph: ASI, 1900-1920, courtesy Kern Institute, Leiden, the Netherlands

Fig. 510. The Asian or saddle-backed tapir (*Tapirus indicus*). Diorama of the Field Museum for Natural History, Chicago. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

Fig. 511. Detail of the head of an adult tapir, showing the small trunk, and a young with stripes. Naturmuseum, Basel, Switzerland. Photograph: A. van der Geer

Fig. 512. Coping stone with perhaps the carving of a tapir. Bharhut, Madhya Pradesh, c. 100 BCE, brown sandstone. Indian Museum, Calcutta. Detail view showing the muzzle with a short trunk and the split hooves of the front feet. Photograph: IO List 1900, 1073, courtesy Kern Institute, Leiden, the Netherlands

Fig. 513. Overview of the complete coping stone. Photography: © The John C. and Susan L. Huntington Archive of Buddhist and Related Art, The Ohio State University, Columbus, Ohio, USA

Fig. 514. The chousingha or four-horned antelope (*Tetracerus quadricornis*). Diorama of the Field Museum for Natural History, Chicago, USA. Photograph: A. van der Geer, courtesy The Field Museum, Chicago

Fig. 515. Hunting scene with a fleeing four-horned antelope on a frieze from Greater Gandhara, Pakistan, 1st-4th century. Indian Museum, IM 5130, Calcutta. Photograph: ASI, 1911-1916, courtesy Kern Institute, Leiden, the Netherlands

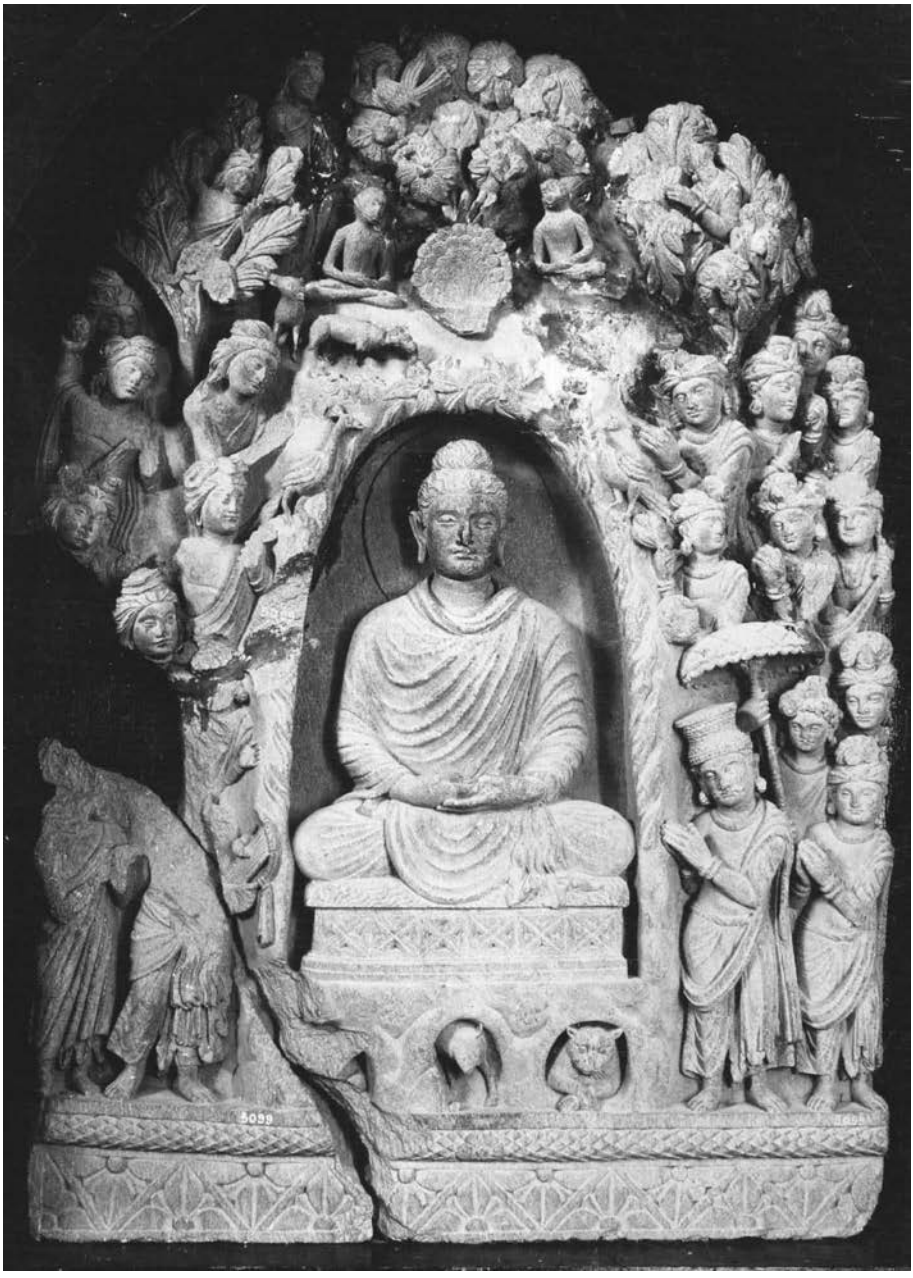

Fig. 516. Panel illustrating the Story of the Indrashailaguha Visit. A pair of four-horned antelopes is present above the Buddha to the left. Loriyan Tangai, Greater Gandhara, Pakistan, c. 50-250, schist. Indian Museum, Calcutta. Photograph: ASI DGA, 1909-1910 60, courtesy Kern Institute, Leiden, the Netherlands

Fig. 517. The common or red fox (*Vulpes vulpes*). Diorama of the Naturmuseum, Basel, Switzerland. Photograph: A. van der Geer

Fig. 518. Flying foxes (*Pteropus giganteus*), the largest Indian bats, roosting in a tree. Sanchi, Madhya Pradesh. Photograph: courtesy Zach Hessler

Fig. 519. The dugong or sea cow (*Dugong dugong*), a possible basis for a type of mythical water monster (*makara*). National Natural History Museum Naturalis, Leiden, the Netherlands. Photograph: A. van der Geer, courtesy Naturalis, Leiden

Fig. 520. Varuna, the Hindu god of waters, on his *makara*, Karnataka, 8th century, trap rock. Prince of Wales museum, Mumbai. Photograph: ASI, 1921-1925, courtesy Kern Institute, Leiden, the Netherlands

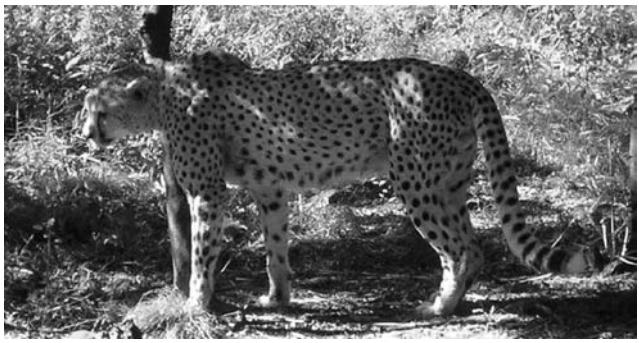

Fig. 521. The cheetah (*Acinonyx jubatus*), the fastest cat on Earth. Bronx Zoo, New York. Photograph: A. van der Geer

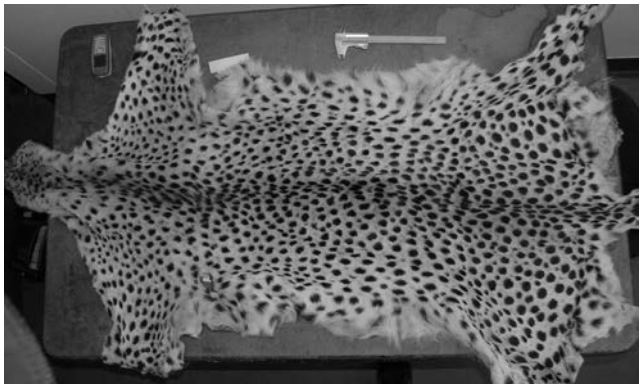

Fig. 522. Skin of a cheetah. American Museum of Natural History, AMNH(M) 36426, Department of Mammalogy, New York. Photograph: G. Lyras, courtesy The American Museum of Natural History, New York

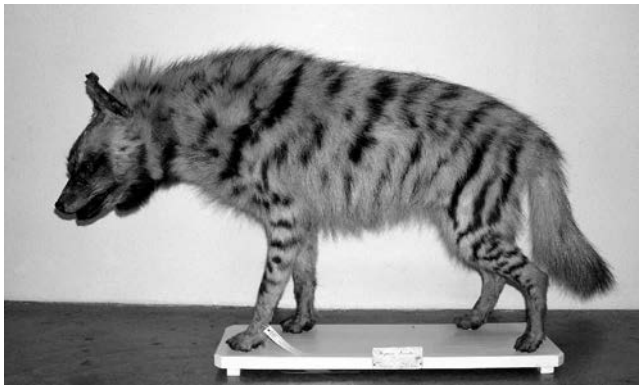

Fig. 523. The striped hyena (*Hyaena hyaena*). National Natural History Museum Naturalis, Leiden, the Netherlands. Photograph: A. van der Geer, courtesy Naturalis, Leiden

Fig. 524. The scaly anteater (*Manis pentadactyla*), one of the most remarkable South Asian animals. Zoological Museum La Specola, Florence, Italy. Photograph: A. van der Geer

Fig. 525. A donkey (*Equus asinus*) differs from a horse by its erect mane, stiff tail, large ears, and stripes along its back and over the shoulder. Udaipur, Rajasthan. Photograph: courtesy Paul Veltman and Antje Brunt

Fig. 526. Donkeys are typical for poor households. Orissa. Photograph: anonymous photographer, c. 1970

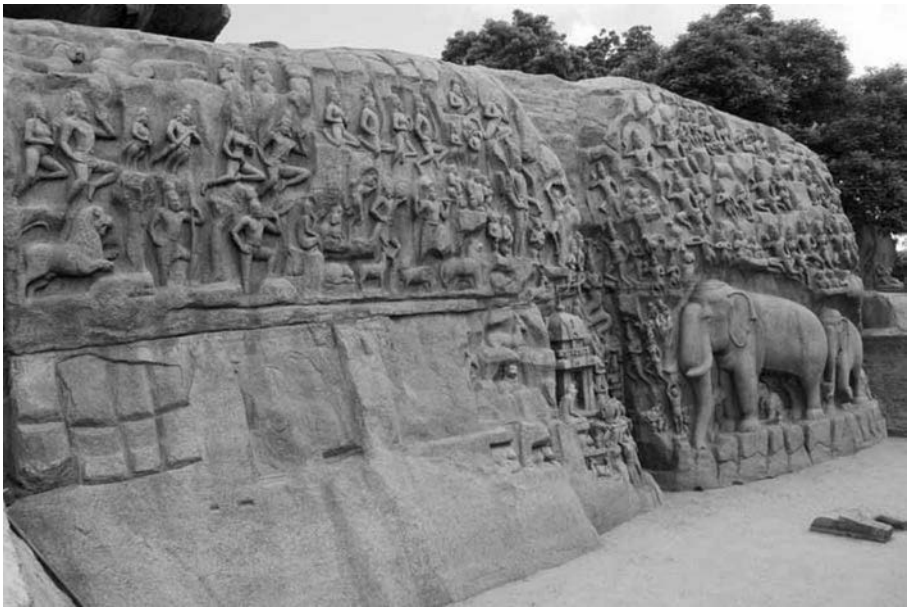

Fig. 527. The huge rock-boulder representing the myth of Arjuna's Penance abounds in carvings of wild animals, not just elephants and lions, but also small deer and mice. Mammalapuram, Tamil Nadu, 7th-mid 8th century, granite. Photograph: courtesy M. Blafkin

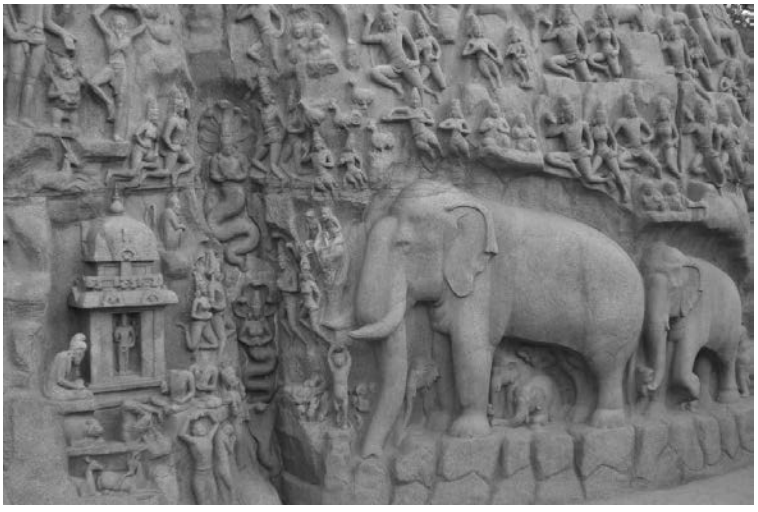

Fig. 528. Detail of Arjuna's Penance showing the elephant family and the Story of the Mice. Photograph: A. van der Geer