

KATHRYN E. PIQUETTE

An Archaeology of Art and Writing

Early Egyptian Labels in Context



Kathryn E. Piquette · An Archaeology of Art and Writing

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*Dedicated to Barbara Adams and
Peter Ucko*

*Between my finger and my thumb
The squat pen rests.
I'll dig with it.*

— Seamus Heaney,
Death of a Naturalist

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Preface

The research presented in this book originally took shape under the supervision of the late Barbara Adams in 2000–2001 as the focus of my MA dissertation at UCL, *The Bone, Ivory and Wooden Labels of the Late Predynastic–Early Dynastic Periods in Egypt: Iconography associated with the body and name of the ruler*. Anthropomorphic figures and related imagery on 50 small rectangular plaques were examined in order to characterise the expression of early ‘royal’ identity in this particular medium. This work drew my attention to the overwhelmingly script-oriented focus of previous research and the reliance on retrospective interpretation, prompting my interest in exploring the labels through a more archaeological lens. My doctoral research, completed at UCL in 2007, and upon which this book is based, was therefore centred on the development of a method to situate early Egyptian graphical imagery more firmly in the material world of past practice.

A vital aid to anchoring the research in the material evidence was the use of a relational database to support comparison of material-graphical features and their relationships across time and space. This configuration of the label data that enabled the multivariate analysis presented in this book could not be reproduced here, but much of the primary data has been brought together in the fully searchable Early Egyptian Inscribed Labels Online Database¹ and can be accessed via hyperlinks embedded in the ebook.

The database includes published and unpublished photographs and line drawings (where permissions have been granted to date), as well as archaeological, museological, bibliographical and other key information. Some of my own photographs were acquired while working under time restrictions and less than ideal physical conditions, not to mention with variable skill as I learned how to use film and, later, digital cameras: these are included where permitted and where they provide information lacking in alternatives. Time and the research focus did not allow for the production of new drawings, important work that is now being addressed by Matthieu Begon (e.g. 2014; Begon 2015; Begon 2016). Where extant facsimiles contain inaccuracies, these are noted in the Label Database object descriptions.

Each label is identified by a tri-partite identifier including the Label Database ID and a source number (following Kahl [1994, 171–417], extended by Regulski [2010a, 87–225²]), which may be followed by “a–b” if the label is double-sided. For those labels where source numbers are not (yet) assigned, the second part of the designator is given as “*”, e.g. “310/*”. It is debatable whether some objects in the database should be considered labels; for these and others in poor condition that have not been assigned source numbers by Kahl or Regulski, “--” is used, e.g. ID176/--_A. A fragment presenting uncertainty as to its status as a ‘label’ is marked with “(?)”, e.g. ID233(?)/0631_A.

1 Early Egyptian Inscribed Labels Online Database, DOI: <https://doi.org/10.18716/map/egyptlabels> (accessed 13.10.2017).

2 See also the continuously updated Database of Early Dynastic Inscriptions, <https://www1.ivv1.uni-muenster.de/litw3/Aegyptologie/index06.htm> (accessed 13.10.2017).

An alphabetic indicator represents the find site where known (Abu Rowash: Ab; Abydos: A; Giza: G; Helwan: H; Naqada: N; Saqqara: S; Tura: Tu; Unprovenanced: Un), e.g. ID189/0692a–b_A.

Each label citation is linked to the Label Database, so that the reader of the ebook can easily click and navigate to the artefact record. The reader of the hardcopy can consult the Label Database and find records by searching the ID and/or source number. The ID numbers follow a generally chronological sequence, from the Naqada IIIA1 (c.3325–c.3085 BCE) through Naqada IIIC to early D (c.3085–c.2867 BCE) and also according to reign (based on the presence of identifiers associated with particular rulers). Compositional format, organisation of graphical content and other typological features form an organising principle within this framework. Nevertheless, the chronological sequence of label types is fraught, and ultimately questions surrounding past use practices mean dating and other temporal aspects of label use are uncertain in many cases.

Beyond well-preserved labels, it is not always clear whether a fragment is part of a label. Nevertheless, those objects fitting the general working definition of a ‘label’ outlined in Chapter 1 are included in the Label Database. Two fragments of ivory identified by Kaplony (1963, 983; see Petrie 1901b, pl. 7.8–9) as labels have been excluded here due to their convex shape (not apparent in published photographs).³

Labels and fragments are held in numerous collections in Egypt, Europe and the USA, as listed in the table below. The location of some labels is currently unknown, and at least three that had been held in Berlin were probably lost in World War II.

Current Locations of Labels	Quantity
Ministry of State for Antiquities Magazine in Sohag, Egypt	70.5 ⁴
Ägyptisches Museum und Papyrussammlung, Berlin	12 (–3 lost?)
Ashmolean Museum, Oxford	15.5
British Museum, London	12
The Egyptian Museum, Cairo	70 ⁵
Fitzwilliam Museum, Cambridge	2
Helwan (on site), Egypt	1
Kofler-Truniger Collection, Luzern (or formerly in this collection)	2
The Garstang Museum of Archaeology (previously SACOS), Liverpool	1
Musée du Louvre, Paris	2.5

3 First-hand inspection shows JE 34905 and 34909 (Egyptian Museum) to be parts of vessels or other objects of convex shape.

4 According to Gunter Dreyer (pers. comm. 27.10.2017), c.40 fragments have yet to be published.

5 Thanks to the kind assistance of the Registration Department and Collection Database staff at the Egyptian Museum in Cairo in early 2017 (albeit too late for inclusion in this book) I was able to review the museum records, and found that several ink-inscribed wooden labels from Saqqara thought to be lost have in fact survived and are held in the Museum (e.g. JE98231–JE98248, if not others).


Current Locations of Labels	Quantity
Manchester Museum	6
Museum of Bolton	2
New York Metropolitan Museum of Art	3
Oriental Institute Museum, Chicago	19
Petrie Museum of Egyptian Archaeology, London	8
Royal Museums of Art and History, Brussels	10.5
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia	10

Two other groups of artefacts treated in this study are the decorated wavy-handled ceramic jars from Cemetery U, and stelae from the ‘Royal’ Tombs cemetery, all from Abydos. Neither group is included in the Label Database, but details can be found online in Ilona Regulski’s Database of Early Dynastic Inscriptions⁶ (Regulski 2010b). For citation of the stelae, I follow Geoffrey Martin’s number system (Martin 2011, 3), which follows on from Petrie (1900; Petrie 1901a) and Kaplony (1963). Source numbers are according to Regulski (2010a; Regulski 2010b), followed by an alphabetic site indicator (see above), e.g. No. 1/0941_A.

Of course, any account of the past is inevitably filtered in various ways, not least by methods of *re*-presentation—here through written description within the constraints of the English language, and through two-dimensional colour and black-and-white facsimiles. A common convention in reproducing (early) epigraphic material has been to employ standardised fonts (e.g. Amélineau 1905, 399; Anselin 2004; Legge 1906). Since the first edition of his grammar in 1927, Alan Gardiner’s (1973 [1927], 438–548) sign-list has remained the primary reference. Although periodically revised, this sign-list is based on hieroglyphic forms derived from 18th-dynasty (c.1552–c.1305 BCE) sources produced 1250 years after label production ceased and therefore does not accurately represent earlier forms. More recently, Jochem Kahl extended and adapted Gardiner’s sign-list for the Late Predynastic and Early Dynastic evidence in his *Das System der ägyptischen Hieroglyphenschrift in der 0.–3. Dynastie* (Kahl 1994, 171–417). This is further augmented in Ilona Regulski’s (2010a) expansive *A Palaeographic Study of Early Writing in Egypt*. Also of note is Geoffrey Martin’s (2011, 1–14) hieroglyphic signary for 1st-dynasty ‘private’ stelae from Abydos. At the time of writing, however, fonts based on these early dynastic sign-lists, and fonts that perform consistently on various e-devices, are not available. For expediency, I employ the Inscribe 2004⁷ hieroglyphic fonts where these generally resemble a given Graphical Object (GO), but the reader is advised to compare these with the digital images in the Label Database. The fonts in this book are intended as general referents to form only; no linguistic or other semantic value is

6 Database of Early Dynastic Inscriptions, <https://www1.ivv1.uni-muenster.de/litw3/Aegyptologie/index06.htm> (accessed 13.10.2017).

7 See <https://archive.org/details/inscribe>, usage Public Domain Mark 1.0.

implied, as this falls outside the scope of the present study. If fonts differ too greatly from the original GO, written description is used instead. Alphanumeric designators following Regulski (2010a) are also usually cited, e.g. /G5, boat/P3. The specialist reader is also advised to consult Regulski's palaeographic discussion and tables (Regulski 2010a, Chapter 4 and Part II). Reproduction of the non-linear, non-horizontal configurations for groups of GOs has not been possible here. Further, GO directionality rarely conforms to a left-to-right 'reading' direction. Nevertheless, for those asymmetrical iconic GOs where direction can be determined, I have endeavoured to follow the direction as employed by the past artisan in the text and tables.

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The research presented in this volume could not have been undertaken without the encouragement and support of many people. I am especially grateful to the late Barbara Adams, under whose guiding hand the seeds of this research were planted. Her encouragement, generosity and passion for the study of early Egypt remain an inspiration. I am also indebted to the late Peter Ucko, whose counsel and interrogations as my primary supervisor early in my PhD helped set the course for this research and the development of the methodological approach. I am very grateful to Stephen Quirke and Roger Matthews for supervising my research through to completion, as well as to John Tait and Jeremy Tanner for their input along the way. For additional support, my thanks go to David Wengrow and Fekri Hassan, as well as Ruth Whitehouse, Louise Martin, Stuart Laidlaw, Clive Orton, Barbara Brown, Judy Medrington and many other staff at the UCL Institute of Archaeology. I would also like to express my thanks to David O'Connor and John Bennet for their insightful comments and critical scrutiny of the research as my PhD examiners. Many museum staff kindly provided me with access to their collections, including Klaus Finneiser of the Ägyptisches Museum und Papyrussammlung, Berlin; Helen Whitehouse of the Ashmolean Museum; Rita Freed and Denise Doxey of the Boston Museum of Fine Arts; Vivian Davies and Jeffrey Spencer of the British Museum; Wafaa el-Sadiq, Gamal el-Belem and Mahmoud el-Halwagy of the Egyptian Museum, Cairo; Sally-Ann Ashton of the Fitzwilliam Museum; Patricia Winker of the Garstang Museum of Archaeology; Karen Exell of the Manchester Museum; Tom Hardwick of the Museum of Bolton; Diana Craig Patch of the New York Metropolitan Museum of Art; Raymond Tindel of the Oriental Institute Museum; Stephen Quirke and Sally MacDonald of the Petrie Museum of Egyptian Archaeology; Dirk Huyge of the Royal Museums of Art and History; and David Silverman and Jennifer Wegner of the University of Pennsylvania Museum of Archaeology and Anthropology. Günter Dreyer kindly granted me research access to the Naqada IIIA1 inscribed labels on site at Abydos and also made unpublished data available to me. I am grateful to Tim Ingold for making available an early draft of "Material Against Materiality" (Ingold 2007), and also to John Baines for a pre-publication draft of "The Earliest Egyptian Writing: Development, context, purpose" (Baines 2004). Special thanks are due to Rachael Townend for introducing me to ATLAS.ti when I was drowning in data. I am grateful to Bill Sillar for inviting me to test various hypotheses concerning bone label production during a UCL Institute of Archaeology Experimental Archaeology Course, and to the students who took up the challenge, especially Jennifer Booth, Laura Jay, Laura Hadley and Tina Paphitas. My thanks are also due to Matthieu Begon, Eva-Maria Engel, Henning Franzmeier, Carl Graves, Salima Ikram, Fiona Handley, Cornelia Kleinitz, Geoffrey Martin, Vera Müller, Chris Naunton, Jan Picton, Massimiliano Pinarello, Joanne Rowland, Ilona Regulski, Daniela Rosenow, Ruth Siddall, Alice Stevenson, Geoffrey Tassie and others too numerous to name here. For support during the redrafting of my PhD thesis, I am indebted to the Excellence Cluster TOPOI Freie Universität Berlin, especially to Michael Meyer and Hauke Ziemssen. My thanks are also due to colleagues at the Universität zu Köln, including Robert Daniel, Franz Fischer, Patrick Sahle, as

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London, October 2017

Kathryn E. Piquette

1. Developing a Grounded Approach to the Early Egyptian Labels

1.1 Introduction

Art and writing present rich and complex objects of investigation, anchored in the material world yet simultaneously abstracted from it. Symbolic meanings are expressed through material substances, shapes, colours, and textures at various proportions and scales including portable objects and fixed surfaces. In turn, the physicality of expression informs the work—past or present, real or imagined—that art and writing do in the world. However, art and writing of the ancient world have traditionally been examined for what they disclose beyond their immediate physical presence, a focus that can be particularly acute for some of the earliest visual culture, especially early writing. Decipherment of symbolic function and linguistic meaning lies at the core of art historical and philological endeavours. For early Egyptian hieroglyphic writing and associated imagery, the theme upon which this book centres, interpretation often relies on comparisons with later hieroglyphic signs and images, with morphological similarity forming the basis for attributing function, value and meaning to the earlier evidence. Classificatory schemes revolve around the question of whether an image (or a group of images) constitutes ‘writing’. Despite the resistance of early graphical culture to such classification, emphasis is placed on the apparent developmental trajectory of images and their functions and meanings later in time. As an alternative to retrospective and often decontextualising interpretive strategies, one of the key aims of this book is to outline a method for a contextual and reflexive approach to early Egyptian graphical markings. The theoretical underpinning of the approach taken here is adapted from social theories of practice and from concepts of the image as material culture constituted through networks of social practices including production, use and deposition. This approach engenders grounded exploration of symbolic modes in order to better understand the complex dialectical relationships between the ideological and symbolic aspects of human action and experience in relation to material culture.

The main case study centres on 427 small, rectangular inscribed and perforated plaques variously referred to as tags, docketts or labels in the literature, although I use the last term in this book (Figure 1, Figure 2, Figure 3). The dataset encompasses all published or available labels at the time of research. The object record for each is contained in the Early Egyptian Inscribed Labels Online Database (hereafter Label Database) and can be accessed via the hyperlinks in this text or by searching according to the ID or Source Number (see also Preface). Manufactured from bone, ivory, wood, or stone, the labels are inscribed with a range of imagery on one side (or occasionally on both), with a perforation usually located in one upper corner.

The labels, many of which survive only as fragments, are found at several cemetery sites within the lower Nile Valley (Figure 4) and are associated mainly with richly provisioned burials dated to c.3325–c.2867 BCE. Their presence raises interesting questions concerning early Egyptian practices of labelling or otherwise marking, classifying and categorising people and things in the cemetery context.



Figure 1: Ivory label ID108/4342_A, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE; photo: Kathryn E. Piquette, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 2: Ivory and bone labels ID240/0682_A, ID217/0693_A, ID189/0692a–b_A and ID218/0685_A (clockwise), 'Royal' Tombs Cemetery, Abydos, NIIIC1–C2 (c.3085–c.2867 BCE; photo: Kathryn E. Piquette, courtesy of Ägyptisches Museum Berlin, CC BY 4.0).

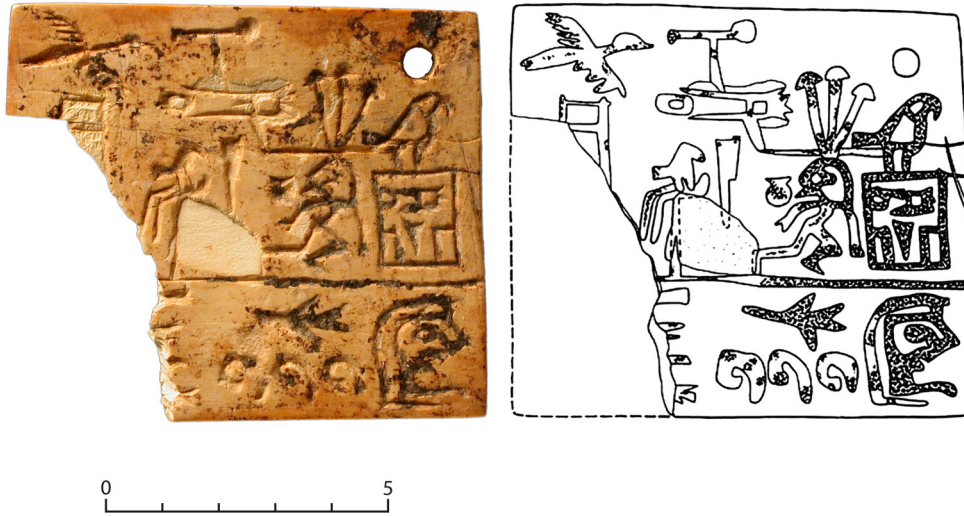


Figure 3: Ivory label fragment ID202/4030_A bearing the Personal Identifier (PI) of a ruler, symbolised by ‘catfish’ and ‘chisel’ in two different configurations, Cemetery B, Abydos, early NIIIc (c.3085 BCE; photo: German Archaeological Institute Cairo, CC BY 4.0, drawing: after Dreyer et al. 1998, 139, fig. 29, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

Previous research focusses on the significance of the labels as evidence for the emergence of the early Egyptian ‘state’ in its political, administrative, and religious dimensions. Emphasis on graphical features has resulted in largely dematerialised accounts, which, from the perspective of contextual archaeology and social practice, leave many significant areas unexplored. Previous research is also characterised by underlying assumptions concerning the conservatism of Egyptian culture, leading to an over-reliance on anachronistic projection. An objective of this book is therefore to develop a contextual approach (Hodder 1990, 20–21) that grounds analysis and interpretation in the labels and their immediate contemporary and physical situation, thereby avoiding teleological perspectives (Baines 2004, 184) while providing a re-materialising account of this early imagery (see also Piquette 2008).

Building on the insights of the interpretive school of archaeology, that objects, as products of past social action, shaped and reshaped those social activities and experiences, I draw on and adapt the theoretical concept of “structuration” developed by sociologist Anthony Giddens (1984). This focusses on the duality—the interconnectedness—of human agency and social structure through material practice. An additional emphasis is placed on Etienne Wenger’s (2002 [1998]) (nested) duality of “participation” and “reification” in the negotiation of meaning (Chapter 2). This framework informs the research method, which grounds analysis directly in the labels and their imagery through the use of a computer software program designed to aid research on the interpretation of symbolic systems, namely ATLAS.ti (Chapter 3).

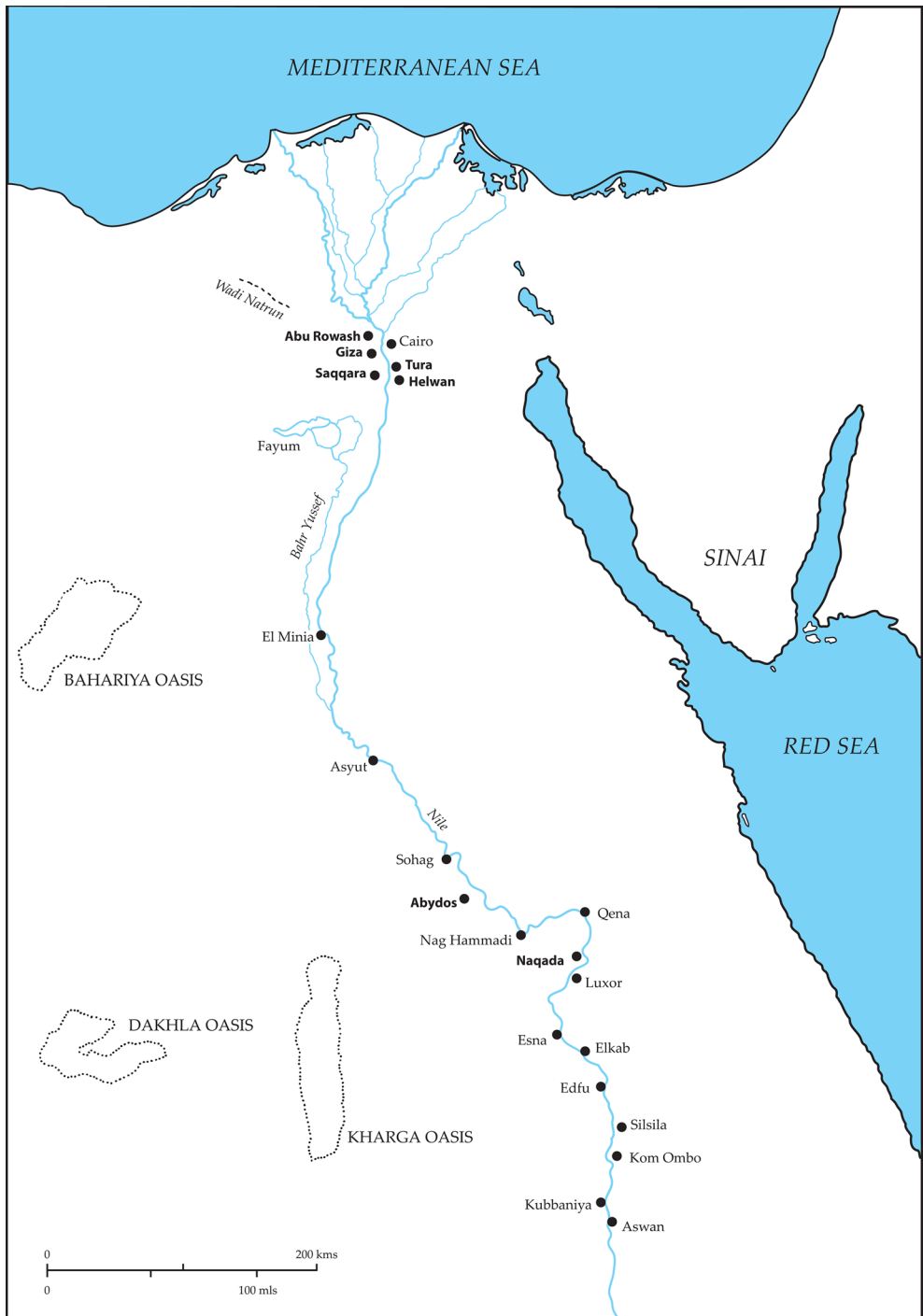


Figure 4: Map of Egypt with the main find sites for inscribed labels in bold (after Spencer 1993, 19, fig. 6, CC BY 4.0).

1.2 The Inscribed Labels in the Past and the Present

The broad socio-historical context in which labels studied here were made and used is characterised by a gradual process of political centralisation culminating in unification under one ruler, marking the beginning of the Dynastic Period (c.3085 BCE). Archaeological evidence for this period is derived mainly from funerary contexts. Little is known of habitation areas due to poor preservation and selective excavation (Ray 1986, 308), although more recent excavation is addressing this (e.g. Ciałowicz 2009; Rampersad 2008). Early Egyptian society is therefore largely reconstructed from cemetery evidence, with increased social differentiation extrapolated from funerary architecture, the increase of grave size and number, and types of grave goods over time. Concentration of power in urban centres prior to unification is evidenced by the location and increased size of cemeteries at Upper Egyptian sites of Hierakonpolis and Naqada during the late Naqada II (NII) and early Naqada III (NIII) phases (c.3450–c.3085 BCE). The shift in political power to the Abydos area is inferred in part from increased differentiation in tomb size and wealth in Cemetery U during the early part of the NIII phase (Dreyer 1998, 3; Lloyd 2014, 48–49), and the subsequent construction of large burial complexes in the adjacent cemeteries (including enclosures; O’Connor 1989) for the 1st-dynasty rulers (Wilkinson 2001, 52–59). The location of the administrative centre to the north at the apex of the Delta, in the area of modern-day Cairo, is inferred in part from some 50 massive Early Dynastic *mastaba* (bench-shaped) tombs at the west bank site of Saqqara, the earliest dating from the reign of Aha (Emery 1949; Emery 1954; Emery 1958; Emery and Sa’ad 1938; Emery and Sa’ad 1939), and the expansive cemetery across the valley to the east at Helwan comprising more than 10,000 graves (Köhler 2009; Sa’ad 1947; Sa’ad 1951; Sa’ad 1969). Accompanying these social changes was the development of iconography, usually taken to be ‘writing’, which appears in various forms on the surfaces of labels, cylinder seals and mud sealings; pottery; ‘monumental’ objects such as stone vessels, maceheads, mudstone palettes, and tomb stelae (Trigger 2001 [1983], 58); and a range of smaller objects such as implements and items of adornment. There is considerable disagreement over what constitutes ‘true writing’, its relationship to spoken language (e.g. Marcus 1976, 38–39), and the question of its differentiation from other symbolic modes (Bard 1992a). Whether one starts with a broader notion of visible marks as a “system of graphic information processing” (SGIP; Kammerzell 2009, 278–280), takes the view that “writing is writing” (Ray 1986, 311), or defines it as “a system of human intercommunication by means of conventional visible marks” (Gelb 1952, 12; see also Kahl 2001, 104; Vernus 1993, 76), the degree of fit varies depending on methods of expression and contexts of reception. Given the problem of distinguishing ‘writing’ from other image forms, I employ in the following the more generic description, ‘graphical’. Rather than presume linguistic, representative or other symbolic functions at the outset, I therefore refer to an individual mark as a ‘Graphical Object’ (GO).¹

Since first encountered in late 19th-century excavations, the inscribed labels have generated a great deal of interest for the window they provide onto script formation. Some interpret the labels in line with the administrative impetus posited for ‘writing’ in the

1 As with linguistic value, classification and interpretation of many GOs remain open to debate. Some of those interpreted iconically in previous research are in the present study classified according to shape (see §6.5).

process of ‘state’ formation (Dreyer 1998, 137; Morenz 2004, 242–249; Postgate et al. 1995, 466), while others question the extent of administrative functions (e.g. Regulski 2016, 5; Wengrow 2006, 206). Indeed, the predominance of inscribed material in burial contexts—the sole attested context for labels—leaves many questions concerning the broader social functioning of graphical media. In order to think through possible answers, I argue for an approach that augments script-oriented studies by accounting for this body of evidence in its own terms as material culture while relating it more closely to the social agents who made, used and constructed meanings through this graphical culture.

Indeed, the contingency of meaning on wider social action cannot be underestimated. Morphological similarities of signs or motifs among a group of objects say nothing about the way they were used in a specific graphical-material context (see Davis 1992, 122–131). For example, the GOs (𓆎/U23+)catfish/k4 occur in four instances among the labels² and are generally understood to represent ‘Narmer’, the name of the first ruler of the 1st Dynasty (although, as with most readings, this interpretation is debatable; Ray 2004, 111). Despite formal similarities, compositional contexts show that similar imagery may be deployed in very different ways (Figure 3). In addition to posited phonetic signification, other semantic functions are suggested via compositional relationships that the categories art:writing (or art:emblematic:writing; see Baines 1989, 474) may not fully capture.

With these issues in mind, the present research develops an analytical method and interpretive framework for a more holistic understanding. Drawing on theories of practice (Dobres 2000; Giddens 1984; Wenger 2002 [1998]), I have selected three core areas for analysis concerning the labels:

- 1) Archaeological context;
- 2) Materials and techniques of production;
- 3) Repertoire and graphical composition.

Interpretation is situated within the context of past social action with consideration given to manufacture, use and audiencing (see Rose 2001). I aim to demonstrate the ways in which materiality, technological practice and graphical composition were integrated in the construction and organisation of imagery, and their potential impact on the past perception of semantic and other symbolic meanings, but for reasons of method and focus I largely set aside questions of specific linguistic meanings (cf. Renfrew 1994, 6).

Despite a century of research on the labels (§1.5) no systematic or comprehensive study of labels as a formally distinct corpus has been carried out previously. Such a study is necessary, not only to understand the development of early Egyptian graphical media within the context of a particular object type, but also to examine how and why such objects were deployed in the funerary sphere. Past studies position the inscribed labels first as ‘texts’, ‘documents’, ‘records’, etc. (see §1.5.7). Within archaeology generally, the tendency to overlook the material dimension of objects classified as texts is a longstanding problem (Moreland 2001), as is the curious phenomenon whereby archaeologists hand over evidence classified as ‘writing’ to philologists (e.g. Griffith in

2 ID200/4028a-b_A, ID201/0095_A, ID202/4030_A.

Petrie 1900 and in Petrie 1901a). Recent work is addressing these issues in archaeology (Baines 2004; Piquette and Whitehouse 2013; Uehlinger 2000) and beyond (e.g. Heidelberg University's *Materiale Textkulturen (MTK)*;³ von Mücke 1999). The bridging of this disciplinary divide sits at the forefront in the development of my theoretical framework and methods (Chapters 2–3). As I have discussed elsewhere (Piquette 2008), in order to redress this epistemological imbalance remedial work for the materiality or ‘thingness’ of the image is needed. A core contribution of this book is therefore the setting out of a coherent method for the re-materialisation—an archaeology—of the image.

1.3 Structure of the Book

This book consists of 11 chapters and is accompanied by the fully searchable Label Database of all available NIIIA1 to NIIIC–early D labels, including photographs, previously published line drawings, and bibliographic, archaeological and other descriptive information. I begin in this first chapter by introducing the dataset and including a critical evaluation of previous research in order to highlight the gaps to which the present research is directed and the original contribution it aims to make, both to Egyptology and archaeology and to studies of graphical culture generally. In Chapter 2, I set the theoretical scene and develop a practice-centred approach for investigating the labels and their meanings as products of embodied human action within social time-space. Chapter 3 outlines the research methods, from data collection and collation to multi-level analysis and interpretation with the aid of computer software programs including ATLAS.ti. The analyses of the three main dimensions of the label data—archaeological, material and graphical (the last across two chapters)—are presented in Chapters 4–7. Chapters 8–9 situate the labels within the wider contemporary graphical context through two comparative case studies on contemporary vessel inscriptions and funerary stelae. These form the basis for the interpretive discussion and illustrate the appropriateness of the methods and theoretical framework for formulating a grounded method for semantic interpretation in Chapter 10. In Chapter 11 I draw together key themes arising from the research and highlight the insights and perspectives grounded study brings to previous understandings of the inscribed labels, their purpose and potential meanings for select members of early Egyptian society.

1.4 Defining the Dataset

The 427 labels and label fragments studied here are small rectangular, inscribed plaques ranging from 1.05cm to 9.45cm in length and height and from 0.45cm to 0.71cm in thickness. They are manufactured from bone, elephant and hippopotamus ivory, and several types of wood. Two NIIIA1 examples are made of stone. Imagery is rendered on one, and sometimes both, of the main surfaces by incision, or, less often, with different

3 Serie *Materiale Kulturen*, URL: <https://www.degruyter.com/view/serial/428997> (accessed 29.09.2017).

pigments and binders. Techniques occur separately or in combination (see §5.7–§5.8). A defining technical feature of the labels as a material cultural category seems to be the avoidance of raised relief, and sunken relief is rare. That this is a deliberate cultural choice is evidenced by widely attested contemporary relief carving in bone and ivory (e.g. combs, cylinders, knife handles, and other items from funerary, ceremonial and other contexts; see e.g. Adams 1974b; Davis 1992, 48–80; Needler 1984; Payne 1992; Payne 2001). In this study ‘label’ refers to separable perforated plaques or associated fragments bearing script and/or imagery. It is to be distinguished from another Egyptological usage, namely “jar label”, referring to an inscription applied directly to a vessel (Lines 2000).

At one corner or edge, usually the upper right, a perforation is drilled, by which a label may have been attached to goods such as textiles (Dreyer et al. 1993, 35), leather bags, jars, sandals or other objects used in the funerary ritual (see also §1.5.2). Some bear grooves or other marks suggesting the use of recycled materials (Dreyer et al. 1996, 75). Identifying a ‘label’ can be problematic for fragments that do not preserve the perforation or diagnostic imagery.⁴ Whole labels are often slightly pillow-shaped. One set of thin edges may bear sawing or other cutting marks while the opposite edges are smoother, if not slightly rounded. Thus, unperforated fragments of a consistent thickness or with bevelled or sharp edges are unlikely to be parts of labels, and are likely to be furniture inlays (Petrie 1900, 21) or other objects (e.g. Spencer 1980, 65, no. 463, pls. 50 and 54; see Chapter 5). All available objects that fit these general ‘label’ criteria are included in this study, constituting 189 whole and 238 fragmentary exemplars. For expediency, I refer to both fragmentary and whole labels as “labels” in this text and direct the reader to the Label Database for preservation details.

Two main temporal phases of label use are distinguished. The earliest group comes from Cemetery U area of the Umm el-Qa’ab necropolis in the low desert at Abydos (Dreyer 1998). These are dated to the Naqada IIIA1 cultural phase (c.3325–3085 BCE; Dreyer 1993, 12; Dreyer 1998, 18; cf. Boehmer et al. 1993, 65). After a gap of approximately 100–200 years, more elaborately inscribed labels are attested from Naqada IIIC to early Naqada IIID, the end of the 1st Dynasty (c.3085–c.2867 BCE).

Labelling practices involving separable perforated plaques are attested in much later periods. Small, perforated wooden labels inscribed in hieratic with black ink are attested in the New Kingdom from the tomb of Tutankhamun (c.1333–c.1323 BCE; Černý 1965). During the Ptolemaic (323 BCE–30 CE) and Roman (30–640 CE) Periods numerous ‘mummy labels’ of wood and limestone of various angular shapes and sizes were incised and/or ink-inscribed in Greek, demotic and, less commonly, hieroglyphic (Boyaval 1976). These temporally distant corpora are distinct materially, graphically and in terms of content meaning. No cultural continuity between these labelling traditions can be demonstrated, hence the discrete temporal framing of the present study.

The label graphical repertoire includes a wide range of iconic and apparently non-iconic imagery. The NIIIA1 labels, along with inscribed jars of the same period (§8.2), are considered to represent the earliest writing in Egypt, if not the Middle East (Dreyer et al. 1993, 33–35). This proposal, however, remains controversial on methodological and

4 E.g. ID351/--_A, ID352(?)/--_A.

substantive grounds as the evidence is numerically limited and highly restricted in time-space (Chapter 4; see also discussion in Baines 2004, 161–171; Kemp et al. 2000). As for the NIIIC–early D labels, elements of the repertoire are shared among a greater number of contemporary objects from various sites, including stelae, impressed sealings, vessel inscriptions and ceremonial palettes. Parallels for selected iconography are attested as far south as the A-Group Royal Cemetery L at Qustul (Williams 1986) and to the northeast in the Levant (Levy et al. 1995), while a small number of motifs also find parallels, if not inspiration, in contemporary Mesopotamian iconography (M. Smith 1992).

The label repertoire includes zoomorphs (animal-like figures), anthropomorphs (human-like figures),⁵ floral elements,⁶ architectural elements,⁷ boats and other depictive imagery. Non-iconic imagery (see §6.1–§6.2 for problems associated with image identification and classification) includes linear and geometric shapes.⁸ The NIIIA1 labels are generally limited to between 1 and 4 images⁹ and include a repertoire of some 17 image categories (Dreyer 1998, 183–187). Many bear very similar sets of imagery. In contrast, the NIIIC–early D label can bear 1 to 50 or more images. Selected image groups are conventionally identified as signifying deities, the names and titles of rulers, officials and other individuals, toponyms, and the quantity/quality of a variety of goods (Kaplony 1980). A number of the NIIIC1–2 labels bear compositions organised into rows and/or columns with elaborate scenes,¹⁰ some of which have received a great deal of attention, such as smiting scenes (Morris 2013, 50; Dreyer et al. 1996, 139) or those thought to depict human sacrifice¹¹ (Albert et al. 2000; Baud and Étienne 2000; Crubézy and Midant-Reynes 2000; Dreyer 2000; cf. Piquette 2004).

In describing the label imagery, the terms ‘writing’ and ‘art’ are often used in the literature; what cannot be explained as writing (based on later rules of linguistic syntax and other principles) is often described as ‘representation’. This last term derives from traditional Western philosophical and religious notions of the ‘sign’, commonly bound up with a particular concept of explanation concerned with characterising congruities and incongruities between the image (e.g. copy, surrogate, representation or signifier) and what it is thought to represent (Preziosi 1998, 581). The image thus becomes a trace or index of some absent and/or prior event or feature. Nevertheless, we must remain open to the possibility that imagery may have ‘made present’ or affected some other purpose besides representation. I therefore prefer to employ the more neutral verb and noun ‘depict’ and ‘depiction’.

Overall, a label as a material cultural category can be defined as follows:

- Small, thin rectangular plaque;
- Perforated in one corner;
- Made of bone, ivory, wood or stone;

5 E.g. ID048/4284_A, ID304/1253_A.

6 E.g. ID065/4300_A.

7 E.g. ID139/4368_A, ID286/1243_A.

8 E.g. ID168/4396_A.

9 E.g. ID067/4303_A, ID102/4336_A, ID172/0205_A.

10 E.g. ID209/0240a–b_N, ID240/0682_A, ID300/1389_A.

11 ID207/0289_A, ID239/0847_S.

- Incised or painted on one, and sometimes both, of the main faces;
- Deposited in cemetery contexts within the lower Nile Valley dating from NIIA1 to NIIC–early D.

1.4.1 Discovery of the Labels

Inscribed labels were first encountered in excavations at Abydos in 1895 (Amélineau 1899), with finds subsequently encountered at six further cemetery sites. At least 427 labels and label fragments derive from Naqada and Abydos in Upper Egypt in the south and, in the north, from Saqqara, Giza and Abu Rowash on the west bank and from Helwan and Tura on the east bank (Figure 4).

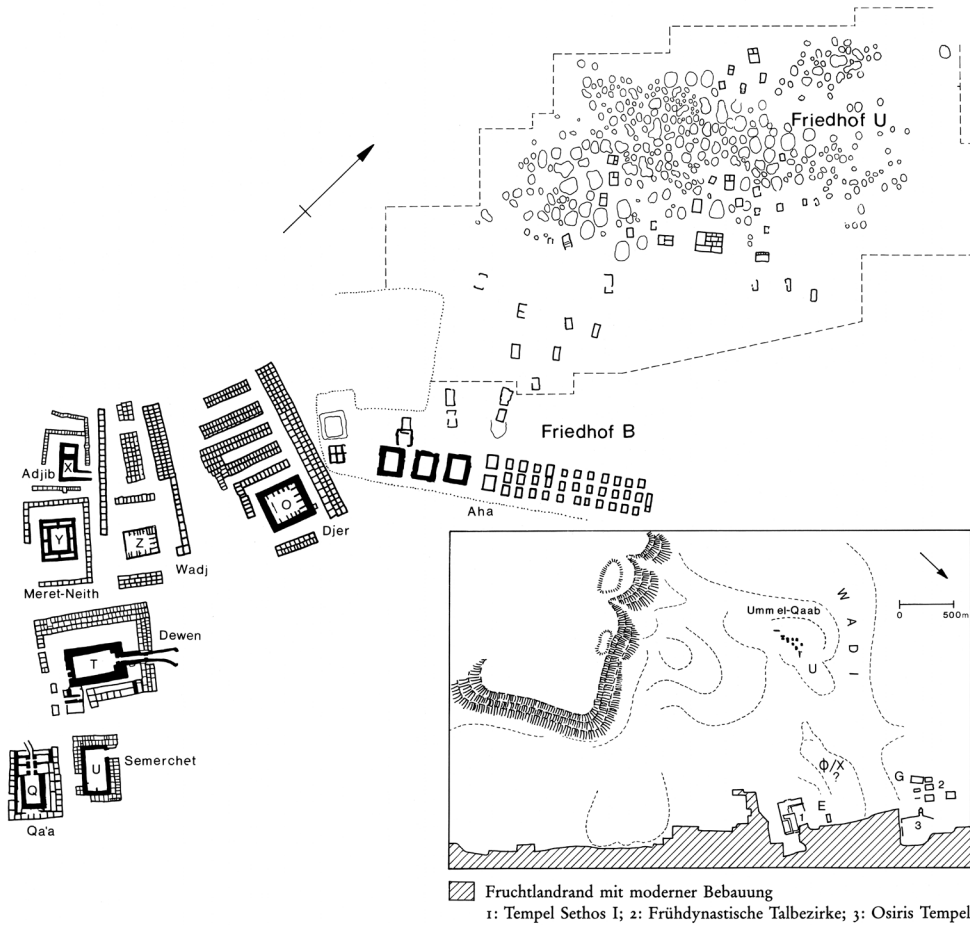
Further unpublished fragments have been found at Abydos, mainly dated to the reign of Den,¹² some of which join with those found previously by William Matthews Flinders Petrie (Dreyer et al. 1998, 162, footnote 218).¹³ As shown in Table 1, over 85% of published examples come from the elite cemeteries at Abydos, including the burial ground of Egypt’s early rulers and their attendants (Figure 5).

Site	Label Quantities	
Abydos	Cemetery U	169
	Cemetery B	27
	‘Royal’ Tombs	154
	Funerary Enclosures	13
	Unspecified	2
Naqada	10	
Helwan	6	
Tura	2	
Saqqara	Escarpment	35
	Macramallah’s Cemetery	4
Giza	1	
Abu Rowash	2	
Unprovenanced	2	
<i>Total</i>	<i>427</i>	

Table 1: Label quantities according to provenance, Kathryn E. Piquette, CC BY 4.0.

12 Hereafter, I use ‘dated to Den’ (or to other ruler) to imply the period of reign, although other chronological complexities must be borne in mind (§2.2.1).

13 Publication of these further c.40 fragments is planned (Günter Dreyer, pers. comm. 27.10.2017).



Abydos: Umm el-Qaab und andere prädynastische Friedhöfe; U, E, G, Φ und X (nach B. KEMP, in: *LÄ I*, S. 30, s. v. *Abydos*)

Figure 5: General plan of Abydos cemeteries U, B and the 'Royal' Tombs (after Hartung 2001, fig. 1, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

At all sites, the labels are consistently associated archaeologically with funerary structures. On the basis of tomb size and wealth, most contexts are understood to be high status, although wider archaeological discussion of mortuary practice emphasises that identities symbolised in death are the results of many different forces acting upon mourners and the deceased (Parker Pearson 2001, 32–34). Most label finds are associated with richly equipped, large mudbrick tombs, and with associated subsidiary graves—contexts that are also characterised by high densities of other graphically elaborated find types.

To date, labels have not been documented outside the cemetery context. The degree to which this uneven distribution reflects biases in preservation or the lack of emphasis on settlement archaeology remains unclear. Non-label inscribed material has been found in settlement (Pätznick 2005; Chłodnicki and Ciałowicz 2003; Ciałowicz and

Chłodnicki 2003) and ceremonial contexts (Dreyer 1986; Kemp 1968; Petrie 1903), and, significantly, outside Egypt proper, in the southern Levant (e.g. Levy et al. 1995).

Like most archaeological material, the label evidence has its shortcomings. Somewhat secure find spots include individual graves, burial chambers, storage magazines and other auxiliary chambers, while secondary contexts include fill, rubbish heaps and other deposits resulting from looting, and ancient clearing/reconstruction (Emery 1954, 6; Petrie 1900, 11), as well as previous excavations (Dreyer et al. 1998, 162).

Excavation techniques and recording methods have varied greatly over the past century. The details of archaeological deposition, complicated by post-depositional processes, are often sparsely recorded (e.g. Petrie 1900, 21), as well as published with omissions or inaccuracies (e.g. Emery and Sa'ad 1938; see also Dreyer 2000, 6). This state of affairs has persisted up to the late 1970s, when the German Archaeological Institute Cairo began discovering labels during re-excavation of the early cemeteries at Abydos. Although dealing with heavily disturbed contexts, the reports of these re-excavations are meticulously assembled, providing detailed insight into find spots where possible and, in some cases, clarifying gaps in earlier reports (e.g. Dreyer et al. 1996). Even these reports, however, by virtue of the conventional methods of presentation, typically in type/categorised form, are pre-analysed, and this can inhibit subsequent reinterpretation (Kroeper 2004, 859).

The implications of the archaeological context for interpreting the role of labels in past social and symbolic interactions are an area that has not received comprehensive or systematic study. Poor archaeological preservation may have discouraged previous investigators from attempting more archaeologically grounded interpretations, but I would also argue that the lack of emphasis on archaeological associations has to do with a certain autonomy that historically has been accorded to 'written evidence' as an explanatory tool or source. Where meaningful archaeological associations have been encountered (e.g. Morgan 1897, 150; Emery 1954, 20; Dreyer et al. 1998, 138), this has not always been fully exploited in reconstructions of label purpose. Nevertheless, closer examination of the published reports for archaeological context can still prove fruitful, as detailed in Chapter 4.

The relative dearth of comment upon archaeological remains associated with the labels and with other graphical objects is also, I would argue, symptomatic of methodological issues related to the status attributed to artefacts classified as 'textual'. This status has had a persistent de-materialising effect (e.g. Meskell 1999, following Baines 1988, 209), resulting in a fundamental epistemological contradiction not only in Egyptology but also within archaeology as a materials-centred discipline. This point is pivotal in the way the present research develops a re-materialising approach. My aim is to treat 'textual' /graphical evidence not only as source material for explaining other historical and cultural phenomena, but first and foremost as material culture produced in the context of meaningful social action.

1.4.2 Charting Time and Dating the Labels

Making sense of the temporal phases of early Egyptian archaeology as part of a practice-centred approach entails developing a framework that integrates chronological

time constructed through dating methods together with more subjective time as defined by past lived experience of time and time-concepts (Gardner 2012; Stevenson 2015, 146). Aspects of the past lived experience are considered later in the study, but in this section I present the basic framework for the surviving label evidence. In grappling with chronological time more than a century ago, Petrie (1899; Petrie 1901b, 4–8; Petrie 1920, 3–4) devised a system of relative dates, or Sequence Dates, in an early version of seriation (Kemp 1982, 6). The assumption that pottery and other object types underwent continual stylistic change provided a way to place contexts in relative chronological order. Kaiser’s (1957; Kaiser 1960) subsequent re-evaluation of Petrie’s framework addressed inconsistencies in terminology and problems such as the heterogeneity of pottery classes, and introduced three main cultural phases, Naqada I–III, and several “*stufen*”, or steps, within each phase, e.g. NIIIa1. Subsequent corrections to the framework (Kemp 1982; Payne 1990; Payne 1992) were reassessed and integrated with new data in Hendrickx’s (1996; Hendrickx 2006) critical study of the relative chronology of Predynastic and Early Dynastic pottery, distinguishing the updated sub-phases with capitalised alphabetical designations, e.g. Naqada IIIA1 (hereafter NIIIA1). This updated framework, together with the results of recent radiocarbon dating work (Dee et al. 2013, Dee et al. 2014; see also Stevenson 2015), is used here (Table 2).

Label deposition in cemetery contexts spans two broad phases. The earliest group of labels from Cemetery U at Abydos dates to the latter part of the Late Predynastic, namely the NIIIA1 phase. The second group dates to NIIIC–early D, the phase that corresponds to the political division of the Early Dynastic Period referred to

Cultural Phase	Calibrated Dates BCE	Dynasty	Period	Rulers
		2		Hetepsekhemwy
Naqada IIID	from c.2867 onward			Qa’a Semerkhet
Naqada IIIC1–C2	c.3085–c.2867	↑ 1	Early Dynastic	Adjib Den Merneith Djet Djer Aha/Hetepneith ¹⁴ (?) Narmer
Naqada IIIA1–IIIB	c.3325–c.3085	‘0’	Proto-dynastic	Irj-Hor/Ka(?) Owner of Tomb U-j
Naqada IIC–D	c.3450–c.3325			
Naqada IC–IIB	c.3650–c.3450			
Naqada IA–B	c.3750(?)–c.3650		Predynastic	

Table 2: Chronological table (after Hendrickx 2006, 92; Stevenson 2015, 151, table 4; Wilkinson 2001, 27).

14 This individual is often referred to in the literature as ‘Neithhotep’ (see MacArthur 2015 [2010], 118, and 121, footnote 3).

as the 1st Dynasty (see also Wilkinson 2010, 49–50). Local absolute dating for the NIIIA1 labels is based on two sets of radiocarbon dates for Abydos Tomb U-j, an early date of c.3300 BCE and a later date range of c.3200–c.3100 BCE.¹⁵ The former dating, advanced by the excavators (Dreyer 1998; Dreyer 2011, 128; Dreyer et al. 1993, 61), places the labels slightly earlier than the Uruk IV tablets (Baines 2004, 154; Boehmer et al. 1993). The latter dating is to be preferred according to Joffe (2000, 113–114, n. 4), and others have accepted a later date (e.g. c.3150 BCE; Wilkinson 2001, 257). The most recent radiocarbon dating results are published by Dee et al. (2013; Dee et al. 2014, 5).

Following the NIIIA1 finds from Cemetery U, the only label evidence from NIIIB—the interval between the NIIIA1 phase and the beginning of the 1st Dynasty (NIIIC–early D), is probably ID188/4817_A from Abydos Tomb B50 (§4.4.2.1). Depending on archaeological relationships and other dating techniques, the time span separating both label groups may range from almost no gap at all to a span of 100–150 years (see Engel 2013, 25), up to almost 300 years. Some scholars posit the existence of early ‘kings’¹⁶ during this enigmatic period, including the owner of Tomb U-j, but these remain a matter of debate. The chronological term “dynasty 0” (Kaiser 1985a, 71) has been widely adopted to describe the period during which political power was held by certain Upper Egyptian polities, yet archaeological evidence for political continuity that might support the concept of a ‘dynasty’ is difficult to grasp outside the Abydos cemeteries, including its unlocated settlement area (Köhler 2004a, 310; Wilkinson 1999, 61; see also Hendrickx 2006, 88). Given the uncertainty over applying these terms beyond this geographical region, Köhler sees the term ‘Protodynastic’ as a feasible alternative (see also Petrie 1953). However, the teleological overtones of such a term discourage an appreciation of this temporal phase of Egyptian cultural development in its own terms (see Wilkinson 2001, 60, for a similar argument against the use by Emery and Sa’ad [1939], of “Archaic” for “Early Dynastic”).

As for the second group of labels, these date to the NIIIC–early D phase. As set out in Table 2, label use is attested over the course of nine consecutive reigns, with the reigns of Merneith and Den possibly overlapping (Ritter-Kaplan 1979).¹⁷ All rulers had funerary complexes at Abydos, and, based on the spatial distribution and architectural development of these, as well as stylistic comparison of seal impressions, reused inscribed vases and other material culture, Petrie was able to confirm regnal order and establish the relative sequence of the tomb construction, as he emphasises, independent of later historical lists (Petrie 1900, 5, pl. 59; Petrie 1901a, 3–5). Further contemporary evidence has come to light in the form of impressed sealings discovered during the re-clearance of the tomb complex of Den by the German expedition (Dreyer 1987). These have been

15 Hd-12953 (4,470 ± 30 BP) and Hd-12954 (4,955 ± 30 BP), both *Acacia nilotica* samples (Boehmer et al. 1993; Görtsdorf et al. 1998).

16 In the interest of the reflexive use of terms and given the limited evidence for the extent of political power, the absence of skeletal remains that may evidence biological sex and the meagre depictive evidence for gender, I prefer the gender-neutral and less ideologically loaded term ‘ruler’.

17 Baines’ (1995, 126) reference to labels dating up to the 3rd Dynasty may be an oversight, or with a possible 3rd-dynasty candidate in mind, namely a long ivory plaque engraved with a linen list, found in the step pyramid of Sekhemkhet (Goneim 1957, 21; Helck 1957).

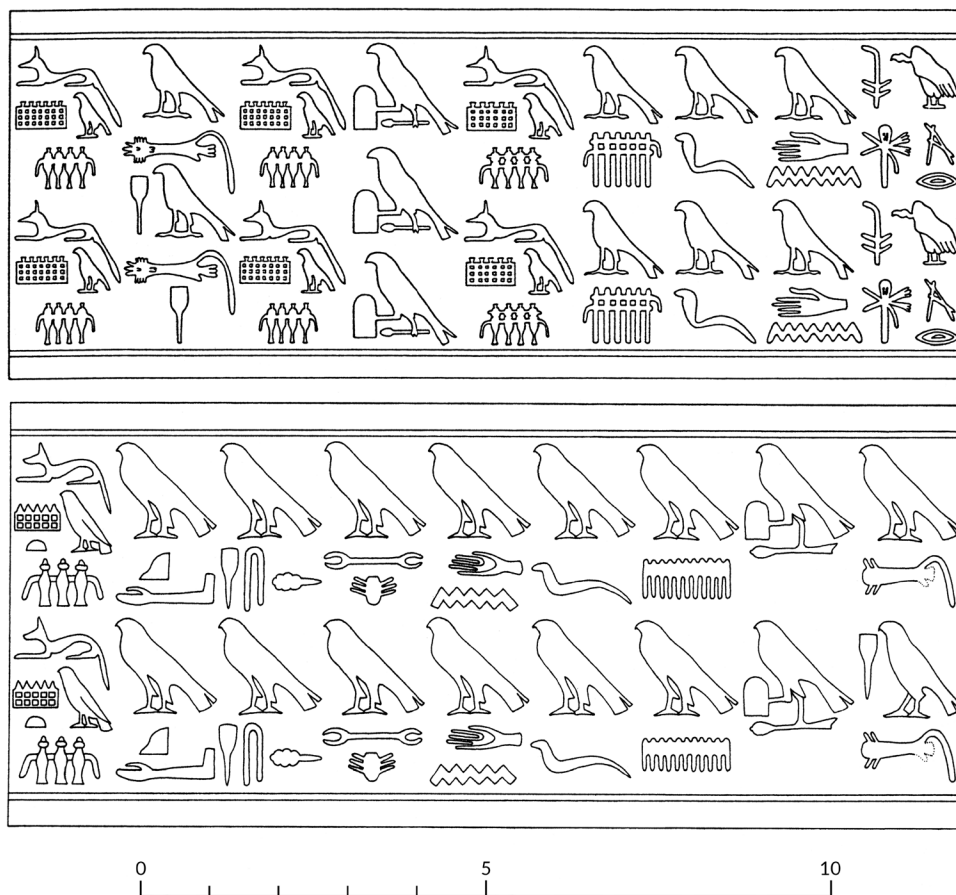




Figure 6: Reconstructions of seal impressions listing ruler Personal Identifiers (PIs), from the tomb of Den (top) and Qa'a (bottom), Abydos, NIIC1-early D (c.3085–c.2867 BCE; Dreyer 1987, fig. 3; Dreyer et al. 1996, 72, fig. 26, courtesy of German Archaeological Institute Cairo, CC BY 4.0).


reconstructed (Figure 6, top), and are understood to list the titles and names of the first six rulers of the 1st Dynasty: Narmer, Aha, Djer, Djet, Merneith and Den. This ordering is corroborated and extended by another reconstructed seal impression found in the tomb of Qa'a (Figure 6, bottom). Here all rulers of the 1st Dynasty are listed apart from Merneith—one of several pieces of evidence suggesting her rule was characterised by co-regency (Dreyer et al. 1996, 72, fig. 26; Wilkinson 2001, 62–63) or otherwise distinguished from other types of rule during this period. I should note here that the retrospective readings of these appellations are subject to philological debate, as is their relationship to personal identity, and institutional or other affiliations (see e.g. Emery 1954, 3; Emery 1958, 3). In keeping with a grounded method, I avoid distinctions such as name or title, and employ the more cautious umbrella term 'Personal Identifier' or PI.

Regnal sequence is also corroborated by erasures on vessels found in the tomb complex ascribed to Semerkhet, which indicate that this ruler followed Adjib based on the still-discernible PI of the latter (Piquette 2013a, 229, fig. 11). Regnal order is tentatively

evidenced on a label¹⁸ bearing the PI of Semerkhet in the upper part of /O33¹⁹ and, unusually, another /O33 containing the PI of Qa'a, his successor and the final ruler of the 1st Dynasty. Similarly, near the entrance to Tomb Q (Qa'a) impressed jar sealings were found bearing the PI of Hetepsekhemwy (Dreyer et al. 1996, 71–72, fig. 25, pl. 14a), Qa'a's successor and first ruler of the 2nd Dynasty.²⁰ Such archaeological data help to confirm the order of rule, and may provide insight into the nature of regnal and dynastic transition (Baines 1995, 127). Overall, this relative sequence of rulers agrees with the sequence of 'royal' tomb construction at Umm el-Qa'ab, with only the complex of Adjib interruptive of the general east-to-west growth of the funerary landscape at the mouth of the Great Wadi.

These temporal divisions and subdivisions provide a vital means of getting to grips with the archaeological data, but this is only the first step. Reliance on discrete temporal units can be problematic, if not counterproductive, depending on whether they are employed as explanatory tools themselves, or, as this study attempts, within the context of a method and theoretical framework designed to engender evaluation of the temporal dimension as part of meaningful label practices. On the one hand, investigators need to establish discrete data units, temporal or otherwise, for analysis from among bodies of evidence that intersect in complex ways; on the other, in the course of discerning and interpreting patterning, those units may militate against characterising and explaining the webs of relationships in which the data are situated. This tension can be observed where Hendrickx (1996, 52) laments the impossibility of "...establish[ing] clearly defined, 'objective' rules for the definition of archaeological complexes representing relative chronological periods within the Naqada culture". He attempts to explain this in terms of the different interpretive approaches researchers take to the typing and classification of ceramic evidence. At the same time, he comments (but does not fully flesh out; see Hendrickx 1996, 51; and below) that because material culture is constituted through human action across time-space, it may be practised in different ways in different places. A fixed set of defined rules is desirable from the point of view of analysis, yet undesirable since, just as Hendrickx himself emphasises (Hendrickx 1996, 52, 63), it is necessary to integrate the spatial and temporal axes, with the result of a particularistic rather than universal chronological framework. Only within such a framework can the human agency involved in the deposition of material culture be accounted for. As outlined in Chapter 2, practice theory is well-suited to the task of throwing into relief this otherwise passive, two-dimensional world of material culture—a world meaningless/non-existent without its variably knowledgeable embodied inhabitants. By drawing on the principles of a contextual archaeology (§2.2), we are equipped with the analytical tools not only to chart patterns of continuity and change, but also to investigate these patterns in terms of the actions of social agents in particular times and places.

18 ID343/4046a–b(=4557)_A.

19 To avoid anachronistic terms and concepts where possible, I use the descriptive term 'niched-frame' to refer to /O33 with its upper frame, usually surmounted by /G5.

20 Dreyer's (1993, 11) mention of labels bearing the name of Hetepsekhemwy (also cited in Piquette 2004) is an editorial oversight; subsequent publications report impressed jar sealings bearing this PI (Dreyer et al. 1996, 71–72, fig. 25, pl. 14a), but no labels.

In addition to thinking about temporal context in relation to tomb construction and regnal sequence, there is the question of the artefact itself across time. The period between production of an object and its deposition in/at a given tomb can be difficult if not impossible to estimate (cf. Hendrickx 1996, 51, note 77). Presumably a label could have been deposited anytime during tomb equipping, whether during the owner's life or after death, and in the latter case placement depended on the length of time the tomb (complex) remained accessible for funerary or mortuary rituals. As discussed further on, the question of time must be considered not only in relation to immediate archaeological associations or the presence of the PI of a given ruler on a label (see Engel 1997, 434), but also from a diachronic perspective in terms of the practices that preceded label deposition. For this reason, rigid subdivisions according to reign may not always be appropriate for dating individual labels or constructing label typologies (e.g. Kaplony 1963, pls. 143–144; Raffaele 2006; see also Stevenson 2015).

Leading on from this point, it is also necessary to consider the significance of PIs for attribution and practice. The presence of a PI in the tomb has been used as the basis for assigning a tomb to a particular individual or reign (e.g. Morgan 1897, 165; Dreyer 1993, 12; Emery and Sa'ad 1938). The association of PIs from two consecutive reigns with a single tomb, as in the case of Qa'a and Hetepsekhemwy (Dreyer et al. 1996, 71–72, fig. 25, pl. 14a), highlights the difficulty of using PIs as reliable indicators of who built, was buried in or was otherwise involved in activities at the site of a given tomb, and the time-space distribution of such activities (Bestock 2009, 16; Regulski 2010a, 54–64).

In sum, labels are mainly attested during two phases: firstly, NIIIA1 (and possibly NIIIB), and secondly, NIIIC–early D, for which temporal distribution can be charted at the resolution of individual reigns. Based on the combination of archaeological context and the presence of the PI this mode of graphical expression is dated to Narmer²¹ and each reign thereafter, including that of Merneith. With the burial of Qa'a, the final ruler of the 1st Dynasty, the labels fall out of use. Nevertheless, other graphical practices continue, and whether absence is due to archaeological bias or the role that the labels fulfilled was subsequently accomplished via other means is an issue to which I return later on in this book.

1.4.3 Current Location of the Labels

Inscribed labels are currently dispersed in more than 14 museum collections and storage magazines in Egypt, Europe and the United States (see Label Database). The present location of several labels remains elusive, however. At least three previously held in the Ägyptisches Museum und Papyrussammlung Berlin are thought to have perished in World War II, or were possibly taken to Russia around that period (Klaus Finneiser, pers. comm. 2006). The majority of NIIIA1 labels are stored at Abydos, as are the aforementioned unpublished NIIIC–early D labels and fragments. At Saqqara finds from Tomb S3504—including 18 inscribed labels (Emery 1954)—were stored in site magazines, according to Harry Smith (pers. comm. 2005), who worked with Walter B. Emery. Emery

21 E.g. ID200/4028a–b_A, ID201/0095_A, ID202/4030_A.

(1949, 109) mentions the construction in 1937 of magazines and workshops behind the dig house. Smith believes the contents of the magazines may have been removed or destroyed during the course of the Egyptian revolution in 1952, however. T.J.H. James (pers. comm. 2006), who drew the inscriptions from S3504, is likewise unaware of the present location of these labels. The two labels²² from Tomb X (Emery 1949) have also proved untraceable. I was unable to learn more during my 2005 research visit to Egypt (see also Hendrickx 1996, 47; see also Preface). Overall, it is nevertheless remarkable that such a large amount of the actual material has proved locatable in spite of the hazards of excavation, dispersion to diverse collections and wars, not to mention that photographs and/or drawings of virtually all have been published. Very possibly, no single object type of this quantity and early date has been so well looked after.

1.5 Review of Previous Research

As a topic of continual study and interest for more than a century, the body of literature on the inscribed labels is extensive. Both general and specialist studies on art history, chronology, history, palaeography and philology draw on the rich imagery on the labels. Primary sources consisting of site reports and a small number of short reports in the form of journal articles are examined in Chapter 4, which is dedicated to the detailed analysis of the archaeological context. In this section, I focus instead on the secondary literature to assess previous approaches and interpretations, with particular emphasis on methodology, as this forms a key area where this study departs from preceding ones (see also Chapter 3).

The following subsections are organised into several thematic areas. Numerous general studies draw on the labels for insight into broad social issues, such as early 'state' administration. Others consider the function of the labels in the narrowly instrumental sense of how they were physically associated with other objects, as well as in a more symbolic functional sense of how they communicated semantic meanings about their instrumental function(s). This latter topic of semantic meaning is also considered within specialist studies on script formation, but these are only surveyed generally here since, as mentioned, my focus is on the more material and compositional aspects of the labels. Beyond specialist studies, others consider the broader significance of written and pictographic evidence on the labels. Underpinning these is a common view of the labels as written records (Ciałowicz 2001, 134, 138–139). Apart from a limited number of iconographic studies, philological perspectives reign almost absolute in their prevalence over other explanatory frameworks. In addition to discerning the pragmatic labelling functions and meanings mentioned above, interpretations are often directed to chronological concerns—a tendency in studies of this early period of ancient Egypt fittingly characterised by David Wengrow (2006, 127) as an "...occasionally obsessive interest in the chronology and succession of named rulers..." (see also Trigger 2001 [1983], 44–45). Following close behind are related debates concerning historicity (§1.5.8). Throughout

22 ID350/1565a–b_S, ID353/1564a–b_S.

this review, various problems and questions are highlighted which provide the impetus for the particular set of research questions posed here (§1.8) and the kinds of theories and methods brought to bear.

1.5.1 The Inscribed Labels and Early Egyptian Society

Interpretation of the labels and their significance has overwhelmingly centred on their imagery as writing and ‘royal’ iconography, and particularly on individual and groups of images which can be related to later evidence when linguistic function and iconographic meaning is more explicit (e.g. Kahl 1994, 162–163; Kahl 2001, 125). The incompleteness of the evidence means that Egyptologists have traditionally drawn on evidence from disparate periods; as Loprieno notes in relation to one aspect of philology: “...Egyptian phonology must be addressed primarily as an issue of *diachronic*, rather than synchronic linguistics” (Loprieno 2000, 28, emphasis in original). For early written evidence in particular, a hind sighted approach is often adopted since contemporary evidence is particularly sparse relative to later periods. However, extrapolation backward, or forward, is not so much diachronic study as anachronistic, collapsing the temporal dimension and leading to assumptions and generalisations that may overlook meanings constructed through practice at the synchronic and immediate level of the object. While avoiding decontextualisation is a fundamental concern here, completely rejecting meanings derived from later evidence may, however, be equally unhelpful when a high degree of continuity can be established, as seems demonstrable for some image and sign groups, including many names, titles, iconography and even goods information, such as the names of types of oil (Altenmüller 1976).

General perspectives on the labels can be found in numerous studies dealing with the Late Predynastic and Early Dynastic Periods. These views are commonly characterised by “top-down” approaches (see Renfrew and Bahn 2000, 214), which focus on questions of organisation and of hierarchy, of power and of political unification, where the labels have become inextricably linked to the administrative needs of the early Egyptian state and the establishment of a divine rule at its head.

Alongside seal impressions and decorated ceremonial maceheads and palettes, label images of anthropomorphic figures identified as the Egyptian ruler and ‘royal’ names and titles are one of the main resources for studies on the ‘origins’ and nature of Egyptian kingship (Baines 1990; Baines 1995; Ciałowicz 2000). The labels provide evidence for developing titulary (Wilkinson 2001, 203–206), iconography and ideology of the divinity of the ruler. Label scenes are also sourced for information on royal festivals (Gaballa and Kitchen 1969; Jiménez-Serrano 2002; Vikentiev 1942, 288), and other acts of the ruler, such as the hippopotamus hunt (Wilkinson 2001, 216) and visits to religious shrines (Emery 1961, 52, fig. 12 and 59, fig. 20; Wilkinson 2001, 220–221). A key motif among these royal acts is the smiting scene²³ see Swan Hall 1986).

23 ID343/4046a-b(=4557)_A.

It has been proposed that the NIIIA1 labels, along with other graphical artefacts from Tomb U-j and neighbouring tombs, evidence the development of centralised administration (Dreyer 1998; Dreyer 2011, 135), although this is not accepted by all (Wengrow 2006, 203–204). Similar emphasis has been placed on administration with NIIIC–early D labels, but these interpretations again are probably too generalising given the ritual context of the tomb (Endesfelder 1991, 21). Further, in the context of the early Egyptian economy, the labels are treated as evidence for particular modes of commodity redistribution and exchange. Kaplony (1963, 292, 297) sees (from a retrospective perspective) the mention of “*inw*” on some labels as indicative of “*Steuervermerke*”, a type of taxation (cf. Kahl 1995). Edward Bleiberg (1996, 29–34; see also Legge 1907, 250) views these 1st-dynasty labels as indicating a type of exchange involving redistribution of products among members of the ‘royal’ family, bureaucrats who served the ruler and lower officials. From this perspective, rather than being indicative of some ‘state’ administrative mechanism (*contra* Postgate et al. 1995), some labels were vehicles for, and *material* symbols of, the negotiation of select elite social relationships centring on the ruler.

Labels also figure in the reconstruction of social hierarchy inferred from retrospective interpretation of image ‘Clusters’ (§7.5), interpreted as the names and/or titles of individuals, often including the ruler and/or high officials (e.g. Emery 1949, 107; Emery 1954, 103). In some accounts, similarly inferred personal names are understood as the names of individuals officiating over the exchange of goods or their delivery to the tomb. Yet other investigators see names on labels as identifying the tomb owner.

1.5.2 Proposals for the Primary Use of Labels

A fundamental assumption in previous literature is that labels were attached to items placed in the tomb, e.g. jars, bags, boxes, etc. The association of numerous small NIIIA1 labels, a handful of which bear depictions of garments/s27,²⁴ with the possible remains of wooden boxes led the excavator to suggest that these labels were attached to lengths of cloth (Dreyer et al. 1993, 35). One of the first discoverers of labels, Émile Amélineau, suggested that the perforation was for suspending the label from the neck of the deceased (Amélineau 1904, 6; Amélineau 1905, 398). Following in Amélineau’s footsteps at Abydos, Petrie (1901a, 22) understood these perforated plaques as tablets attached to offerings brought to the tomb, such as arrow(s) (T11),²⁵ or what appears to be a tower or granary²⁶ and also resembles a gaming pieces found in the tombs (e.g. Vandier 1952, 844, fig. 564; see also Ägyptisches Museum Berlin, 18031).

James Gordon Legge (1906, 252) asserted that the labels were “...in the strictest sense of the word, records”, filed for reference and intended to be strung on a string or pin, detailing royal gifts to temples or other religious foundations and festivals. The function proposed for the perforation offers interesting possibilities but the compatibility of a record-keeping explanation with the depositional context of the tomb rather than,

24 ID173/4401_A, ID174/4400_A.

25 E.g. ID200/4028a–b_A, ID201/0095_A, ID202/4030_A, ID225/0615_A.

26 ID225/0615_A.

e.g., with deposition in administrative locations as attested in southern Mesopotamia (Postgate 1994, 52) requires further evaluation.

Percy Newberry (1912) suggests that some labels name a type of oil contained in a jar to which the label was originally attached (see also Ray 1986, 315). Emery and Sa'ad (1938, 35) also see the perforation as used for attachment to a funerary item (see also Emery 1954, 103), but for other labels they propose that the plaques were used as receipts for registering stored objects (Emery and Sa'ad 1939, 75). Label ID239/0847_S was found near a closed and sealed leather bag in S3035. The label perforation still had a fragment of string running through it and Emery suggests the label may have been attached to the bag, although the published record is problematic for confirming an archaeological association (see §4.2). Similarly, Sa'ad (1969, 69) suggests that labels found at Helwan were attached to vessels like those pictured on them,²⁷ and specifically that “[i]n the upper right corner of each tablet one can discern a hole through which a cord was strung to tie the tablet to the neck of the vase”, while for Hoffman (1991, 275) the purpose of the labels was to indicate ownership of the objects to which they were attached. Jan Assmann (2002, 37) states unequivocally that the annals labels (those bearing the so-called year-sign) “served as ‘labels’ for wine and oil bottles, thus putting a date to the production of these goods”. Despite consensus among commentators that the labels were attached to items of funerary equipment, apart from a detailed case study published by Tine Bagh in 2004, systematic assessment of archaeological associations to test these claims has not been undertaken to date, and thus presents a key area of investigation for the present study (Chapter 4).

1.5.3 Interpretations of Label Content

The diversity in label size and image repertoire is mirrored by the diversity of proposed interpretations for meaning content. Proposals for the immediate role of the imagery are usually situated against the backdrop of an assumed physical one-to-one relationship between label and item. Imagery is understood to convey ‘product’ information of various types via both pictographic and epigraphic means.

Dreyer divides the NIIIA1 labels into two main groups, those bearing a series of notches (z1)²⁸ and those bearing combinations of iconic imagery.²⁹ The former are understood to indicate numerical values³⁰ (Dreyer et al. 1993, 34; Dreyer et al. 1998, 113–118), which Dreyer suggests indicate the size of lengths of cloth. The latter type are ‘read’ retrospectively from later seal impressions as names of administrative institutions, residence of the ruler,³¹ names of royal estates (also proposed for applied colour inscriptions on wavy-handled ceramic jars from the same tombs; see §8.2), or names of

27 E.g. ID374/3406_H.

28 E.g. ID024/4263_A.

29 E.g. ID067/4303_A, ID136/4349_A, ID153/4381_A.

30 E.g. ID012/4251_A.

31 ID136/4349_A.

localities such as Buto and Bubastis in the Delta³² (Dreyer 1992, 298; Dreyer et al. 1993, 35; Begon 2015). While there is an eagerness to see the imagery on these earliest labels as an advanced stage in hieroglyphic writing in the Naqada IIIA1 period (e.g. Dreyer 1993, 12), as mentioned some prefer caution (Baines 2004, 161; Breyer 2002; Damerow 2006, 3; §3.2).

NIIIC–D labels are also understood to identify types, qualities or quantities of goods or the contents of a vessel or package (e.g. Spencer 1980, 63). Based on the similarity between the depiction of a jar on labels from Saqqara and oil jars depicted in Old Kingdom (c.2613–c.2160 BCE) *mastabas* (e.g. von Bissing 1905, pls. 36–38), Rizkallah Macramallah (1940, 17) suggests that ID282/2003_S, for example, was for an oil offering. Again, others are understood as records of specific types of exchange, such as taxes from Upper or Lower Egypt, revenues or deliveries of supplies (Kaplony 1963, 292–297; Postgate et al. 1995, 466; Trigger 2001 [1983], 56, 58). However, Kahl (1995, 171–173) concludes that these particular *Steuervermerke* are not detailed enough to indicate provenance or notate tax, but may refer to actual products.

Names ‘read’ on the labels are variously identified as that of the owner of the tomb in which a label was found (Emery 1949, 149; later as names of officials, Emery 1958, 3), of a bringer of the offering, or of the overseer of the delivery or tomb equipping. Toponyms have been identified and are thought to indicate originator or destination of items (Baines 1995, 110). Newberry (1912) hypothesised that time was marked on the labels by pictorial representation of the events of a single year of the king’s reign and that this could have also been the year in which the oil or other product was produced. Dreyer et al. (1996, 73) see the imagery on some labels from Abydos Tomb Complex Q as pertaining to five areas: year name, ruler titular, (producing) institution, title of official, and type of oil; and that together these refer to delivery. Despite the confidence with which many of these ‘readings’ are pronounced, this early form of the Egyptian script nevertheless presents serious difficulties for the translator (Trigger 2001 [1983], 56; see also Engel 1997, 434–435).

In terms of broader function, some consider the labels as ‘documents’ relating to administrative and clerical practices necessary for the running of the early Egyptian state (Trigger 2001 [1983], 56, 58). Postgate et al. (1995, 466) assert that “[a]lthough such labels often bear depictions commemorating royal events, their purpose was nonetheless an accounting one”. Bard (1992a, 299, 304), however, states that there is no evidence that writing was used to record economic activities of the state, and points out that the settlement contexts in which this material would be expected has not yet come to light.

With the burial of Qa’a and the end of the 1st Dynasty, labels cease to be attested archaeologically. In one of the few attempts to explain the apparent abandonment or transition of labelling practices, Emery (1949, 109; Emery 1954, 107) compares two label examples,³³ organised into grids containing commodities and numerical information, with later offering stelae. He suggests that such labels³⁴ may be an early form of offering list. Similar lists appear in the 2nd Dynasty and seem to relate to performance of

32 E.g. ID110/4344_A, ID138/4367_A.

33 ID353/1564a–b_S, ID354/1125_S.

34 See also ID355/4821_H.

mortuary (post-burial) rituals (Goneim 1957). This marks a significant departure from traditional understandings of labels as instrumental in funerary (pre-burial and burial) practices. Although not explicit in Emery's observations, the question of how labelling relates to pre- and possible post-burial practices highlights the importance of attempting to explain continuity and change in terms of material and social practice across time and space (Giddens 1984; Wenger 2002 [1998]), a key theoretical point which I develop in Chapter 2.

What have not been systematically assessed among these proposals for the role of labels are the different combinations of relationship between people, places, things and time, and how these relationships constituted function, significance and meaning. Depending on how the labels are aligned, very different 'life histories' can be (re-)constructed. Numerous questions about even the most fundamental aspects of the labels require consideration:

- Does a PI refer to item owner, tomb owner, giver, receiver or overseer?
- Does a place-name indicate a location in the landscape, such as place of production, processing, packaging and/or storage, or an individual, a group or larger social institution affiliated with that location?
- What is the implication for the immediate instrumental labelling function where multiple objects or numerical quantities are indicated?

Selected labels bear the GO }/M4 and associated imagery identified as a 'year-name/date', but the question of how to understand any temporal meaning is equally fraught (see §1.5.6). Do these posited temporal markers relate to manufacture, packaging, delivery, moment of labelling, or another episode altogether?

Although scholars often make firm assertions concerning label functions and meaning, fundamental gaps in the empirical evidence have been ignored (e.g. clear evidence for mechanical use) or patterns in graphical composition are simply dismissed (e.g. Emery 1961, 35). This is of particular epistemological concern where the labels are also used as key 'sources' for broader issues such as reconstructing the 'origins' of writing, funerary practices, 'state' administration, commodity exchange, literacy and so on.

1.5.4 'Origins' and Anachronism



According to classical sources, the Egyptian writing system was invented by Menes, the legendary founder of a politically unified Egypt (Pliny the Elder VII, 56 [192], cited in Kahl 2001, 103). The idea that Egyptian writing was invented by an individual or otherwise appeared suddenly "fully evolved" has been re-evaluated in view of recent evidence for processes of gradual and localised change over a period of more than 400 years (Kahl 2001, 125; also Regulski 2010a). Some of the terminology still employed, however, perpetuates notions of a definable beginning, or of a linear progression along a predetermined path to some known point or ideal (Michalowski 1993, 51): e.g. "origins" (e.g. Baines 1995; Davis 1976; Fairervis 1992, 57–58; Fischer 1989; Wilkinson 2001, III); "evolution of complex society" (e.g. Bard 1992b); "birth" (e.g. Vernus 1993);

“historical awakening” (Assmann 2002, 33); the “rise of civilisation” (e.g. Spencer 1993), “irregularity” or “experimentation” (Kahl 2001, 114; Martin 2011, 3); etc. Assmann rightly observes: “...all beginnings tend to reveal themselves as mere ‘fronts’ behind which an infinite series of precursors and incipient beginnings await discovery”, yet also holds that for the question of the beginning of Pharaonic culture and the ancient Egyptian state “...in Egypt the inquiry into beginnings comes up with a clear answer...” (Assmann 2002, 27, but cf. 29).

Hind-sighted expressions are part of the traditional poetics of ‘writing about the past’ (see also Smith 1998 [1958], 11 on ‘style’). However, to imply that a society has not yet matured, or lacks in ‘complexity’—a problematic term in itself (LaMotta and Schiffer 2007, 50)—fails to appreciate cultural diversity within its own time-space context. The frequent lack of clear, critically formulated technical and conceptual language, theoretical frameworks and methodologies for the contextualised study of early Egyptian society—and script formation in particular—has led to a confused state of affairs when trying to determine the epistemological basis of our knowledge. For conceptual clarity, I therefore consider it essential to avoid retrospectively derived explanations, and to distinguish clearly between inductively and deductively derived knowledge. The problem of disentangling anachronistic from contextually derived interpretation in past research has proved challenging. Nevertheless, I hope that the methods deployed in this study, of grounding analysis and interpretation in the objects and their archaeological context as informed by a practice-centred theoretical framework (Chapters 2–3), achieves increased epistemological clarity that facilitates critical reflection, testing, and further development of our understanding of early Egyptian graphical culture.

1.5.5 Labels as Sources for Early Palaeography and Philology

Significant inroads toward deciphering and charting Egyptian script formation have been made over the decades, and the inscribed labels are deployed as key evidence in this work. Early research appears in the Abydos site reports (Griffith in Petrie 1900; Petrie 1901a), generally comparing early with later, better understood and more fully preserved scriptorial evidence. Legge (1906; Legge 1907), in his compilation of labels found at Abydos and Naqada at that time, claims to avoid preconceived notions of grammar, disconnected signs or pictures. In this, he stands in contrast to his contemporaries, who are generally content to draw interpretations from ‘the future’, but, ultimately, his interpretations tend to look to later evidence. Newberry (1912) comparatively examined a selection of 35 1st-dynasty labels from Abydos and Naqada and proposed six groupings or types based on pictorial content as well as retrospective epigraphic interpretations of different objects and goods, such as oils. Subsequent synthetic work includes Hilda Petrie’s (1927) palaeographic study of Early Dynastic inscriptions, which included label inscriptions available at that time. Emery and Sa’ad (1939, 83–112) draws together graphical imagery dating to the reign of Aha, including several labels known at that time. Labels also appear in Scharff’s (1942; see also Scharff 1929, pls. 36–37) monograph on early writing, which attempts to demonstrate that the ‘origins’ of the hieroglyphic system of writing

preceded the 1st Dynasty and the rule of ‘Menes’. In his *Manuel d’archéologie égyptienne*, Vandier (1952, 827–863) presents a synthesis of previous ‘readings’ and explanations of label pictorial scenes. Kaplony’s (1963) *Die Inschriften der Ägyptischen Frühzeit, I–III* constitutes the most comprehensive compilation and detailed philological study of early ‘writing’ to date (see also Kaplony 1966). He provides entries for most labels, listing primary publications and current location (where known). Explanation and significance are restricted largely to philological translations; again, Kaplony relies on later sources for interpretation. Expanding on Newberry’s (1912) division of label types, Kaplony (1963, 143–144) also sets out further types according to the presence of ‘royal’ names and regnal sequence, as well as trends in compositional position of certain motifs, such as the niched-frame, which contains a name of the ruler on its upper section while its lower section bears vertical patterning thought to represent niched panelling in reed and/or mudbrick architecture, the whole of which is surmounted by a bird of prey (referred to hereafter as /O33+ /G5). This motif is conventionally referred to as a ‘serekh’, a term derived from a later dynastic Egyptian vocabulary (Erman and Grapow 1982, vol. 4, 199; cf. Baines 1995, 96). Kaplony observes patterning in label composition, including the trend for horizontal divisions prior to the reign of Den, and for vertical division thereafter (see also Redford 2001). Typology creation is important for the ‘operational context’ of research, but, in order to access past concepts of things, reconstruction must remain sensitive to past contexts of making and use (see Chapter 7).

New finds and renewed research have yielded further philological understandings, as seen in the expansion and updating of Kaplony’s work by Wolfgang Helck (1987). Labels are discussed in this and subsequent synthetic research, including Michèle Germon Riley’s (1985, unpublished) palaeographical study, Kahl’s (1994) extensive study of Early Dynastic writing, and the partially completed *Frühägyptisches Wörterbuch* project (Kahl 2002; Kahl 2003b; Kahl 2004).³⁵ In his volume *Bild-Buchstaben und symbolische Zeichen*, Ludwig Morenz (2004) takes a long view of graphical notation, with an emphasis on cultural, historical and comparative perspectives, to develop a model for the formation of Egyptian script. Ilona Regulski’s (2010a) expansive *A Palaeographic Study of Early Writing in Egypt* updates and adds to Kahl’s work, crucially through first-hand study of much of the available material, while Geoffrey Martin’s (2011, 1–14) hieroglyphic signary for 1st-dynasty ‘private’ stelae from Abydos contributes vital comparative data about the graphical world in which the labels were situated.

These studies pay some attention to the broader compositional context in which imagery is embedded, but the implications of material features and archaeological context for explaining modes of expression and understanding meaning as part of practice continue to be marginalised. Rigid taxonomies and linguistic frameworks that attribute predetermined sign values and functions risk the projection of modern concepts of ‘writing’ onto early graphical images and may obscure rather than clarify. As Ciałowicz (2000, 62) comments, variant writing tends to be seen as indicative of experimentation and development, when perhaps the variability rather is significant of something else,

35 Preparation of the remaining volumes of the *Frühägyptisches Wörterbuch* project is on hold at the present time (Jochem Kahl, pers. comm. 2013).

such as local traditions and non-phonetic functions. The influence of modern perceptions of writing and uncritical use of such terms has led some investigators to go so far as to ‘correct’ or alter original image sequences in accordance with the majority of, or later standardised, ‘spellings’ (compare, e.g. Newberry 1905, 105, bottom, with Piquette 2014, 242, fig. 2). While such issues are grappled with, for example, in research on the relationship between writing materials in the ‘spellings’ of words and sign repertoire and the restriction of types of seal impressions to types of clay (Kahl 2001, 102; Kahl and Engel 2001, 176–179), the use of binary oppositions of “regular and irregular” to explain variable spellings (Kahl 2001, 114), or the description of variable orthographies as “jumbled” (Bard 1992a, 299), implicitly discriminates against an appreciation of variability in its own terms.

The details of philological studies and debates over which signs may encode specific linguistic forms or serve certain grammatical functions extend beyond the ‘graphical-media-as-artefact’ focus of this study (but see Chapter 11). However, I will briefly summarise the main debates on the translation of some Cemetery U material to highlight how the present research differs in its approach. In addition to positing geographical names, Dreyer (1998, 173–180) argues that many of the NIIIA1 labels represent kings’ names, an interpretation which he also attributes to similar signs on oversized statues of the god Min of possible Predynastic date from Coptos (Petrie 1896), in line with Bruce Williams’ (1988) identification of a sign group on these colossi as the name of Narmer. Barry Kemp et al.’s (2000) review of Williams’ findings casts doubt on the Narmer identification, along with Dreyer’s interpretation of other signs on the colossi as a Predynastic king-list. Taking into account the immediate artefactual context together with the archaeological contexts of these sign groups, Kemp et al. (2000, 232–233) suggest it is unlikely that the side-panel of a statue’s leg constitutes an appropriate context for a king-list. With regard to the labels, they also point out that based on the evidence one has great difficulty to explain why such a large number of different kings’ names would be found in a single tomb (U-j); indeed, one would expect them to be distributed among various tombs, as in the case of the 1st-dynasty labels and other objects inscribed with names—bearing in mind that names may not relate to tomb owners only. In his subsequent contribution to this debate, Kahl (2003a, 124–130) argues that the imagery represents regions and districts (cf. Engel 2006, 59). Based on present evidence, understandings of the semantic meaning, and thus of label function(s), remain highly conjectural.

1.5.6 Labels as Evidence for Chronology

On the basis of scene content on 1st-dynasty labels and the presence of M4 , investigators identify two to three phases in the development of Egyptian modes of dating: firstly, captioned narrative scenes;³⁶ secondly, captioned scenes accompanied by the sign M4

36 E.g. ID300/1389_A.

(first attested on a label of Dj^{et}³⁷); thirdly, by the reign of Semerkhet, the narrative scenes disappear and $\text{𓅓}/M4$ is used with certain clusters of hieroglyphic signs. $\text{𓅓}/M4$,³⁸ attested on a total of 44 labels/label fragments, denotes ‘year’ in later hieroglyphs, and, based on its presence or that of narrative scenes in their upper registers,³⁹ these NIIC–early D labels are understood to name the year of a reign by the events depicted (e.g. Helck 1987, 140–175). These labels are used in conjunction with later ‘annalistic’ inscriptions bearing this same sign, such as the Palermo Stone, for chronological and historical reconstructions (see also Jiménez-Serrano 2002; Newberry 1912, 282; Petrie 1900, 23; Redford 1986; Wengrow 2006, 132; Wilkinson 2000; Wilkinson 2001, 212, 214). However, none of the ‘year’-fields on labels of Semerkhet⁴⁰ can be linked to the completely preserved year names for this ruler on the Cairo Annals stone (Dreyer et al. 1996, 73; Engel 1997, 434). Toby Wilkinson (2001, 62, 218–223) divides the events into broad categories in order of frequency: religious ceremonies, royal visits and scenes of military activity, and, unique to the reign of Qa’a, the foundation of a religious building and the collection of timbers. The annalistic significance of the labels is accepted by the majority of scholars (e.g. Ciałowicz 2000, 61; Emery 1954, 102; Emery and Sa’ad 1939, 5), although the exact meaning of these ‘year names’ is nevertheless often difficult to discern (compare Dreyer et al. 1998, 164, with Pätznick 2006). Indeed, the process of year naming remains poorly understood. Was a year named before, during or after the year had passed? Wilkinson (2001) argues for the first scenario, which has implication for how the historicity of the labels is understood (§1.5.8). Further, the status of such temporal markers within the label:labelled relationship is equally unresolved—for example, whether they designated time of manufacture of the product if not the label itself, its packaging, or delivery.

Another temporal theme in label research has been regnal order and the identification of the first ruler of Egypt. One label in particular, the ‘Naqada Label’,⁴¹ so named after the site of its discovery by archaeologist Jacques de Morgan (1897), has received a great deal of attention, along with a similar label⁴² subsequently recovered from the same site (Garstang 1905, 61–64). Borchardt (1897, 1056–1057) interpreted a symbol inside a tripartite architectural feature on the upper right of ID209/0240a–b_N—based in part on Old Kingdom inscriptions—as “*mn*”, or “Menes”, proposing to equate Aha, also indicated in the label, with this legendary founder of the 1st Dynasty (Amélineau 1905, 399). The publication of this hypothesis has provoked a long and protracted debate, the crux of which is the identity of ‘Menes’ with either Aha or Narmer (for a summary see Emery 1961, 32–37; Arkell 1963; Garstang 1905; Grdseloff 1944; Emery and Sa’ad 1939, 4–7; Petrie 1901a, 5; Schott 1950; Vikentiev 1933; Vikentiev 1934; Vikentiev 1942; Vikentiev 1948; and, more recently, Baines 1995, 125; Ciałowicz 2000, 67–68; Kinnaer 2001; Kinnaer 2002; Spencer 1993). The overriding concern in many of these studies has been to establish a historical framework, yet, ironically, the emphasis on the scriptorial

37 E.g. ID274/0986_S, ID275/1081_Un.

38 E.g. ID343/4046a–b(=4557)_A, ID401/4044_A.




39 E.g. ID208/0282_A+0209_A, ID209/0240a–b_N, ID303/1390_A.

40 E.g. ID345/1677_A.

41 ID209/0240a–b_N.

42 ID210/0241a–b_N.

neglects associated types of graphical and material evidence and their patterning in time-space—the very evidence which can shed light on the socio-historical information so keenly sought.

A temporal framework partitioned according to reigns structures other label-related studies, both those focussing on single reigns (Emery and Sa'ad 1939; Godron 1990) and those covering a longer period (Kahl 1994; Kaplony 1963; see also Raffaele 2006). Reigns also form the primary criterion for Kaplony's (1963, 284–301, pls. 143–145) label typology, with subtypes determined by presence and location of selected Graphical Objects (GOs) such as /O33+ /G5 or /M4 (see §1.5.5, §7.10). Such approaches succeed in charting continuity and change within and between reigns. Nevertheless, these temporal divisions are often perceived as being self-evident, and therefore run the risk of circularity since they are partially constructed according to presence of 'royal' names in the archaeology, which are then used to date that material evidence. This raises the important question of the date of the deposition of burial material (see the discussion on chronology in §4.12.3).

1.5.7 'Text'-centred Approaches

Text-centred approaches often see meaning as something to be extracted, treating graphical symbols as "containers" that convey tidy "packages of information" (Lakoff and Johnson 1981; Robb 1998): "Only three salient facts can be gleaned...from these [labels]: a visit to a shrine, a naval expedition, and a military campaign" (Emery and Sa'ad 1939, 7). In treating graphical objects within such a narrow framework, other aspects invested with past meaning are overlooked.

Petrie's discussion of ID304/1253_A typifies early attitudes toward the disciplinary divisions of evidence types and their analysis, namely the inscriptional from the pictorial:

...the most important tablet, though the lower edge has not been found (see xi. 14). The scene of the king dancing before Osiris seated in his shrine is the earliest example of a ceremony which is shown on the monuments down to Roman times; ...the inscription below, referring to the festival, will be dealt with by Mr. Griffith; but we should note that the royal name Setui occurs in the lower register, so this tablet is good evidence for that king being Den...Beyond there is the name of Den, and that of the royal seal-bearer Hemaka, which occurs often on the jar sealings. (Petrie 1900, 22)

Petrie proceeds to note the name of a palace, and numerals at the bottom edge which he 'reads' as '1200'. He recounts the difficulty of removing melted resin from this label in order to reveal incisions on its surface. As with much subsequent research, the emphasis lies on the iconic and textual aspects of the object, in particular identification and acts of the rulers. Little consideration is given to the significance of the imagery with regard to the find context, or to the presence of the resin.

As just seen, in site reports evidence categorised as 'inscriptional' is often commented on separately by a philologist (e.g. Griffith in Petrie 1900, 34–45; Rowe in Emery and

Sa'ad 1939, Appendix IV). These scholars tend to deal with the more elaborate 'year' labels, of which almost 60 are known and more than half date to the end of the 1st Dynasty, or with those which offer themselves more easily to comparison with later hieroglyphic signs. Imagery may be 'read' phonetically or iconically, yet the criteria by which the 'correct' method is determined are rarely explicated, although Griffith comments that the material presents numerous challenges as do the conditions of analysis (Griffith in Petrie 1901a, 48).

Where meanings are proposed, these are typically top-down with respect to Egyptian society (and to some degree probably set the tone early on for subsequent *a priori* interpretations of high status). For example, in the upper right of painted label ID226/0645_A, a series of dots (e.g. n3) descend from $\ominus/v6=V30(2\times)$, below which a $\text{𓄿}/D46^*$ is depicted. This is explained as the "washing of the king's hand" (Petrie 1901a, 51), yet this interpretation is not proposed for $\text{𓄿}/N35+\text{𓄿}/D46$, for instance (assuming the latter sign depicts water⁴³)—by what method are different kinds of interpretation proposed? Moreover, with much philological- or iconic-focussed explanations, the significance of graphical interpretations is inconsistently or incompletely related back to archaeological concerns. What associated archaeological evidence supports the "washing of the king's hands" explanation? How does this relate to labelling or burial practices?

1.5.8 The Question of Historicity

The treatment of ancient writings as a reflection of historical events has a particular appeal to the rationality of the historicist, but applied uncritically to the ancient past can impose meanings that may not have been intended or perceived in these contexts. The historicity of certain motifs, such as acts of smiting enemies, on the labels and other contemporary decorated objects constitutes another dominant theme in the previous literature. Where some see these motifs as literal representations of historical events (Emery and Sa'ad 1939, 7; Godron 1990, 195–197; Hornung 1982, 103–105; Weill 1961), others suggest that these were idealised views (Assmann 2002, 37; Wengrow 2006, 128; Wilkinson 2001, 219–220).

A notable example is the smiting motif, first attested in Tomb 100 (NIIC) at Hierakonpolis (Quibell and Green 1989 [1902], pls. 75–79), which includes an upright human figure or other anthropomorph grasping the head of a sprawled, kneeling and often bound figure—or of several—in one hand and raising a weapon, often a mace, with the other. This motif occurs subsequently on labels and other contemporary objects. Gaballa Gaballa (1976, 14, 19–20) suggests that depictions may recall definite historical events, but the artistic treatment may be idealised. Levy et al. (1995, 32) draw a similar conclusion from the presence of Narmer's name in the upper part of $\text{𓄿}/O33$, incised (pre-firing) on a potsherd found in the Southern Levant (Halif Terrace, Silo Site),

43 See e.g. ID300/1389_A.

and from the smiting and other scenes depicted on the Narmer Palette⁴⁴ (Quibell and Green 1989, pl. 29) and on a relief-carved ivory cylinder⁴⁵ (Hierakonpolis; Whitehouse 2002, 434, fig. 4). This violent and aggressive subject matter may have related to political unification but it may also have constituted a conventional mode for expressing other concerns, such as depicting aspirations, or served as a use of the past to legitimise the present (Baines 1989; Baines 1995, 105, 110). However, interpretation along purely symbolic lines (Hornung 2002, 34) or relying too heavily on morphological similarity to derive similarity of meaning can risk overlooking relevant social factors and processes. Any interpretive framework needs to be set within the context of ancient society (Baines 1995, 70; but cf. 115). The argument for the historical nature of such scenes is also raised by Dreyer et al. (2000; Dreyer et al. 1998, 139) with the discovery of a label⁴⁶ from Abydos showing the catfish/k4 element of Narmer's PI in the act of smiting, reminiscent of the smiting scene on the Narmer Palette. All such motifs are proposed to not only refer to the same event, but also to perhaps represent the first usage of what are interpreted retrospectively as 'year names': "*Schlagen der t̥hnw – Papyrusleute*" (Dreyer et al. 1998, 139). As John Baines (1994) has stressed, the debate concerning such 'documents' and their function in recording history, on the one hand, or in royal myth-making, on the other, is a continuing problem in Egyptology (see also Wilkinson 2001, 221). In assessing these various issues and thinking through methods and approaches that can build on previous analysis and interpretation, a key focus of the present study is to direct attention to the artefactual, technological, compositional and social aspects, or *modalities*, through which imagery is meaningfully and materially constructed, 'activated' and viewed (see Rose 2001, 17–18).

1.6 From Dichotomies Toward Integration

The classification of archaeological evidence along traditional sub-disciplinary lines raises crucial epistemological concerns:

...documentation basically falls into three distinct, though frequently overlapping categories: a) archaeological, b) pictorial, and c) epigraphic. Invariably the archaeological matter which includes both the sites where...artefacts have been found and the objects themselves are studied and interpreted by the archaeologist. The pictorial sources which visually illustrate incidents, themes, [and] events, are usually dealt with by the art historian, but also by the archaeologist. The epigraphic evidence, which may range from the occasional terse statement in a so-called analistic inscription, through the explicatory caption or docket to a pictorial scene, to names and/or titles...are normally in the province of the Egyptologists, specifically the philologist.

44 Cairo, JE 32169, Hierakonpolis.

45 Ashmolean, E.3915 (Source No. 0079); an ivory cylinder, perhaps an implement handle, previously mistaken for a cylinder seal (e.g. Baines 1995, 151; Dreyer et al. 1998, 139; Schäfer 2002, 150, fig. 138; and more recently Morris 2013, 42).

46 ID202/4030_A.

It is only rarely that the diverse, but frequently overlapping, types of documentation are explicitly investigated by the historian...It is only after they [the archaeologist, art historian, and philologist] have finished their respective tasks and have, so to speak, provided the historian with the raw material and preliminary interpretations that the historian can then begin to work. (Schulman 1989, 434)

The point concerning overlap also entails a level of complexity not fully articulated above, but which is integral to the present—that of mutual constitution. As much as archaeological artefacts are material, so too are the pictorial and epigraphic. The first precedes and thereby constitutes the other two, in the course of expression and in perception, and thus actively constructs the symbolic on some level. The rigorous maintenance in previous and much present research of such disciplinary divisions results in the marginalisation of important areas of past meaning production. The significance of the material embeddedness of the image, while not directly integrated into textual assessments, unavoidably impinges upon these accounts. What is considered a ‘textual’ component of an inscribed object is not always explicated and frequently results in the conflation of the ‘text’ or ‘composition’ with the physical object (see e.g. Black 1998, §2.4, for this problem in Sumerian studies). Terms such as “text”, “document”, “source”, “record”, or [written] “information” require careful use, and an understanding of how these domains fit into past practice and meaning must be sought.

The expectation that inscribed objects such as the labels are “textual resources” intended to serve the aims of the historian is exemplified in the statement, “...the amount of information they [the labels] can provide, although valuable, is limited by the nature of the objects, which were only intended to be identification labels on items of funerary equipment” (Spencer 1980, 63). The dissatisfaction expressed here is in fact, I believe, symptomatic not of some perceived shortcoming in “the nature of the objects”, but of the nature of the questions posed by text-centred approaches.

Palaeography and various material aspects of expression may be commented upon by observers; for example, Griffith (in Petrie 1900, 34) notes that scratched signs are “abbreviated” on vases while ink-inscriptions on vessels and other surfaces are lengthier and exhibit more morphological variability. Yet, these observations are not systematically analysed and integrated into archaeological accounts, on the one hand, or philological interpretation, on the other (see Piquette 2014). Charting variance and invariance in form, technique, style and consideration of who made an object for whom (Davis 1989b, 186) is important for an integrated approach.

Over the last couple of decades, scholars within the wider discipline of archaeology have increasingly attempted to overcome this persistent text:artefact paradigm, albeit with some difficulty (e.g. Bell 1992, 36). Work in material culture studies (Pearce 2000, 1) has reasserted the need to demote language and its written modes from their privileged positions in the generation of culture. This need for integration has been brought emphatically to the fore by John Moreland (2001) in his book *Archaeology and Text*. As I have also discussed (Piquette 2008; see also Piquette and Whitehouse 2013), this ‘material turn’—the recognition that writing and representation are material in their expression—situates imagery alongside other material objects. Given their artefactual nature, script and image must also be integrated into the wider cultural processes

through which social meanings are constructed—through interactions between individuals, groups and their material environment (see also Gardner 2002; Matthews 2003). It is with this recognition that the present work seeks a contextual approach in order to move beyond the text:artefact dichotomy.

Within Egyptology, this growing awareness of the importance of materiality and practice is demonstrated in the work of Baines (2004), which attempts to model the social and functional context for the initial development of writing. He directs attention to the implications of materiality (including scale) for accessibility and audiencing, both in terms of physical location (that writing might be in too remote a position to be perceived) and in terms of decipherability if the audience were not literate. Baines also raises the question of the intended audience, a point that can have wide-reaching implications for how we interpret the labels. Indeed, that the living were the intended recipients of graphical material cannot be assumed. The study of signs and symbols without regard for the physicality of their expression hinders our ability to understand how they meaningfully constituted the lives of the people who made and used them (Piquette and Whitehouse 2013). Yet, amid otherwise theoretically informed and insightful discourse on Egyptian archaeology, the notion that writings and other imagery are somehow less material persists, as shown, for instance, in the following statement: “Unlike texts and wall paintings, archaeology gives us the opportunity to study the material traces...” (Wendrich 2010, 8). As I have discussed elsewhere (Piquette 2016, 89), this selectivity is akin to what Christina Haas (1996) refers to in the context of modern literacy as the “Technology is Transparent” myth, where we effectively look *through* the materiality and technology of our endeavours, and neglect to recognise the impact these have on analysis and interpretation. Whether or not a material surface incorporates depictive or written elaboration, all are equally material from an archaeological standpoint, and certainly from the perspective of past artisans and scribes whose embodied technological and material intentions and actions gave rise to “text”, “wall paintings” and, of course, graphical elaboration on the inscribed bone, ivory, wooden and stone labels.

Another binary pair that often emerges in previous literature on the labels relates to the opposition between administrative and ceremonial functions, which, as Wengrow (2008, 1021) observes, also characterises the way that archaeologists and epigraphers describe and classify the world’s earliest writing systems (see especially Postgate et al. 1995). It is important to see the surviving evidence from the late fourth millennium BCE, including the labels, as encompassing aspects of both domains. Kahl’s (2001, 114–115) re-visitation of such binaries attempts to capture overlap by proposing that written evidence ranges from fuller spellings in more representational contexts to shorter spellings in more ‘functional’ contexts. He locates the ‘monumental’ Narmer Palette and decorated maceheads, and the stone vessels and ‘year’ labels toward the former end of the spectrum, and ‘product’ labels and marked ceramic vessels toward the latter. However, as the present research aims to demonstrate, the purpose of imagery and how function is defined should also be anchored in the materiality of expression and modes and experience of past practice. The role written and related marks on the labels play cannot be fully explained by plotting a point along a continuum of opposed categories—particularly when it is unclear whether these categories

were present and opposed in the minds of label-makers and users. Kahl's model also considers function synchronically, yet, as this study attempts to demonstrate, function and meaning lie at the centre of a network of material and social concerns contingent upon the context of practice across time-space. For example, if shortened spellings and reduced narrativity imply an increase in the abstraction of symbolic meanings, we might infer that this necessitated increased knowledgeability on the part of the maker and recipient (if a recipient was intended). How then does 'more functional' help us evaluate and explain the wider social changes of which such graphical patterning was part? When graphical evidence is explained in terms of social practice, it becomes impossible to maintain strict dualisms, such as writing:art, administrative:ritual/ceremonial (compare Postgate et al. 1995, with Wengrow 2006, 203–204) or communication:display—not to mention the artefact:text dichotomy within which these are often situated. These nested binaries collapse and a dynamic network of action emerges in their place, constructed through processes involving cognition, materiality, technology, and embodied engagement.

1.7 Bridging Gaps in Previous Research

As the foregoing makes clear, a remarkable amount of study has been dedicated to these small perforated plaques and the numerous images on their surfaces; rarely do they escape mention in the many books and articles, both academic and popular, on this early period. Alongside the Narmer Palette, a small number have become standard 'image bites' for early writing and early ancient Egypt.⁴⁷ As might be expected, the better-preserved or more elaborately inscribed labels, mainly encompassing the 'year' labels, have been most extensively studied, with discussions centring on royal and elite subject matter within the contexts of social hierarchy, 'state' formation and administration. Interpretations derive from comparison with contemporary material and, more often, later evidence, but clear methodological explication is often lacking.

In an attempt to break out of such dialogues and redress the partiality of past work, the approach taken for this research project is explicitly contextual by grounding observations in the objects and their material-graphical, spatial, temporal and social contexts. I am also interested in the question of the extent to which these objects constitute a 'type' of material culture and in the nature of the relationship between what appear to be relatively separate but related phases of label practices (e.g. NIIIA1 and NIIIC–early D).

The selective nature of studies has resulted in exceedingly filtered accounts: firstly, 'top-down' methods have resulted in only a small number of more complete and elaborate labels receiving detailed study and, even then, emphasis is placed on the 'year names' and 'royal' iconography; secondly, the emphasis on written and pictorial evidence has overshadowed their material significance; thirdly, the archaeological context

47 E.g. ID300/1389_A.

of individual objects is rarely considered in any detail; and finally and critically, previous research has overlooked the importance of social practice in the construction and negotiation of past label meanings.

Prior to addressing these broader epistemological, theoretical and methodological concerns and in order to build on the main related studies (Kaplony 1963; Kahl 1994; Dreyer 1998; Regulski 2010a), certain empirical issues require attention:

- Combining and updating label datasets with subsequent publications and museum research;
- Acquiring photographs of both faces;⁴⁸
- Updating current location information;
- Providing object measurements;
- Providing fuller and more accurate materials identification;
- Documenting technique and colour (of material and pigments), inconsistently indicated in some publications;
- Documenting whether a label is single- or double-sided;
- Recording preservation (rarely clearly noted apart from selected drawings of more elaborate labels), which is important for identifying refits.

In addition to addressing these gaps, part of the originality of this project is that, for the first time in studies of early Egyptian script formation, the labels are treated as a corpus, creating a clearer material object of study. The goal is to focus on the contingency of meanings and discover how, during this dynamic period of Egyptian history, the labels fit into broader social practices. Early Egyptians negotiated relationships of power by selecting, transforming, and constructing meanings in particular material-graphical forms. Graphical imagery on labels, as well as jar inscriptions and tomb stelae (Chapters 8–9), are compared in order to offer understandings that will help to augment the largely functional and linguistic explanations put forward to date.

1.8 Aims and Research Questions

After a century of accumulated discovery, the labels comprise a numerous and diverse dataset that deserves exploration in the context of its ‘past present’ through a purposeful focus on the objects themselves and their contemporary context (cf. Gardner 2004, 12). This book aims to situate data gathering, synthesis, analysis and interpretation as closely as possible to the objects themselves. The objective is not to negate or replace anachronistically derived knowledge of the labels, but to extend our knowledge by exploring layers of meanings from a new point of departure.

48 New drawings are being undertaken by Matthieu Begon as part of his PhD research (pers. comm. 01.13.2017; see also Begon 2014; Begon 2015)

In light of the previous research just discussed, a main argument of this study is that, as an overall research strategy, evidence classified as ‘text’ or ‘writing’, and any other form of graphical culture, cannot be fully understood in isolation from the surfaces on which they occur or without consideration of the practices through which they were produced. Therefore, a particular area of critique is the way that traditional disciplinary practice separates scriptorial (as well as pictorial) from material culture, the former studied through a philological approach, and the latter through an archaeological approach. Philological approaches tend to perpetuate a false sense of the fixity, systematic nature, and ‘truth’ of the written record, whereby writing remains ‘readable’ despite loss of past contextual information concerning acts of writing and reading (Gardner 2002, 2; Moreland 2001). I therefore seek to situate graphical-material culture within the context of social practice—here conceptualised according to Giddens’ ‘theory of structuration’ (Chapter 2)—where individual agents act in relation to social structures. Practice is seen, for the purpose of this study, as revolving around three interrelated spheres to which data collection, analysis and discussion are directed: archaeological context, material form, and graphical expression.

The aims of this study deal with three main areas:

- To explore and assess comparatively the relationships between the material properties of the labels and their graphical features—through a *non-retrospective*, and therefore contextual, approach—in order to assess functions and meanings within Late Predynastic and Early Dynastic Egyptian funerary contexts;
- To develop and present a method and theoretical framework which provide scope for the holistic study of graphical-material culture within the context of past social practice;
- To integrate and synthesise existing work on the labels with the outcomes of first-hand observations in order to produce a comprehensive Label Database as a reference and research tool for further study of the inscribed labels and related objects.

The first aim is achieved by addressing four main research questions (below). In seeking ways to answer these questions, suitable methods and theories are identified and adapted, thus achieving the second aim. The final aim is achieved in the course of data collection and its synthesis in two databases (Microsoft Access and ATLAS.ti, below) and presentation in the form of the online Label Database.

The research questions are:

- 1) What is the significance of **archaeological context** for understanding the labels as meaningful social practice?
- 2) From a *non-retrospective* standpoint, what is the significance of the **material properties** of the labels for understanding them as meaningful social practice?
- 3) From a *non-retrospective* standpoint, what is the significance of the **graphical features** of the labels for understanding them as meaningful social practice?
- 4) What can the comparative study of inscribed jars and stelae inscription tell us about the significance of labelling/marketing practices in the funerary context?

The first three questions focus on interrelated areas concerning the immediate nature of the labels, each of which is explored in a dedicated analytical chapter (Chapters 4–6). The three research aims and four questions are, therefore, designed to provide the overall focus for the research while enabling study to proceed in manageable sections, working from the specific to the general.

1.8.1 Research Question 1: Archaeological context

Research Question 1 relates to the archaeological context of the labels, thus addressing one of the main gaps in previous research. Spatial, depositional, and temporal dimensions of the data context are confronted in order to identify meaningful patterns of similarity and difference (Hodder and Hutson 2003, 183). On a fundamental level, it is necessary to determine whether the labels were found in stratified or general contexts, and to identify architectural or other features and objects with which they were associated.

As discussed, stratified contexts for the labels are limited, but not altogether absent. The archaeological context for each label is examined to discover the extent to which relationships between the labels and their find spots can be envisaged as meaningful, a necessary step for taking into account data quality and the appropriate level of rigour to apply in analysis. The question of archaeological context not only is critical for the preliminary business of dating (§1.4.2), but contributes toward distinguishing whether there is a single label tradition, or whether these objects represent different traditions. Similarly, through this research question artefact change is explored in order to discover why labels come into use during the NIIIA1 and go out of use around the end of the 1st Dynasty. Furthermore, this question of archaeological context is concerned with the role of the labels in funerary practices and whether they are associated exclusively with high-status individuals. In addition to how these objects functioned to identify goods, places and people, the close examination of context is important for shedding light on how they communicated social difference in status, rank and power in the funerary ritual (Parker Pearson 2001, 72–94) and beyond. In keeping with the aims of a contextual archaeology, these understandings are sought in conjunction with the other research questions that address related areas of social practice.

1.8.2 Research Question 2: Materiality

The theme of materiality is explored through Question 2, dealing with the immediate nature of the labels as material objects, but always set in relation to agentic practice. Morphological features, such as size, shape, colour, and material of manufacture, are examined. The techniques employed by the maker(s) are also observed, including cutting and shaping of the label, surface treatment, how decoration was rendered through subtractive or additive practices, as well as presence and placement of the perforation. The ways in which particular techniques and materials are combined in practice is considered across time-space and in relation to the implications of materials acquisition and selection.

1.8.3 Research Question 3: Graphical content

Research Question 3 deals with the graphical aspects of the labels. As discussed, the extensive work on script formation carried out by Kahl (1994; Kahl 2001; Kahl 2003a), Schott (1951), Kaplony (1963), and others, has been aimed at identifying imagery which fits later known linguistic paradigms, or examining it from a palaeographical perspective (Riley 1985; Regulski 2010a). Here, instead, working from the individual image to the broader level of the composition, the repertoire is surveyed and the character of each image is assessed based on several criteria, including mode, orientation, view, direction and associations with other images. The position of each image or group of images is located on either main label surface, within the format of the composition and in relation to other images. Consideration is given to the mechanisms by which image relationships are created and how graphical interactions provide a structure for various levels of meanings. Basic statistical analysis of frequency rates of image types within the label corpus is carried out as part of a broader research strategy (Morphy 1989, 9) where both statistical and qualitative analyses establish underlying patterns which tell us about the physicality of label composition and how this influenced subsequent layers of meaning. Labels were not produced, used, attributed meanings and deposited in isolation, and consideration of their broader context is required, as addressed by the next research question.

1.8.4 Research Question 4: Comparanda

Designed to characterise the labels comparatively, Question 4 prompts examination of contemporary methods of marking/labelling objects in the funerary context. These range from cylinder seals and seal impressions, pot marks (both those incised into the damp clay before firing and those scratched or engraved into the surface after firing), vessel inscriptions (pigments applied to the surface), and funerary stelae. I have selected the last two 'labelling' technologies for comparative study: jar inscriptions contemporary with the NIIIA1 labels and tomb stelae contemporary with the NIIC–early D labels. The goal is to open up a dialogue between the relatively empirical areas of inquiry emphasised in previous questions and the wider contexts in which similar early graphical media operated. This involves taking a synchronic approach while simultaneously considering continuity and change. Patterns of similarity and difference allow interpretation to go beyond the labels themselves and situate the study within the scope of similar contemporary graphical practices also directed at negotiating meaning between people and funerary objects.

1.9 Summing Up

In bringing the inscribed labels together in a single study for the first time, the aim of achieving a more holistic understanding of their role involves taking account of social practices which define the uses and values of these objects. Continuing the reintegration

of the three thematic sets of analyses and their results, and in the light of the comparative material, I also aim to situate the interpretive discussion within the broader social context. In the course of engaging with the labels, human actors were continually negotiating meanings by participating in the construction and transmission of artistic knowledge, developing technical and artistic norms for the ordering of the world and reifying these meanings via further graphical-material expressions and practices. On the one hand, we need to concern ourselves with the immediate social discourse of which the labels were a part—a discourse which took place, in as far as it is preserved archaeologically, at the graveside. On the other hand, we also need to be concerned with the other areas of society whence the structures and ‘rules’ that engendered the very existence of that discourse were derived (see Foucault 2002 [1966], xiv).

I therefore attempt to break out of paradigms which cast the inscribed labels as passive objects or mere ‘sources’. The following analyses and interpretations, as informed by practice-centred theoretical approaches discussed in the next chapter, attempt to re-animate and re-materialise this group of objects by seeing them as the result of, and contributing to, meaningful social action involving living persons (cf. Dant 1999, 39). Their importance is not reducible to their political effects, administrative function or economic calculations, but emerges through grasping the way that objects were fitted into ways of living and dying.

2. Theorising Images and Things in Practice

2.1 Introduction

In this chapter, I outline the theoretical framework developed for this study. In doing so it is important to define ‘theory’ and explain how it is deployed in this context. Following the German philosopher Max Horkheimer, art historian Keith Moxey (1994, 24–25) distinguishes between “traditional” and “critical” theory. The former seeks to establish an epistemological basis for knowledge, while the latter seeks to make knowledge relevant to the cultural and political circumstances in which it is formulated. The theoretical ideas presented here are of the latter sort and, to borrow Moxey’s (1994, 24) phrasing, are “not so much surveyed here but plundered” to achieve an integrated perspective. Rather than outlining steps for the ‘correct’ interpretation of early Egyptian graphical culture (see Panofsky 1955), one of my goals is to raise awareness of the socio-historical contingency of all cultural ‘representations’. This book itself is a cultural representation—a presentation of knowledge in a particular style and mode of access, one that endeavours to re-present aspects of past knowledge in the context of critical and interpretive discourses that are sensitive to the ways in which the knowledge was expressed in a specific material-graphical form. An important part of a critical theoretical approach is maintaining awareness of this tension and how circumstances in the present shape our accounts of the past.

Since the 1960s and 1970s, theory has been recognised in most areas of archaeology as an integral part of the endeavour of inferring social meaning from past material culture (Hodder 2001, 1). However, as with some of the more conservative sub-disciplines of ‘cultural history’ (following Morris 2000, 1–33; see also Trigger 2001 [1983], 4), Egyptology is still coming to terms with the need to be explicit about the theoretical assumptions that inform methods, analysis and interpretation (Wendrich 2010, 1), and with the value of archaeological theory for different evidence types and qualities (e.g. Bard 2015, 22). The non-discursive position of theory in much Egyptological research has led to a position where pathways of knowledge-making have become ossified, thereby reducing the reflexivity and transparency necessary for testing, critiquing and reshaping our ideas. Related to my area of focus, Bruce Trigger (2001 [1983], 349) remarked that few general studies attempt to view early Egyptian society in terms of a comprehensive theoretical framework. Indeed, only a limited number of works overtly discuss the theoretical perspectives employed (e.g. Dann and Exell 2011; Trigger 2001 [1983]; Vischak 2014; Wendrich 2010; Wengrow 2006; see the review of Wilkinson 2001, in Bard 2002, 263). Whether the investigator is cognisant of her or his theoretical premises or not, theorising is embedded in human action on every level, whether this action is directed to understanding the present or the distant past (Wendrich 2010, 1–2; see also Johnson 1999, 6–11; *contra* Moreland 2001, 99). In the interests of reflexivity and the replicability of research methods and patterning, analysts must clearly articulate the suppositions upon which their work is based.

Thus, in order to critically assess previous research on early Egyptian graphical culture, a significant challenge lies in attempting to clarify its epistemological underpinnings.

Any attempt to understand early Egyptian society, or a facet of it, must be conscious of and explicit about that which is brought to the attempt (cf. Johnson 1999, 5), and, indeed, make best use of these preconceptions whilst being open to having them critiqued (Gardner 2001, 40). It is in this spirit that I attempt to construct a reflexive theoretical approach. By adapting and integrating existing theories from archaeology, anthropology, art history, semiotics, material culture studies and sociology, a coherent framework is assembled whereby the role of the inscribed labels and associated graphical culture can be analysed and the results interpreted in a contextualising manner. The theoretical approach and methods developed for the research are presented in separate chapters to make clear the research design, but of course theory and practice cannot be isolated from one another (Johnson 1999, 2); both underpin all aspects of data collection and collation, analysis and interpretation.

Perhaps in response to the dearth of inscriptional evidence in the Late Predynastic–Early Dynastic Periods compared with later periods, a frequent avenue of interpretation, as mentioned in Chapter 1, has been to extrapolate from later sources to explain earlier material, particularly where morphological similarity is observed. However, the use of hindsight in analysis is hazardous (see Baines 1995, 115), since the later socio-historical contexts and meanings attributed to depictions are never identical to what has gone before. Indeed, a frequent difficulty is that researchers on early Egypt tend not to distinguish clearly between contextually and retrospectively derived interpretation (e.g. Dreyer 1998, 146; Millet 1990, 56; Smith 1998 [1958], 38–51; Williams 1988, 48) nor, for the latter interpretation type, to demonstrate continuity from a given context to one later in time where meanings seem clearer. Retrospectively derived ‘interpretive keys’ deny the importance of time and place in the construction of meanings and fail to understand past actors on their own terms. It may be possible to determine that certain elements in pictorial depiction remain stable, and concepts and ideas are carried forward with only slight differences visible in expression. Nevertheless, a difficulty is how to assess the extent to which morphological similarity indicates semantic similarity.

This situation raises various epistemological concerns for the study of the inscribed labels. In order to assess systematically what an inscribed label is in its own terms, and as a particular kind of graphical composition, a synchronic source-critical approach is required. The examination of the three main thematic areas outlined in Chapter 1—archaeological context, material features, and the graphical repertoire and its organisation (§1.8.1–§1.8.3)—requires a nuanced theoretical framework that can inform analysis and interpretation within each area as well as provide scope for inter-relating all.

The first theoretical area deals with how inferences are drawn from archaeological contexts, encompassing depositional processes, the temporal and spatial situation, and typological groupings (see e.g. Hodder and Hutson 2003). The second area deals with the materiality of the labels in their making, use and deposition (cf. e.g. Dobres 2000). For the third, I draw on perspectives from visual studies (Rose 2001, 16–28) and social semiotics (Hodge and Kress 1988). These theoretical areas are brought together within the context of the relationship between human actors and material objects, and, according to the methods outlined in Chapter 3, inform the kinds of analysis and

interpretation presented in Chapters 4–11. This tri-partite framework, situated in relation to material symbolic practice and underpinned by the theory of structuration—the interrelations of agency and structure—provides the theoretical focus for analysis and interpretation that sets graphical culture, its meanings and its functions in relation to past practice and experience.

2.2 Archaeological Context

During the early 20th century, approaches to burial archaeology across the discipline often focussed on the normative practices and rites of elites from a primarily culture-historical perspective. Meaning from funerary remains was derived with only limited success, because the symbolic was not discussed with adequate reference to social process, function and power. Not until the 1960s was this limitation overcome with the formulation of a methodological basis for the social analysis of burial practices (see Chapman and Randsborg 1981, 5). These new processual approaches explained rather than merely described, and they created new ways of thinking by drawing on anthropology. Yet they often neglected ideology and ideological functions, as well as social interaction, thus presenting a passive view of society. Clifford Geertz (1973, 94–98; see also Huntington and Metcalf 1979, 5) noted this passivity well before post-processualists were pointing out that archaeologists and anthropologists alike often characterised burial practice as ‘reflecting’ social values. Geertz argued for seeing a dialectical relationship between burial practices and the social values attributed to them, demonstrating that each is an important force in shaping the other. Similarly, post-processual work emerging in the early 1980s sought to promote an active view of society by emphasising the individual as actor. The roles of some individuals, particularly women and children, had indeed been marginalised and undervalued in burial studies and in archaeology generally (Rega 1997, 229). In addition to focussing more attention on the individual, post-processualists see meaning as culturally and historically constructed and find this framework essential to understanding the significance of individual and group action in the burial context (Hodder and Hutson 2003, 104–105).

Interpretive archaeologies emphasise the importance of making sense of archaeological remains in relation to social practice. Practice is ‘a way of doing’—how an individual social actor practises living in, reproducing and transforming the culture around her- or himself (Johnson 1999, 105). Scriptorial evidence is typically assigned a ‘utilitarian’ communicative function (e.g. Postgate et al. 1995), but, as Baines (2004, 152) observes, “writing that is incorporated into display often cannot be read in normal conditions—for example, because it was too small or inscribed in too remote a position, or not decipherable because the audience would not be literate, or because it was interred and serves the hereafter rather than this world”. The distinction between communication and display must certainly be defined within the particular context of practice (manufacture, use and deposition). This applies equally to what constitutes “normal” conditions of perception. The questions of accessibility, visibility, and knowledgeable perception highlight the point that meaning is not inherent in any situation or object, but is relational, a joint product of the situation and the person or people

for whom the situation is meaningful. The deposition of inscribed objects in cemetery contexts and affordances on reception (where intended), and therefore the range of possible meanings, are issues to which I return later (§9.8).

The importance of contextual archaeology has been a main tenet in the work of Ian Hodder (e.g. Hodder and Hutson 2003, 156–205) and forms a central feature of the approach adopted here. Accordingly, archaeological data are understood through four main dimensions of archaeological variation: temporal, spatial, depositional, and typological. In defining these, comparative work is required, with attention paid not only to difference and similarity (Trigger 2001 [1983], 4), but also to absence (Hodder and Hutson 2003, 173, 176). In order to address Research Question 1 (§1.8.1), the labels are examined with reference to each of these dimensions. Ian Hodder and Scott Hutson (2003, 193) set out general principles that govern the way in which data are ‘read’, while remaining open to critique.

2.2.1 The Temporal Dimension

The first type of similarity and difference archaeologists encounter is in the temporal dimension. Objects can be seen as related temporally based on a similar stratigraphic location, and we are then more likely to place them in the same context with related meanings (Hodder and Hutson 2003, 177). However, where temporal similarity is mediated by spatial distance, the similar temporal dimension may be less relevant to meaning. Therefore, for similarly dated labels found at the widely distant sites of Abydos and Saqqara, similar functions and meanings should not be assumed. In addition to seeking understandings of labels as completed objects, the diachronic dimension is important in accounting for changes, both in practices and meanings, as manifested, for example, in the differences in size and compositional complexity between the Late Predynastic labels from Cemetery U at Abydos,¹ and the 1st-dynasty examples found at multiple cemetery sites.²

2.2.2 The Spatial Dimension

The measure of similarity and difference in archaeological phenomena can also be evaluated according to the spatial dimension (Hodder and Hutson 2003, 177). On the macro- or inter-site level, the labels are similar in that all cluster in cemetery sites. Similarity and difference in spatial distribution on the micro- or intra-site level are also important, such as vertical and horizontal (*depositional*, see below) associations with individual archaeological features and other finds. As seen in the review of previous research (§1.5), formal similarities among the labels are frequently seen as sufficient evidence to warrant interpretation according to the same set of explanatory principles.

1 E.g. ID067/4303_A, ID136/4349_A.

2 E.g. ID343/4046a-b(=4557)_A, ID401/4044_A.

For example, the similarly inscribed labels ID240/0682_A and ID241/0833_S occur in a similar temporal context but are widely distant in space, the former from Naqada in Upper Egypt and the latter from Saqqara in the north. Yet both have received virtually identical interpretations (Kinnaer 2002, 657). From the strength of formal similarities, one may assume the presence of shared knowledge about imagery that transcends the spatial dimensions—and this may be true to some extent. Yet placing too much interpretive emphasis on the site of ‘the image itself’ (see Rose 2001, 23–24) risks overlooking the significance of the wider social action of which it was part, and therefore failing to grasp those particular meanings that held relevance as part of past lived experience. To avoid such pitfalls, the theoretical framework employed here sees graphical meanings and their material reification as constituted through practice that is situated in both time *and* space.

2.2.3 The Depositional Dimension

A third type of context (which may be considered a subset of the spatial dimension and can also be assessed at micro- and macro-levels) is the depositional unit, where similarity and difference can be claimed at many scales (floor, strata, grave/chamber, tomb complex, surface, site). Since the degree of depositional integrity ranges widely for the labels, gauging similarity and difference requires a sliding scale of context; the relevant scale must be chosen for the particular situation (see Hodder and Hutson 2003, 180; §3.4). It is also worth thinking about the cultural aspect of the processes responsible for forming the archaeological evidence and how an object comes to be deposited in a certain location. This may represent different stages of use, e.g. procurement, manufacture, use, transport and discard (Schiffer 1972, 162). To map out these episodes, I use a modified form of the archaeological and anthropological concept of *chaîne opératoire* developed by André Leroi-Gourhan (1993, 114; §2.4). Objects have histories; they are not static entities but change in function and meaning depending on context. Where possible, the goal is to take into account the ‘life’ stages of the labels, and not to assume that depositional location directly reflects an object’s primary use or meaning (cf. Dant 1999, 34).

2.2.4 The Typological Dimension

The final dimension of archaeological context which Hodder and Hutson emphasise is the typological dimension, and this is linked to the temporal and spatial contexts. If two ‘objects’—used here to refer equally to graphical depictions—are said to be similar typologically, this really means that they have similar arrangements of form in space. Thus, a contextual approach to typology involves identifying the full range of individual attributes before larger typologies are built (Hodder and Hutson 2003, 180, 182). A central criticism of label typologies cited in Chapter 1 (e.g. Kaplony 1963; Newberry 1912) is that they take only partial account of the full range of variables. Also of importance is the clear explication of the criteria for distinguishing one type from another (Hendrickx 1996, 44; cf. Petrie 1921, 5). The material of manufacture, size, method of decoration, and

so on can be tested for correlations with other variables with the aim of letting the data ‘contribute’ to the choice of appropriate typology (Hodder and Hutson 2003, 182). Once general patterns are established, their meaningfulness can be tested through comparative work, as undertaken in Chapters 8–9 on inscribed wavy-handled jars and tomb stelae. It is important to bear in mind that typologies tend to concentrate on the end product, yet the labels are the result of a diachronic process, from materials acquisition to shaping and decorating, to use and deposition. Just as social knowledge is not secondary to the persistent patterning of social life but is integral to it (Giddens 1984, 26), so too is material culture. Therefore, for typologies where materials and morphology are the primary criteria, these typologies should only be seen as heuristic tools for ordering data and establishing patterning, not explanatory models for past functions and meanings.

Related to typology is the notion of style. Along with ‘representation’ (see §1.4), ‘style’ is one of the central concepts of art history that has made its way into archaeology. According to Donald Preziosi (1998, 582), stylistic analysis is essentially a form of semiotic analysis and a means for constructing relations of filiation, kinship and descent between objects, and (as employed here) also for demarcating differences between them. Stylistic analyses tend to be treated as surrogates or ‘representations’ of similitude or differences between their makers. They both presuppose and promote the hypothesis of a shared stylistic or family of resemblances among artefacts of a group.

It is true that any classification or order imposed upon material culture is influenced by the social context of the classifier (Foucault 2002). Shanks and Tilley (1987) question the meaningfulness of categories as determined by the modern investigator, going as far as to propose that archaeologists need not attempt to discover past categories—that such an objective is unattainable. Nevertheless, the work of Marie Louise Stig Sørensen (1997), and others, highlights the extreme nature of this proposal, demonstrating that particular meanings are articulated through the manner in which certain objects (including the body) are regularly grouped together as assemblages. The organisation of experience and of objects as products of human action are therefore inextricably linked and where these are preserved archaeologically, can be understood as expressions of social categories which can be interpreted by the analyst.

2.2.5 Burial in its Own Rite

In addition to taking account of these four dimensions of archaeological context for interpreting past meaning generally, theories particular to cemetery contexts also require consideration. The study of burial remains has long been central to archaeological investigation. As the focal point for direct and purposeful social practice, mortuary contexts provide a remarkable source for archaeologists, particularly in Egypt, with preservation often unparalleled elsewhere. In this early period where settlement data are largely lacking, direct inferences are made from burial methods and furnishings, for example, concerning the economic and/or political status of the deceased (Kroeper 2004, esp. 864), in order to reconstruct early Egyptian society.

While the goals of reconstructing past society through the study of burial remains have not changed significantly, the methods have (Chapman and Randsborg 1981). The

context of death is often one of ritual action and communication, as opposed to everyday practical communication (Stevenson 2015). Social practice associated with death occurs within a transitional milieu (Goody 1962, 34), and this can be envisioned as a tri-partite process of separation, liminality, and reincorporation (Huntington and Metcalf 1979, 98). Other perceptions of funerary and mortuary rituals range from death as a single rite of passage (Morris 1991, 150) to death as a series of transitions within transitions. In many societies the deceased, the living, and the cosmos all go through a period of transition beginning with the separation from ‘normalcy’ upon death. Due to their transitional nature, the processes surrounding death may invert or disguise the social structure and ideology of the living.

Joseph Tainter (1978, 113) maintained that mortuary ritual is basically a communication system in which certain symbols are employed to convey information about the status of the deceased. He argued for a direct correlation between “energy expenditure” (in terms of labour) in the cemetery context, and value and status in life. Critics of this method argue that the values attributed to objects may not always be expressed according to such criteria. Values and status must be seen as socially situated; no one explanatory framework will fit all situations.

Similarly, some forms of funerary practice may be incidental rather than the result of deliberate action, while other aspects of funerary ritual, such as personal expression and emotion, rarely, if ever, survive archaeologically. Jack Goody (1962) concluded that the most elaborate and important ceremony in the social life of the LoDagaa of northwest Ghana was the funeral ceremony by basing his analysis on the number of attendees, time taken, and emotion generated—as opposed to the more *material* evidence left behind in other ceremonies. While the anthropologist has the benefit of direct observation and experience, some aspects, such as levels of emotion, are unlikely to be preserved archaeologically. Further, social actions at the graveside may relate to specific coping and manipulative strategies and are therefore different from actions where death is *not* the focus. Two main points therefore emerge: the importance of the post-processual view that practices do not simply reflect social organisation, but actively construct it (Parker Pearson 2001); and the need for caution in extrapolating from one social context to another.

2.3 Society and the Individual

Every competent social actor... is *ipso facto*, a social theorist on the level of discursive consciousness and a ‘methodological specialist’ on the levels of both discursive and practical consciousness. (Giddens 1984, 18)

2.3.1 From Structuralism to Structuration

The theoretical ideas considered in this section have been discussed in relation to the labels elsewhere (Piquette 2013b), but it is necessary to reprise them here as they are foundational to the approach I develop for this study. Structuralist principles, drawn

from the work of Ferdinand de Saussure and Claude Lévi-Strauss, have long been used in archaeology to explain material meanings, on the premise that the hidden cognitive ‘rules’ that generate cultural forms are like the cognitive linguistic rules that generate sentences (Johnson 1999, 90–92). Since the 1990s, structuralist models have been subject to a number of critiques highlighting their lack of a theory of practice and the diminished role allotted to the individual. However, others argue that archaeologists’ recent aversion to structuralism as a model has been based, in part, on the mistaken belief that structuralism cannot have a diachronic dimension, and thus provides an inadequate account of change (Yentsch and Beaudry 2001, 227). Within Egyptology, structuralist thought has influenced the study of social structure (e.g. Assmann 2002, 14–17, on the cultural construction of time), Egyptian literature studies and linguistics (e.g. Groll 1991), or the discerning of the underlying principles or “*grammaire du temple*” governing the form and symbolism of the ancient Egyptian temple (Cauville 1983; Derchain 1962).

The basic insight offered by structuralism—that social processes are rooted in perceptions held in the mind—has value (Hodder 1982; Yentsch and Beaudry 2001). However, the deterministic aspects of structuralist thought, wherein forces eclipse the ability of individuals to act and discount the reason of the agent, remain problematic. Objections to such deterministic perspectives are not new and pre-date aspects of structuralism itself (Giambattista Vico 1725). The idea that the individual and society are mutually constitutive and the nature of this relationship form the core around which much post-structuralist debate revolves, though proposals for how this relationship is to be understood are highly variable.

An approach concerned precisely with this relationship between the individual agent and social structure is Giddens’ (1984) theory of structuration: “[t]he basic domain of study of the social sciences, according to the theory of structuration, is neither the experience of the individual actor, nor the existence of any form of societal totality, but the practices ordered across time and space” (Giddens 1984, 2). As Barrett (2001, 149) observes, the emphasis upon “practices ordered across time and space” is Giddens’ attempt to transcend the analytical dualism separating subjective experience and the social totality. At its core lie three concepts that together summarise the overarching notion of ‘duality’ (Giddens 1984, 25):

Structure(s)	Systems(s)	Structuration
Rules and resources, or sets of transformation relations, organized as properties of social systems	Reproduced relations between actors or collectivities, organized as regular social practices	Conditions governing the continuity or transmutation of structures, and therefore the reproduction of social systems

Within social analysis Giddens (1984, 17–18, 23) uses structure to refer to the ‘rules and resources’ or the “structuring properties allowing the ‘binding’ of time-space in social systems” through agentic action, in contrast to functionalist notions where structure is external to, rather than constituted through, individual practice. ‘Rules’ cannot be separated from the resources that are the means of system reproduction, since they relate to the construction of meaning (e.g. definitions, formulae), habitual activities, and

the sanctioning of particular ways of doing. This mutually constitutive relationship is explicated in one of the central propositions of structuration theory: "...that the rules and resources drawn upon in the production and reproduction of social action are at the same time the means of system reproduction (the duality of structure)" (Giddens 1984, 19). Structures are therefore recursively organised sets of rules and resources and simultaneously constrain and enable action (Giddens 1984, 25)—a dynamic also conceptualised as elements feeding back into each other in a hermeneutic relationship. For example, "...the meaning of a part is derived from its relationship to a whole, while the whole is understood from the relationship between the parts" (Hodder 1999, 32–33).

Another key concept within structuration theory is that of the 'system'. According to Giddens (1984, 17), "...structure exists, as time-space presence, only in its instantiations in such practices and as memory traces orientating the conduct of knowledgeable human agents". Thus, social systems as reproduced social practices do not have structures, but rather *exhibit* structural properties. While Giddens does not explicitly extend structuration to the explanation of material culture as (reified) practice (see discussion on Wenger below), the notion that the properties of practices can be characterised according to their extension over time-space, as 'structural principles' for deeply embedded structural properties, and beyond that as 'institutions', presents a useful approach for thinking through different levels of patterning among the labels.

Within archaeology, structuration has formed a topic of sustained theoretical discussion (Dobres 2000, 132; Gardner 2007, 323–327; cf. Barrett 2001, 149). Some argue that, while the balance between agency and structure must be maintained, conflation of the two within a single framework is to be avoided (e.g. Archer 1995). In seeking to uncover agency, there is a concern that archaeologists are imposing modern individualistic ideals on the past (Hodder 2000, 25) if the agent is framed as too self-oriented and reflexive. As Gardner (2007, 326) emphasises, however, Giddens' framework establishes the mutually constitutive nature of individuals and social structure, and is therefore sensitive to the various ways in which agency may be structured in a given socio-cultural context. Moreover, a vital point many critiques overlook is the distinction between duality and dualism. In the latter, the agent and structure are modelled as two mutually exclusive sets of phenomena. In a duality, by contrast, agent and structure construct each other. The structural properties of social systems are simultaneously the medium and outcome of the agentic practices they recursively organise. Although variously formulated (e.g. as "a hermeneutic spiral", Hodder 1999), much of interpretive archaeological discourse is predicated upon the duality paradigm of mutual constitution.

In contrast to the engagement with structuralism and semiotics, the reception of structuration theory within Egyptology has been negligible. Lynn Meskell (1999, 25–26, 50) places structuration theory among "...over-arching meta-narratives that seek to explain society in broad and general terms"—theories described as having significant elements of stasis embedded within them. This criticism seems, however, to be inconsistent with the precept of Giddens' (1984, 25) framework, which posits that social practices are contingent and variably constituted across time and space; social practice is, therefore, multiple and mutable. Further, Giddens' (1984, 25–26) emphasis is placed on the knowledgeability of social actors; knowledge is integral to social life, rather than external to the individual as conceptualised by some structuralist

approaches which thereby discount individual agency. By the same token, Giddens states that too much emphasis on the individual overshadows the importance of “social rules and resources”—the properties of the social system—upon which actors draw in the reproduction of social relations. Structuration theory has received criticism for failing to allot individuals enough agency (Meskell 1999, 25–26, 50), while others find individuals overly autonomous in the theory (e.g. Elliot 2001, 41)—critiques that are probably more indicative of the dualistic thinking of Giddens’ critics than of a demonstrable flaw in his framing of the relationship between individuals and society (Gardner 2008, 104). Nevertheless, as alluded to above, an area where the theory of structuration can be more fairly said to be underdeveloped is in the context of the interaction between social actors and material culture (Fahlander 2008, 132). Further, a critique that can be levelled at structuration as well as theories of practice and material culture generally is the exclusion of graphical imagery from models of the material world, especially imagery classified as ‘writing’ (Gardner 2007, 37–39). In developing a suitable theory of practice for understanding the inscribed labels, the framework outlined above therefore requires bolstering with regard to material cultural practice. For this I draw on the work of Etienne Wenger.

2.3.2 Practice as Participation and Reification

Related to the constitution and reconstitution of social systems is the process of the reification of social relations, “...the discursive ‘naturalisation’ of the historically contingent circumstances and products of human action...” —which is one of the main dimensions of ideology in social life (Giddens 1979; Giddens 1984, 25–26). Reification refers to a wide range of social processes as well as their products and essentially concerns the ‘making real’ of concepts, relationships and projects. It is the survival of the reification of social relations in the past through material objects that essentially constitutes the domain of the archaeologist, making this concept relevant to any archaeological work concerned with social practice, and therefore structure and agency.

My particular interest lies in the ways certain practices—the negotiation of meaning—come to be projected or *reified* in a material-graphical form. Giddens goes some of the distance in theorising the processes by which engagement and experience are given material form. In his book *Communities of Practice*, Wenger (2002 [1998]) works through this concept of *reification* more fully, which he sees as forming a duality with *participation*. He starts with Webster’s (1999) definition of reification: “To treat (an abstraction) as substantially existing, or as a concrete material object”, and extends the term to a wide range of phenomena which can be grouped into two main types (Wenger 2002 [1998], 58). Some reified practices may remain abstract in their manifestation: for example, a scheduled break during a lecture reifies what is, and what is not, lecture time through the participation of students and lecturer in taking the break simultaneously. Reification can also shape experience in a material way: for example, having a particular tool to perform an activity changes the nature of that activity. The use of a computer with keyboard and mouse reifies a certain concept of writing that contrasts with making marks on a small, wooden plaque—a material reification of an

early Egyptian concept and experience of the activity of writing or other form of symbolic representation or depiction.

Wenger (2002 [1998], 59, 62) sees reification as part of everyday practice, and as a constituent of meaning that is always “...incomplete, ongoing, potentially enriching, and potentially misleading”. From this point of view, early Egyptian graphical images are simultaneously processes and the products of those processes. I find this ontological perspective useful for characterising the network of relationships through which labels were constituted—relationships that were continually transformed through embodied, knowledgeable technological engagement with material objects across social time-space (see also Piquette 2013a).

To illustrate the utility of the duality of participation and reification and the ontological concept of graphical culture as ‘becoming’, we may consider how composers rendered imagery on the labels. Four main techniques are attested:

- 1) Linear incision with paste infilling;
- 2) Linear incision with applied pigment;
- 3) Incised carving;
- 4) Applied pigment.

Each technique implies a specific technological-material practice requiring specific tools manipulated through sequences of embodied action in conjunction with the label surface. Each technique also represents a different material reification of what it meant to make images or to be a composer. Both technologically and performatively, picking up a thin sharp lithic or metal tool to remove part of the label surface was a different experience compared to dipping a marsh rush into moist pigment/ink and applying it to the surface. The reification of writing, in both abstract and material forms, and in terms of the process and product, was multiple and varied—and, as I have attempted to understand through experimental archaeology and to demonstrate in the analysis, variability in technique was integral to certain kinds of graphical meanings (§5.11).

In other respects, the social ‘rules’ concerning inscribed labels were relatively fixed. Labels were not carved in low relief as seen on contemporary objects such as a carved ivory plaque from Helwan (Figure 7; Sa’ad 1951, pl. 64b). Likewise, the technique of impression by cylinder or stamp seal was not employed on labels, though it was used on contemporary sealings of Nile mud and desert marl. It might seem absurd to point out that seals were not applied to wood, bone ivory or stone, but in fact this example illustrates, both metaphorically and literally, that writing and image-making are fundamentally embedded within temporal and material contexts and as such one cannot be fully understood without the other—just as the raised script on a glass seal must be understood in relation to the properties of heated glass (e.g. Petrie 1926, pls. 11–12.86). The important point here is that imagery could be expressed in different ways that impacted on meaning and reception. I am particularly interested in exploring why some aspects of label-making procedures were rigidly structured while others were open to negotiation.

The overarching frame for the present research is, therefore, the proposition that meaning is located in the relationship between the graphical image and its material

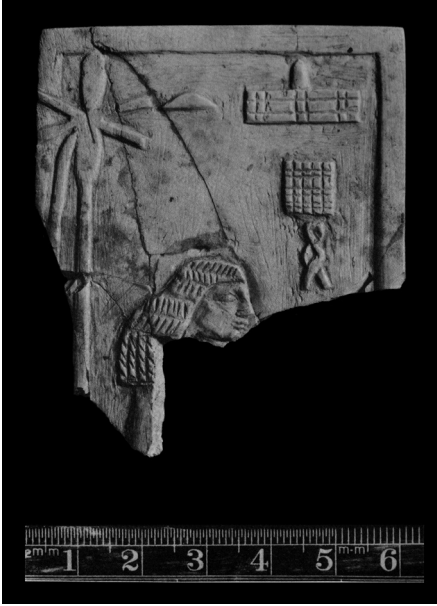


Figure 7: Fragment of an ivory plaque carved in raised relief, Helwan, NIIC1-C2 (c.3085–c.2867 BCE; after Sa'ad 1969, 173, pl. 3, © 1969 University of Oklahoma Press).

context through socially situated practice. To bolster Giddens' theory of structuration as a way of grounding the study of graphical culture in the *material* context of action, I therefore draw on Wenger's (2002 [1998]) work on participation and reification, which distinguishes between abstract and material forms, the latter being particularly relevant to archaeology.

2.4 Material Culture, Materials, Materiality

Archaeologists and anthropologists have long recognised that the set of human practices that surrounds material culture provides evidence of the distinctive form of a past society (Dant 1999, 2, 11; Miller 1985, 1). Culture-historical approaches to material culture have been concerned with accurate and 'objective' artefact description and classification. Object variation across time-space has been used to establish typologies for comparison with other material culture groups, as well as in the construction of chronological sequences for dating archaeological strata, or, where stratigraphy is lacking, the creation of a seriation system (Payne 1992; Petrie 1901b, 4–12). Such material variability among the labels and its significance has been unevenly unexplored. As objects, and mainly from their role as 'texts', they are often used to correlate with some absolute measure of human action, e.g. state administrative practices (Wilkinson 2001, 110); or, as scriptorial objects, they 'function' to communicate language in the most immediate sense (Fischer 1989, 64–70; Kahl 2001, 116–122; Wilkinson 2001, 41) or they are seen as reflective of social forms, e.g. royal and elite status (Vernus 1993, 93). These understandings are ultimately reductionist as they cannot answer why and how a particular form is used (see Tilley 1989, 188). A holistic theoretical model of material culture, capable of

representing the complex nature of the interaction between social strategies and artefactual variability and change (cf. Miller 1985, 4), is therefore required.

Post-processual archaeologies take us some of the distance in modelling the relationship between material culture and social action. They place emphasis upon the diversity and contingency of meaning and the social processes by which meanings become materially 'encoded'. Phenomenological approaches go as far as to argue that it is through embodied engagement with the material world that existence is in fact constituted—that things make us just as we make things (Brück 2005, 48). Such hermeneutic processes—dialectical procedures of data analysis and interpretation, bound together by theoretical insights, in relation to understandings of contextualised matrices of past social life (see Shanks and Tilley 1987, 104)—are key to the way I seek to understand the labels. Experimental archaeology provides added insight into past technology and experience of the labels (Chapter 5).

Discussions of material objects often fall into two categories: descriptive accounts, as mentioned above, and those that discuss the world of things in terms of 'materiality'—a term that has become particularly popular in the last decade and a half. However, neither has typically addressed the issue of the materiality of script or image (e.g. Ingold 2007). The need to shake off the "tyranny of text" and situate visual culture within its material (and social) contexts has been raised within archaeology (cf. Champion 1990, 91; Moreland 2001, 21), and increasingly research is integrating these related areas (Kepecs 1997; Piquette and Whitehouse 2013; Englehardt 2012). However, in the insistence on a distinction between archaeological material evidence and historical "nonmaterial" evidence (Kepecs 1997, 193), it is possible to detect the inheritance of Cartesian mind:body dualistic thinking (see Thomas 1996, 26–29; also Brück 2005, 48). Within archaeology there can be an implied ontological primacy of the material world, while in some types of Egyptology, a 'mental'/non-material view of the 'text' has held primacy. The importance of studying scriptorial and non-scriptorial evidence together cannot be emphasised enough, and rather than treating 'text and artefact' as two separate lines of evidence to be studied together (Morrison and Lycett 1997; W. Smith 1992, see also Kepecs 1997, 195), the approach developed here sees writing and art *as* artefact. Without particular material (including corporeal) underpinnings, subsequent interpenetrating levels of symbolic meaning, whether in the type of rim on a pot or inscriptions on a temple wall, could not exist, or more appropriately, 'come to be'. However, I should emphasise to the reader once again that this present study represents what I see as remedial work to redress an imbalance in previous research. A subsequent task will be to integrate this approach with a revisiting of the philological and palaeographical work, an ambition that lies beyond the scope of this book.

Similar to the relationships between levels of archaeological distribution discussed above (§2.2), Tilley (1989, 188–189) identifies two recursively related levels at which the form, nature, and content of material cultural meaning is produced: micro-relations (e.g. a set of designs on a pot) and macro-relations (e.g. relationships between burial or settlement space). Although Tilley prefers *a priori* to emphasise the social over the individual in the production of material culture, directing analysis to different scales is important for understanding how people, as individuals and as members of different communities of practice, construct and are constructed by material culture. As for

micro-relations, aspects for consideration include technique, size, shape and colour for both the image and its foundation. Macro-relations here involve the way labels were made, used and attributed meanings as part of social action in time-space. For example, a label, among other possible functions, may have signified social group membership on some level through materials, style (of both the object and its manner of use) and subject matter; social belonging may have been implied in the composing and ‘reading’ of label symbols, ‘correct’ orientation being a fundamental cultural operation signalling knowledgeability and belonging.

It is culture that specifies how objects and their attributes (such as shape, colour and texture, strength, flexibility, etc.) are to be understood (Dant 1999, 13). However, formal variability may not be solely the result of artistic or other cultural conventions, but may be constrained by materials and the technology that shapes them. A dialectic therefore exists between material objects and social agents—the agent acts upon the object and the object ‘acts back’—serving to constrain and afford opportunities for subsequent action. When trying to make sense of an object’s properties and meanings, this dialectic should be borne in mind. Further, there are various routine ways in which humans interact with material objects where objects play a fundamental role, facets of which may entail objectification, mediation and hybridisation, in structuring intersubjective relations between individuals or groups (see Gardner 2002, 3–5). Dant (1999, 54–55) approaches object materiality through four dimensions. Firstly, objects are part of a physical relationship that has to do with their role just described. It is this that distinguishes material objects from other cultural phenomena, such as kinship relationships or myths. The physical properties of material objects lead to a set of limitations on their capacities, thereby articulating their uses by embodied social actors in negotiating social relationships. Secondly, objects are used within cultural practices that also specify and constrain their use, e.g. labelling and marking, burial ritual, and exchange or gift giving. Thirdly, objects may provide a surface for writing and depiction; this area of interface is particularly germane to the analysis of the graphical content of the labels from a materials perspective. Fourthly, an object may provide a surface for written or depictive marks to play across. Whereas Dant (1999, 55) sees properties as “resting on” a thing, and designating its role in culture, in order to avoid problematic notions concerning the pre-cultural status of material things I find it important to see these properties as constituted through cultural practice.

Tim Ingold (2007, 3) observes that discussions of materiality are often vague and have little to do with materials and their properties. He comments that along with ‘materiality’, terms like ‘agency’, ‘intentionality’, etc. are part of “a language of grotesque impenetrability”, a critique often levelled at theoretically explicit archaeologies. It is interesting that there seems to be great tolerance for technical terminology in other fields, such as physical anthropology and linguistics. I would suggest that perhaps this perceived impenetrability is symptomatic of the lack of a clearly defined technical language among archaeological theoreticians, and within interpretive archaeologies in particular. A host of other terms can be added to the list, all too often employed without clear definition, or, worse, with meanings assumed *a priori* (e.g. material culture (as discussed), visual culture, visuality, writing, literacy, kingship, the state, etc.). I do not propose that a given term must have a single fixed meaning, but the criteria for a category of meaning must be clearly explicated within a given piece of research so that

terms are used more consistently, and comparison and debate can take place with a reasonable degree of rigour.

To return to the task of setting out what I mean by materials and materiality for the purposes of this study, Ingold points us to the work of James J. Gibson (1979), *The Ecological Approach to Visual Perception*, which directs attention to the properties of materials. Gibson (1979, 16) distinguishes three components of the inhabited environment:

- Medium: affords movement and perception;
- Substance: is relatively resistant to movement and perception;
- Surface: the interface between the medium and substance.

Thinking about how each component informs and is informed by perception and engagement is valuable for understanding how particular object types shape processes of objectification and mediate individual and social actions. Moreover, the concern for medium ensures that material action is situated in a given environmental context (air, water, light, shadow, etc.). This multi-dimensional view, taken in some of my related work (Piquette 2008; Piquette 2013b), equips us with the means to explore material engagement in a more concrete way.

Rather than the traditional emphasis on visual perception, however, it is also important to consider tactile engagement, and how one facilitates or constrains the other (Gosden 2001; see also McCarthy 1984, on George Herbert Mead's emphasis on the importance of the acts of touching and grasping in reality-construction). For example, depending on your posture *vis-à-vis* this present volume, in order to visually perceive the text on this page, you may need to periodically adjust your hand so your fingers do not obscure the words or scroll to reveal more text on your device screen.

To describe the labels as 'material culture' is intended here to signify that they are material objects which are simultaneously produced through and mediators of socially-situated cultural practice. Where I use 'graphical culture', this is to emphasise their decoration—but it also encompasses the meaning of material culture. As 'material' the labels are understood here to be composed of surfaces and substances that are sensually perceived by embodied social actors through a variety of environmental media. To imply the dynamic nature of things in the mediation of social relationships, I refer to the 'materiality' of artefacts, but without assuming a predetermined agentic capacity for objects that sits outside human cognition and action (cf. Olsen 2003; Gosden 2005). I agree with Ingold that we need to be looking specifically at material properties to understand how these impinge upon embodied engagement, but, rather than dispose of this term, as he seems to propose, I retain 'materiality' as a useful term for emphasising the embeddedness of material things that are not usually appreciated for their 'thing-ness'—namely image and script.

2.4.1 The 'Becoming' of the Image and Experimental Archaeology

An important area of theoretical focus is how material properties and material action are historically and culturally constructed. All labels provide material clues concerning

their individual ‘life histories’, clues from which we can infer something of the practice through which they were produced and used. Of particular interest is the interaction between the shared knowledge structures of what a ‘label’ was and the agency of the label-maker in the way she or he transformed material substances and surfaces within particular physical and technological parameters. Barrett’s (2001, 158–161) concept of ‘material structural conditions’, which he applies to embodied movement within the context of later prehistoric round houses in Britain, may be useful here. Scaling down his concept to portable objects, in the course of embodied technological and other engagement, the label can be seen as offering a series of framing devices and focal points. As the material is transformed and the plaque perforated and decorated (although not necessarily in that order), new conditions are presented which recursively shape and frame subsequent engagement. Paths are created among the images that guide hand and eye, and certain lines of access are facilitated while others are constrained, or strategically controlled (e.g. with artistic conventions for placement of image or sign clusters relating to high-status individuals or divinity within a composition). As movement within the graphical-material context of single and multiple labels proceeded, “...practice of movement linked those places in certain value-laden sequences allowing the practitioners to rework those values into their own biographies through the movement of their own bodies” (Barrett 2001, 160)—including acts of sensual perception.

Episodes of activity in the transformation of the material context of the labels can be inferred from manufacture marks and other surface modifications, making it possible to reconstruct—to some extent—the various actions involved in their making and use (Chapter 5). When anchored in theories of social practice, *chaîne opératoire* research provides a great deal of empirical evidence regarding the sequential activities of ancient materials processing (Dobres 2000, 166–169). Some label images show evidence of being incised prior to the cutting of the label to its final dimensions, while others are run through by the perforation (§5.6.1), and yet others show evidence of later modification (§5.12). These episodes of interaction between material and image lend weight to Dobres’ (2000, 130–132) notion of the “becoming” of material culture.

In order to think through the operational sequence of the making, use and deposition of the labels and investigate this notion of “becoming” or “coming to be”, I conducted experiments in label-making, discussed in §5.11. As Dobres (2000, 169) advises, we must consider which data are relevant to questions of practice and agency before undertaking analysis. My aim was to try to detect what influence a particular material, tool or practical technique may have had on the preparation of label materials (or “substrate”), the crafting of its imagery (or “constrate”, see Mountford 1969, 631) and, in turn, how these procedures influenced the appearance of the composition—aspects of label ontology that, of course, must be set in relation to their semiotic roles (§2.5.4).

2.4.2 Language as Analogy

It has been conventionally held that objects can illuminate words but cannot replace them (Maquet 1993, 41). Archaeologists and anthropologists alike have traditionally attributed greater significance to verbal meaning interpretations than to material object

interpretations, to the point that linguistic theories have been widely applied in these fields—again, the mind:body dualism in operation, with the mind holding primacy. Shanks and Tilley (1987, 117) saw material culture as located along structured axes of signification and therefore as constituting a form of ‘writing’, but noting, however, that even though symbols can be ‘read,’ they move beyond the primary qualities of ‘writing’. As with language, inferring material culture meanings depends on sets of similarities and differences in the archaeological evidence (§2.2), but, in contrast to the arbitrariness of signs acting as signifiers, material culture references are relatively fixed and non-arbitrary, acting both as sign and referent (Hodder 1982, 201–202). Hodder (1991a, 126–128) continued to promote the artefact-as-text metaphor, seeing “context” as also meaning “with-text”, but ultimately changed his mind (Hodder 1999). Linguistic theories are generally inadequate for explaining the diversity and contingency of material meanings. The relationships between what people actually do, the spatial milieu they create, and the verbal declarations and expressions that are used to describe social life, are different in scale as well as process (Fletcher 1989, 36). Inconsistencies with respect to the ‘language’ or structure of material culture categories are frequently the result of action (Ling 2014, 167). In view of the generally predictable grammatical structure of language, linguistic analogy can be misleading in the reconstruction of past material culture meaning.

Furthermore, since material messages operate over longer time spans than do oral and embodied signals (i.e. gestures), there can be no simple correspondence between verbal declaration and material practice (Fletcher 1989, 34–35; Shanks and Tilley 1987, 114). For example, the organisation of space, such as architectural patterning, is not a linear grammar or time-sequential practice like verbal communication. By seeing the things of the world as reflecting and constructing (Hodder 1982, 212) the nature and form of the social world, conventional deterministic linkages between material culture and social phenomena are transformed into overlapping spheres of action. Nothing can be decided in advance about the nature of the object: this is a function of the social-relationship matrix in which it is embedded. An object has no ‘intrinsic’ nature independent of its relational context (Gell 1998, 7). While post-processual archaeologies emphasise the importance of material culture as actively constituted, the need to consider further the contingency of past object worlds in relation to social and symbolic practice remains. Through the combination of the perspectives offered by Giddens and by Wenger (§2.3), the empirical object is evaluated within the context of social practice; in an active, temporally and spatially constructed relationship between object and agent, the structural relationships underlying the physical presence and associated meanings of the object emerge. Thus, to study an inscribed label in isolation loses meaning in relation to past lives, since all human action and the products of that action are part of a social totality that actively reaffirms or alters subsequent material practice.

2.5 Theoretical Approaches to Graphical Content

The post-processual concern to understand continuity and change in material forms has led to more dynamic models which situate the study of material objects in dialogue

with social context. The view that objects are the result of the active integration of diverse material variables and social concerns promotes a wider exploration of archaeological data (Sørensen 1997, 111), including their contexts of production, distribution and ‘consumption’ (Miller 1985, 4). This emphasis on material culture and meaning as constructed both synchronically and diachronically through social engagement is echoed in Composition Theory, developed in the field of visual studies and which sees graphical content as embedded in a network for which three ‘loci of meaning’ are posited (Rose 2001, 32):

- 1) The locus of production;
- 2) The site of the image itself (semiology);
- 3) Audiencing and visibility.

These dimensions form a useful framework for focussing analysis, but they must also be seen as interrelated. In the same way that an ‘anthropology of art’ focusses on the social context of art production, circulation and reception (Gell 1998, 3), the concern here is also to consider imagery and meaning both diachronically and synchronically. This can be achieved by integrating ideas from Composition Theory with the practice-centred approach discussed above. I discuss below each locus in detail, and how these loci are intended to guide subsequent analysis of the dataset.

2.5.1 The Locus of Production

In the production of label imagery, the replication of similar graphical forms implies a shared body of knowledge among makers, just as the function or effectiveness of an image depends on its audience ‘knowing’ the images from elsewhere, where they have already been encoded (Hodge and Kress 1988, 4, 266–267; Rose 2001, 88–89). The process of planning out the design of a label composition, and the use of particular kinds of technique to render graphical media, influenced the appearance, organisation and subsequent reception and meaning of the labels. This locus directs attention to the kinds of technological and craft choices label-makers were making to achieve a particular material, visual and symbolic outcome. For example, scoring and break marks on some Cemetery U labels suggest that multiple labels were produced from single plates of bone (Dreyer 1998, 137). The requirements of label plaque manufacture and drilling of the perforation and the composition of the imagery are considered together in the analysis to understand the relationship between pragmatic, ‘aesthetic’ and stylistic (used here to refer to the formal attributes of images rather than to the style of content) concerns which may shed light on possible distinctions between symbolic or communicative features (see Dant 1999, 134). Some labels show evidence for curation or maintenance; several bear modifications, including erasures,³ or even erasure followed by re-incision or a later episode of modification (Piquette 2013a; see also Köhler

3 E.g. ID212/0943_A, ID277/4084_A.

2007, 199).⁴ Taking account of production (and reproduction) offers insight into the factors influencing subsequent patterning and may help identify how changes in form related to changes in meaning.

2.5.2 The Site of the Image

The site of the image is the area of meaning that has received the most frequent treatment in previous research (§1.5). Interpretations of label inscriptions readily attribute to them linguistic functions based on resemblances to later hieroglyphic writing (Dreyer 1993, 12; Emery and Sa'ad 1939, 83; Kahl 2001, 105), leading some scholars to overstate the 'readability' of signs. The use of hind sighted interpretation is due in part to the present state of knowledge of early Egyptian linguistics, which, according to Loprieno (2000, 28), must be addressed diachronically primarily, rather than synchronically: as he points out, synchronic systems of phonological oppositions—not only at this early period of the labels, but at any given time in the four millennia of the productive history of the writing system—often defy a clear analysis. Where the writing system is better understood, this knowledge may therefore be used as a model for the less-well-understood phases of writing. However, as Baines (1995, 98) states, use of hindsight in the act of 'finding' is hazardous, since the socio-historical context is different, as well as the meanings attributed to a given entity. In theorising the site of the image, my primary concern, therefore, is to avoid anachronistic perspectives and gain an understanding of the labels on their own terms, thereby contributing to a particularistic, rather than general or ahistorical, account of early Egyptian graphical media.

As mentioned, a central concern with previous research on the 'site of the image' is the privileging of writing. Bowman and Woolf (1994, 10) suggest that the overwhelming interest in ancient texts and literacy is due to our own graphocentrism. Likewise, Moreland (2006, 144) criticises the tendency to see writing as a system of signs that circulate, distinct from symbolic meanings and lived relations, and providing evidence about the past rather than having efficacy within it. To avoid this tendency, the labels are treated here as objects which, in a sense, lead double lives, both as material things with particular functional issues to be understood, and as vehicles for meaning-making in iconic and semiotic forms.

Given the pictorial nature of Egyptian writing, the relationship between writing and representation, particularly in the early forms dealt with here, is often ambiguous (Trigger 2001 [1983], 56). For the purposes of exploring this relationship, assumptions concerning the readability of signs as phonetic indicators are temporarily suspended in order to discern other possible meanings. Semiotics offers a way to explore graphical meaning by locating it in the relationships between signs. This focus on the site of the image means that "...semiology always pays very careful attention to the *compositional* modality of that site..." (Rose 2001, 72, emphasis in original). Giddens (1984, 31) warns against the association of semiotics with structuralism, however, and, as with the

4 ID345/1677_A, ID373/4756_H.

shortcomings of the latter in respect to the analysis of human agency, structuralist conceptions of language tend to take signs as the given properties of speaking and writing rather than examining their recursive grounding in the communication of meaning. The sense in which signs are understood here to ‘exist’ is only as the medium and outcome of communicative processes in interaction. In this research, then, I focus not on signification, but on compositional modality—the spatial organisation and association of imagery.

In contrast to Rose’s (2001) use of “agency”, i.e. the “agency of the image”, for the purposes of this study agency is located within the knowledgeable human agent, with the understanding, following Giddens (1984), that agency exists in a duality with social structure (§2.4). At the outset of this study, the ‘effects’ of images are seen only in relation to the self-aware human maker(s) and recipients, who are the default location and definition of agency until it can be inferred from (not projected onto, e.g. Olsen 2003; Gosden 2005) images, objects, features of the landscape and so on—with attention then paid to how such attribution functioned ideologically (Gardner 2008, 103).

2.5.3 Audiencing

The third locus of meaning deals with visibility and audiencing, and how objects are experienced. This may occur through more than one mode (or perspective), and the orientation of the subject will affect the mode—thus the cultural context of viewing can change while the form of the object may stay the same (cf. Dant 1999, 55, 156). Graphical meanings are contingent upon relationships between visual and cognitive acts of viewing/‘reading’, social conventions of performance, and particular ways of using the body (Morenz 2013, 124). With a large stela, for example, the viewer can move closer or further away to improve visual and other sensory information, or around it to gain a sense of its mass relative to her or himself (Dant 1999, 166). In the case of the labels, their small size would seem to constrain interaction and the level of visibility considerably. In contrast to imagery applied to jars from Tomb U-j at Abydos, where the jars are approximately 6cm–16cm in height (Dreyer 1998, 47) and the imagery could have been identified from some distance, the U-j labels are miniature by comparison (Baines 2004, 158), requiring close and intimate examination. Thus, the scale of an image can also facilitate or militate against its viewing. Putting the relative scale of label imagery into perspective relates to Research Question 4 (§1.8.4, Chapters 8–9), for which the range of scale in visual culture (cf. Winter 2000) is also considered, as well as how ‘rules’ of visibility may change depending on whether the intended audience were the living, the dead or the divine.

Tim Dant (1999, 166) illustrates the interconnectedness of the image and material form, pointing out that lists are viewed, acted upon and thrown away, letters are read and often kept as a series, and administrative documents are ‘kept safe’ or available for future action. Not only is meaning embedded in both form and content, but it cannot be divorced from context. Given that no pre-cemetery use contexts have been found (to date) and the implications of deposition in the cemetery, reconstructing past social interactions involving the labels, accessibility and audiencing is more complex than previous accounts suggest (§1.5).

2.5.4 A Social Semiological Framework for Interpreting Graphical Meanings

Alfred Gell (1998, 6) observed that, where anthropology has been preoccupied with the practical mediatory role of art objects in the social process, semiotics is concerned with the interpretation of objects as if they were texts. Robert Hodge and Günther Kress move beyond traditional semiotics and employ a broader and more dynamic notion of ‘text’, arguing that no single code can be successfully studied or understood in isolation—concentration on words alone is not enough (Hodge and Kress 1988, vii–viii, 1). They see communication as a process, not a disembodied set of meanings or texts, and focus attention on the social construction and effects of an image’s meaning and how this may change according to the context of the recipients. They offer analytical tools for tracing in precise ways the transaction of meaning in sets of ‘texts’ (evoking the Latin *textus* ‘something woven together’; Hodge and Kress 1988, 6), which may be manifested in a multiplicity of forms, verbal or visual, or embedded in specific actions, or in other practices involving agents, social structures and their complex interrelationships. The view that there is no fixed or determined relationship between signifier and signified, and the need to see meaning as being more fluid than can be captured by a single fixed code, has been voiced by others (e.g. Barthes 1957, cited in Dant 1999, 98).

According to Hodge and Kress (1988, 5), the semiotic atom is the *message*, comprised of two planes of meanings:

- The *semiosic* plane: A message has directionality—a social context and purpose in which and for which it is constructed and exchanged;
- The *mimetic* plane: The message is about something outside itself, relating to something in the world which gives rise to it.

Together these interrelated aspects of meaning construction provide useful ways of thinking through the purposes of label messages in relation to intentionality and the way in which meanings extended beyond the objects themselves—importantly, in the context of agentic action and structuration. Both aspects are explored in the graphical analysis in light of the labels’ final use context of the cemetery, and provoke speculation on the unresolved question of use in living contexts (Chapter 11).

Beyond the immediate message, there is the question of the particular form of social intercourse of which it is part and how this interrelates with particular forms of social organisation (Hodge and Kress 1988, 3). For example, the labels are understood as part of a discourse of inequality in the formulation and distribution of power (e.g. Wen-grow 2006, 128–130); but are they more bound up with symbolically communicating a world in forms that reflect the interests of those in power, or are they more related to sustaining the bonds of solidarity that are the conditions of dominance? Or can we discern messages that point to attempts to resist domination? Social semiotics offers ways to consider the ideological implications of a message and whether it presents an image of the world as it ought to be, from the view of the dominant group, from the perspective of the dominated group or from a combined position (reception within the context of the hereafter remains an open question). To capture the contradiction characteristic of ideological forms, Hodge and Kress (1988, 3) submit the concept of

ideological complexes that sustain relationships of both power and solidarity and represent the social order as simultaneously serving the interests of both dominant and subordinate. Whether coercively imposed or subversively offered, an ideological complex is composed of two models:

- A relational model (classification of kinds of social agents, actions, objects, etc.);
- An actional model (specifications of action required of, permitted by or forbidden to kinds of social agent).

In relating these models to the inscribed labels, I aim to analyse how compositional features and recurring image associations are employed to establish image classes and how these in turn construct label types. Actional aspects are mainly considered in relation to iconic images that depict kinds of action (narrative imagery). Just as images may specify permissible or forbidden activities, the materiality of the labels themselves also sanctions certain kinds of embodied practices.

These models offer complementary tools to Giddens' structuration theory (§2.3.1). Perhaps we might see an ideological complex as being similar to Giddens' 'system' and the relational and actional models as similar to 'rules and resources'. One would therefore expect that ideological complexes should be considered in relation to something akin to structuration, i.e. the conditions governing the continuity or transmutation of kinds of social relations (relational model), through which the specifications of action are reproduced (actional model). Indeed, Hodge and Kress (1988, 3–4) similarly model the ways in which ideological complexes constrain social action, on the one hand, and create opportunities for action, on the other. What they describe as the second level of the message is directly concerned with regulating the conditions of meaning production and reception, a set of rules which they term the *logonomic system* (echoing Giddens' 'structuration', not just 'structure'). Hodge and Kress see the logonomic system as consisting of a *production regime* (rules constraining production) and a *reception regime* (rules constraining reception). Wenger's (2002 [1998], 68–71) ideas of participation and reification also find resonance here. Some forms of logonomic systems become visible in practice, such as politeness conventions or etiquette, but it is only when they become reified in a material-graphical form that the archaeologist/archaeological-philologist can begin to discover the 'system'. In other words, "ideological complexes and logonomic systems are related in function and content, with logonomic systems expressing ideological content by controlling one category of behaviour (semiosis), while the ideological complex as a whole projects a set of contradictions which both legitimate and ameliorate the premises of domination" (Hodge and Kress 1988, 5).

Social semiotics provides a set of strategies for the study of meanings in the context of social action and power relations. These ideas can be deployed in a variety of settings, but in this case are directed to Research Question 3 concerning the significance of graphical imagery on the labels (§1.8.3). 'Text'—as *textus*—can no longer be separated from the social production of meaning, whether more prosaic, purely symbolic or a combination; meanings at all levels of interpretation (iconic, [presencing], epigraphic, linguistic, etc.) must be seen as created through social discourse and negotiation between different individuals and groups.

2.6 Summing Up

Objects mediate; they carry messages that were intended as messages. Material objects extend human action and mediate meanings between humans or other culturally perceived entities (e.g. deities, ancestors, the dead), carrying messages across time-space, between people who are not co-present (Dant 1999, 13). Different types of messages may be conveyed. The material properties of an object—its substance and shape, types of surfaces and the media or environmental conditions under which it is perceived—mediates certain kinds of meanings. As Dant (1999, 154, 173) writes, material *form* is fundamental to the mediatory character of objects because it directly affects the way that we interact with them. The form of the mediating object, the functional possibilities and constraints it incorporates, the way it ‘commands’ attention, are what determines how it fits into material culture and ‘competes’ with the messages from other objects and other humans, whether as individuals, collectives, or institutions. For example, labels are small and portable, elaborated with images legible with the naked eye only at close proximity; perforated in one corner, they appear to have mediated certain meanings in a very direct way and others in a more abstracted symbolic way. Therefore, we need to consider not simply how objects mediate different kinds of meaning, but also the different kinds of mediative potentials; the ‘how’ of mediation would have changed according to time-space contexts.

Identifying the interconnectedness between people and things has not always been considered germane to archaeological endeavours. In his excavation report on the niched-panel façade at Naqada, Morgan (1897, 164) explicitly states that he will *not* detail the location of the finds within each chamber, but will focus instead on their “nature and use”; from this perspective, objects and their functions are self-evident, being related to a particular area of culture, not cultural *life*. Further, the locating or contextualising of social action should not so much be in ‘culture’ (which is an abstraction) as in the dynamics of social interaction, which may indeed be conditioned by ‘culture’ but is better seen as a real process or dialectic, unfolding in time (Gell 1998, 11). It was this assertion concerning the dynamic character of objects that formed a central tenet of the archaeological critique of culture-historical approaches, but was still incompletely addressed by processual archaeology. Post-processual archaeologies continue to draw attention to the mutually constitutive nature of the relationship of people and things, and it is in this frame that I aim to understand the inscribed labels. Any one of these small plaques of bone, ivory, wood or stone formed a material node through which sponsors, commissioners, composers, makers, inscribers, attachers, givers, bringers, donors, mourners, tomb owners and so on communicated and negotiated social meanings and values. These may have entailed prestige, status, power and wealth, or gender, age, occupation, affiliation and other aspects of identity— if not also embodying emotions, a sense of loss, or perhaps hope. It is not possible to reconstruct every practice by which labels were used in negotiating social relationships, but by thinking about material culture in this way we can better grasp the varied ways in which graphical objects were important in past lives and relationships.

In the foregoing, I have outlined the theoretical framework for the research. I draw on a range of approaches to burial archaeology, material culture, visual studies and

theories of practice. It is my intention that these support a contextual approach to the dataset, with attention given to the material embeddedness of graphical imagery, but also seeing the inscribed labels as both products and processes of social practice and meaning-making. Each area discussed above is characterised by its own theoretical insights and analytical assumptions, and thus its own empirical focus. However, these areas for investigation and ways of thinking about them also overlap, so that the analysis presented here is guided in a methodical and integrated manner. The following chapter discusses the methods by which the analysis proceeds.

3. Methods and Methodology

3.1 Introduction

This chapter presents the methods and methodology for the research on the early Egyptian labels and associated practices. In exploring the thematic areas relating to archaeological context, materials and graphical content (§1.8.1–§1.8.3), the methodological toolkit has been tailored to analysis of each area. Separation of methodological components from the theoretical framework is necessary for conceptual clarity and organisation of the ideas presented, but is nonetheless artificial. Method and theory are intimately related epistemologically and practically. Following Marcia-Anne Dobres and John Robb's (2005, 160–164) distinction, 'method' refers here to less subjective tasks such as the "techniques of materials analysis that serve as the infrastructure of archaeological practice...". Methodology, by contrast, is the justification of this carefully selected analytical toolkit, tailored to the data and particular research questions, and relates to tasks that are fundamentally a matter of interpretation. Given that all acts are interpretive on some level, this distinction is therefore one of scale, from methods to methodology, and beyond to theory, all of which are practical and discursive intellectual activities that should be seen as recursively related.

3.2 Collecting the Data

In this section I detail the methods for data collection, collation and organisation. Most labels are housed in museum collections or field stores (see Preface), and are documented in a variety of primary and secondary published sources (see Label Database). A range of approaches have been taken to the organisation and presentation of labels and related data; it is important to maintain awareness of how this influences the scope and types of information gathered.

3.2.1 Published Sources

Label data gleaned from publications include drawings, black-and-white and colour photographs, tomb plans and details of associated finds, and written descriptions. Collection was guided by the three thematic areas outlined in §1.8.1–§1.8.3. Once assembled, published images required two phases of work. First, to facilitate viewing, organisation and analysis, it was necessary to create digital image files for each object (photographs scanned at 300ppi, line drawings at 600ppi). Overall some 900 published images were digitised. Comparison of the more recent image data with primary publications highlighted some inaccuracies and ambiguities, reinforcing the need for first-hand study (see below, §3.2.2).¹ The second phase of image work

1 Due to time constraints, artefact drawings were not undertaken, but this work has been undertaken by Ilona Regulski, and now by Matthieu Begon.

required a means of organisation for study, annotation and analysis. This initially proved to be a major challenge. Observations concerning physical graphical-material space and intra-artefact associations had to be translated into textual descriptions or numerical codes for entry into Microsoft Access. Data management problems and analytical needs were resolved when Rachael Townend (then PhD student at the UCL Institute of Archaeology) introduced me to ATLAS.ti, a software program (see §3.3.2) that has proved to be pivotal in facilitating the grounded yet reflexive approach I was seeking.

In addition to collection and collation of published image data, I surveyed written descriptions for information relating to the thematic areas of archaeological context, materials, and graphical content. In order to gain a comparative perspective on the labels as per Research Question 4 (§1.8.4) and to assess patterns of difference and similarity in parallel, data were collected for two other inscribed object types, jar inscriptions and tomb stelae (Chapter 8–9), again according to the three thematic areas.

3.2.2 First-hand Observation

First-hand observation and object handling were essential to this investigation. Engagement with written-objects from multiple perspectives proved vital for thinking about how their properties, such as dimensions, colour, weight, technique and texture, might have been perceived in the past in relation to each other, and influenced making, use and meaning. These features, or ‘material structural conditions’ (see Barrett 2001, 158–161), constrained and facilitated practices in particular ways. For example, image visibility might be constrained by label shape and the position of imagery—e.g. only one face can be viewed at a time, yet through tactile engagement all surfaces could be examined. These ideas provoked by object handling were also explored through experimental archaeology (§5.11). Museum/first-hand research has therefore been important on several levels, not least to the collection of empirical data in order to verify and augment data that have been provided in published form, but also for approaching more grounded interpretations.

As far as I have been able to determine, labels are housed in at least 14 collections in England, Europe and the US, as well as the Egyptian museum in Cairo and site storage magazines (see Preface). The labels in each collection have been examined first-hand, apart from two and a half in the Musée du Louvre, two fragments in the Museum of Bolton (previously unpublished), several labels that were inaccessible/unavailable during my research at the Egyptian Museum in Cairo in 2004,² and more than 80 presumably in site storage magazines at Abydos. The location of two labels³ documented as being in the Kofler-Truniger collection in Luzern (Müller 1964, 50–51, figs. A79 and

² See Preface, footnote 5.

³ ID275/1081_Un, ID302/2019_Un.

A80) are now unknown (Christoph Lichtin, then conservator of the Kunstmuseum in Luzern, pers. comm. 20.06.2005).

The thoroughness of label publication is remarkable in that I encountered only five fragments⁴ and one whole example⁵ that, to my knowledge, have not been published previously. Eight poorly preserved fragments⁶ were among NIIIA1 labels studied at Abydos that are mentioned briefly but not illustrated in Dreyer's publication (Dreyer 1998, 134). Begon (2014) has since brought to light another label held at the Louvre.⁷ Occasionally, archive material provided information on archaeological context, conservation treatments and acquisition not available in publications.

First-hand study entailed recording key details and observations on each object in a purpose-designed form to ensure consistent and methodical study, without precluding unanticipated findings. Photographic documentation was accomplished initially using slide and film cameras and subsequently a basic digital camera (with equally basic photographic skill). Selected labels have now been documented using the advanced photographic technique of Reflectance Transformation Imaging (RTI; Malzbender et al. 2001; Earl et al. 2011; Piquette 2010a; Piquette 2011; Piquette 2016). In the absence of published colour information, one aim was to assess significance of colour (Research Questions 2–3, §1.8.2–§1.8.3). All surfaces were carefully examined, not just the decorated face(s). Depending on local constraints on time and access to objects, I made rough sketches of primary and secondary sides, and noted other potentially significant markings and features. I compared observations and documentation with published images, and, where inconsistent with each other, this was noted. In addition to published images, my own colour photographs have been used to assemble the Label Database which contains entries for all documented labels, apart from more than 40 whole and fragmentary NIIIC–early D labels from Abydos reserved for publication by Dreyer (see Chapter 1, footnote 13).

My primary period of data collection, between 2001 and 2005, did not involve production of new drawings as this was part of palaeographical research being undertaken by Ilona Regulski at the time (see also Regulski 2010a), and all Abydos label drawings were under preparation by Günter Dreyer. Labels are also now being expertly drawn by Matthieu Begon as part of his doctoral research.⁸ While the Label Database does not presently include photographs or facsimile records of all labels to an ideal standard (cf. Martin 2011, 2), it is hoped that through collaborative efforts it soon will.

First-hand study also permitted assessment of present condition. This can be important for evaluating previous research and interpretation that, in some cases, varied depending on the condition of the object over time, as well as whether the investigator had access to drawings, photographs or the original object (Piquette 2010a, 56). In some cases, the condition of a label has been improved with cleaning and conservation, while

4 ID176/--_A (probably refits with ID175/4402_A), ID351/--_A, ID352/--_A, ID365/*_Ab.

5 ID365/*_Ab.

6 ID178/--_A, ID179/--_A, ID180/--_A, ID181/--_A, ID182/--_A, ID183/--_A, ID184/--_A, ID185/--_A.

7 ID285/4820_Ab.

8 See also Chapter 1, footnote 54.

others⁹ have suffered damage post-excavation. The issue of changes in artefact condition and the variable accuracy of data sources are worth further consideration and form the topic of the next section.

3.2.3 Problematising the Data

Numerous factors intervene between the actions that led to label deposition in the past up to the point of encounter by the modern investigator. In addition to post-depositional processes and variable excavation and recording techniques (§1.4, §4.2), methods of publication, and, equally, object curation and display, shape the way in which objects may be studied, interpreted and published (compare Petrie 1900, 22, with Sa'ad 1969, 68, 177).

Due to constraints of field conditions and publication costs (e.g. Petrie 1900, 1), as well as technical skill, photographs of finds are variable in quality and mainly in black and white, although exceptions were made depending on the status accorded to some find types (see the colour-tinted plate of jewellery found in the tomb of Djer; Petrie 1901a, pl. 1). In two cases label drawings are colour-tinted: ID239/0847_S (Emery and Sa'ad 1938, 35, fig. 8, pl. 17A; although some details are omitted¹⁰), and ID345/1677_A (Petrie 1900, pl. 17.26). The predominance of black-and-white images and the frequently uncommented presence of preserved colour has precluded systematic comparative study of colour for many early Egyptian object types.

Consideration of how environmental conditions (Gibson's "medium" [1979, 16]; §2.4) inform perceptual engagement with the labels is important for understanding past practice as well as for understanding our own documentation methods and interpretive processes (Piquette 2010a). In photography, depending on how an object is lit, details can be alternately obscured or revealed, as was the case for ID303/1390_A where the use of infrared and UV illumination fleshed out faint traces of pigment (Godron 1990, 27–28, pls. 1–3) or ID345/1677_A, among others,¹¹ with the use of Reflectance Transformation Imaging (RTI). Similarly, drawings of the same object may differ in accuracy or level of detail depending on whether the artist had access to the original object or to a colour or black-and-white photograph, and depending on the quality of any such photograph (Emery and Sa'ad 1939, 5).

In publication, most inscribed label surfaces are photographed, drawn, or both, although some double-sided examples may have only one face illustrated. A small number are unillustrated and documented by brief mention only¹² (Leclant 1961, 104). It is notable that uninscribed label surfaces are virtually never illustrated, perhaps indicative of the degree to which investigators have seen label 'substrates' as incidental to the imagery (see Piquette 2008; Piquette and Whitehouse 2013). However, first-hand study shows that undecorated faces frequently bear markings that are informative for

⁹ E.g. ID234/0607_A, ID197/0242a–b_N, ID280/1194_A, ID286/1243_A.

¹⁰ See artefact record in Label Database.

¹¹ Search "RTI" in Label Database.

¹² E.g. ID346/1823_Tu.

understanding materials sourcing and manufacture (see §3.5 and Chapter 5). Thus, in the course of assembling the label data and as part of a reflexive approach, I have endeavoured to maintain awareness of the ‘filters’ through which the data pass and take account of inherent preconceptions.

3.3 The Databases

The labels are among the most graphically complex objects from the period of state formation, bearing an array of imagery that provides a rich source for artistic practices and the ways in which certain early Egyptians conceptualised and depicted aspects of their world in quasi-planar form. With over 4500 individual images attested on some 427 labels from approximately 35 tomb complexes and graves at seven sites, and dated to two main chronological phases (NIIIA1 and NIIC–early D), the labels present a rich yet challenging dataset from a data management perspective. In this section, I discuss the databases selected for the project and how they help to realise the research objectives.

Within the three thematic areas of archaeological context, material features, and graphical imagery, I identified potentially meaningful units for analysis. The process of establishing data categories began prior to deciding which database software to use, but continued as part of database construction and data entry in an ongoing process of refining and focussing the data variables and approach—a process which I take to exemplify the duality of agency (researcher) and structure (database design) and which is also captured in the concept of the hermeneutic circle and notion of the mutually constitutive nature of subjects and objects (Hodder 1991b, 31). The goal has been a heuristic framework for labels analysis to characterise relationships between parts, and, in turn, to understand how the parts are constructed into wholes and the ways in which these different wholes were meaningfully related through past practice across time-space.

In order to collate, manage and compare these categories for analysis, three different software programs were utilised: Microsoft Access, ATLAS.ti, and Microsoft Excel.

3.3.1 Microsoft Access

Microsoft Access 2003 was employed as a central location for collecting and collating archaeological and other label information, data that are now available in the Label Database. Unevenness in the completeness of data for each label (§3.2.3, §4.2) makes statistical analysis inappropriate, thus the main role of the database lay in facilitating collation and general comparisons of associated finds.

3.3.2 ATLAS.ti

ATLAS.ti (Archiv für Technik, Lebenswelt und Alltagssprache, build 5.2.9) forms the primary analytical tool for studying the relationships between graphical, material and archaeological label data, with emphasis on the imagery. The use of this program is

fundamental to fulfilling the research aim of a unified study of image and artefact as it allows the analyst to work directly ‘on top’ of data images. The statistical packages and database tools that archaeologists typically use, Microsoft Access and Excel and SPSS, are unsuitable for this kind of work and the generation of the kinds of qualitative data required by a practice-centred theoretical approach. While some comparative statistical results are produced with ATLAS.ti, the main aim is to achieve contextual qualitative interpretations (see also Townend 2005, 107).

Developed by Thomas Muhr (1991) of Scientific Software Development GmbH, ATLAS.ti is capable of the qualitative analysis of digitised text, multimedia and geospatial sources. While ATLAS.ti is mainly used by researchers in the social sciences, this study constitutes one of a small number of archaeological research projects to employ this versatile tool (see also Labadi 2007; Sandlin and Bey 2006; Townend 2005). Drawing on hermeneutics, the ‘science of interpretation’, the software is designed to facilitate the recursive relationship between research questions, data, theories, analysis and results necessary for reflexive study. The way in which ideas and theories are formulated and adapted is traceable, allowing for transparency as well as replicability (cf. Hodder 1999, 32–33).

ATLAS.ti can handle thousands of files—in this case the digitised drawings and photographs for each of the 427 labels, which can be accessed instantly and worked on simultaneously. Once the image files are imported into the ATLAS.ti Hermeneutic Unit, tools (below) allow the user to locate, index/code and annotate the files, making it possible to compare and explore data, weight and evaluate their importance, and to visualise often-complex relations between them efficiently and systematically (Lewins and Silver 2007). The ability to break images down into ‘atomic’ elements allows one to compare and contrast multiple variables in order to discover patterning which might otherwise be too subtle to be visible on casual inspection. The ATLAS.ti interface facilitates viewing, coding, annotation, and analysis, and the writing up of results takes place in one location with the label images at the centre—a feature vital to grounding analysis in the data. This central location is termed the ‘Hermeneutic Unit’ (HU): this is the primary working area to which each label’s graphic file, or ‘Primary Document’ (PD), is assigned. In addition to this, data-handling structures built into the HU include ‘Quotations’, ‘Codes’, ‘Families’, and ‘Comments’, ‘Memos’ and ‘Networks’ (Figure 8):

Quotations: Each PD can be broken down into units called ‘Quotations’. Any area of the label image can be selected and designated as a Quotation, including the label itself, or features on its surface: e.g. hieroglyphic signs and depictions (as mentioned, termed for the purposes of this study ‘Graphical Object’ or ‘GO’); perforation; GO modifications, such as erasure; non-GO-related tool marks; surface accretions; etc.

Codes: Each Quotation can be assigned any number of ‘Codes’. An anthropomorphic figure or anthropomorph and/or parts thereof may be quoted and assigned descriptive Codes (e.g. ‘anthropomorph’, ‘headgear’, ‘short kilt’, etc.), or conceptual Codes (e.g. ‘Personal Identifier’ or ‘PI’, ‘ruler’, ‘gender marker’, ‘numerical sign’, etc.). Once all GOs and other features are encoded, and as relationships and patterning begin to emerge, Quotations and Codes can again be employed to weave together observed relationships, for example where multiple GOs form a ‘Composite Graphical Object’ (CGO) or groups of GOs co-occur permitting ‘Clusters’ to be identified (see §6.2).

The screenshot shows the ATLAS.ti HU interface. On the left, four images of ancient Egyptian artifacts are displayed. On the right, the 'Code Manager' window is open, showing a list of codes and their statistics. The table below is a representation of the data shown in the Code Manager window:

Name	Grounded	Density	Author	Created	Modified
date, Qa'a?	20	0	Super	27/03/06 12:...	16/06/07 ...
date, Semerkhet	4	0	Super	05/01/06 12:...	16/06/06 ...
date, Semerkhet-Qa'a	4	0	Super	02/06/07 16:...	13/07/07 ...
date, Semerkhet?	8	0	Super	16/02/06 20:...	09/09/06 ...
direction, left facing	307	0	Super	21/07/04 21:...	17/04/17 ...
direction, none	1746	0	Super	21/07/04 21:...	19/04/17 ...
direction, right facing~	1619	0	Super	21/07/04 21:...	19/04/17 ...
direction, right&left facing	4	0	Super	18/11/05 14:...	03/03/07 ...
direction, unclear	767	0	Super	21/07/04 21:...	19/04/17 ...
distro, col, # from left unclear	51	0	Super	18/01/06 22:...	12/06/06 ...
distro, col, # from right unclear	15	0	Super	25/11/05 12:...	12/06/06 ...

Below the table, a note states: "Code indicates that the quoted GO faces to the right (direction is only discernible for iconic asymmetrical GOs)." The bottom of the window shows "1614 Codes" and a search bar.

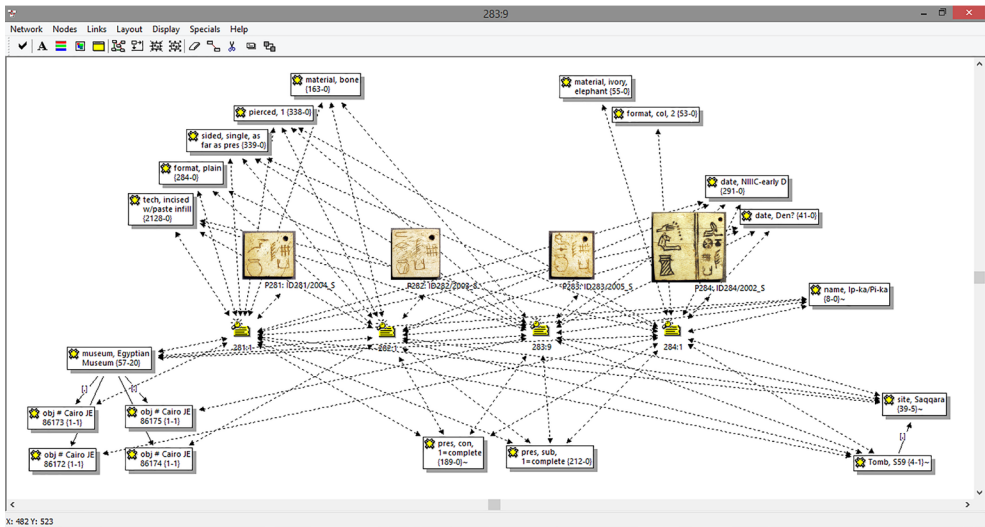


Figure 8: Screenshots of ATLAS.ti HU with Primary Document ID283/2005_S. Top: Outlined areas are 'Quotations' encoded for a range of variables, e.g. GO direction. Box on right shows Quote 7, 'lion forepart', encoded as 'right-facing'. Bottom: Network view of (left to right): ID281/2004_S, ID282/2003_S, ID283/2005_S and ID284/2002_S, with lines representing relational links (image: Kathryn E. Piquette, CC BY 4.0).

Quotations and Codes permit relationships between any number of variables to be studied together with direct reference onscreen to the artefact.

Families: PDs, Codes and Memos can be sorted into 'Families' for easier handling. ATLAS.ti allows great flexibility in that, just as Quotations can be encoded multiple times, PDs, Quotations and Codes can be sorted into multiple Families. For example, Codes for the various depictions of animal types have been sorted into the 'Zoo-morph' Family. These GO types can then be viewed for further internal comparison

and analysis or contrasted with other Families or Codes. For example, using the query tool, one could ask whether a 'Zoomorph' and 'Anthropomorph' co-occur and, if they do, query the nature of their spatial association within the composition (e.g. contiguity, overlapped/overlapping, holding/held or spatial separation).

Comments and Memos: Comments and Memos are tools that provide a word-processing facility within the Hermeneutic Unit. Observations and ideas relating to PDs, Quotations, Codes and Families can be recorded in the 'Comment' area linked to each, while Memos can be free or linked.

Networks: Relational links can be established to form Networks between handling structures. Networks allow a stronger structure than just treating sets of elements as similar (e.g. belonging to the same Family), and enable expression of meaningful 'semantic' relationships between them. Relationships such as 'resembles', 'contradicts', 'archaeologically associated with', 'dating based on', 'pre-dates', 'contemporary with', 'post-dates', or 'mends with' can be established via directional or non-directional links. Relationships can be proposed, adjusted and visualised via the Network handling structure. This aids observation of other potentially significant relationships or patterning.

Exploration of label imagery, materials and general archaeological context using these tools in ATLAS.ti allows one to 'objectify' the thing being studied; a 'sign' can be studied like any other object: its different components can be analysed and dissected, as can the various configurations of which the 'sign' is part (see Molino 1992, 17). Importantly, the software does not remove analytical or interpretive control from the user; quoting, encoding and commenting are accomplished by the user alone, as recognising a piece of data as worth selecting. To help ensure that analysis proceeds methodically and reflexively, all steps in the analytical process are reversible. Every action within ATLAS.ti is "stamped" with the time, date, and name of the author. As the term 'hermeneutic' implies, one can tack backward and forward, adjusting and fine-tuning data structures and relationships. The knowledge-building process is transparent and replicable—one can look back and review the steps taken to arrive at a particular analytical result or interpretation. Output of results may be accomplished through Network views (Figure 8), while lists and reports can be produced for any of the handling structures.

However, to clearly chart relationships between variables in time-space, selected combinations of frequency counts for archaeological, material and graphical Codes and Families of Codes generated in ATLAS.ti were imported into Microsoft Excel for multivariate quantitative analysis. These were charted for absence, presence and co-occurrence, and then plotted according to spatial and temporal variables to gauge continuity and change in label practices. Tables and bar and pie charts were produced to illustrate the resultant patterning for interpretation in relation to the three main themes of inquiry, to which I now turn.

3.4 Analysing Archaeological Context

In order to address Research Question 1, concerning the significance of archaeological context (§1.8.1), spatial and depositional contextual data were compared and contrasted (Chapter 4). Archaeological Codes in ATLAS.ti range from the general to the specific

spatial situation of label contexts: site; cemetery; (multi-chambered) tomb; grave/chamber; secondary context; or unclear. The details of associations and archaeological descriptions were stored and compared on a general level in Microsoft Access. Ideally, analysis would be undertaken for all labels equally for the various levels of context just listed. The rarity of secure contexts, the variable excavation and recording methods, and the highly uneven spatial distribution (Table 1) present challenges for ascertaining whether patterning represents substantive evidence for local and regional practices or may be indicative of other phenomena. As demonstrated by Kahl et al. (2001) for the niched façade tomb at Naqada (§4.3), it is possible in some cases to plot distribution of finds by chamber. In most instances, however, beyond reporting site and cemetery at a given site, documentation is variable and precludes the same level of analytical rigour to be applied across the dataset. It was therefore necessary to attempt to sort the data according to degrees of archaeological resolution and integrity. Each label was thus assigned a numerical Code of 1–4 depending on its find situation:

- 1) *In situ* (e.g. inside a container);
- 2) In a specific grave/chamber;¹³
- 3) In a multi-chambered tomb or complex, but chamber unspecified;
- 4) Surface find, other secondary context or not reported.

Sorting permitted analytical priority to be given to labels deriving from potentially more meaningful contexts; only labels assigned Codes 1 or 2 were subjected to detailed study of associated finds. Given that no label has been found directly attached to another object, one aim was to determine whether labels were found near items they depicted, e.g. vessel(s), sandals (S33), a staff (s30), an arrow (T11), a granary(?) (y3), or bag (cf. Regulski 2010a, 188, 634, s25). Whether labels seem to be associated with the storage of equipment in tomb magazines (e.g. Emery 1954, 16) or in the burial chamber itself (e.g. Morgan 1897, 161), or were found in other apparently primary contexts such as the tomb entrance (Petrie 1900, 23), explanations are sought in terms of the theoretical framework (Chapter 2). Label practices are therefore considered for both the short and the longer term—as part of activities that may have preceded or coincided with burial, or were subsequent to burial, such as maintenance of the cult of the deceased (Tomb of Qa'a(?); Engel 1997, 721; Petrie 1900, 6).

3.5 Analysing Material and Form

Research Question 2 (§1.8.2) directs analysis to the materiality of the labels, the central theme of Chapter 5. This work begins with the identification of materials and of their properties (in the sense of the word ‘property’ used by Gibson 1979), and label physicality being considered at the ‘micro-’ and ‘macro-level’ (cf. Tilley 1989, 188; §2.4). My

13 With the awareness that objects found in specific locations inside tombs could be the result of secondary deposition.

concern is to discern the intentions that lay behind the material choices of past individuals and groups in making and using labels, from selecting particular materials to the technological methods for transforming and elaborating label surfaces, and, in turn, how these impacted upon subsequent use and perception. Materials can also shed light on past knowledge of the environment (Krzyszowska and Morkot 2000, 323, 326) and access to local and foreign resources (Gale et al. 2003, 334–371), as well as the technologies available for materials transformation (Aston et al. 2003, 63–66). Given my theoretical concern to re-materialise the study of early Egyptian ‘art’ and ‘writing’, material factors are considered here not only for the substrate/plaque, but also for the constrate/decoration, whether added to (e.g. applied colour) or subtracted from (e.g. incision) the material surface. In thinking through the labels in terms of choices afforded by material types as well as social structural conditions, I develop a socially situated *chaîne opératoire* as a primary methodological tool for explanation and springboard for interpretation (§5.11).

General identification of label materials—bone, ivory, wood and stone—was achieved through visual observation aided by a 10× hand-held magnifying glass, UV and infrared lighting in a small number of instances and Reflectance Transformation Imaging. Drawing on training I received from the late Barbara Adams for bone and for elephant and hippopotamus ivory identification, and on published guidelines (Baer et al. 1971; Krzyszowska 1990), I have been able to check published determinations and in most cases distinguish between bone and ivory, and between hippopotamus and elephant ivory to some extent as well.¹⁴ Sometimes difficulties were presented by ancient surface treatments (e.g. polishing, tool marks), preservation and conservation techniques.¹⁵ Where diagnostic features were obscured and distinguishing bone from ivory or the type of ivory was not possible, these are classified respectively as “bone/ivory” or “ivory” (below). While it is quite evident whether a label is made of wood, species identification with the naked eye is difficult. Published determinations that do not specify the use of analytical equipment must remain speculative. Several features observed among the bone and ivory examples (e.g. Figure 9) may provide specific clues to the tooth or bone materials utilised,¹⁶ and here scientific analysis would be valuable. To accommodate different levels of precision in materials identification, eight categories can be used:

- Bone;
- Bone/ivory (where distinction unclear);
- Ivory (where type unclear);
- Ivory, elephant;
- Ivory, hippopotamus;

14 I should note that although ID212/0943_A is recorded in the Label Database as being made of ivory, an editorial oversight in Piquette (2013a, fig. 4) led to it being published as made of wood. My thanks to Günter Dreyer for bringing this to my attention.

15 The Manchester Museum Accessions Register reads: “Warmed over stove and then impregnated with paraffin wax and benzine, August 1922. They were in quite good condition before—this was merely precautionary”.

16 E.g. ID237/0630_A.

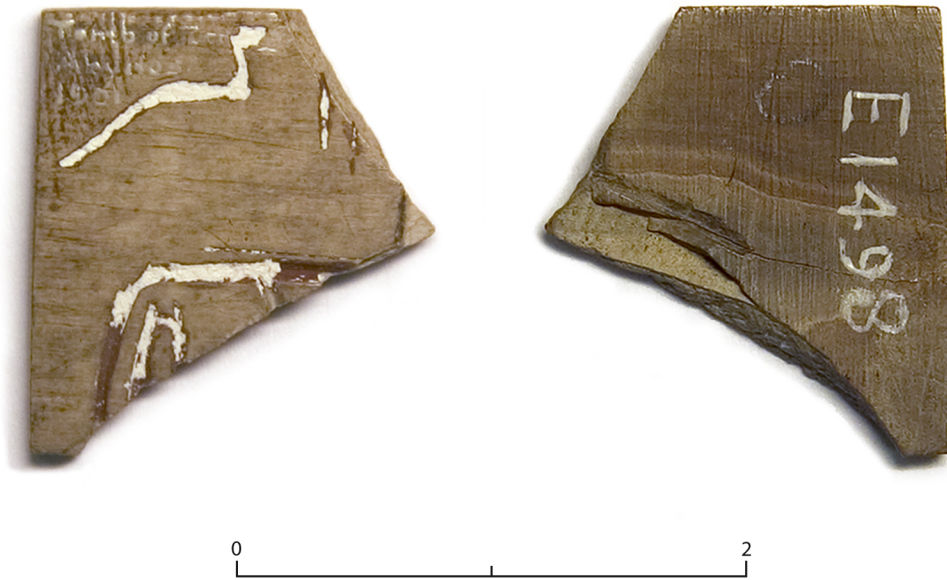


Figure 9: Ivory label fragment ID237/0630_A with secondary side showing markings that may be diagnostic of a specific part of the tusk/tooth, 'Royal' Tombs Cemetery, Abydos, NIIC1-C2 (c.3085-c.2867 BCE), Ashmolean Museum, E.1498 (photo: Kathryn E. Piquette, © Ashmolean Museum).

- Stone;
- Wood;
- Unclear (unseen and/or not published).


Materials data are subdivided into several variables or Codes and encoded in ATLAS.ti for both substrate and constrate. The 'Substrate' Family of Codes are encoded at the level of label Quotation: material type, condition, graphical technique, placement of the perforation, and sidedness (i.e. whether a label is elaborated on one or both sides). Artefact measurements are also included among substrate variables, but these numerical data are best handled in Microsoft Excel for evaluation of relative scale across time-space and in relation to other variables. The 'Constrate' Family of Codes, encoded at the level of the graphical object (GO) Quotation, includes: material (i.e. applied ink/paint or paste); technique and colour (bearing in mind the effects of time on colour); and condition.

Relationships between substrate and constrate variables are first explored across the dataset as a whole. To capture continuity and change across time-space, emergent patterning is plotted according to the phase (NIIIA1 and NIIC-early D) and reign, and according to the various levels of the spatial resolution. As with archaeological context, the implications of continuity and change in label materials and morphology are considered with reference to practice. In particular, the role of the labels as vehicles for graphical media is considered in relation to the ways in which these material features may have influenced handling, portability, viewing and reception, including

mediation of functions and meanings in relation to beliefs about the afterlife (Wengrow and Baines 2004, 1104).

3.6 Analysing Graphical Content

Label graphical content, the focal area of Research Question 3 (§1.8.3), forms the most complex area of analysis, requiring treatment in two phases. The first phase involves taking stock of the image repertoire, namely the identification of the primary unit of analysis—the individual or ‘simple’ graphical object (SGO). The second phase deals with the characterisation of each SGO in terms of its compositional features—how it is associated with other SGOs, which together construct both simple and highly complex compositions *vis-à-vis* the material structural conditions of the plaque.

In establishing the repertoire and in order to focus on what can be learned from the labels themselves, I deliberately set aside sign list designations (see §1.3) during this phase of exploration. My aim was to assess to what degree identifications are ‘self-evident’ to the eye of the investigator situated in the present, as well as to assess how far a single GO in relation to contemporary material culture could inform identification. This is discussed further in Chapter 6, where challenges presented by poor preservation and the schematic quality of images are also addressed. Determining how to atomise the data for analysis in ATLAS.ti and establishing the coding terminology were tasks that proceeded hand-in-hand. The subjective nature of even basic research tasks (§2.1) was apparent during this exercise, but, in most cases, GO identification was relatively straightforward. For example, in Figure 8, a selected area is encoded descriptively according to what it appears to depict, in this case ‘lion forepart’ or /F4.

Once the range of GO types was established (§6.2)—again, without recourse to later evidence—it was then possible to begin querying the data in order to trace different themes and trends. This was accomplished by grouping GO Codes together to form Families of Codes, the final state of a protracted process of identification, classification, categorisation and organisation. Over the course of GO quoting and encoding, categories divided, shifted, and were recombined in new ways. Indeed, categories must remain flexible since the interplay between data and questions brought to them continually suggests new features or patterns, opening up areas for further investigation (Hodder 1999, 32–33). The question of the distinctive nature of the label image repertoire in relation to the other thematic areas (§1.8.1–§1.8.4) is explored comparatively via two case studies in Chapters 8–9.

Once the repertoire is established (Chapter 6), the second phase of graphical analysis (Chapter 7) consists of assessing:

- 1) GO features;
- 2) GO associations;
- 3) The composition format.

The GO feature variables are organised into the following Families of Codes: mode, orientation, direction, view and location. Location is assessed according to a grid or

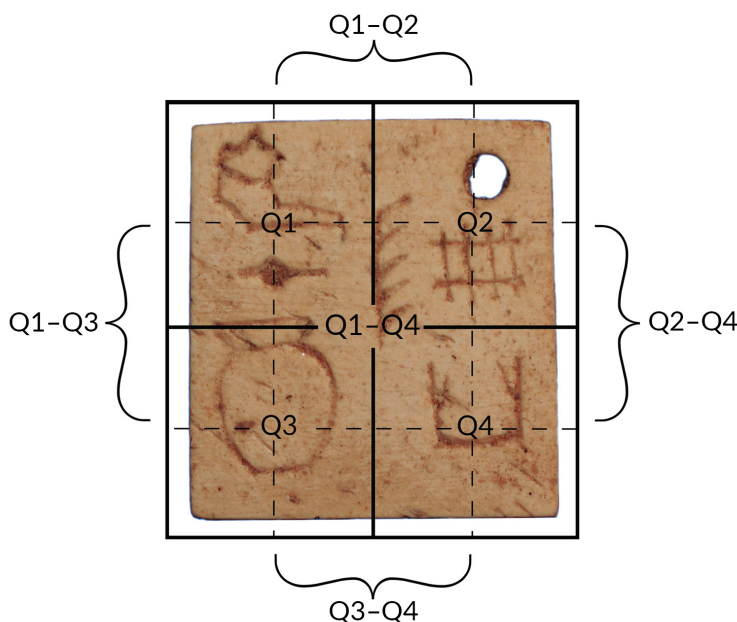


Figure 10: Diagram (using ID283/2005_S) illustrating the four main quadrant divisions and five areas of overlap for analysis of GO distribution (image: Kathryn E. Piquette, CC BY 4.0).

quadrant framework superimposed on the decorated surfaces with GO frequencies counted for each region, i.e. Quadrant 1 (Q1), Quadrant 2 (Q2), Quadrant 3 (Q3), Quadrant 4 (Q4) (Figure 10). Since imagery does not always fall neatly within a quadrant, the location of a GO that straddles, for example, the upper left (Q1) and lower left (Q3) quadrants is encoded “Q1-Q3” in ATLAS.ti. The value of the quadrant framework lies in its utility as a heuristic tool for measuring generally image distribution and density in a consistent way, thus providing an aid to identifying patterning deployed by the label-makers.

Going back to Figure 8, GO $\text{☉}/\text{F4}$ is therefore encoded for mode (‘floating’), orientation (‘upright’), direction (‘right-facing’), view (‘lateral, asymmetrical’) and location (Q1). The tallies for any Code are automatically updated, e.g. for ‘direction’ the Code list shows that more than 1600 Quotes (i.e. GOs) are ‘right-facing’. By clicking on any Code, each of the Quotes bearing this Code can be viewed immediately for comparison.

Once the features of individual GOs are established, it remains to study relationships and associations between GOs, and then consider how these are situated within the wider label composition. Certain relationships are identified which create, e.g. Composite Graphical Objects (CGOs) or Clusters (e.g. Figure 8, $\text{☉}/\text{D28}+\text{☽}/\text{M17}+\text{☐}/\text{Q3}$; see also §6.2). The overall composition may be organised according to various formats via Structuring Elements (SEs; §6.5.1).

With the repertoire established and the three levels of graphical variables encoded, these graphical variables were then examined in relation to each other, and to the

material and archaeological context variables. Explanations for continuity and change in the use and organisation of imagery are sought in relation to technological embodied practice. Again, my aim is to understand how labels, as processes of action (Morphy 2009, 20–21), are reproduced and transformed through action via different combinations of material and graphical ‘resources’ at different locations and times.

3.7 Summing Up

Label inscriptions are traditionally sourced in selective ways for the insights they provide into wider (primarily elite) cultural processes such as script formation, the development of Egyptian rulership and the emergence of centralised administration. I have argued that accessing these wider social issues must be preceded by the contextual and grounded study of the data upon which such abstracted levels of interpretation are based. Guided by the research questions relating to the thematic areas of archaeological context, material properties and graphical media, I have outlined the methods for data collection and collation using Microsoft Access, Excel and ATLAS.ti. Together these form the methodological toolkit for ensuring rigour and consistency in data manipulation and permitting a reflexive approach to analysis and interpretation, while also creating opportunities for integration, synthesis and contextualisation. Various chronological issues were problematised and confronted, primarily by focussing on material culture as social practice situated in time-space. The case study of the inscribed labels is therefore designed to work through the various thematic areas in a focussed and methodical way in order to understand the relationships between these areas, and, in turn, the inscribed labels as whole objects in relation to other early Egyptian graphical practices (Chapter 8–9). Following the sequence established by the research questions, I now move to the first analytical area, dealing with archaeological context.

4. The Archaeological Context of Labels

4.1 Introduction

It has long been recognised in archaeology that meaning is not inherent in an object, but derives partly from its relationship with other objects (Moreland 2001, 82). Given the object-centred approach this study takes to the labels, any reconstruction of meanings and functions must incorporate an understanding of the archaeological context (§2.2), regardless of how graphical marks on the labels' surfaces are classified. This chapter offers a systematic study of all label finds in order to address Research Question 1 (§1.8.1). Despite challenges presented by post-depositional disturbances and other factors, as detailed below, important information can still be gleaned from site reports, archives, and unreported clues on the artefacts themselves.

4.2 Problematizing Archaeological Integrity and Documentation

The archaeological integrity of many label find contexts has suffered in antiquity and more recently from plundering, tomb reuse, multiple building phases, restorations and the variable quality of excavation and recording techniques. Recovery of fragments of the same label from different locations attests to the extent of dispersal (e.g. Dreyer 1998, 118, no. 50 and 124, no. 93¹; Petrie 1901a, 21, 51²). While such conditions present challenges for reconstructing past use, in several cases the outlook is somewhat positive. At Abydos, where burial material could previously be assigned only tentatively, recent re-excavation of a tomb cleared originally by Amélineau and then Petrie has allowed material to be assigned somewhat more confidently to a particular context (Dreyer et al. 1998, 138). Morgan and Emery for their part comment positively on the integrity of finds at Naqada and Saqqara (Morgan 1897, 150; Emery 1954, 20). As set out in §3.4, the archaeological contexts in which labels and label fragments are found can be organised into four main types that, it is hoped can be relied upon to some extent to correspond to levels of integrity. Using context types 1 (found *in situ*) and 2 (found in a specific grave or other chamber), find spots are examined for a total of about 250 eligible labels (Table 3) from five of the seven label-yielding sites.

The tombs from which these derive are commonly understood to belong to high-status individuals, but determining the social context of the labels is not always a straightforward matter (see also Ucko 1969; §2.2). The theoretical and methodological frameworks (Chapters 2–3) used here are designed to facilitate the drawing together of patterning that may corroborate or, as necessary, compensate for some of the weaknesses in the archaeological evidence while also carefully considering the degree to which interpretations based on one context can be generalised to another.

1 ID054/4290_A, ID098/4333_A, respectively. See also discussion of ID175/4402_A and ID176/--_A in §4.4.3.

2 ID213/0284a–b_A.

Code	Archaeological Context Type	Label Quantities
1	<i>In situ</i> (e.g. inside a container)	5–8?
2	In a specific grave or chamber	c.240
3	In a multi-chambered tomb but chamber unspecified	c.60
4	Surface find, secondary context or unreported	c.110

Table 3: Label quantities per type of archaeological integrity, Kathryn E. Piquette, CC BY 4.0.

Label finds and preservation are presented below by site in geographical order from south to north, with a brief description of the cemeteries and their excavations. In the discussion, I consider the extent to which relationships between labels and associated finds can be meaningful for understanding labelling practices.

4.3 Naqada

Ten labels have been found at the west bank cemetery site of Naqada, situated 3km to the northwest of the village of Naqada (Figure 4, Figure 11), the type-site of the ‘Naqada’ cultural phases (Table 2). Excavations in 1894–1895 revealed the importance of this area in the later Predynastic period (Petrie and Quibell 1896), on a par with Hierakonpolis to the south and Abydos further north.

4.3.1 Naqada *Mastaba*

Labels from integrity level type 2: 7/10

In February 1897, Jacques de Morgan directed excavation of a massive mudbrick tomb with the earliest attested niched façade construction on all sides (Reisner 1936, 27). The immense size (53.4m × 26.7m), niched architecture and wealth of equipment led Morgan to conclude that the tomb belonged to a person of “royal” status. The so-called ‘Tomb of Menes’ or ‘Naqada *Mastaba*’ comprised five rooms including the burial chamber and storage magazines, and 16 compartments filled with gravel and sand, the whole surrounded by a mudbrick enclosure wall about 1.1m thick. Seven labels were found during this work, in Chambers γ and C (Figure 11³). The tomb had been partially burned between the original burial and intrusive New Kingdom burials (Morgan 1897, 149; Kahl et al. 2001, 174). Many objects found in Chamber β were broken, but, rather than the work of looters, Morgan suggested that these were intentionally thrown over other offerings deposited here, given their apparently undisturbed position amid the ashes (Morgan 1897, 150, see also 151, fig. 515; cf. Petrie 1900, 7). Borchardt (1898) directed re-excavation in 1898, followed in 1904 by John Garstang. In March 1904

3 Found in Chamber γ: Part of ID209/0240_N. Found in Chamber C: ID190/0228a–b_N, ID191/0226a–b, ID193/0224a–b_N, ID194/0223a–b_N, ID195/0227a–b_N, ID196/0225a–b_N.

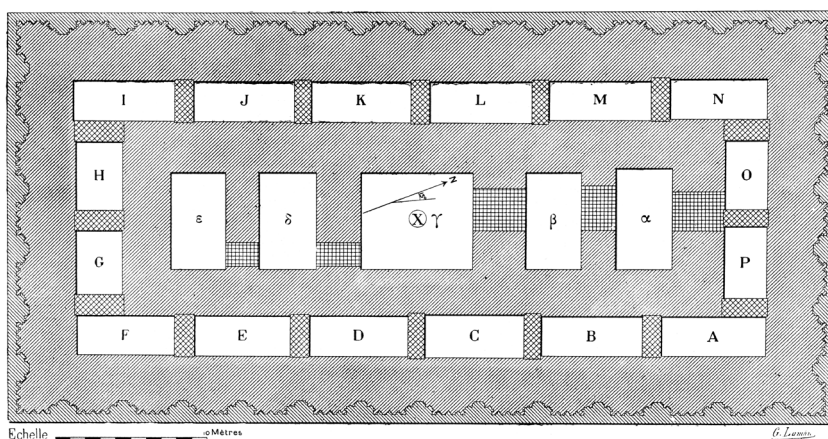
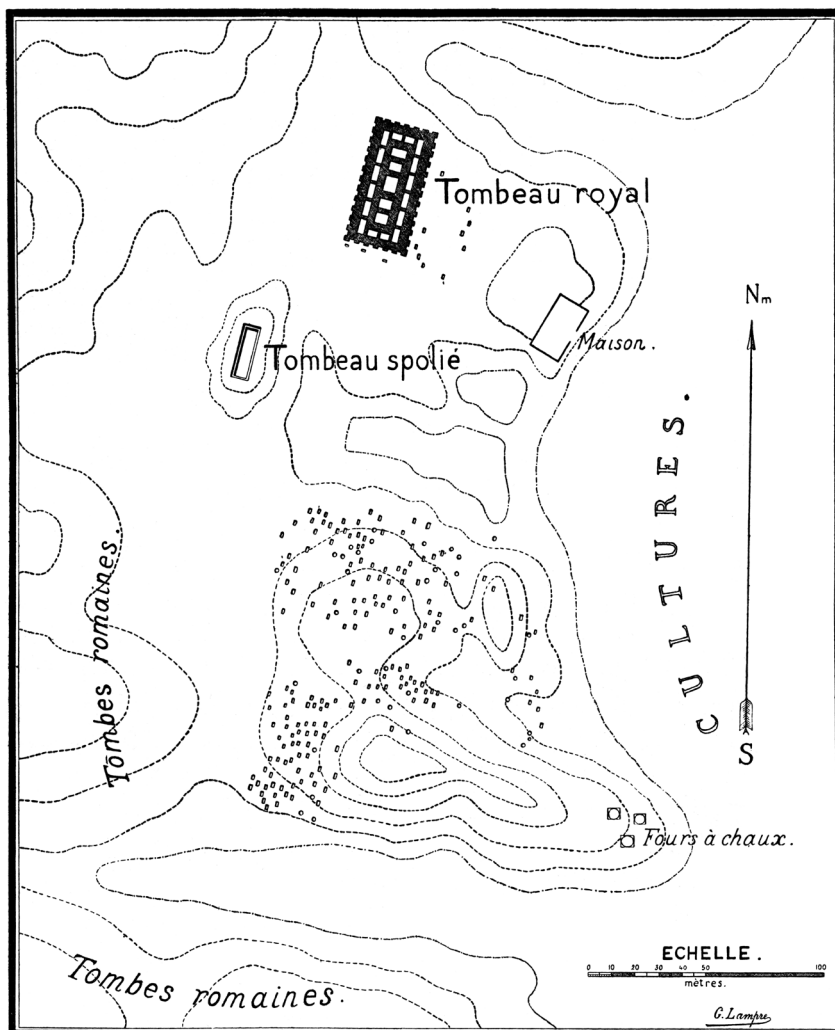


Figure 11: Top: Plan of the Naqada cemetery with large *mastaba* "Tombeau royal" indicated. Bottom: Plan of the Naqada Mastaba (after Morgan 1897, 148, 155, figs. 513 and 518, CC BY 4.0).

three further labels⁴ as well as a fifth fragment belonging to the lower right corner of ID209/0240a–b_N were recovered from unspecified locations in the tomb’s vicinity, probably excavation spoil heaps (Garstang 1905). Small graves surrounding the tomb were virtually ignored by excavators (Bard 1994, 269).

Ownership of the tomb has been attributed to Menes, Aha,⁵ or an individual identified by 3-birds-with-bound-wings/G24 (Kaplony 1963, 68⁶). Based on Graphical Object (GO) Clusters inscribed on objects including labels,⁷ the tomb owner has also been identified as Hetepneith, who was possibly the ‘wife’ of Narmer or Aha and who may have ruled for a time—an attribution accepted by many scholars (Bagh 2004, 593; Borchardt 1898; Petrie 1901a, 4; Sa’ad 1969, 66; Wilkinson 2001, 74). However, recent DNA analysis on burnt human bone from Chamber γ showed that the bone belonged to a male individual (Kahl and Engel 2001, 27), although this may not belong to the original occupant(s). Renewed study of the tomb has led to the proposal that it may have been laid out and equipped to represent domestic architecture and use of spaces in quotidian life (Kahl and Engel 2001; Kahl et al. 2001; also Bagh 2004).

4.4 Abydos

At the west bank site of Abydos, about 500km south of Cairo, over 373 labels and fragments have been recovered—the highest concentration of any site (Table 2). Some distance from the floodplain, within a bay in the high desert cliffs, a burial ground was established on an alluvial fan with a deep drainage ravine running to its west side. Known locally as “Umm el-Qa’ab” or “Mother of Pots” (Figure 5), this ridge or terrace is divided into two sections: a prehistoric cemetery in the north and a dynastic cemetery to the south (Engel 2008). The latter served as a burial ground for most, if not all, known 1st-dynasty rulers, two of the rulers of the 2nd Dynasty and some of their predecessors (Wilkinson 2001, 52–59), and their entourages. The necropolis seems to have developed over time roughly from north to south (Petrie 1901a, 3) and consists of three main areas where over 360 labels were found:

- Cemetery U;
- Cemetery B;
- ‘Royal’ Tombs Cemetery.

Associated with these tomb complexes is a fourth area with funerary enclosures that yielded 13 labels, some of which are unique, having a perforated tab extending from the top:⁸

- North Cemetery.

4 ID192/0243a–b_N, ID197/0242a–b_N, ID210/0241a–b_N.

5 E.g. ID021/4260_A.

6 E.g. ID197/0242a–b_N, secondary side.

7 E.g. ID193/0224a–b_N.

8 E.g. ID253/0973_A.

As for Umm el-Qa'ab, Amélineau directed the first excavations here between 1895 and 1898. This work yielded at least eight labels.⁹ Over the course of three seasons Amélineau's team uncovered 150 burials on the "*premier plateau*", understood to be in the area of Cemetery U (Dreyer 1998, 3). His workers also excavated most of the burials in Cemetery B and the 'Royal' Tombs Cemetery (Amélineau 1899; Amélineau 1902; Amélineau 1904; Amélineau 1905; see also Bielen 2004, 621–622). Making sense of the published results is impaired by the lack of clear plans and Amélineau's minimal archaeological experience (Dreyer 1993, 10).

After Amélineau's departure, Petrie and a team including Hilda Petrie, his wife, conducted two field seasons (1899/1900 and 1900/1901; for a concise summary see Bielen 2004, 622). Over 90 labels and fragments were found during re-examination of the previously excavated features in Cemetery B and the 'Royal' Tombs Cemetery, as well as spoil heaps (Petrie 1901a, 2). The first season's excavations, published promptly in 1900, include 65 labels. The 1901 publication of the second season's work includes 25 labels. The speed with which the reports were published is exemplary, as is the large amount of material documented in descriptions, plans, drawings and photographs—thanks in large part to the work of Hilda Petrie and others. Despite Amélineau's oft-recited failings (e.g. Regulski 2010a, 53; cf. Martin 2011, 2), his detailed lists of subsidiary grave measurements and finds are valuable. Such information is often wanting in Petrie's reports, where some locations also appear unreliable (Kaplony 1963, 900; cf. Bielen 2004, 623).

The Petrie-directed team returned to Abydos for a 1921/1922 winter season to investigate the "Tomb of the Courtiers", the area of the funerary enclosures where 13 labels were recovered from among small subsidiary graves dated to Djer and Djet (Petrie 1925; see also O'Connor 1989; Bestock 2008).

Since 1977, the German Archaeological Institute Cairo has been carrying out a re-examination of the area (first directed by Werner Kaiser, and from 1980 by Günter Dreyer). Over 250 labels and fragments have been recovered during 15 seasons of work (Kaiser and Dreyer 1982; Dreyer 1992; Dreyer 1998; Dreyer et al. 1990; Dreyer et al. 1993; Dreyer et al. 1996; Dreyer et al. 1998; Dreyer et al. 2000; Dreyer et al. 2003). Finds include about 175 small Naqada NIIIA1 labels from Cemetery U, most of which are associated with the extraordinary find of the large multi-chambered and partially intact Tomb U-j. Many labels were also recovered among the later NIIIC–early D tomb complexes to the south. The careful work and fastidiously prepared publications produced by the German Institute are invaluable for unpicking the archaeological complexities of these early cemeteries. The Abydos label finds are presented in general chronological order, starting with those from Cemetery U, followed by Cemetery B, and then the 'Royal' Tombs and contemporary finds from the funerary enclosures of the North Cemetery.

9 ID300/1389_A was taken during the work, and ID296/1366_A was a later surface find. Petrie (1900, 18) mentions that the son of Amélineau's *Reis* (Arabic for the person overseeing the Egyptian diggers) was in possession of many inscribed artefacts.

4.4.1 Cemetery U

Cemetery U was in use from the early Naqada I and II (Table 2), a period during which burials were fairly undifferentiated, apart from a small number of rich tombs (Figure 5, Figure 11). By Naqada IID the cemetery, on the basis of tombs size and find types, had become an ‘elite’ domain. Beginning with Naqada IIIA1 all tombs were lined with mudbrick. The excavators propose that the larger single- and multi-chambered mudbrick tombs belonged to a sequence of possible rulers who preceded those of the so-called dynasty ‘0’ buried in double-chambered tombs in Cemetery B (Görsdorf et al. 1998; cf. Bestock 2009, 16).

Of the estimated 175 bone, ivory and stone labels found in Cemetery U, those occurring at integrity levels 1–2 involve a total of five tombs, as outlined below in alphabetical order. Other label finds are indirectly associated, at tomb or chamber level of resolution, with ivory sticks, gaming pieces, a bracelet and stone vessel fragments (Dreyer 1992, 298). No direct associations in primary contexts are attested among this early series of labels.

4.4.1.1 Tomb U-e

Labels from integrity level 2: 1/1

Label ID051/4288_A was found in the fill of the single-chamber, mudbrick-lined Tomb U-e dated to NIIIA(?) (Figure 12; Dreyer et al. 1993, 27; Dreyer et al. 1998, 118, no. 48). The tomb may have also contained a vessel (or vessels?), based on a surviving base impression. Due to the nature of stratigraphic disturbance, the label may have originated from Tomb U-j (Dreyer et al. 1993, 27).

4.4.1.2 Tomb U-j

Labels from integrity level 2: 131 of an estimated 158

Tomb U-j is the largest and most complex tomb in Cemetery U, comprising 12 mudbrick-lined subterranean chambers with mud-plastered walls (Figure 12, Figure 13). The remains of acacia wood beams and mat roofing are also preserved. Chambers 11 (where most labels were found) and 12 were subsequent additions to the southern end of the tomb (Dreyer 1998, 4). Apart from the mostly intact Chamber 7, all chambers were heavily disturbed. Narrow portals communicating between certain chambers suggest that the tomb was laid out and equipped to imitate a domestic structure, perhaps a palace (Dreyer 1998, 4–7), although parallel structures from this period are undocumented (Wengrow 2006, 198).

Dreyer assigns the tomb to a ‘king Scorpion’ based in part on the depiction of a ‘scorpion’ on numerous wavy-handled jars (§8.2) and a 33.5cm-long ivory object found on the floor of Chamber 1, interpreted as a ‘*ḥkꜣt* sceptre’ (Dreyer 1998, 146, fig. 85, no. 200). An object of similar shape becomes an important symbol of rulership at a later date, but the object found in Chamber 1 may be a model or ceremonial adze (Wengrow 2006, 202), an interpretation supported by its particular shape and manufacture from ivory.¹⁰ Given that

10 Indeed, recent inspection in the Egyptian Museum in Cairo (April 2015) clearly shows that the top of the head has been planed down, as one would expect for blade attachment.

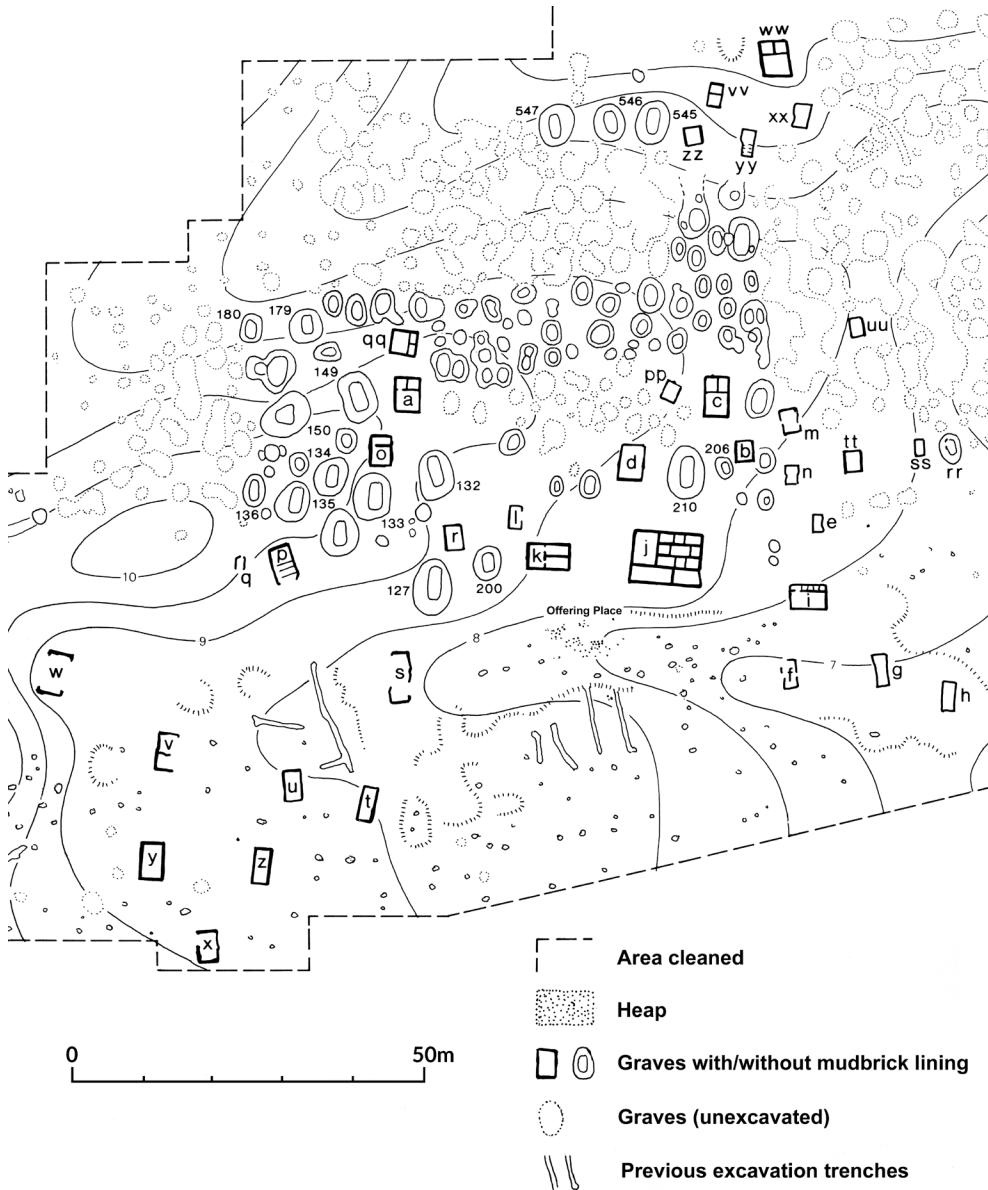


Figure 12: Detail of Cemetery U, Abydos (after Dreyer 1998, 5, fig. 1, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

no human remains have survived to confirm age or sex, the identity of the tomb owner remains conjectural. Carbon-14 dating of the tomb ranges from c.3300–c.3085 BCE (Boehmer et al. 1993; Görsdorf et al. 1998). Material cultural forms place the tomb firmly in the Naqada IIIA1 phase (Hendrickx 1996, 60–61).

Chamber 1

Six labels were found in the lower fill at the southern end of Chamber 1 (Figure 13, Figure 14). The chamber seems to have been partially excavated previously, perhaps

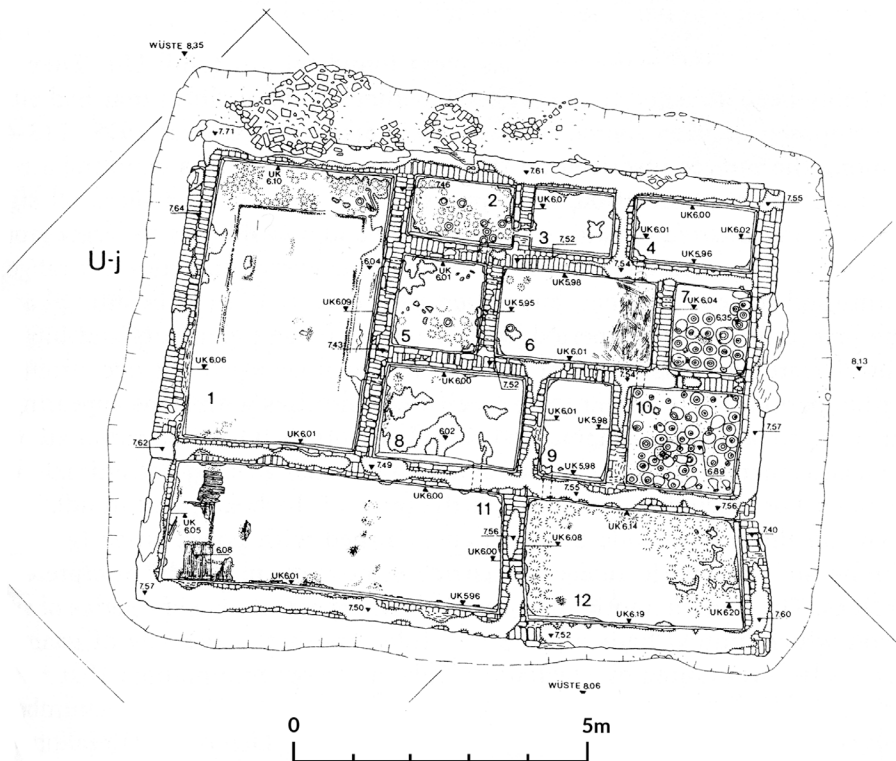


Figure 13: Plan of Tomb U-j, Abydos (after Dreyer 1998, fig. 2, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 14: Chamber 1, which contained wavy-handled jars in the northern end (top of photo), Tomb U-j, Abydos (Dreyer 1998, pl. 4a, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

by Amélineau (Dreyer 1998, 7). On the floor, an outline of a rectangular feature (W 2.1m × L 3.1m–3.15m) may be the remains of a shrine for the coffin of the deceased (Dreyer 1998, 7), although human remains were not forthcoming. Impressions (8cm–10cm in diameter) on the floor, probably from wavy-handled jars, given two were found *in situ*, indicate five rows of 20 were once deposited in front of the northern wall, probably stacked at least two high (Dreyer 1998, 7–9). No vessel traces could be found on the east and west sides of the chamber between the wall and the ‘shrine’ feature, although disturbances on the floor in the southwestern corner of the floor may be from stacked vessels. The separation of the vessel evidence in the north and the label find spots in the south suggests that these objects were not closely linked. In fact, Dreyer proposes that the labels may have originated from Chamber 11.

Chamber 11

There are 104 complete labels and 1 fragment assigned to this chamber. An additional group of 17 are specified as being found “*unten*”.¹¹ Half of ID098/4333_A was found here, and the other half was encountered about 10m south of the tomb, perhaps as a result of looting (Dreyer 1998, 13). The bulk of finds was located in the middle and western parts of the chamber. The report describes a concentration (presumably the group of 17) in contact with the floor and found in association with the remains of cedar

¹¹ “At the bottom of the fill” (Günter Dreyer, pers. comm. 12.01.2016).

planks. Dreyer (1998, 13–14) proposes that the planks are remains of five or more chests that may have contained cloth (Dreyer et al. 1993, 34), although no textile actually survives. In the western part of the chamber wavy-handled sherds were more common, while in the eastern part foreign wares were more common, probably originating from the neighbouring Chamber 12.

4.4.1.3 Tomb U-k

Labels from integrity level 2: 2/4

Tomb U-k, a mudbrick-lined tomb comprised of three communicating chambers (via small portals like Tomb U-j), is situated less than 10m southeast of U-j and also dates to the NIIIA1 phase (Figure 12). It was described by Amélineau (1899, 78–79), but any finds do not seem to be recorded. Subsequent German work revealed two label fragments¹² in the disturbed Chamber 1 (Dreyer et al. 1993, 35–36). Finds also included fragments of ivory sticks, gaming(?) pieces, and bracelets (see Dreyer 1992, 298), but a meaningful relationship between these and labels could not be established.

4.4.1.4 Tomb U-o

Labels from integrity level 2: 1/1

ID170/4398_A was found in Tomb U-o (Figure 12). The publication does not mention further contextual information and it seems no further finds were recovered (Dreyer 1998, 131, 133, no. 158).

4.4.1.5 Tomb U-qq

Labels from integrity level 2: 2/2

ID042/4280_A and ID159/4388_A were found “*unten*”¹³ Chamber 1 of the three-chambered Tomb U-qq (Figure 12). Again, the publication does not mention further contextual information and it seems no further finds were recovered (Dreyer 1998, 17, 118; Dreyer et al. 1993).

4.4.2 Cemetery B

Several tombs in Cemetery B (Figure 5, Figure 15) have yielded a small number of labels: Tomb B50; B1/2/0; Tomb B17/18 (Narmer?); and complex B10, B15, and B19 and associated graves (Aha). Finds from all but B1/2/0 derive from integrity levels 1–2. These are presented below in chronological sequence. Based on published reports, labels are unattested from any other pits or subterranean brick-lined chambers in Cemetery B.

¹² ID041/4279_A, ID171/4399_A.

¹³ “At the bottom of the fill” (Günter Dreyer, pers. comm. 12.01.2016).

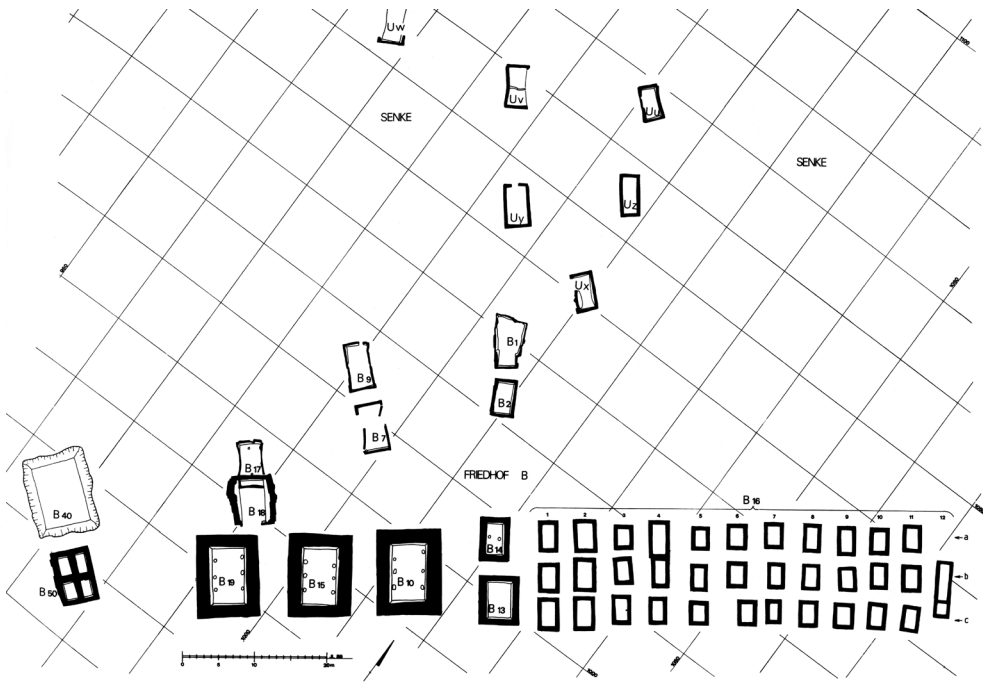


Figure 15: Plan of Cemetery B, Abydos (after Dreyer et al. 1990, fig. 1, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

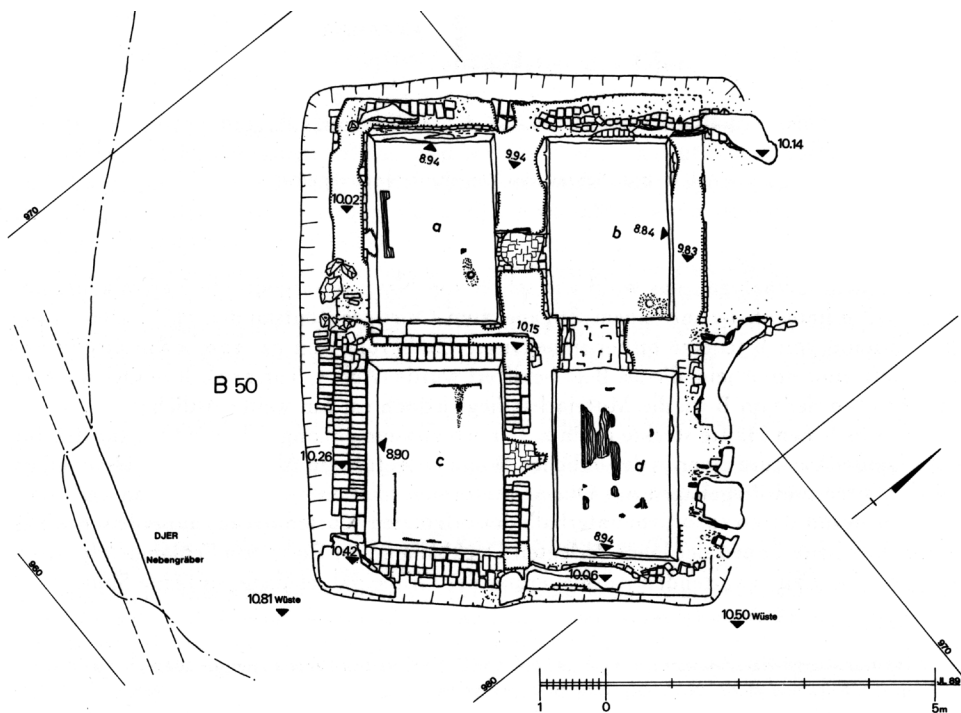


Figure 16: Tomb B50, Abydos (after Dreyer et al. 1990, fig. 5, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

4.4.2.1 Tomb B50 (Owner unclear)

Labels from integrity levels 1–2: 1/1

Tomb B50 is a relatively small rectangular mudbrick tomb divided into four chambers (a–d), the southwest chamber B50c having been enlarged at some stage (Figure 15, Figure 16; see Bestock 2009, 16, 18–19). It was in B50d that ID188/4817_A was found along with a few faience beads, but whether this was its original location cannot be confirmed since the tomb was looted early on when the roof/superstructure was still intact (Dreyer et al. 1990, 68–70, fig. 6). Still visible on the floor of both southern chambers (c and d) were the remains of wood that Dreyer suggests belonged to coffins. No skeletal remains were recovered, however, and one wonders whether these are the remains of boxes such as those found in U-j (§4.4.1.2). The tomb is included on Petrie's (1901a, pls. 58 and 60) plan of the cemetery but remained unmentioned on and unnumbered until the work of the German Institute commenced (Dreyer et al. 1990, 67–68). Precise dating and attribution remain unclear, although its orientation, similar to B7/9 and B17/18 (below), suggests a temporal link with them (Wilkinson 2001, 235). ID188/4817_A may therefore be significant in providing the sole link between the NIIIA1 labels and the revival(?) of the practice about a century(?) later at the beginning of the NIIC phase.

4.4.2.2 Tomb B17/18 (Narmer?)

Labels from integrity levels 1–2: 4.5/6

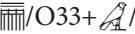

Four and a half labels were found in Chamber 18 of Tomb B17/18 during Petrie's (1901a) excavations (Figure 15). Its double-chambered mudbrick construction is typical of the early phase of tomb-building in Cemetery B (see Bestock 2009, 18). This tomb is generally ascribed to Narmer, the first ruler of the 1st Dynasty, based on its architecture and the presence of this individual's PI on various objects (Spencer 1993, 64), although material inscribed with a PI of Aha was found in Chamber B18 (Petrie 1901a, 21; cf. Kaplony 1963, 900). It may be significant that ID200/4028a–b_A, which bears a PI of Narmer, was not recovered from this tomb, but from Tomb B 0/1/2 (Dreyer 1998, 139, fig. 83b [left]), attributed to a 'king Iri-Hor' of the so-called dynasty '0' (Kaiser and Dreyer 1982, 232–235; cf. Kemp 1966, 22; Wilkinson 1993). Nevertheless, Bestock (2009, 16–17) reminds us of the pitfalls of placing too much significance on find locations for inscribed material due to the highly disturbed nature of the archaeology.

4.4.2.3 Tomb Complex B10, B15, B19 (Aha)

Labels from integrity levels 1–2: 4/9

Nine labels were recovered from the tomb complex ascribed to Aha comprising three separate rectangular mudbrick chambers, B10, B15, and B19. Extending east beyond these are slightly smaller chambers B13 and B14. Continuing further east is the area of B16, a series of 34 smaller graves laid out in three rows (Figure 15; see Bestock 2009, 22–30). The skeletal remains from these graves were uniformly of young individuals aged no more than 25, supporting the theory that these 'servants(?)' of the ruler did not die naturally, thus marking the beginning of a practice that continued throughout the 1st Dynasty (Spencer 1993, 79). Although the complex is conventionally dated to Aha,

Petrie (1901a, 7) mentions objects found here bearing the PI of Narmer, but the report does not seem to contain further details.

The upper part of wooden label ID208/0282_A bearing /O33+ /G5 of Aha was found during Petrie's (1901a, 20, pls. 3.2 and 11.1) work. Through the diligent work of Begon (2014), another wooden fragment, which may be the "*plaque de bois*" found during Amélineau's (1899, 97, 232) work, possibly in the vicinity of B15 (Kaplony 1963, 902, see also 984, no. 1), has now been demonstrated to refit, thus giving ID208/0282_A+0209_A.

4.4.3 The Relationship Between Cemeteries U and B Label Finds

The spatial distribution and architectural forms of tombs in Cemeteries U and B, as well as patterns in grave good type, point to a marked temporal and cultural separation, but the relationship between label practices attested in each cemetery is less clear-cut. Dreyer (1998, 136) reminds us of the extent to which material not found in the lower fill or floor levels of chambers cannot be relied upon, and of the difficulty of interpreting previously published reports. Among several labels found by Petrie's workers in Cemetery B, nine¹⁴ published in his 1901 report (pl. 3) and grouped together under finds attributed to "Aha-Menes" raise interesting questions. Although find contexts are unspecified in the report, these were probably encountered very near, if not within, one of the chambers in the complex ascribed to Aha (Petrie 1901a, pl. 58). Based on material, size and image types, these are very reminiscent of labels in Cemetery U. First-hand study revealed that these bear "Aha B" or "B" marked in pencil on their secondary sides, providing further support for Dreyer's (1998, 136) conclusion that these labels were indeed found in Cemetery B—although the area Petrie designated "Cemetery B" was less clearly defined than it is today (Figure 12). Further complicating the question of the significance of find location is an apparently unpublished bone fragment, ID176/--_A, which I encountered in the collections of the Royal Museums of Art and History in Brussels. Based on the "B" pencilled onto its secondary side, it was recovered during Petrie's work. First-hand study at Abydos of labels from Cemetery U revealed that fragment ID175/4402_A, also of bone and incised in a similar fashion, probably belongs to the same label (see Dreyer 1998, 132–133, fig. 82.162). ID175/4402_A, however, was found to the east of U-j, placing the find spots for these two tiny fragments at a distance of at least 50m if not up to 100m apart! Other secondary deposits of NIIIA1-type labels are also reported, but these generally occur within 10m of Tomb U-j and neighbouring label-yielding tombs (Dreyer 1998, 13). These likely reflect looting activities, and this may also explain the find spots for ID176/--_A and ID175/4402_A. As for those whole examples found in Cemetery B, we cannot rule out that these NIIIA1-type labels were intentionally deposited close to, or within, Aha's burial complex, but one would expect the German Institute team to have encountered additional NIIIA1-type exemplars during their reinvestigations.

14 ID004/0194_A, ID033/0196_A, ID043/0189_A, ID056/0197_A, ID074/0191_A, ID114/0195_A, ID130/0190_A, ID137/0192_A, ID142/0193_A.

Amélineau's (1899, 88, 219) find of ID047/0274_A raises similar questions about these spatial and temporal relationships of finds. The label depicts two opposing figures engaged in an activity involving a ring-shaped object, similar to the surviving half of NIIIA1 label ID048/4284_A as reconstructed (Dreyer 1998, 119, fig. 76, no. 44). Amélineau gives the find spot of ID047/0274_A as the "*premier plateau*", which Kaplony (1963, 901) interprets as being the rows of graves designated B16 and conventionally dated to Aha (followed by Spencer 1980, 64, no. 453), but which Dreyer (1998, 134, no. X 183, footnote 178) designates Cemetery U. Depending on how one interprets Amélineau's descriptions and the reliability of the find context, the dating of the label may range from NIIIA1 to NIIIC1/reign of Aha. The date range for Tomb U-j, as already noted (§1.4.2), puts a gap of approximately 200 years to none at all between label-yielding contexts in Cemetery B, although Dreyer estimates a gap of approximately 100 years (Günter Dreyer, pers. comm. 10.04.20). Assessment of the fuller evidence for the chronological relationship between these cemeteries exceeds the scope of this study, but further on (§10.3, §11.1) I examine other evidence for changes and continuities in label practice across time.

4.4.4 'Royal' Tombs Cemetery

The 'Royal' Tombs Cemetery consists of the burials of the 1st-dynasty successors of Narmer and Aha and their entourages and includes seven sizeable multi-chambered complexes comprised of a large burial chamber and storerooms (Figure 5; for a concise summary of key features see Engel 2008, 37–40). From the reign of Djer (Table 2), subsidiary burials were laid out around each main tomb for female and some male adults. The skeleton of a child with a heavily deformed skull was also found (Dreyer et al. 2006). These individuals were possibly sacrificed or committed suicide to accompany the ruler into the afterlife (Wilkinson 2001, 237; Morris 2007b). Architectural preservation is almost exclusively substructural. Scholars suggest this may be due to an emphasis on subterranean architecture at Abydos as compared with 1st-dynasty *mastabas* at Naqada, Saqqara and elsewhere (Petrie et al. 1913; Wilkinson 2001, 233), but it is suggested that the complexes had some form of superstructure in the form of tumuli marking the surface (Dreyer et al. 1990, 67–68; Dreyer 1991), together with stelae. I return to the question of tomb superstructure in Chapters 8–9 when considering the visibility of label graphical culture comparatively with the funerary stelae. Several complexes exhibit multiple building phases (Engel 2008, 32) and not only have these tombs been looted and many burned (§1.4.1, §4.2), but the tomb ascribed to Djer was cleared out near the beginning of the Middle Kingdom (c.2040–c.1650 BCE) and renovated for worship of the afterlife deity Osiris (Dreyer 2000, 6; Kemp 1975, 36–37; Leahy 1989, 56–57), leaving stratigraphy of the early periods in much disarray (see also Regulski 2010a, 53–54). Despite such adverse conditions archaeologists have continued to make important discoveries. Material from this site was key in establishing regnal order (Petrie 1900, 5; Petrie 1901a, 3; see also §1.5.6; Table 2) and understanding burial practices and other aspects of early, mainly upper-class Egyptian society.

Along with inscribed material such as the labels, cylinder seals and impressed sealings, finds in these burial chambers, magazines *et environs* include: fragments of wooden

and ivory furniture elements; gaming boards and pieces; cosmetic articles; copper implements and wooden handles; ivory sticks; sandals; bone and ivory arrowheads; and vessels of copper, stone and pottery, among others. Whether an object is attributed to a specific tomb based on direct or indirect archaeological association or solely on inscriptional evidence is usually clear in the reports, but ambiguities occasionally arise. Some published drawings and photographs are marked with a chamber/tomb number, or ascribed to posited tomb owners (with individual and tomb sometimes being conflated, e.g. to Qa'a; Petrie 1901a, pl. 8.1–3), while plate descriptions may state otherwise, e.g. "...from the loose rubbish that had been thrown out of the tombs" (Petrie 1901a, 26). Some caution must therefore be used in drawing significance from the reports, just as care must be taken in attributing significance to find locations as these may not reflect original deposition (see above). The burial complexes for which label integrity levels 1–2 can be discerned are presented below in presumed chronological order: O, Z, Y, T, X, U and Q (Figure 5). Individuals to whom the tombs are conventionally attributed are indicated in brackets.

4.4.4.1 Tomb Complex O (Djer)

Labels from integrity levels 1–2: 1(2?)/22–23

Tomb Complex O consists of a burial chamber constructed of wood against which brick side chambers were subsequently built (see Figure 17; Reisner 1936, 23). The main chamber had been burned out in antiquity (Dreyer 2008, 49). The central tomb was surrounded by 318 subsidiary graves arranged in rows, mainly to the north and west (Bestock 2009, 30–35; Reisner 1936, 117).

Amélineau's excavations yielded labels ID189/0692a–b_A and ID218/0685_A from Grave O?-22, and ID217/0693_A in Grave O?-26 (see Amélineau 1904, vi). Of note is ID303/1390_A, bearing the PI of Den and found in Grave 83 (Amélineau 1905, 124, pl. 37.3; Figure 17)—but whether this represents original deposition cannot be confirmed. Of the 22 labels Petrie attributes to Tomb Complex O, only ID221/0621_A is attributed to a specific chamber, namely a subsidiary grave; but the report fails to specify which, or whether archaeological significance can be derived from the mention of a gold pin (Petrie 1901a, 9). The presence of ID132/0609_A in the area of Tomb O may be secondary, given its content and compositional similarities with the NIIIA1 labels of Cemetery U, or it may represent rare evidence for continuity between the two label phases. The potential for preservation of label attachment materials such as thread is possible given the survival of carbonised cloth (Petrie 1901a, 9), but none are documented.

4.4.4.2 Tomb Complex Z (Djet)

Labels from integrity levels 1–2: 2/5

Tomb Complex Z comprises a main burial chamber, wood-lined, with mudbrick chambers built against it, similar to the above. It is surrounded by 174 subsidiary burials (Figure 18; Bestock 2009, 35–37; Reisner 1936, 23).

Of five labels associated with the complex, ID271/0917a–b_A is explicitly said to come from the main tomb, although the chamber/area is not specified (Petrie 1900,

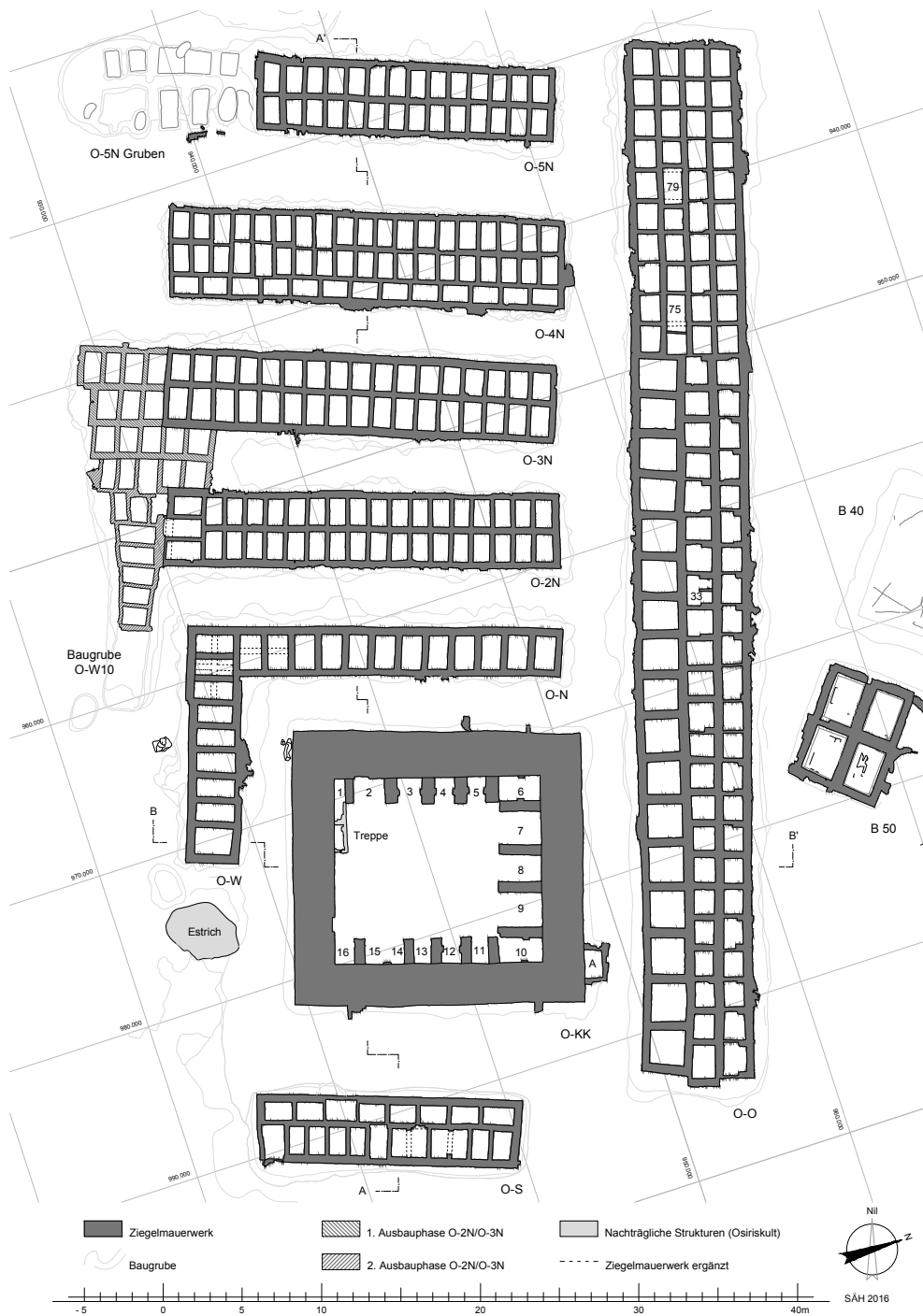


Figure 17: Plan of Tomb Complex O, Abydos (German Archaeological Institute Cairo, CC BY 4.0).

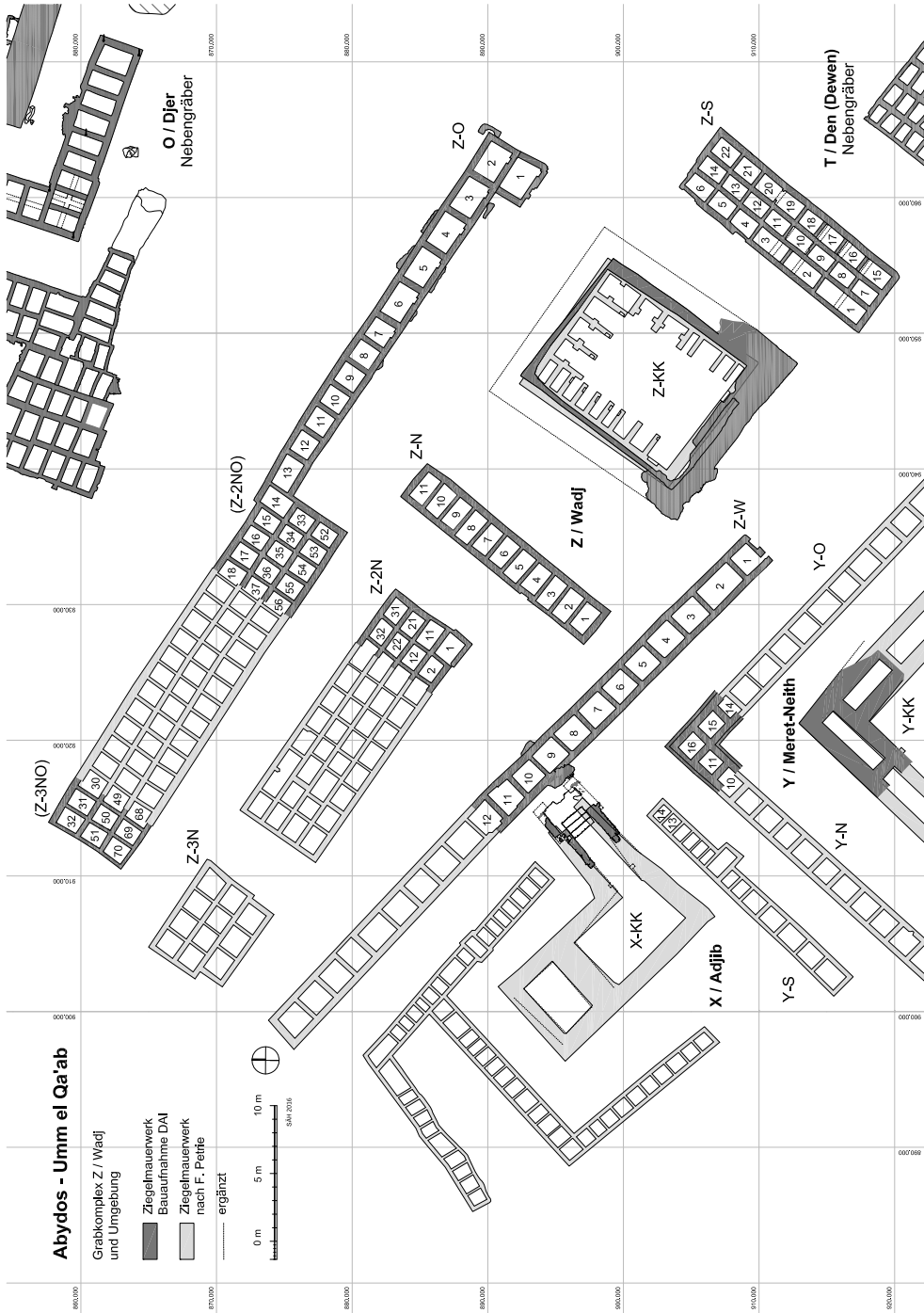


Figure 18: Plan of Tomb Complex Z, Abydos (German Archaeological Institute Cairo, CC BY 4.0).

21). ID212/0943_A was found in subsidiary grave Z3 and shows signs of heat exposure. Petrie does not specify whether this grave was burned, but the main burial chamber and subsidiary chambers show evidence of burning (Dreyer et al. 1993, 57); ID212/0943_A may therefore have originated from these areas.

4.4.4.3 Tomb Complex Y (Merneith)

Label from integrity level 2: 1/1

Tomb Complex Y includes a main tomb surrounded by abutting storerooms, in turn encircled by a line of 41 subsidiary graves (Figure 19). Burning was apparent on the walls and wooden flooring of the main tomb (Reisner 1936, 25), and the roof was refitted at some stage (Petrie 1900, 10–11; see Bestock 2009, 38–40).

A single wooden label, ID280/1194_A, was found in subsidiary grave Y24 along with 14 ceramic jars (Petrie 1901a, 38). However, the nature of any potentially meaningful association is unclear and the now-shattered state of the label and faded condition of the applied colour make it difficult to draw further conclusions about commodity information.¹⁵

4.4.4.4 Tomb Complex T (Den)

Labels from integrity levels 1–2: 11/36

Tomb Complex T comprises a large mudbrick burial chamber paved with granite with stairway access on the east and small offering chambers (Figure 20; Dreyer et al. 1993; Reisner 1936, 58, 353). Surrounding this central structure are 174 subsidiary burials. The reliability of find contexts is complicated by several building stages or restorations (Dreyer et al. 1998, 167; Petrie 1901a, 11).

Petrie describes the disturbed context of labels found here:

The king's tomb appears to have contained a great number of tablets of ivory and ebony, fragments of eighteen having been found by us in the rubbish thrown out by the Mission Amélineau, beside one perfect tablet¹⁶ stolen from that work (now in the MacGregor collection), and a piece¹⁷ picked up (now in the Cairo Museum); thus twenty tablets are known from this tomb. (Petrie 1900, 11)

The report is not always clear about whether labels were found inside a tomb or in the contexts just described. It is tempting to take pencil markings with tomb designations on the secondary sides to be relatively reliable indicators of 'in-tomb' finds,¹⁸ but caution is advisable.

15 Spectral imaging would likely improve the reading of ID280/1194_A. Also, since writing Matthieu Begon has been able to further clarify GOs on the right side of this label (Begon 2016, 178, fig. 8), but the area (Q3) where one would expect commodity information remains unclear. Begon attributes this label to Den but does not specify how this accords with its find location in the tomb complex attributed to Merneith, Den's predecessor.

16 ID300/1389_A.

17 ID296/1366_A.

18 Further verification of this was impossible for many labels from Tomb T in the Oriental Institute Museum as they are now backed with pieces of cork, e.g. ID293/1246_A.

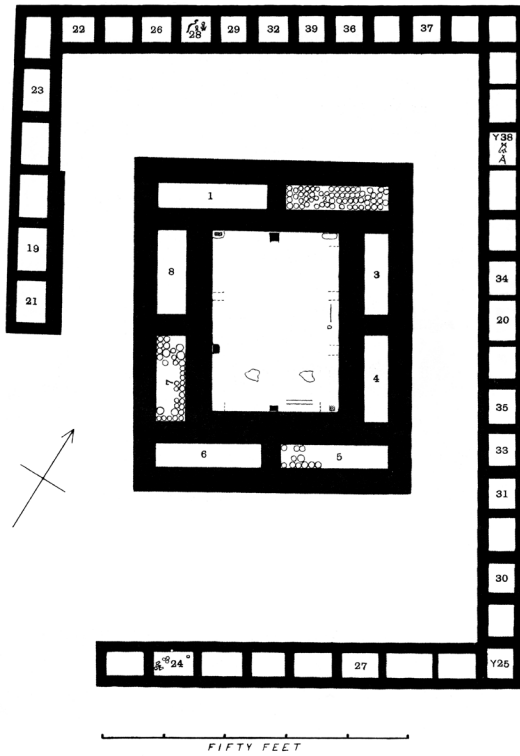


Figure 19: Plan of Tomb Complex Y, Abydos (after Petrie 1901a, pl. 61, courtesy of The Egypt Exploration Society, CC BY 4.0).

During German work in 1983/1985, three labels¹⁹ were found in Chamber S1 (southwest side), one of two chambers flanking the stairway entry leading down to the annex of subsidiary chambers (Figure 20; Dreyer et al. 1990, 80–81). Although coffin fragments were not found in either chamber, the excavators believe both to be graves given the absence of impressions of vessel bases on the floor typical of storage magazines. Associated finds are not mentioned in the report.

During the subsequent 1988/1989 season, 100 subsidiary chambers were re-excavated. The upper fragment of ID295/4078_A was found in Chamber T-O 16 (Dreyer et al. 1993, 61, pl. 13b), while a mending fragment was subsequently found in the northeast (Dreyer et al. 2003, 94), although find spots are listed in the later report as “T-NO”²⁰+“T-NOO”, and the specific find spot of T-O 16 is no longer mentioned. This find enabled a previously recovered fragment (Ab K 379; Dreyer et al. 1990, 81, pl. 26c) to be identified as belonging to the lower right of the same label. I discuss ID295/4078_A here because even though a fragment was found in a specific chamber (integrity level 2), it illustrates yet again the caution that must be used in interpreting the significance of find spots.

19 ID295/4078_A, ID315/1372_A, ID329/1373_A.

20 “O” is for the German “Osten”.

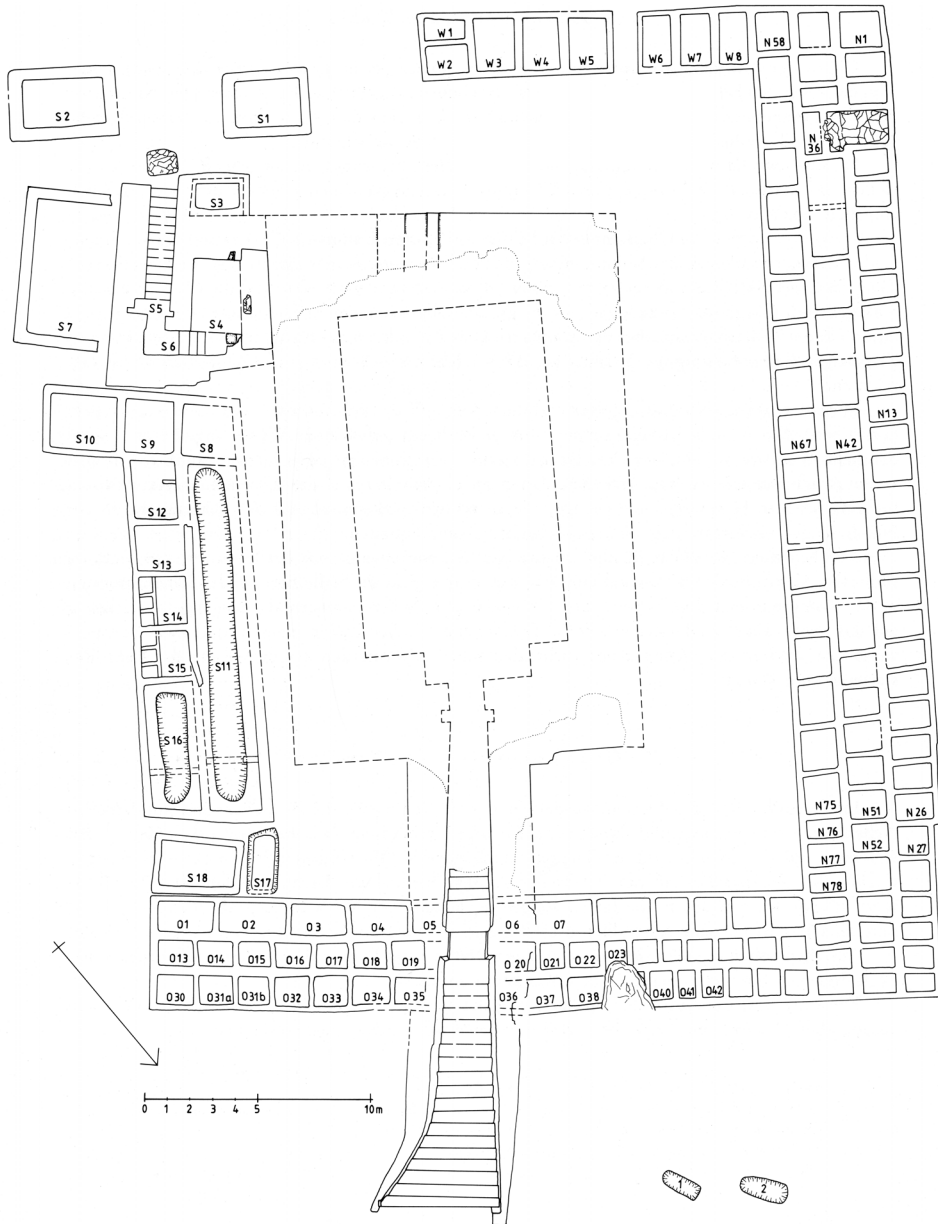


Figure 20: Plan of Tomb Complex T, Abydos (Dreyer et al. 1993, 58, fig. 13, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

4.4.4.5 Tomb Complex X (Adjib)

Labels from integrity levels 1–2: 0/1

Tomb Complex X consists of two large mudbrick chambers and is accessed by stairway like Tomb T (Figure 21; Reisner 1936, 60). The tomb was burnt sometime after burial, based on the presence of windblown sand in the burial chamber, which limited fire

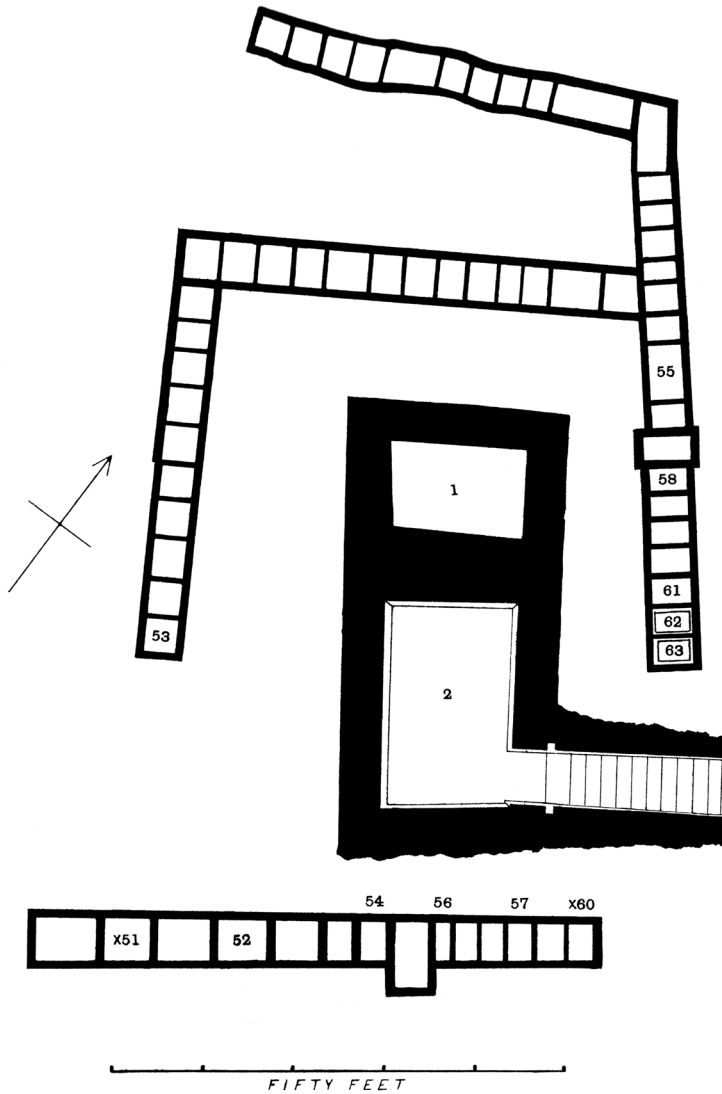


Figure 21: Plan of Tomb Complex X, Abydos (after Petrie 1900a, pl. 61, courtesy of The Egypt Exploration Society, CC BY 4.0).

damage to the roof and two exposed corners of the chamber (Petrie 1900, 12). Around the main burial are 64 subsidiary graves.

The upper third of wooden label ID342/1601_A was found in this tomb, but further archaeological information is not given (Petrie 1901a, 39). It is nevertheless worth providing a brief description to contextualise other relevant evidence. The concern about relative dating on the basis of inscriptions (§1.4.2) is raised by the presence of fragments of narrow, ribbed violet glazed ware, similar fragments of which were also found in the Tomb Complexes Z, T and U. If the fragments were scattered from one of these 1st-dynasty tombs, it is possible that ID342/1601_A, if not other material encountered

in Tomb Complex X, is intrusive. In addition to post-depositional processes, other factors impinge on this issue of object ‘life histories’. Vessels inscribed with the PI of Adjib, and subsequently erased (Petrie 1900, 19; see also Piquette 2013a, 229), were not found in Tomb Complex X, but in Tomb U, ascribed to Semerkhet. Material could have been moved from one complex to another, or, as Petrie (1900, 12) proposed, these objects may have been the property of Adjib in life but have been reused by Semerkhet. The reuse or curation of objects (see Jeffreys 2003) may also explain a label²¹ found at Saqqara Tomb 3035 (§4.6.1.2).

4.4.4.6 Tomb Complex U (Semerkhet)

Labels from integrity level 2: 1?/5

Tomb Complex U comprises a mudbrick-lined burial chamber, surrounded by 75 subsidiary chambers, all of which had been plundered (Figure 22; Petrie 1900, 13–14; Reisner 1936, 62). Evidence for the hasty construction of some may indicate that Semerkhet died before completion of the complex (Dreyer et al. 2000).

The discovery of ID345/1677_A, a carefully crafted incised label embellished with red and black ink, is recorded in detail by Petrie:

On clearing the entrance, the native hard sand was found to slope down to about four feet above the floor, and then to drop to floor level at about two and a half feet outside of the outer wall of the tomb. Here the space was filled to three feet deep with sand saturated with ointment. The fatty matter was that so common in the prehistoric times, in this 1st Dynasty, and onward in the XVIIIth Dynasty; hundredweights of it must have been poured out here, and the scent was so strong when cutting away this sand that it could be smelt over the whole tomb. In clearing this entrance was found the perfect ivory tablet²² of king Semempses [Semerkhet]... (Petrie 1900, 14)

It may be that this label find spot relates to funerary activity associated with the closure of the tomb, such as the pouring out of scented ointment or oil, but looting activity cannot be ruled out.

4.4.4.7 Tomb Q (Qa'a)

Labels from integrity level 2 (or 4?): 36/53

Tomb Q is ascribed to Qa'a, probably the last ruler of the 1st Dynasty (Figure 23). It comprises a main chamber surrounded by 39 subsidiary compartments including graves and storerooms (Engel 2008). Apart for the main chamber, Petrie (1900, 14) cites evidence for hasty construction and equipping. German re-excavation has clarified this issue, discerning multiple stages of construction, with additions and alterations (Spencer 1993, 83; Dreyer et al. 1993). This is due in part to structural collapse attributed to technical

21 ID239/0847_S.

22 ID345/1677_A.

problems in the construction and the removal of wooden supports in ancient times, rather than hasty construction or insufficiently dried bricks (Engel 1997, 123).

Within this disturbed context, 53 labels were found, forming the largest group encountered in a single tomb complex, after Tomb U-j (§4.4.1.2). Forty derive from the German work (Dreyer et al. 1996, 73–75):

- 2 *Täfelchen mit Jahresnamen und Ölvermerk des Semerkhet*;
- 15 *Täfelchen mit Jahresnamen und Ölvermerk des Qa'a*;
- 23 *Täfelchen mit Ölvermerk des Qa'a*.

The majority (33) of labels were found around Q-N6, with 2 around Q-N5, chambers flanking the west and east sides (respectively) of the tomb entrance. Each of these chambers has an entrance on the north side, making it accessible from the exterior rather than the interior of the tomb (*contra* Reisner 1936, 121; see also Engel 1997, 721, no. 790). Five labels and “*einige Fragmente*” were found in surrounding graves. However, with interpretation of the writings on them foregrounded in the report over details of archaeological context, it is difficult to assess any possible significance of a given label in relation to its find spot or associated finds.

In addition to the archaeological report on Tomb Complex Q (Dreyer et al. 1996), Eva-Maria Engel’s (1997) PhD dissertation provides a detailed study of this tomb complex. The labels found in/around Q-N5 and especially Q-N6 may have been attached to vessels based on the globular²³ and cylindrical²⁴ vessel shapes depicted on them. Apart from a single fragment, however, vessels of these types were not found in association (e.g. Engel 1997, 433, and e.g. 511, fig. 245).

Nevertheless, Engel (1997, 26–27) calculates that some 210 vessels were deposited in Chamber Q-N6, based on impressions on the wall suggesting that vessels were stacked in rows. Fragments of clay still adhering to the wall were probably from the mud stoppers that sealed them. Traces of a brown-coloured substance at the base of and extending half way up the east wall presumably resulted from termites consuming organic materials deposited in this area, perhaps wooden boxes or cloth bags. The question of the relationship between the labels and items indicated on them is an issue to which I return later (§11.2).

Finds of significance for the temporal sequence of funerary activity come from the area in front of the entrance to the tomb in the northwest. Here, impressed sealings bearing the PI of the 2nd-dynasty ruler, Hetepsekhemwy, were recovered. Dreyer et al. (1996, 71–72, fig. 25, pl. 14a) interpret these as evidence for continuity between the two reigns,²⁵ also presenting interpretive possibilities for the role of graphical culture in funerary practice as part of processes of political change and negotiating the transfer of social power.

23 E.g. ID392/447_A.

24 E.g. ID395/4483_A.

25 See Chapter 1, footnote 20.

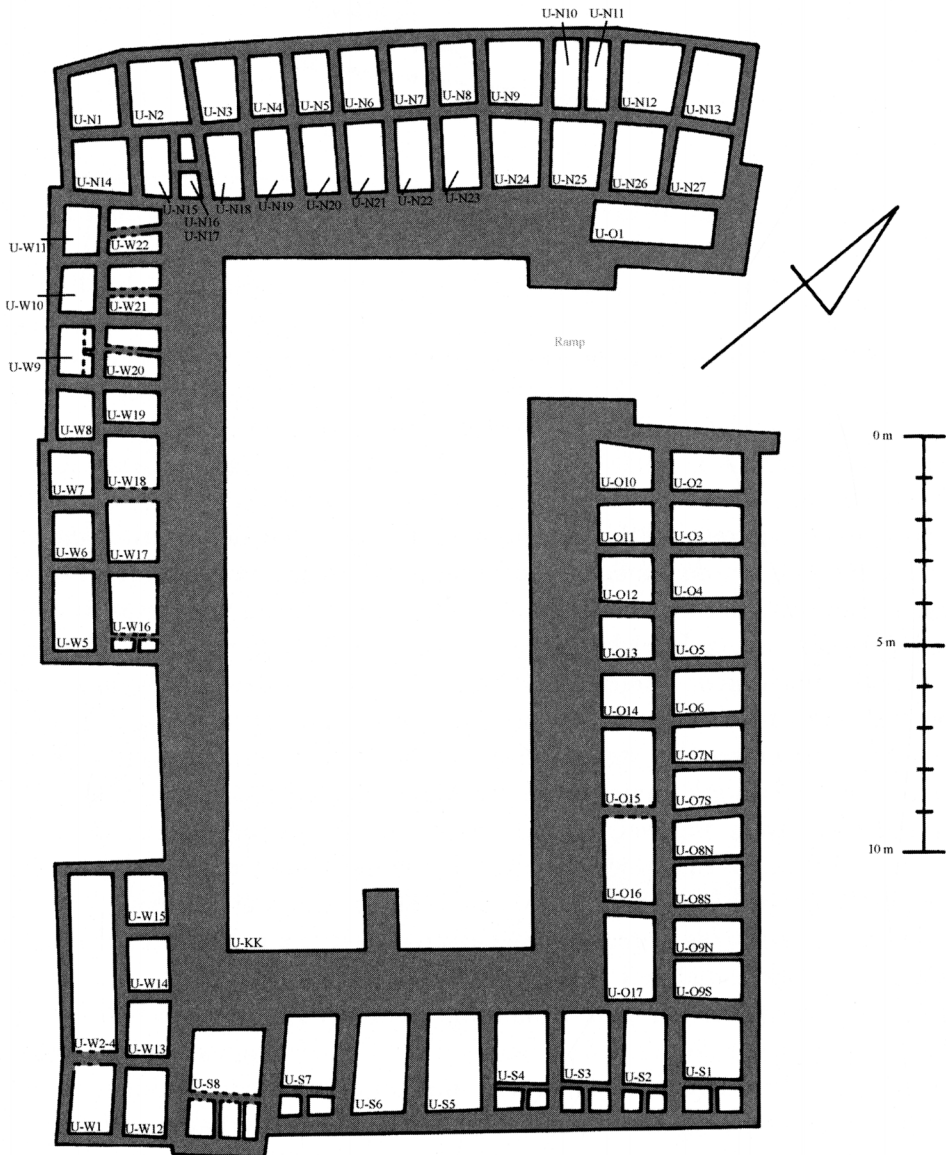


Figure 22: Plan of Tomb Complex U, Abydos (Dreyer et al. 2006, 93, fig. 7, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

4.5 North Cemetery, Abydos

Labels from integrity levels 1–2: 13/13

Approximately 1.5km east of Umm el-Qa'ab, near the edge of the floodplain is the North Cemetery, the site of large funerary enclosures of the 1st and 2nd Dynasties (Figure 24). These monuments are understood to be counterparts to the tomb complexes at Umm el-Qa'ab, and, like the main burials, the enclosures are also surrounded by subsidiary

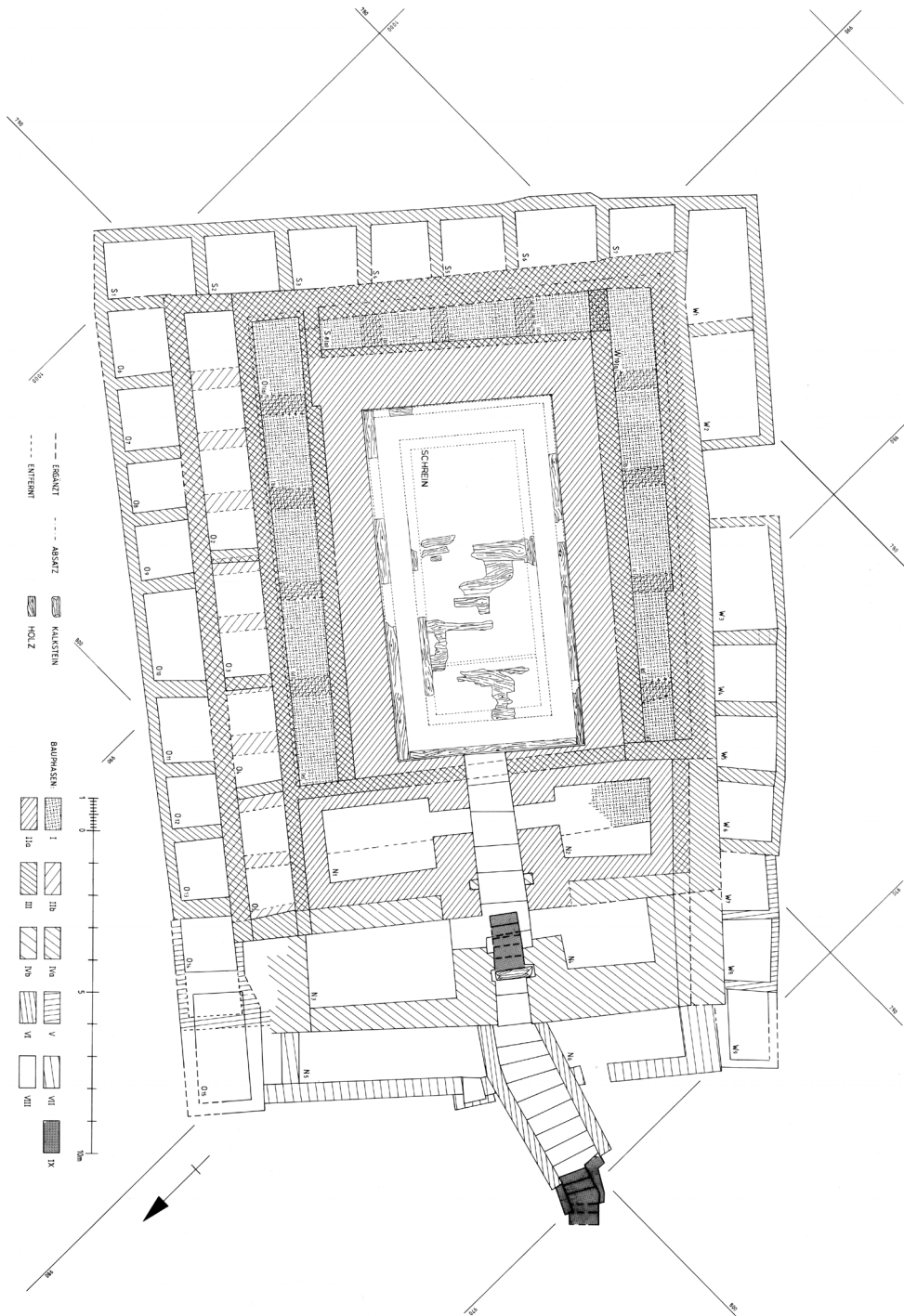


Figure 23: Plan of Tomb Complex Q, Abydos (Dreyer et al. 1996, fig. 19, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

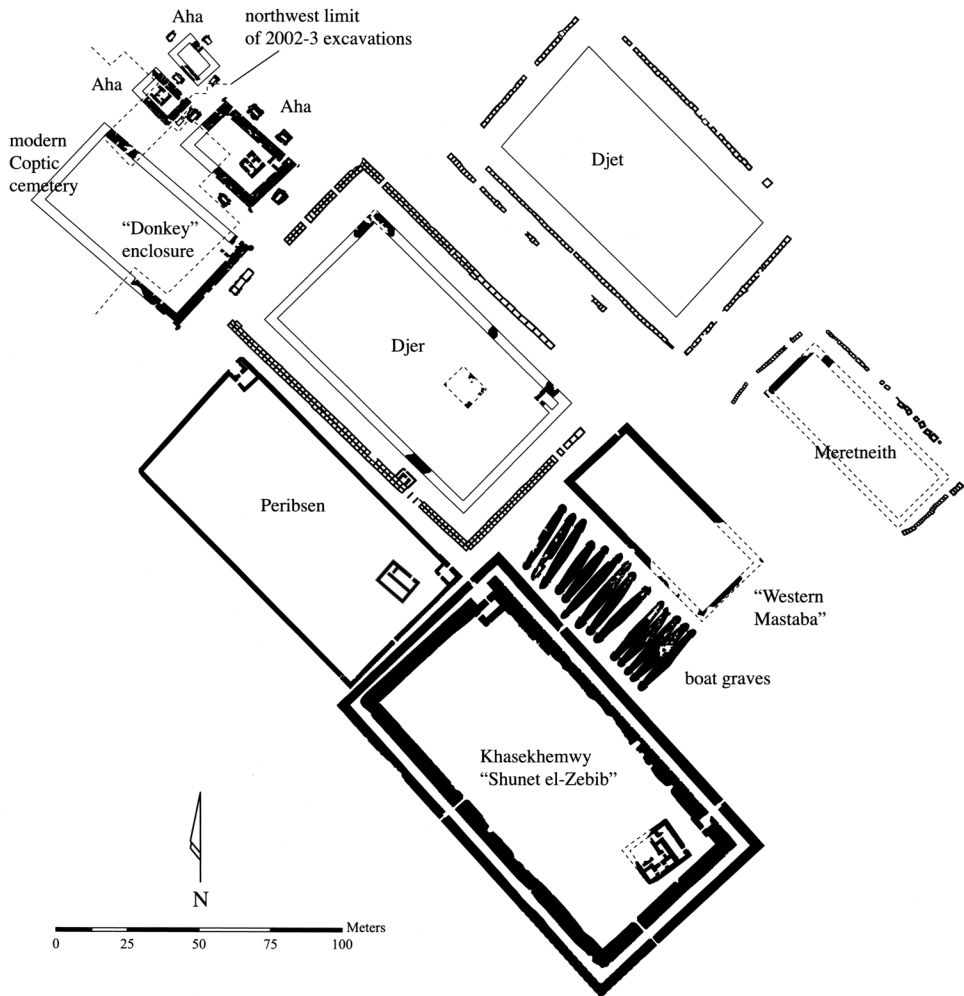
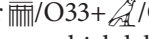



Figure 24: Plan of funerary enclosures, including those of Djer and Djet with subsidiary graves where labels were found (Bestock 2009, fig. 15, CC BY 4.0).

graves (O'Connor 1989; Bestock 2009). It was here that Petrie and his team excavated from December 1921 until February 1922 and found remains of three great squares of graves datable to Djer, Djet and Merneith (Petrie 1925, 1–2). In Petrie's time, it was not understood that the graves were arranged around great funerary enclosures that had subsequently been destroyed (Spencer 1993, 71–72). Indeed, the area was much disturbed due to ancient plundering and to the construction of Middle Kingdom and later burials and mortuary structures (O'Connor 1989, 63–64; Petrie 1925, 1).

Among 269 graves dating to Djer, Grave O-790 yielded ID219/0804_A, and ID254/0811_A was encountered in O-612. The latter label raises the question of whether GO Clusters understood as PIs, in this case $\overline{\text{III}}/\text{O}33+\text{A}/\text{G}5$ of Djer and cross-hatched-circle/ $\text{Aa}1+\text{A}/\text{G}1+\text{L}/\text{D}58$, denote ownership or some other meaning. The latter Cluster also occurs on three copper tools from Grave O-461, albeit with a different orthography

(Petrie 1925, pl. 3.1–2, pl. 4.1). As Petrie (1925, 4) notes, “[i]f this is the name of an official, these objects were not all buried with him [sic] as they were found in graves 461 and 612, at opposite ends of the square of Zer [Djer], nearly four hundred feet apart”.

Among graves dated to Djet, Z-159 yielded nine labels.²⁶ Petrie ascribed this comparatively large grave to a woman named ‘Mer-nswt’, presumably on the basis of an inscribed gaming(?) piece (Petrie 1925, 3; this individual’s PI may also be incised on the associated stela [pl. 1.159]; also Martin 2011, Stela 261). No skeletal evidence survived, although coffin fragments are noted (Petrie 1925, pl. 20). Seven of the labels were “... probably inscribed with vegetable ink which has decayed” (Petrie 1925, 4); traces could not be confirmed during first-hand study.²⁷ Interestingly, the two other labels²⁸ found in Grave Z-159 bear /O33+ /G5 not of Djet, but of his successor Djer, a possible clue for the time spans over which labels were manufactured, used and deposited, as well as the lifespan of the grave owner.

4.6 Saqqara

Situated on the west bank of the Nile some 30km south of Cairo, the site of Saqqara (Figure 4) has yielded a total of 39 labels, possibly 40 (§4.11). Finds derive from two cemeteries located in the northern part of the site, the 1st-dynasty *mastabas*, or ‘Archaic’ Cemetery, and Macramallah’s Cemetery, also known as “Macramallah’s Rectangle” (Figure 25). Those occurring in integrity levels 1–2 (described in §4.2) involve a total of five tombs, with those from a single grave in Macramallah’s Cemetery providing the most archaeologically secure label finds to date.

4.6.1 1st-Dynasty *Mastaba* Cemetery

The majority of labels (35) derive from the 1st-dynasty *mastaba* cemetery situated along the edge of the desert escarpment overlooking the modern village of Abu Sir (Figure 25). These were found during excavation in 1910–1913 overseen by Quibell (1923). Walter Emery and Zaki Sa’ad continued work here in 1935 (Emery and Sa’ad 1938; Emery 1949; Emery 1954).

Like the Naqada *Mastaba* (§4.3.1), the Saqqara *mastabas* are massive constructions with multiple chambers, most with a panelled mudbrick façade. Quibell (1923, v) found these to be “utterly robbed” in antiquity, but the tomb structures remained relatively intact. Their size and wealth led to the theory that these were in fact the tombs of the 1st-dynasty rulers, and that the smaller burial complexes at Abydos must be cenotaphs (Emery and Sa’ad 1938, 2; Emery and Sa’ad 1939, 1; Emery 1954, 5). Barry Kemp (1967, 25) argued that any equation of size with status of the Abydos tombs must

26 ID249/--_A, ID250/--_A, ID251/--_A, ID255/0820_A, ID256/0819_A, ID257/--_A, ID258/--_A, ID259/--_A, ID260/--_A.

27 Examination under UV light revealed nothing further, but infrared photography should be undertaken as this will reveal any traces of carbon ink.

28 ID255/0820_A, ID256/0819_A.

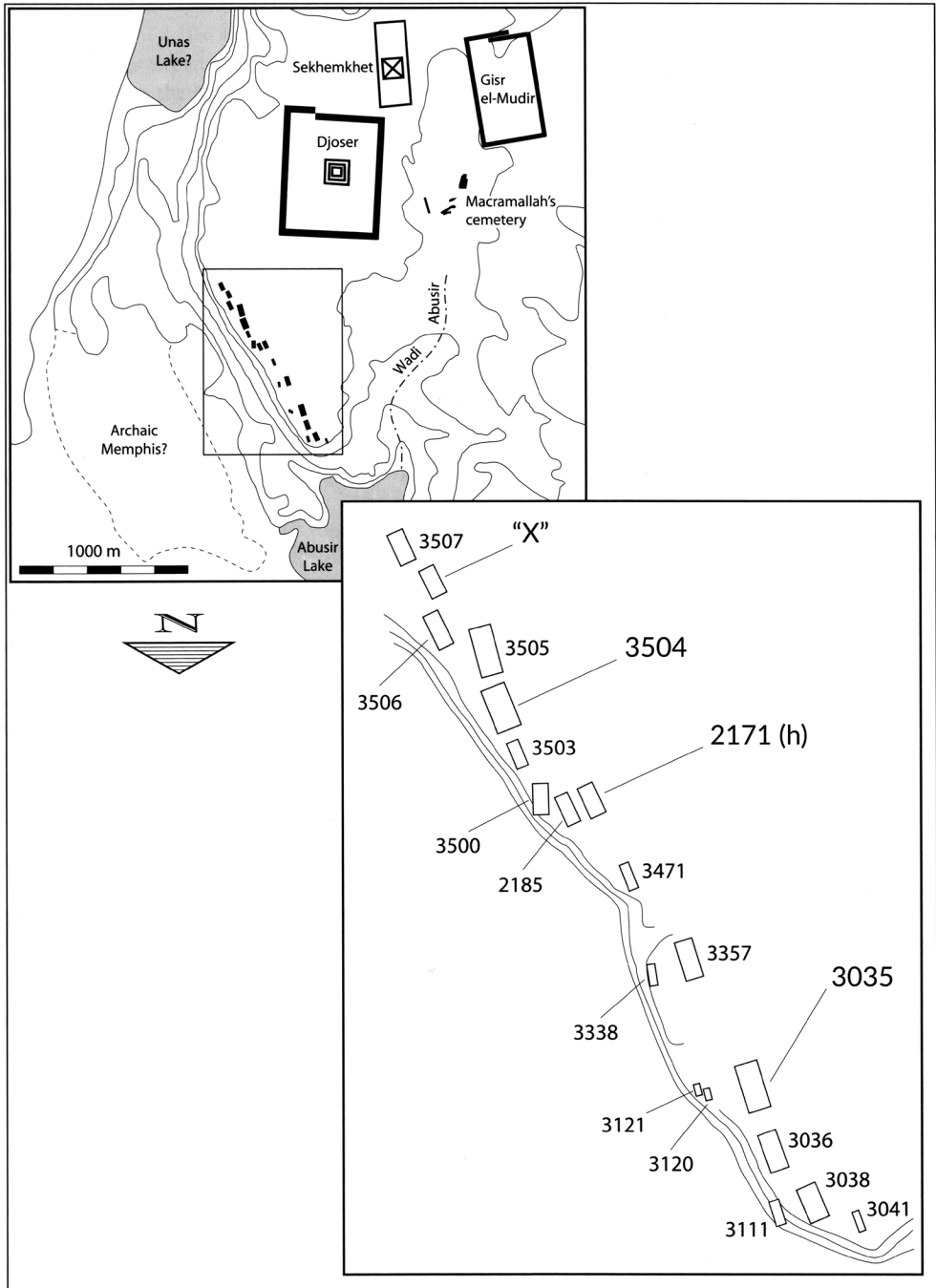


Figure 25: Plan of Saqqara showing 1st-dynasty *mastabas* (with those yielding labels emphasised) and Macramallah's Cemetery (after Helck 1984, 387–388, courtesy of Harrassowitz Verlag, CC BY 4.0).

take into account their respective funerary enclosures. It is generally accepted that the Abydos complexes are the burials of the early rulers and their entourages and that those some 470km to the north at Saqqara belong to administrative officials, although Ellen Morris (2007a) recently explored the possibility of assigning these latter tombs to high-ranking ‘royal’ women, possibly wives of the rulers buried in Abydos (see also O’Connor 2005).

Each tomb is presented below in relative chronological order by reign, bearing in mind questions surrounding the reliability of PIs as temporal indicators and that tomb construction, equipping, closure, etc. may span an undeterminable period.

4.6.1.1 Tomb S2171 h (Djer)

Labels from integrity level 2: 3/3

While excavating the 2nd-dynasty *mastaba* S2171 (Figure 26), Quibell and his team encountered the small mudbrick-lined tomb S2171 h (Quibell 1923, 3, pl. 1). Although robbed prior to, or as a result of, the construction of the large *mastaba* over it, it yielded three labels.²⁹ The archaeological integrity can be narrowed to level 2, but the tomb contents were tossed about such that the relative position of the labels and other finds was probably meaningless (Quibell 1923, 16). Nevertheless, on the basis of their inscriptions, the tomb may be dated to Djer.³⁰

4.6.1.2 Tomb No. S3035 (Djer>Den>Semerkhet[?]³¹)

Labels from integrity levels 1–2: 11/11

Eleven labels were found in S3035, a large multi-chambered mudbrick tomb situated toward the northern end of the *mastaba* field (Figure 25, Figure 27). Cecil Firth (1941, 47) partially cleared the subterranean chambers in 1931, but it was not until 1936 when Emery and Sa’ad (1938) oversaw the re-clearance of the substructure, and excavation of the superstructure for the first time, that label finds were documented.

Emery and Sa’ad (1938, 1) identified the tomb owner as ‘Hemaka’, based on retrospective readings of impressed jar sealings and inscriptions on a wooden sickle and two ivory labels.³² They dated the tomb to Den whose PI co-occurs alongside ‘Hemaka’ on seal impressions (and at Abydos where the same group also occurs on labels³³). While a pot bearing the PI of Semerkhet was thought to be intrusive (Emery and Sa’ad 1938, 1), Emery and Sa’ad do not seem to comment on the implications of the find of label ID239/0847_S, which bears the PI of Djer—a ruler who preceded Den by two reigns. If not intrusive, such co-occurrences raise interesting questions about label use, but also highlight the shortcomings of basing tomb owner identity and dating on inscribed objects, as later commented upon by Emery himself (Emery 1958, 3).

29 ID227/0834_S, ID241/0833_S, ID252/--_S.

30 ID227/0834_S, ID241/0833_S.

31 Activity at the tomb may date to these reigns.

32 ID288/1421_S, ID289/1422_S.

33 E.g. ID303/1390_A.

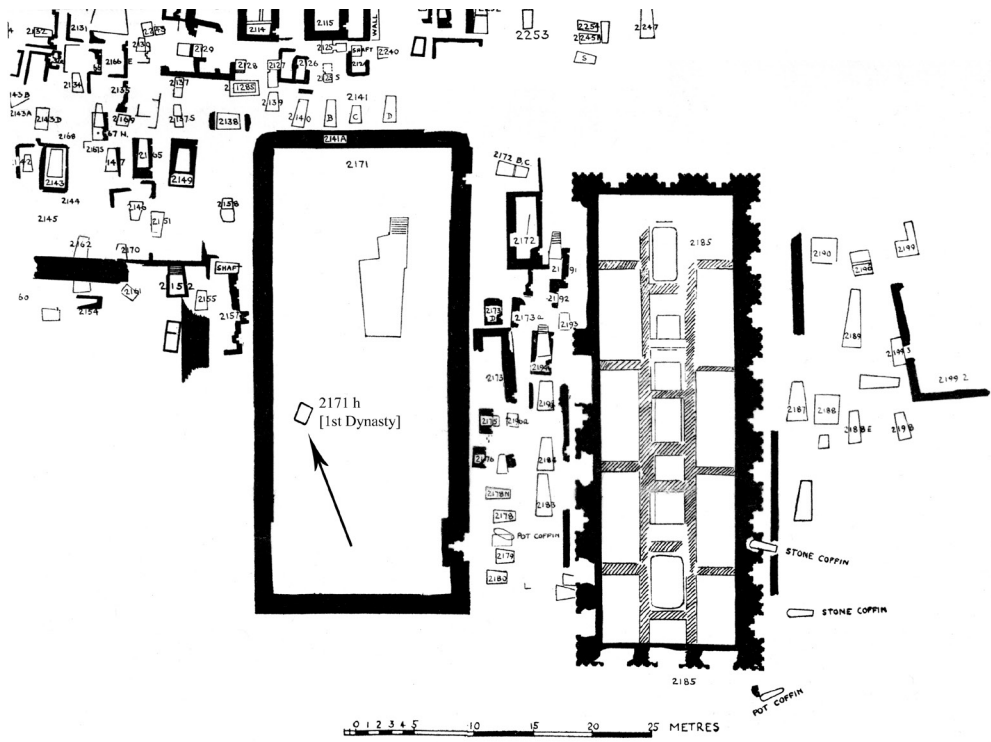


Figure 26: Plan of Saqqara cemetery showing large *mastaba* S2171 under which was found the small 1st-dynasty Tomb S2171 H (after Quibell 1923, pl. 1 and 11.1, CC BY 4.0).

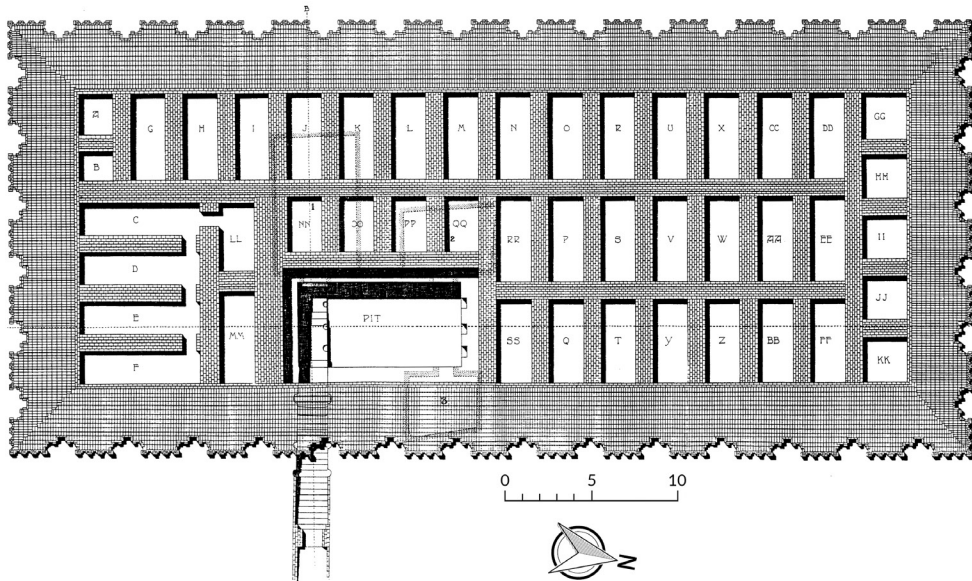
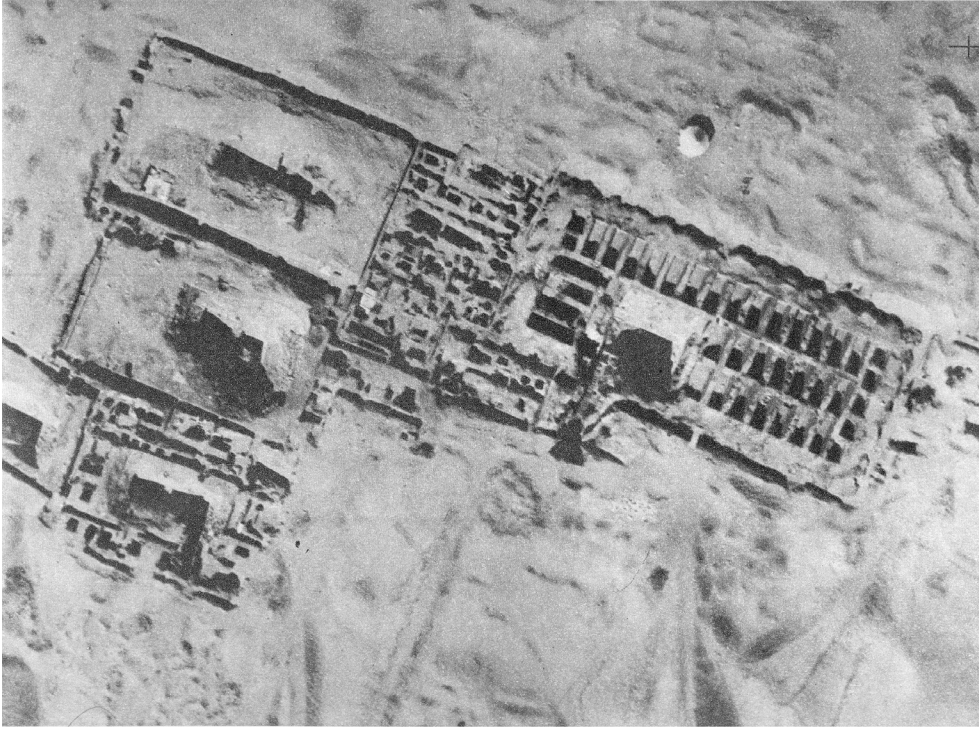


Figure 27: Aerial view of *mastaba* S3035 (Emery and Sa'ad 1938, pl. 3) with plan (after Emery and Sa'ad 1938, pl. 1, CC BY 4.0).

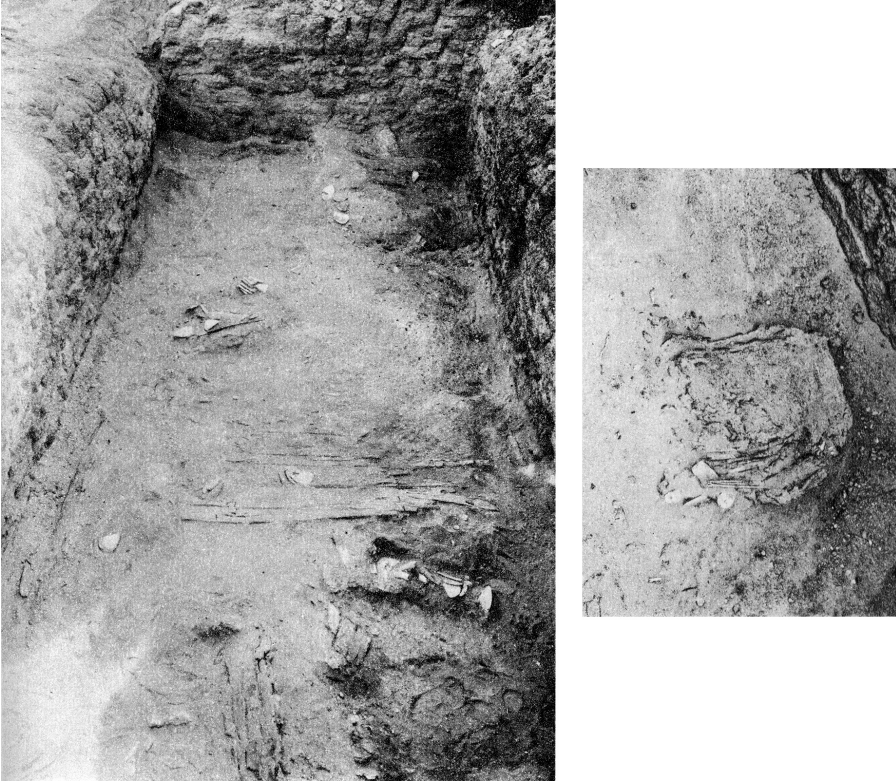


Figure 28: Left: Magazine AA in *mastaba* S3035, Saqqara. Right: Sealed leather bag (Cat. No. 424/434) in Magazine AA (after Emery and Sa'ad 1938, pl. 19.A and C, respectively, CC BY 4.0).

Magazine Z and AA

The 11 labels from this tomb were (probably, see below) found in either Magazine Z or Magazine AA (see Figure 28 for the latter). ID239/0847_S (Cat. No. 408/411), bearing the PI of Djer and elaborate narrative scenes, was found near a leather bag to which it may have been attached (cf. Cat. Nos. and finds details in Emery and Sa'ad 1938, 13 and 35–39). This label is one of three examples³⁴ I know of where cord was found threaded though the perforation (Figure 29).

Five apparently-uninscribed perforated wooden plaques (listed both as Cat. Nos. 401–405 and 414–418) are reported as being found together with flint and copper implements, and gaming pieces inside a leather bag measuring 70cm × 40cm. The bag of soft leather was closed with string/rope and a sealing (Cat. No 434) impressed with a cylinder seal bearing the niched frame of Den and related motifs (Emery and Sa'ad 1938, 64, fig. 26). These constitute the most detailed depositional evidence for possible label evidence to date, yet ironically, presents more questions than answers. Could this bag represent a set of early writing equipment? At least with regard to the use of copper

³⁴ With ID285/4830_Ab and possibly ID338(?)/--_A.



Figure 29: Fragment of cord found threaded through perforation of wooden label ID239/0847_S from *mastaba* S3035, Saqqara, NIIC1-C2 (c.3085–c.2867 BCE), The Egyptian Museum, Cairo, JE 70114 (photo: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0).

or flint tools to prepare the writing surface? It should be noted that the Museum's *Journal d'Entre* records eight wooden labels/fragments.³⁵ The excavators may have counted multiple fragments as part of the same plaque (Emery and Sa'ad 1938, 39, Cat. No. 418), but during first-hand study I was unable to discern any mends among them. Errors in the published report with regard to both object numbers (Cat. No.) and find spots make it difficult to assess the significance of these and associated finds with any rigour. I have nevertheless attempted to unpick and clarify errors where possible.

The list on pp. 13–14 (Emery and Sa'ad 1938) indicates that all labels for this tomb were found in Magazine Z. However, the sealed leather bag (Cat. No. 424) is listed as coming from Magazine AA, and while its contents include various implements and gaming pieces, no wooden labels or fragments are listed here. Meanwhile on p. 39, the leather bag, now given the Cat. No. 434, is said to be the container for uninscribed wooden labels and fragments (Cat. Nos. 401–405), with the find spot listed as Magazine AA (Figure 28). Two aforementioned ivory labels,³⁶ with three perforations each, are listed as coming from the southeast corner of Magazine Z and may have been associated

35 ID334/--_S, ID335/--_S, ID336/--_S, ID337/--_S, ID338/--_S, ID339/--_S, ID340/--_S, ID341/--_S.

36 ID288/1421_S, ID289/1422_S.

with two cylindrical leather bags with wooden fittings (p. 14: “Cat. Nos. 425 and 426”, p. 41: Cat. Nos. 435 and 436) are also found in this magazine and said to have contained fragments of 14 wooden staves (see Emery and Sa’ad 1938, 41 and possibly pl. 8, lower left and right). Although questions surround the precise find contexts and associations, some insight can be gleaned concerning the relationship between labels, these bags and their contents, as discussed further on (§4.12.2).

4.6.1.3 Tomb No. S3504 (Djet>Den>Qa’a)

Labels from integrity levels 1–2: 18/19

Mastaba, S3504 (Figure 25, Figure 30), was excavated by Emery and his team in early 1953 and yielded 18 labels. The superstructure, comprised of 43 magazines, was surrounded by a low bench, upon which bull heads fashioned in clay with real horns had been installed. The substructure included 23 (original) chambers, and 62 subsidiary graves were located on the south, east and west (Emery 1954, 7, 13, 24–37). The architectural design places tomb construction in the mid-1st-Dynasty, just prior to the reign of Den, while labels, impressed jar sealings and other objects bear the PIs of Djet, Den and Qa’a (Emery 1954, 5, 102–127). The main tomb was looted and fired at an early date, followed by the subsequent partial remodelling and restoration, probably during the reign of Qa’a (Emery 1954, 5–6).

The 18 labels were distributed among approximately 10 different chambers,³⁷ with one encountered in fill above the tomb. Whether objects there were in their original context or had been moved about by plunderers was unclear (Emery 1954, 16). Inconsistencies in the report, make it difficult to determine find spots for three labels, as noted. Sub-rooms D and E cannot be located on the plans although their finds are given in the report. The preservative conditions in the tomb were sufficiently good that organic material survived, including leather, flax rope, and cloth (Emery 1954, 43, 47–48). However, no label is recorded as having cord or a thong through the perforation or as being attached to another item or in an otherwise tell-tale position.

4.6.1.4 Tomb No. X (Den[?]>Qa’a[?])

Labels from integrity level 2: 2/2

Tomb X, the penultimate of the *mastabas* running north-south along the desert escarpment (Figure 25, Figure 31), was encountered in 1937 when new magazines and workshops were built behind the expedition house (Emery 1949, 107, 109). The burial chamber, positioned slightly toward the north and to the east within the layout of the *mastaba*, was accessed by a descending entrance, flanked by two auxiliary chambers, somewhat like the Abydos tomb of Qa’a (compare Figure 23 with Figure 31).

³⁷ Labels are reported for the following chambers: BB: ID266/0995_S; S: ID263/0990_S; T: ID274/0986_S; DD: ID265/0992_S, ID267/0991_S, ID354/1125_S (see also OO); W or N: ID364/1931_S; Y: ID262/0988_S; E: ID268/0993_S, ID356/1117_S, ID357/1118_S, ID358/1119_S, ID359/1122_S, ID360/1120_S, ID361/1121_S, ID362/1123_S, ID366/1126_S; OO, D or DD: ID264/0094_S.

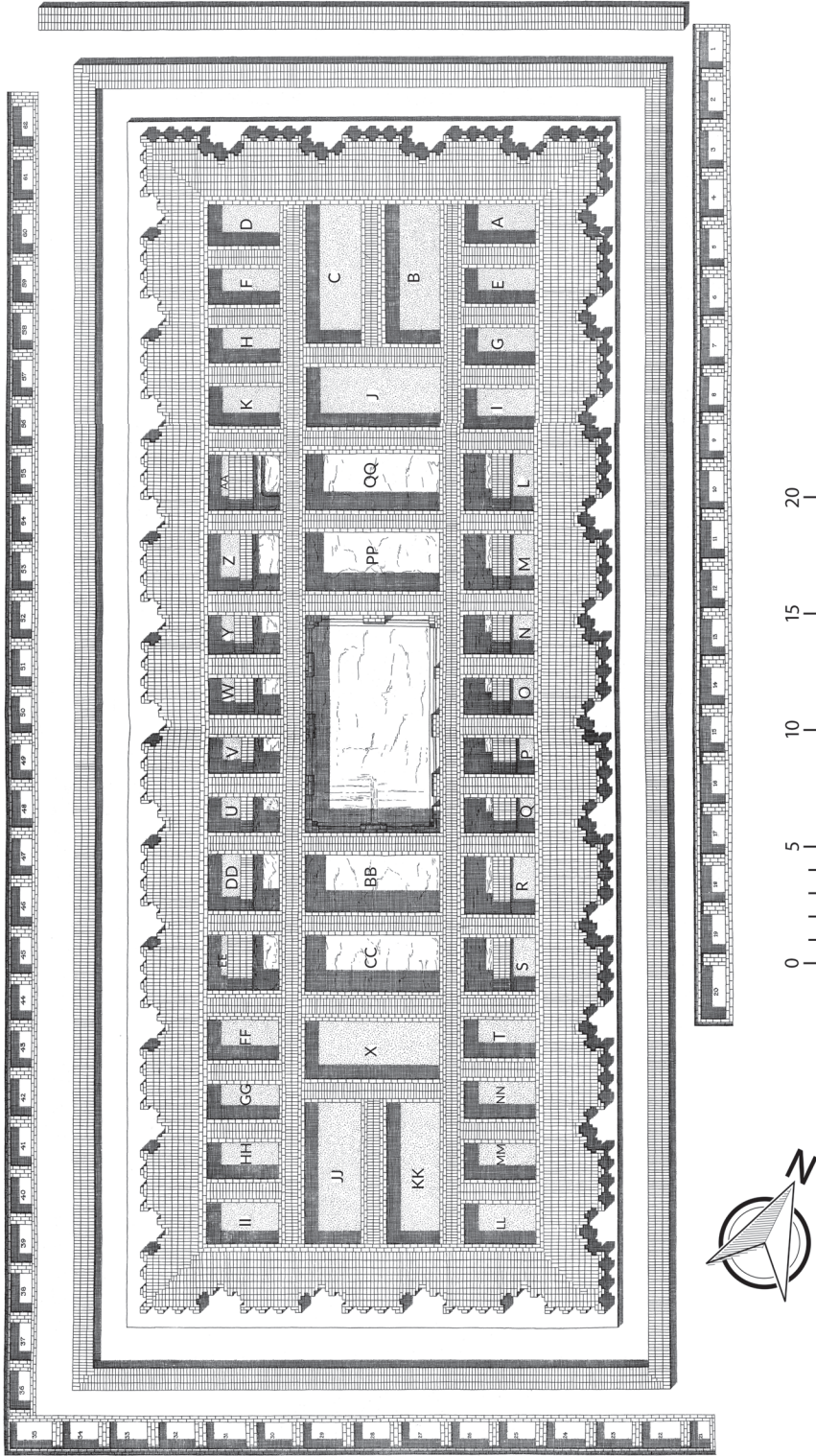


Figure 30: Plan of *mastaba* S3504 prior to the reconstruction of the fire-damaged burial chamber during the reign of Qa'a, Saqqara (after Emery 1954, pl. 1, courtesy of The Egypt Exploration Society, CC BY 4.0).

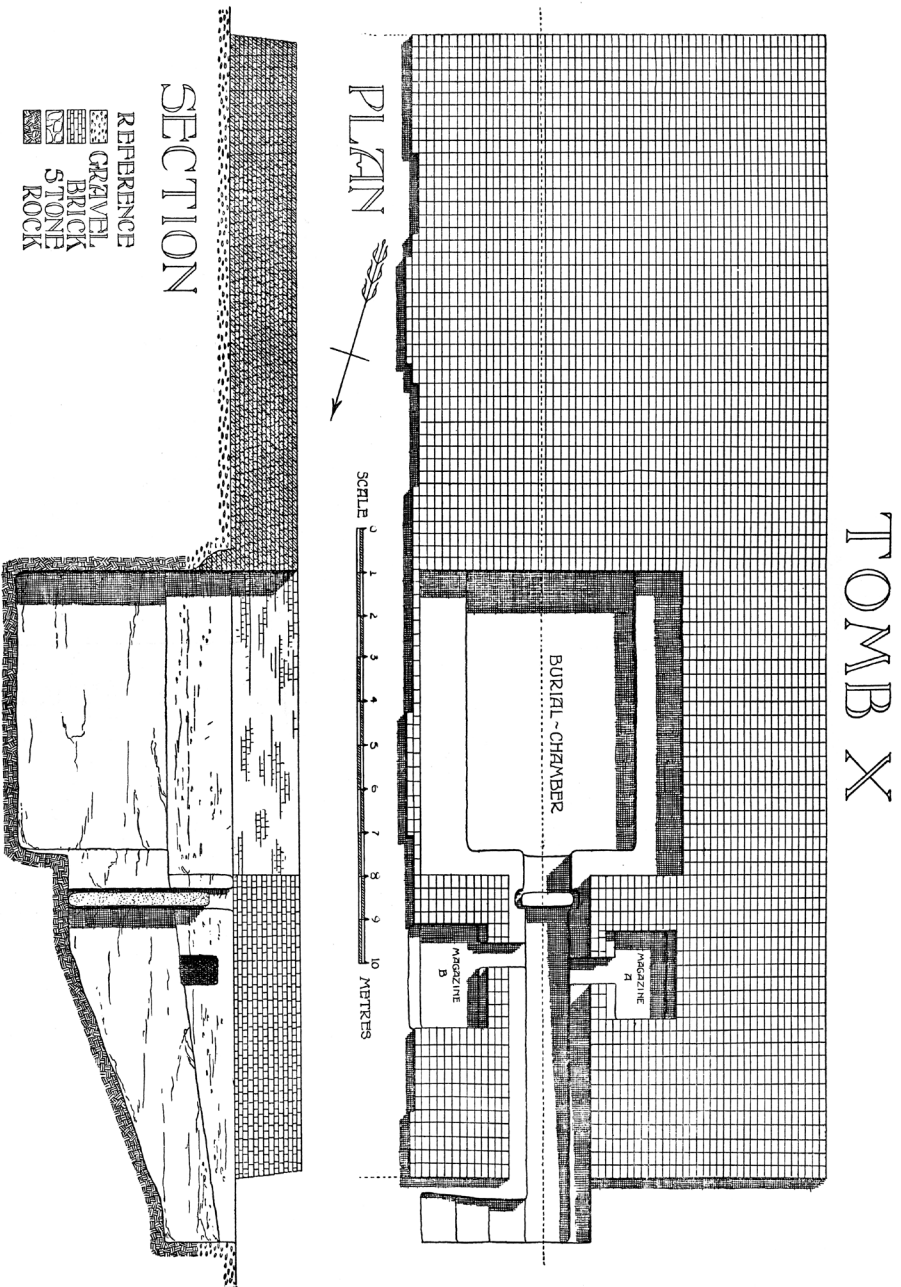


Figure 31: Mastaba Tomb X, Saqqara (Emery 1949, pl. 43, courtesy of The Egypt Exploration Society, CC BY 4.0).

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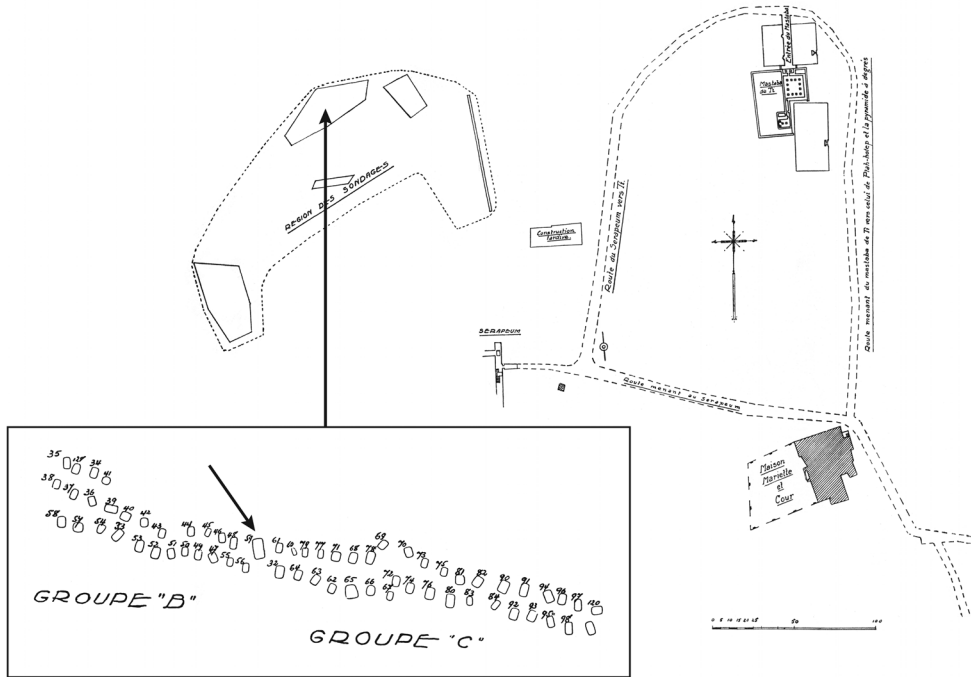


Figure 32: Macramallah's Cemetery, located to the northwest of the Serapeum, Saqqara. Detail shows tombs in central south sondage with Grave 59 in centre of groups "B" and "C" (after Macramallah 1940, pls. 1–2, CC BY 4.0).

Two double-sided wooden labels³⁸ were found in the burial chamber among debris left behind by plunderers (Emery 1949, 109). An offering table found in the debris is similar to that depicted on ID353/1564a–b_S (see §4.13), but no significance can otherwise be inferred from associated items. Through a retrospective reading of impressed imagery on conical jar sealings, Emery (1949, 107) suggests the tomb owner was a certain 'Nes-ka'. The dating of the tomb presents some difficulty. While impressed jar sealings bear $\overline{\text{III}}/O33+\text{G}5$ of Den, suggesting a mid-1st-dynasty date, its architectural style compares with S3120 and S3121 dated to Qa'a, suggesting that Tomb X may be later in date (Emery 1949, 107). Analysis of both labels found here also accords with a later date based on compositional patterning (§7.5.1, §7.5.3; cf. Begon 2016, 176).

4.6.2 Macramallah's Cemetery

Four labels come from Macramallah's Cemetery at Saqqara, located approximately 300m northwest of the New Kingdom Serapeum, in the Wadi Abusir (Figure 25, Figure 32). Excavation was directed by Macramallah (1940, Introduction) from

38 ID350/1565a–b_S, ID353/1564a–b_S.

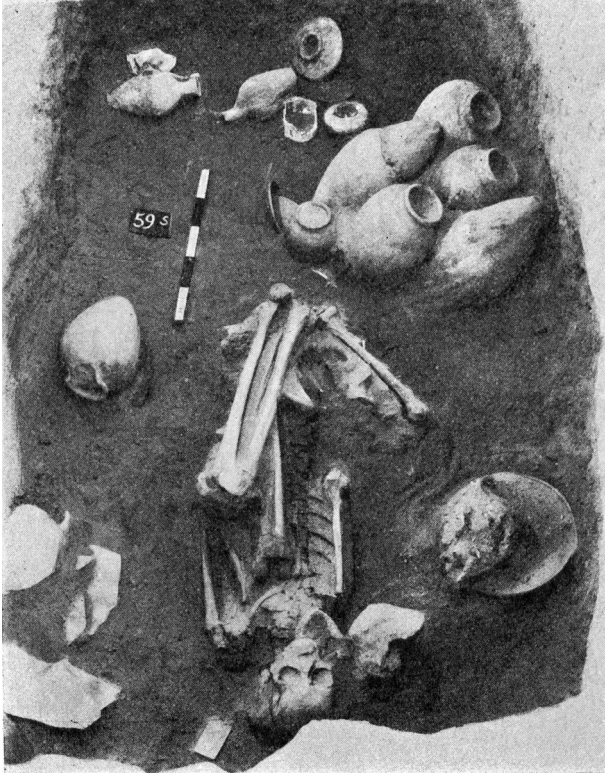


Figure 33: Grave 59 (2.3m × 1.23m × 1.10m) with an adult male placed on the back with head to the north (Macramallah 1940, pl. 19), CC BY 4.0.

11 October to 13 December 1936, during which 231 graves arranged in six groups were discovered.

4.6.2.1 Grave 59 (Den[?])

Labels from integrity level 1 or 2: 4/4

The four labels³⁹ were found in Grave 59 (Figure 33), located toward the middle of the grave group “B–C” and the largest in this group (Macramallah 1940, 16, 36, A–C, pl. 48.1). The graves are dated to Den on ceramic evidence, vessel inscriptions and seal impressions (Kaiser 1985b; Macramallah 1940, 3–4, 22; Wilkinson 2001, 239). Relative to the massive 1st-dynasty *mastabas* at North Saqqara, the smaller size and more humble contents of these graves indicate that the men, women, young adults and children buried here were probably members of middle-class Memphite society (Macramallah 1940, 2)—but of varying status and occupation, the significance of which is examined in Morris’ (2007) insightful study.

Although partially robbed, Grave 59 contained the remains of an adult male placed on his back with the head to the north. With 34 objects placed around the body (Macramallah 1940, 36; Figure 33, Figure 34), the grave constitutes one of the richer burials in the cemetery. Preservation is generally good, but Macramallah (1940, 3, 15) mentions

39 ID281/2004_S, ID282/2003_S, ID283/2005_S, ID284/2002_S.

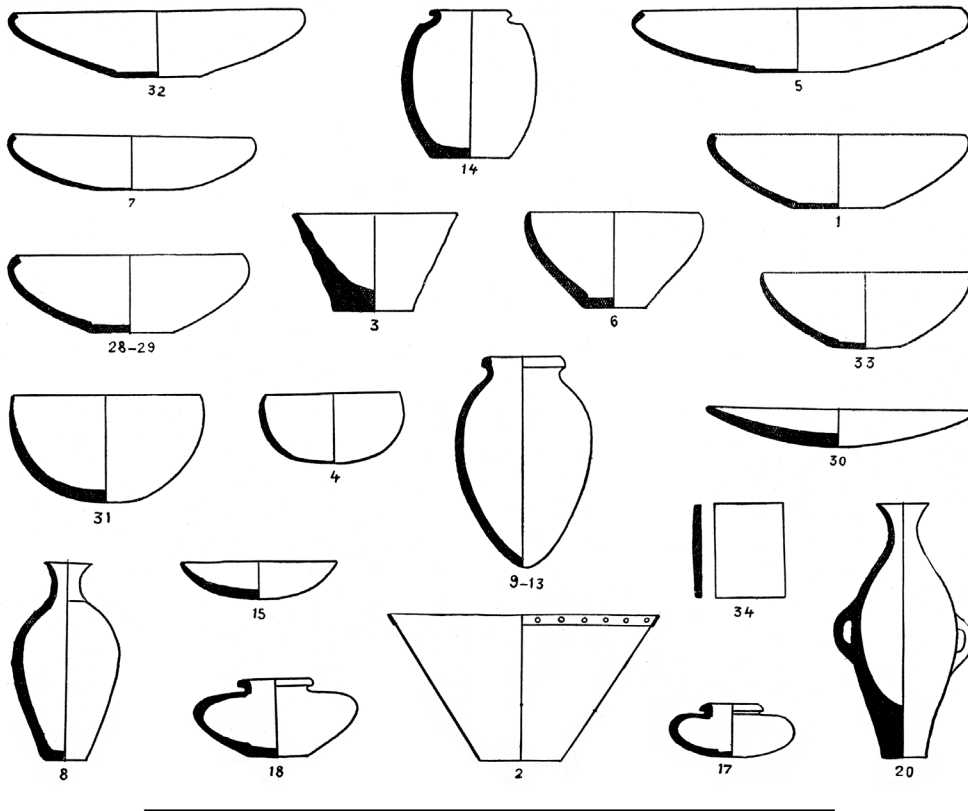


Figure 34: Top: Drawings of selected objects found in Grave 59. Bottom: Vessels depicted on the four labels (ID281/2004_S, ID283/2005_S, ID282/2003_S, ID284/2002_S, respectively) also found in Grave 59, Saqqara (Top: Macramallah 1940, 37, fig. 29; Bottom: photo details: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0).

the presence of salts on the floors of the deeper burials, which were also damper. Textiles are attested from the cemetery but preservation is minimal; if the labels had been strung on cord made of organic material, it is not likely this cord would have survived. The presence of the labels cannot be discerned in the otherwise good photographic documentation of the grave and it is unfortunate that Macramallah does not comment on their precise archaeological position, as this might have clarified how they were used or associated with tomb contents (§4.12.2).

4.7 Helwan

At least six labels have been found at the cemetery site of Helwan (Ezbet el-Walda), located on the east bank of the Nile opposite the ancient site of Memphis, about 25km south of modern Cairo (Figure 4, Figure 35). This immense necropolis of more than 10,000 tombs was first excavated by Egyptian archaeologist Zaki Sa'ad (1969), and later under the directorship of Christiana Köhler (2000; Köhler 2004a; Köhler 2004b; Köhler 2007; Köhler 2009). This site spans over 400 years from the NIIIA, if not earlier, to the 4th Dynasty. Like Saqqara, Helwan served the early Egyptian administrative 'capital' at Memphis as the final resting place for lower ranking officials, craftspeople, and other members of this large urban community (Köhler 2004a, 299, 311). Overall, archaeological integrity is poor; some tombs were robbed in antiquity two or three times (Köhler 2004a, 297). Preservation is exemplified by the survival of fine and coarse linen cloth, basketry, hair and plant material (Köhler 2004a, 298; Sa'ad 1969, 147, 151, pl. 67, 148, pl. 68, pl. 71). If similar materials were used for label attachment, these may have survived.

4.7.1 Tomb 68 H.12

Labels from integrity level 1(?)–2: 2/2

Tomb 68 H.12 yielded two labels.⁴⁰ The location of the tomb and a record of its contents, if known, are not yet available in published form. The two labels were (re-)discovered during a study in the Egyptian Museum, Cairo, of Sa'ad's excavation finds by the Macquarie University Helwan Project directed by Christiana Köhler (2002; Köhler 2004a, 296), and have been generally dated to NIIIC–D (Köhler 2004b, 38).

4.7.2 Tomb 635 H.9(?)

Labels from integrity level 2(1?): 3/3

Three labels⁴¹ were found in Tomb 635 H.9(?)⁴² (Sa'ad 1969, 68, 77). Associated finds are unpublished to my knowledge, but it will be valuable to compare any associated vessel types, particularly those of stone, with those carved so carefully on these labels. Sa'ad writes: "In the upper right corner of each tablet one can discern a hole through which a cord was strung to tie the tablet to the neck of the vase" (Sa'ad 1969, 68), but no direct evidence for this association is documented (Sa'ad 1969, 77, pl. 97). The label finds derive from three tombs.

40 ID355/4821_H, ID377/4822_H.

41 ID374/3406_H, ID375/3407_H, ID376/3408_H.

42 Sa'ad names "Tomb 635 H.9" as the find location in his text and the plate caption (Sa'ad 1969, 68 and 177, pl. 97), but a close look at the handwritten label suggests "635 H7" is the find location.

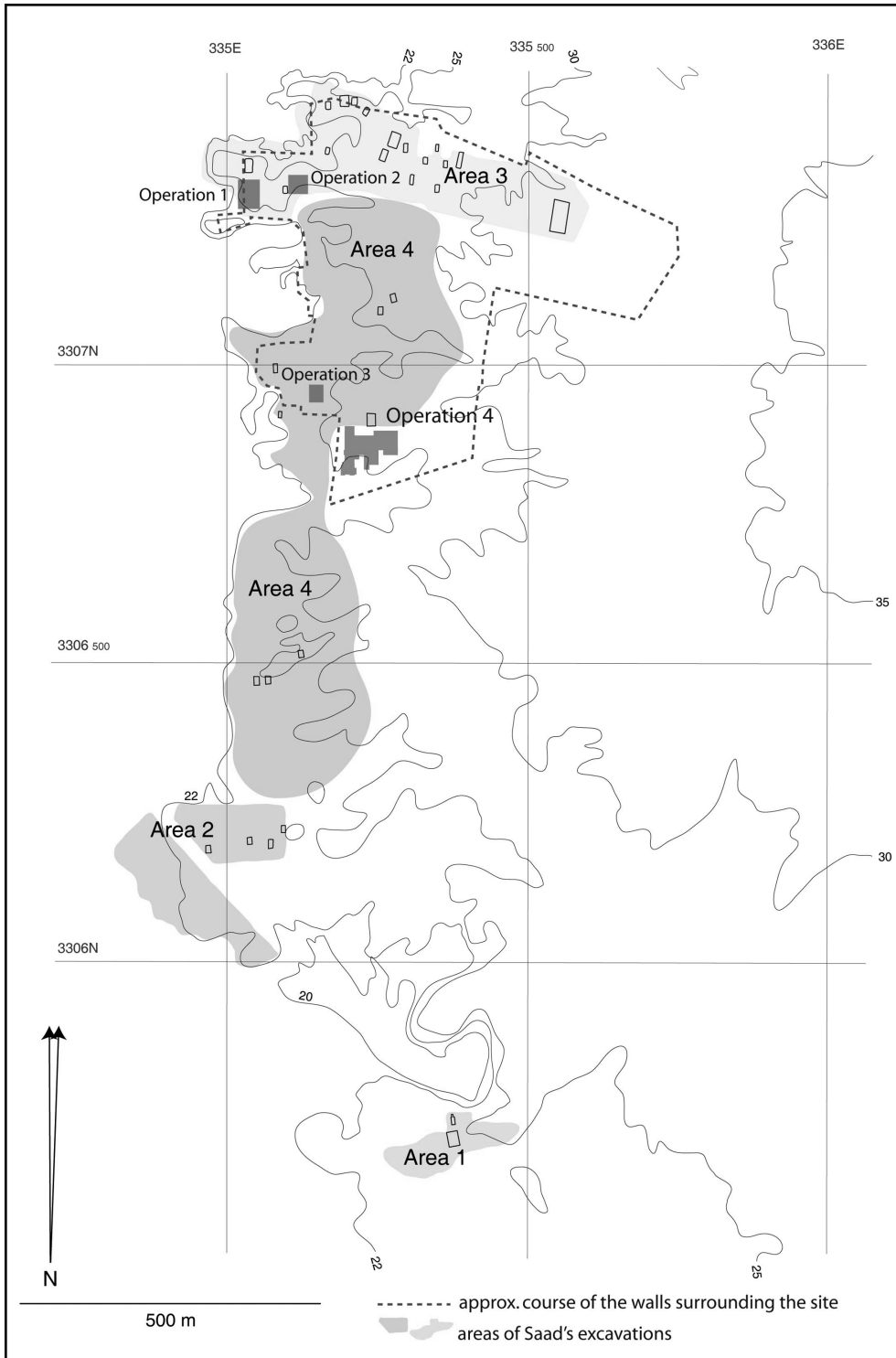


Figure 35: General map of the ancient Helwan Cemetery showing Operation 4 (after Köhler et al. 2014, 2, fig. 1 © Christiana Köhler et al.).

4.7.3 Tomb 4/91

Label from integrity level 2: 1/1

One label⁴³ was found during the Macquarie University's 2005/2006 season at the bottom of large pit Tomb 4/91 (Köhler 2007, 199, fig. 5, 212, pl. 5b), in a patch of "...dark fibrous, organic material near the south-eastern corner..." (Köhler 2007, 196, 199). This is unlikely to represent its primary position given that the tomb was repeatedly plundered. Vessels found in the tomb that roughly resemble the flat-based closed form depicted on the label include two model limestone vessels and a small greywacke flask. Based on all finds Köhler dates the tomb to the NIIIC/D or late 1st Dynasty–early 2nd Dynasty.

4.8 Tura

The site of Tura is located on the east bank, about 14km south-southeast of central Cairo (Figure 4), and consists of three modern residential clusters, the most southerly of which is Tura el-Ismant, where one label was found in a cemetery context.

4.8.1 Grave 90 T.4

A single label, ID346/1823_Tu, was recovered from Grave 90 T.4 (Leclant 1961, 104; Kaplony 1963, 983, n. 1552). The label is similar to ID345/1677_A and ID349/4442_A from Abydos, but no other information is given.

4.9 Giza

The northern west bank site of Giza (Figure 4, Figure 36) is well-known for its Old Kingdom funerary and mortuary monuments, but it is an area situated about 2.5km south-southeast of the Great Pyramid at Nezet Batran where a possible label, ID269(?)/--_G, was found.

4.9.1 Mastaba Tomb V, Grave 2

Labels from integrity levels 2(1?): 1/1

Mastaba V is a massive mudbrick structure with a niched façade and surrounded by 56 subsidiary graves (Figure 36). Excavations in April 1904 (Daressy 1905; Petrie 1907, 2, 5) revealed that the tomb had been partly burnt, but on the basis of inscriptional evidence and preserved architecture it is datable to the reign of Djjet (Petrie 1907, 3).

43 ID373/4756_H.

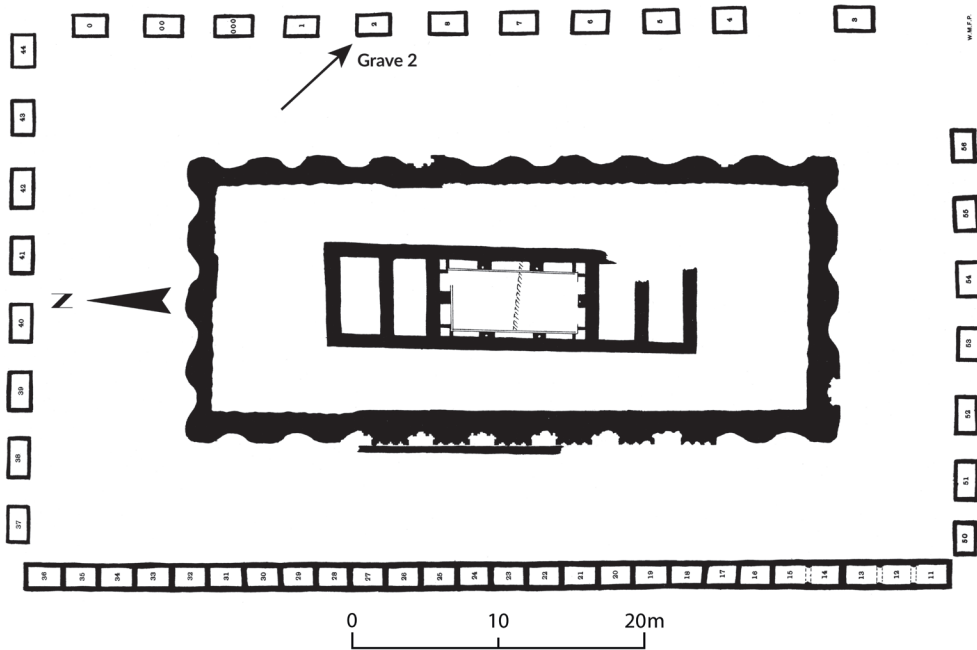


Figure 36: *Mastaba* Tomb V, with subsidiary graves, Giza (after Petrie 1907, pl. 6, CC BY 4.0).

Among finds sent to the Manchester Museum according to Petrie’s distribution list (Petrie Museum of Egyptian Archaeology 1999, “Giza and Rifeh”, 14, upper right) is a “label”. The Museum records note that this ‘label’, ID269(?)/--_G, was found in subsidiary Grave 2. Whether associated finds were recovered is unclear. The constrate is poorly preserved, with only faint traces of red and black colour. The lack of legible marks leaves some doubt as to the object’s identity, perhaps explaining why it was omitted from the excavation report (Petrie 1907).

4.10 Abu Rowash

Labels from integrity levels 1(?)–2: 1/2

The northern, west bank site of Abu Rowash is situated about 8km northwest of Giza (Figure 4, Figure 37). In 1913, Pierre Montet and his team began excavating several *mastabas* to the west of the Pyramid of Djedefre in the 1st-dynasty Cemetery M, where two labels were found.

4.10.1 *Mastaba* M01

Among the finds in *Mastaba* M01, Montet (1946, 183, 8–9) recounts recovering two labels, one of ivory and one of wood. These seem to have escaped the notice of previous researchers (Kaplony 1963; Kahl 1994; Regulski 2010a), but during data collection for

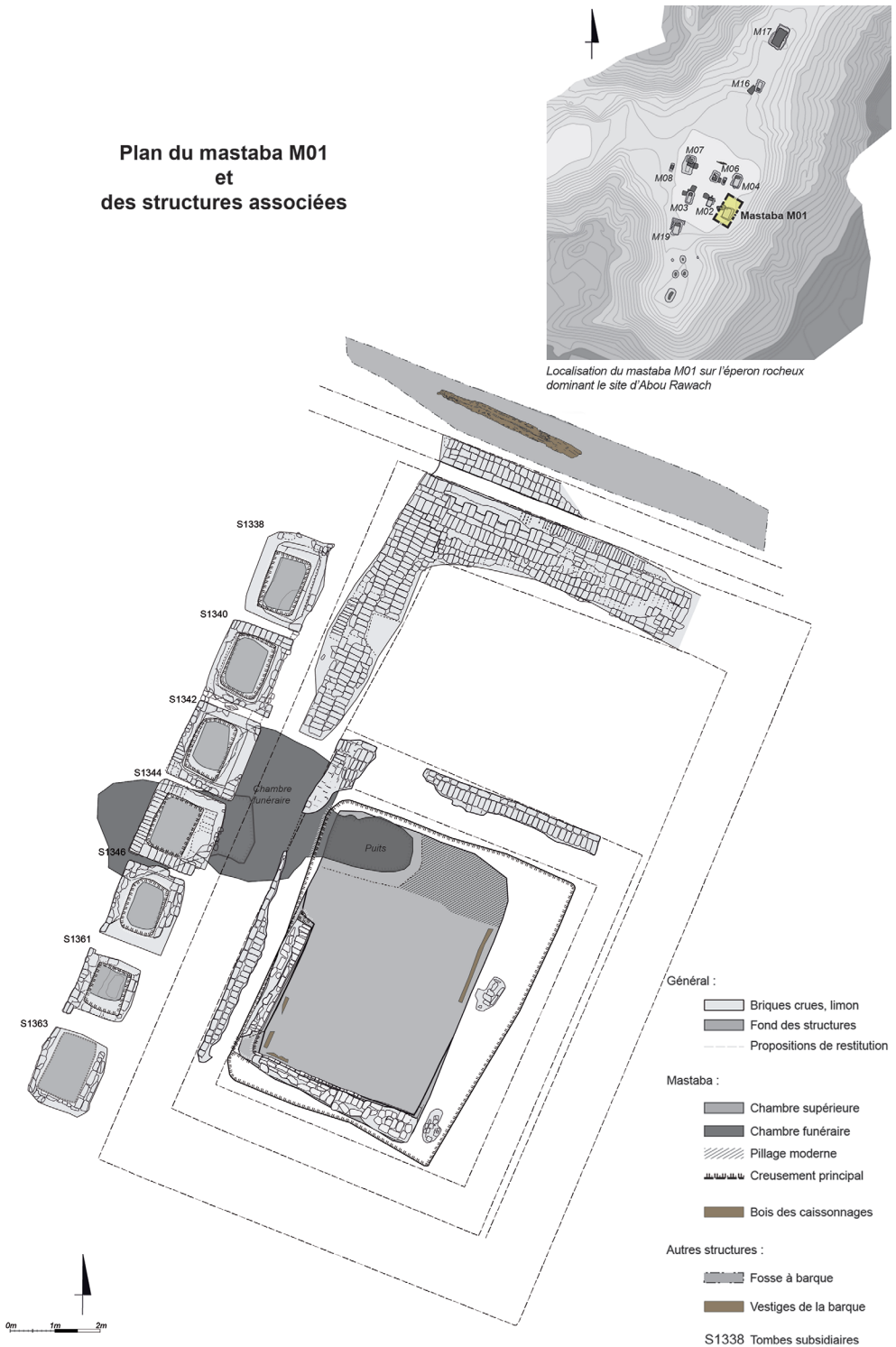


Figure 37: Plan of *Mastaba* M01 and its associated features, with inset of the site of Abu Rowash (Olivier Onézime and Romain Séguier, © Institut français d'archéologie orientale, Cairo).

this research a label of trapezoidal shape was encountered in the Egyptian Museum in Cairo (JE 45024⁴⁴), and the other⁴⁵ has now been located in the Louvre (Begon 2015; see also Cénival 1990, 37, n. 6, fig. 3, 38). Each label is made of wood, causing one to wonder whether Montet simply misidentified one or whether an ivory label from Abu Rowash has yet to be re-located. Based on Begon's (2015) analysis of the labels together with other data (Tristant and Smythe 2011, 325), *Mastaba* M01 probably dates to the reign of Den.

4.11 Unprovenanced Labels

Four labels are unprovenanced: ID302/2019_Un, ID351/--_Un, ID352/--_Un and ID275/1081_Un. The last bears the PI of Djet (Vikentiev 1959) and is very similar to ID274/0986_S and may come from the 1st-dynasty *mastabas* at Saqqara, possibly S3504 (§4.6.1.3; Kaplony 1967; Müller 1964, 50–51, A 79).

4.12 Assessing Archaeological Associations

The foregoing sections provide the most comprehensive survey to date of the archaeological evidence for the inscribed labels. This assessment is fundamental for clearly establishing our knowledge about what we do know, what we do *not* know—and *how* we know it (cf. Goldwasser 1992, 67). Due to variable integrity, examination focussed on levels 1–2 (§3.4), and, although it was clear from the outset that evidence for meaningful associations between finds was going to be limited, useful insights into function and purpose can be gleaned. I begin the discussion by summarising the evidence for each phase of label use.

4.12.1 The NIIIA1 Labels in Context

Of an estimated 185 NIIIA1 (or NIIIA1/IIC) labels from Abydos Cemetery U (including those reported as being found in Cemetery B, see above), about 137 were found in relatively secure contexts. Although no label was found *in situ*, the large concentration from Tomb U-j Chamber 11, particularly the 17 in contact with the floor near to the remains of cedar planks, can be understood to represent their original depositional location. It is here we come closest to accessing the purpose of these objects, although how they were actually deployed remains a matter of conjecture.

Labels found in Chamber 11 and elsewhere bear series of short incised notch/z1 or spiral/v8 GOs interpreted by Dreyer (1998, 139–140) as signifying numerical meanings, e.g. quantities or measurements (§10.3). He suggests that these labels were attached to textiles, possibly bolts of cloth or garments, although no textile remains were recovered

44 ID365/*_Ab.

45 ID285/4820_Ab.

from this chamber or anywhere in the tomb (*contra* MacArthur 2015, 120, 125). Looting may be a factor, and certainly insect destruction attested for other organic materials⁴⁶ may account for lacking textile evidence. Nevertheless, indirect evidence may be found in the form of depictions resembling clothing on a small number of labels.⁴⁷ Two of the garment/s27 labels⁴⁸ occur among the 17 from the floor; all of the others derive from external contexts, possibly indicating the movements of looters.

Two grains of barley (*Hordeum vulgare* L.) were also found at the bottom of Chamber 11 in association with the remains of the cedar planks. Dreyer proposes that grain may have been placed in cloth sacks to which the labels⁴⁹ depicting what he interprets as ‘threshing floors’ may have been attached (Dreyer 1998, 14). If this was the case, all sacks must have been looted and/or fallen victim to consumption by termites as no further grain or sacks have been preserved. If the remains of cedar planks were from boxes, and if these once held textiles, one would perhaps expect grain to be found further away from this area.

Overall, explanations proposed for the presence of labels in Cemetery U (e.g. Dreyer 1998; Baines 2004; Wengrow 2006, 200–206) fall into three main categories:

- The labels might have been associated with the items depicted on them, such as garments/s27 or grain;
- The labels bearing notch/z1 or spiral/v8 provided numerical information about the associated object(s);
- The labels conveyed information that was external to their associated item(s), such as item source (individual or collective donor, place).

Although the evidence outlined above does not permit direct substantiation of these proposals, the comparison of the 10 locations⁵⁰ where two or more labels co-occur, despite the poor archaeological integrity of some labels, presents interesting interpretive possibilities. It is striking that in nine of the locations, at least one label bears what can be understood as numerical content and imagery referring to textiles. This raises the possibility, considered further in §10.3, that labels were deployed in pairs or other multiples.

In addition to assessing the significance of label presence, it is important to consider label absence. In Tomb U-j, labels are conspicuously absent from all chambers apart from Chamber 11 and Chamber 1 (which may originally derive from Chamber 11). Direct and indirect evidence (e.g. base impressions) for ceramic vessels in many of the other chambers contrasts with their lack in Chamber 11, although fragments of eight, all stone types and possibly used for oils, were found there. Again, Dreyer (1998, 14) speculates that Chamber 11 accommodated large quantities of cloth—a quantity estimation

46 E.g. ID122/4359_A (Dreyer 1998, 14).

47 ID172/0205_A, ID173/4401_A, ID174/4400_A and possibly ID064/4299a–b_A, ID175/4402_A(+ ID176/--_A?), ID177/4403_A.

48 ID173/4401_A, ID174/4400_A.

49 See ID163/4393_A, ID164/4394_A, ID165/4392_A ID166/4391_A, all found with the large group of labels recovered in Chamber 11 somewhere above the floor.

50 Among these, three locations (U-j, U-k and U-qq) preserve type 2 level of archaeological integrity; all others are types 3 and 4 (see §3.4).

presumably based on the quantity of labels, if these (apart from the posited ‘grain’ labels) were all associated with cloth. Despite no direct evidence for the specific function and association of these labels, their physical separation from inscribed ceramic vessels as well as impressed sealings is significant. This indicates that the labels probably performed a graphical function that was not linked to containers of stone or ceramic, in contrast to the NIIIC–early D labels (below). This partitioning may also indicate temporal separation depending on whether the addition of Chambers 11 and 12 to the main structure (Dreyer 1998, 4) preceded or followed the equipping of the other chambers. I return in Chapter 8 to the potential significance of spatial distribution.

4.12.2 The NIIIC–early D Labels in Context

Of the approximately 240 NIIIC–early D labels, 120 probably come from archaeological integrity levels 1–2 (depending on whether one interprets those found in the vicinity of the entrance to Tomb Complex Q as relating to ritual⁵¹ or looting activities, §4.4.4.7). In contrast to the Abydos cemeteries, the integrity of contemporary contexts at Saqqara and Naqada is better, owing to the combination of fewer post-depositional disturbances and, in most cases, the use of more precise excavation and recording techniques.

At Abydos, about 23 labels were found in subsidiary burials or annexes, 10 from Umm el-Qa’ab and 13 from the North Cemetery. For the large complexes generally, if excavation reports and tomb designations pencilled onto objects can be relied upon as indicators that the object was found *inside* a given tomb or chamber, then 105 labels can be attributed to a specific chamber and up to 118 to a specific tomb (bearing in mind locations may nevertheless represent secondary deposition). For the four *mastabas* yielding labels at Saqqara and Naqada, analysis of distribution suggests that labels tend to concentrate in or around the burial and adjacent chambers (Figure 11⁵², Figure 27, Figure 30 and Figure 31). No further labels are found in archaeological contexts of integrity levels 1–2.

Labels, Beads and Cloth

Eight small numerical labels⁵³ from the Naqada *Mastaba* each bear different combinations of *i*/Z1, *r*/V20 and *o*/V1, commonly interpreted as numerical signs. Based on the depictions of ‘strung beads’ on two examples,⁵⁴ Tine Bagh (2004, 595) suggests that seven of these labels may have been attached to, or otherwise indicated information about, at least seven necklaces/strings of beads deposited in the burial. This recalls ID188/4817_A found in Tomb B50d along with beads, although the significance of the association is unclear given the disturbed archaeological context (§4.4.2.1). ID195/0227a–b_N may show globular or short barrel-shaped beads separated slightly on a string, with signs interpreted as giving the value ‘123’ (assuming units are consistent

51 Cf. provenance of ID345/1677_A (§4.4.4.6).

52 Kahl et al. (2001) seem to omit labels from analysis of small finds distribution in the Naqada tomb.

53 Dreyer (1998, 139) draws a parallel between these and ID188/4817_A from Abydos, albeit omitting ID192/0243a–b_N found by Garstang (1905) at the Naqada tomb.

54 ID195/0227a–b_N, ID196/0225a–b_N.

across contexts and thus may be attributed later known values). Oblong barrel-shaped beads on ID196/0225a–b_N are accompanied by the value ‘164’; this label may relate to a gold barrel-shaped coil-wire bead found in Chamber C (Bagh 2004, 596). The total sum on these seven labels is 720, although whether it represents individual beads or strings of beads cannot be determined. Four possible necklaces can be reconstructed from the finds (Bagh 2004, 595), but resemblance to the ‘strung beads’ on the labels is limited. Other beads from Chambers β and δ appear to have been stitched onto cloth or other material to form a pattern, perhaps for a girdle. It is unfortunate that the precise find spot for ID197/0242a–b_N is not known (Garstang 1905), but Bagh (2004, 594) proposes that this label could have been attached to such a girdle, possibly depicted in its upper left corner.

An alternative interpretation for labels without depictions of ‘strung beads’⁵⁵ is that they related to “copious amounts” of cloth of different qualities found in Chamber C (Morgan 1897, 164). The numerical information could indicate quantities or dimensions, as proposed for the similar NIIIA1 labels (§4.4.1; Bagh 2004, 594; Dreyer 1998, 139–140), but here with the benefit of positive evidence. The possibility that numerical GOs could be indicators of textile quality should also not be dismissed.

The intentions behind deposition of the larger and more elaborate labels ID209/0240a–b_N and ID210/0241a–b_N are more difficult to discern. Both bear erasures in the lower left, which probably once contained numerical information based on similar labels from Abydos and Saqqara,⁵⁶ a topic to which I return later (§5.12; also Piquette 2013a).

Vessels on Labels Labelling Vessels(?)

Vessels are probably unsurpassed by any other (durable) object type in terms of quantity and typological diversity within cemetery contexts—for equipping burials, use in the funerary repast (Emery 1962), or mortuary rituals. Vessels are also common in the label image repertoire (§6.3.5). Unlike the mutual exclusivity of the NIIIA1 labels with pottery vessels (§4.12.1), the NIIIC–early D labels are graphically and archaeologically often associated with vessels.

For example, on each label⁵⁷ found in Saqqara Grave 59 (Macramallah 1940), a vessel is depicted the lower left corner (Figure 34); at least 25 vessels were also found in the grave. If each label was associated with the container type it depicts, we should find at least one cylinder-shaped vessel and three flat-based, globular closed forms, although the vessel base type on label ID281/2004_S cannot be confirmed due to cropping (§5.6, §7.2.1). Fortunately, Macramallah provides a good photograph of the grave (Figure 33) and drawings of vessels finds (Figure 34), providing a unique opportunity among published reports to explore closely the relationship of label and potentially labelled items.

Vessels on three labels most closely resemble the flat-based, barrel-shaped ceramic vessel no. 14. Perhaps this single vessel was associated with three labels, but given that the tomb was slightly disturbed, vessels of this type may have been removed. The neck and mouth of the label vessels also resemble pottery vessels nos. 9–13. Two of these had

55 E.g. ID194/0223a–b_N.

56 E.g. ID202/4030_A, ID214/0283a–b_A.

57 ID281/2004_S, ID282/2003_S, ID283/2005_S, ID284/2002_S.

mud stoppers *in situ*; three did not, or no longer did (Figure 34, upper right, shows a similar vessel, lying on its side on the left without a stopper, which does not seem to be included in the catalogue of finds). Nevertheless, if jar stoppers (with sealing impressions?) and labels were mutually exclusive ways of labelling/identifying contents, the fact that there are three small labels depicting closed mouth vessels without stoppers may be significant. However, the “moderately pointed bases” of vessels nos. 9–13 undermine this connection.

The internal diagonal wavy lines on the vessel on ID282/2003_S, similar to ID284/2002_S, may indicate patterning of stone (cf. Begon 2016). Although the shape of the vessel shoulder is not exact, the closed mouths and flat bases of calcite vessels nos. 17–18 present possible candidates. Looking closely at vessel mouth shape, those on ID281/2004_S and ID283/2005_S are sharper and slightly more flared than ID282/2003_S. Two pottery vessels, nos. 8 and 16, are the only other possible candidates among the survivals (the latter, not included in the drawings, was found in fragments and its base type is unspecified). No. 8 is taller than vessels depicted on the labels, but, overall, no. 8 and especially no. 14 present a good fit, especially if the lack of internal markings indicates that the vessels are not of stone.

The tall container depicted on ID284/2002_S has internal linear markings that may convey something of its material, perhaps veined calcite as attested for vessels nos. 4–6 and 31, or another veined stone from which nos. 1, 7, 30 and 32–33 are made; all these vessels are low open forms, however. The remaining possibility is therefore a cylinder calcite jar (no. 19) reportedly found in fragments, and thus also not included the drawing (Figure 34).

It is interesting that two of the four possible vessel candidates were found broken. As mentioned, the tomb was only partially robbed (Macramallah 1940, 36), and if vessel contents were the objective of looters, it would seem more effective to carry the vessels away wholesale. The deliberate breakage of vessels as part of burial ritual is another possible explanation, as attested at Helwan in a roughly contemporary grave (Op. 4/190; Köhler 2010, 2). In such a scenario, is the label’s presence in the tomb simply the result of discard? Or should we infer a more symbolic or efficacious function for some, such as another method of ensuring perpetual provisioning of the deceased, potentially of their own accord?

Labels, Baskets and Bags

Another scenario for label use is presented by subsidiary grave no. 15 of *Mastaba V* at Giza. Here Petrie (1907, pl. 2) also found vases placed *inside* a large basket (see Figure 38). If the contents were originally completely enclosed, a way of identifying one or more item(s) might have been required. A related question is whether a single label was used to indicate multiples of a single commodity, or perhaps multiple types of commodity. The *cardinality* of labels to the labelled (a term adopted here from data modelling; e.g. one-to-one, one-to-many, many-to-many) is considered further in §11.2.

For label finds from Abydos Tomb Q (Qa’a), Engel (1997, 434) raises the possibility of attachment to cloth bags, possibly depicted below the GO Cluster interpreted as oil (on the basis of Old Kingdom oil lists)—oil presumably produced in a solid form. More direct archaeological evidence for this possible label function is encountered in Saqqara Tomb 3035 (§4.6.1.2) in the southeast corner of Magazine Z where an apparent pair of



Figure 38: Vessels placed inside a basket in subsidiary Grave V, 15, Giza (Petrie 1907, pl. 2, lower right, CCO 1.0).

ivory plaques⁵⁸ were found. Each plaque is perforated in three corners, unique in comparison to other labels but perhaps necessary for a particular attachment method. The perforations mirror each other (*vis-à-vis* the incised GOs on their surfaces); these plaques may be elements of a different object type altogether, perhaps affixed at opposite ends or sides as part of a box or other object. Their surfaces include a Cluster interpreted retrospectively as the PI ‘Hemaka’. On the upper right part of ID289/1422_S, \sqcup /D28 has been erased or eroded(?), while Emery and Sa’ad (1938, 39) suggest $\text{X}/V28$ was simply left out. First-hand study suggests it was once present but subsequently rubbed away. Also of note on ID289/1422_S are small scratches at the top of the ‘bag-shaped’ GO (s25), as though the composer was correcting an error (Piquette 2013a, 232–233, fig. 14).⁵⁹ Emery was unsure what the bag-shaped GO (s25) depicted. However, if we review finds from Magazine Z, a meaningful association may be found. Two large (100cm × 15cm) cylinder-shaped leather bags with wooden fittings were found in the eastern half of the chamber (§4.6.1.2.), perhaps the very items depicted on these plaques. The wooden fittings may have been part of a specially designed closure that relates to the unusual shape of the upper part of the ‘bags’ depicted. Further, each leather bag contained staves⁶⁰ (quantity per bag unspecified; Emery and Sa’ad 1938, 13), perhaps represented in a collective sense by the vertical line depicted within each ‘bag-shape’. Based on similarities between the bags’ shape and contents, label imagery and their general archaeological context, I think the case for meaningful association is strong (cf. Kaplony 1963, 330; Regulski 2010a, 188). However, as with the labels in Saqqara Grave 59 where there is a relatively good fit between labels and items depicted on them, it would seem redundant to depict the item to which the labels

58 ID288/1421_S, ID289/1422_S.

59 Cf. ID288/1421_S.

60 Cat. Nos. 384–400.

were attached, unless something about its presence was not self-evident, as with the ‘vessels contained within a basket’ scenario above. Another example from S3035 to be considered here is the previously discussed ID239/0847_S, an elaborate wooden label including three registers of imagery, also found near a leather bag (see §4.6.1.2).

4.12.3 Funerary and/or Mortuary Use of Labels

Labels are clearly associated with tomb equipping and/or funeral rites preceding burial, but evidence from Abydos offers possible insight into post-burial practice. The case for a mortuary role is suggested by the find context of ID345/1677_A, encountered outside of the outer wall of Abydos Tomb U (Semerkhet). As mentioned, Petrie’s (1900, 14) workers found the sand here saturated with scented ointment or oil (§4.4.4.6). Depending on its value, pouring out such large amounts of ointment would have constituted an extremely conspicuous display of wealth by the individual or group providing the commodity (e.g. Bard 2000, 69; Morris 2007b, 16–17). It is difficult to discern the temporal interval between the sealing of the burial chamber and subsequent activities (whether mortuary, looting, etc), and this example illustrates the complexities of situating label practices temporally; even though a ruler or other individual is identified on a given label, its use and deposition/discard may not necessarily equate with the individual’s lifespan or reign.

Petrie (1900, 6, 23) reports finding two labels⁶¹ on the east side of Tomb Q, one of which was located in what he calls an “offering place”. This “offering place” is where the pair of tomb stelae (§8.3) were also set up and stone “offering” bowls were found (see also O’Connor 1987, 32), but whether these were brought to this location as part of mortuary or other activities is unclear. Tomb Q nevertheless presents additional possibilities for understanding the temporal dimension of use. Almost 40 labels were encountered during the German work around Chambers Q-N5 and Q-N6, which flank the tomb entrance as well as having entrances to the exterior (§4.4.4.7). Again, discerning discrete episodes of deposition is problematic, but it seems significant that ID343/4046a–b(=4557)_A and ID344/4444_A, attributed to Semerkhet, were found in/outside Q-N6. Even if their find location was due to secondary deposition, this example opens another aspect of temporality. Both labels could have been associated with objects labelled in the time of Semerkhet, eventually being deployed in the equipping of Qa’a’s tomb (Engel 1997, 436). In addition to the tomb owner, identities marked on labels or other objects may represent the individual officiating the burial, or someone otherwise involved in the funeral (Dreyer 1993, 11; see also Morris 2007a). Likewise, cross-reign, perhaps cross-generational, curation of object or “heirlooms” (see Hendrickx 2002, 283; Jeffreys 2003) could apply to labels, whether in association with/attached to a particular object or as status items in their own right, as may be the case for seals found in some burials (Kantor 1952). This offers a possible explanation for the presence of ID239/0847_S, bearing the PI

61 ID409/1863_A, ID424/1654_A.

of Djer, yet found in S3035 (§4.6.1.2) dated to Den (Emery and Sa'ad 1938; cf. Hornung and Staehelin 1974).

4.13 Summing Up

The archaeological evidence attests to the importance of labels as part of high-status funerary belief and practice, although some are also associated with more humble burials. For the most part, the surviving evidence provides a window onto what seems to be the latter part of a label's 'life history'. Yet unattested from settlement or non-funerary ceremonial sites, more than 400 exemplars have been recovered from seven cemetery sites within the lower Nile Valley (two in the south and five in the north). The majority of NIIIA1 labels derive from Tomb U-j, while the majority of NIIIC–early D are associated with the tomb complexes and funerary enclosures of 1st-dynasty rulers at Abydos. Labels are also found in subsidiary graves of both male and female individuals,⁶² storage magazines, in front of a tomb entrance, and in a possible offering area. Several occur in/around high-status 1st-dynasty *mastabas* at Naqada, Saqqara and Abu Rowash, as well as a grave at Macramallah's Cemetery at Saqqara, and tombs at Helwan and Tura. Labels are also redeposited within and without these contexts during episodes of looting, restoration, reconstruction, and, later, archaeological investigation.

Associated finds within these architectural spaces include fragments of wooden and ivory furniture elements; wooden boxes; gaming boards and pieces; cosmetic articles; copper implements and wooden handles; ivory sticks; sandals; bone and ivory arrowheads; vessels of copper, stone and pottery (Emery 1954, 16, 18; Spencer 1986, 46); jar sealings and a cylinder seal (Dreyer et al. 1996, 73); and, on occasion, skeletal remains of male and female individuals. However, direct associations where labels are found attached to other objects or features are unattested. Two labels⁶³ preserve short lengths of twine through their perforations, and a perforated wooden plaque (label blank?) found inside a leather bag had textile (string?) adhering to its surface.⁶⁴ Less direct but potentially meaningful associations with burial equipment are noted for wooden boxes, leather bags and vessels.

According to the archaeological evidence and carbon-14 dating, the temporal dimension of label practices ranges from NIIIA1 to the end of the 1st Dynasty. Within the latter phase, labels are attested for all reigns, but the majority date to the reigns of Den and Qa'a (Figure 39). Selected finds confirm use as part of pre-burial activity such as tomb equipping, while others tentatively suggest use as part of post-burial activity.

This examination of the archaeological context takes us some way toward understanding the general temporal and spatial contexts of label practices. As part of an archaeological approach, however, the labels also require close consideration as artefacts in their own right. In addition to the semantic meanings encoded in the marks on

62 Based on depictive evidence from associated private stelae, e.g. Grave 22 (No. 225/*_A; Amélineau 1904, 56–58, pl. 18.14).

63 ID239/0847_S, ID285/4820_Ab.

64 ID338/--_S.

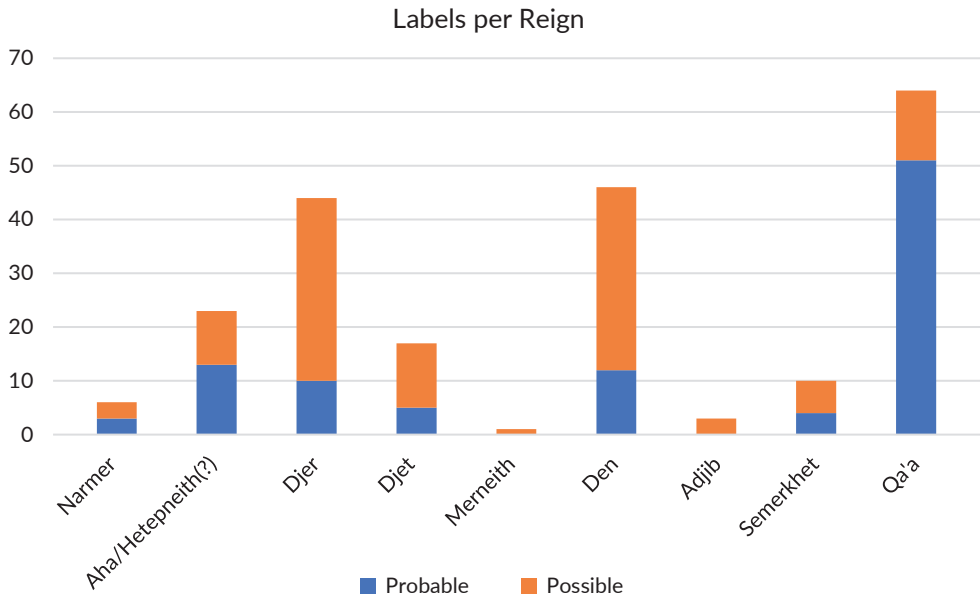


Figure 39: Chart showing estimated number of possible and probable labels according to reign, Kathryn E. Piquette, CC BY 4.0.

their surfaces, meaning must also be sought in the relationships and messages between human agents which the labels both symbolically construct and materially express. I therefore now shift this archaeological exploration of the labels from the spatial contexts of the cemetery to the spatial context of the label itself as a physical arena of and for meaningful social action.

5. Label Materials and Techniques

5.1 Introduction

Some artefacts may be considered by investigators to be more ‘material’ than others; depictions on the labels are not typically studied for their artefactual qualities. Yet by their very presence, image and script are products of material intentions, actions and transformations. The analytical focus of this chapter is two-fold: firstly, it is concerned with the material practices involved in the construction of a label (cf. Olsen 2003, 88) and how this act constituted a particular ‘present’ in the past; secondly, analysis is directed to how objects are constructed on a more conceptual level *vis-à-vis* the nature of their ‘materiality’, that is, the ways in which embodied actors conceptualised, perceived and engaged with materials.

Materials may present various imperatives from a technological perspective, but what a particular material is categorised as or what its materiality means cannot be determined *a priori*—fermented grape juice may be classified as ‘wine’ in one situation and the ‘blood of Christ’ in another. While this chapter is directed to the theme of label materials, it is with the recognition that significance is mutable and contingent upon the graphical-material worlds of which they were part, both within the funerary landscape and elsewhere. I therefore tack back and forth between these areas, drawing out various relationships as these are clarified by analysis.

5.2 Materials and Materiality

‘Materiality’ has been central a theme in archaeological and anthropological discourses over the past decade. In his article “Materials Against Materiality” Tim Ingold (2007, 1, 3) argues that these discussions have (perhaps surprisingly) neglected to address materials in an explicit way, and calls for more direct engagement with materials and their properties, transformations and affordances rather than “...the abstract rumination of philosophers and theorists”. Another area to expand the debate would be in relation to the materiality of image and script, to which Ingold (2007, 7–6) refers, but without detailed discussion.

Gibson’s (1979, 16) conceptualisation of the properties of materials (medium, substance, surface, as discussed in §2.4) is valuable for thinking through transformations in label production and use, as well as the conditions of engagement and perception. To illustrate its application, let us consider a bone label. At the moment of incision, the composer, through particular embodied movements (and accompanying perceptions and cognitive processes) extends her arm with a particular tool in hand, perhaps a small chisel, directing it to the surface as permitted by the medium of air and presumably some light. This combination of embodied, material conditions affords her a particular perceptual experience (visual, tactile, etc.), for example, as she makes incisions into the substance with the effect of creating a new surface that contrasts with the original surface through changing elevations and colour (especially where enhanced with pigment) as made visible by varying degrees of light and shadow.

In his discussion of ‘graphetics’, Mountford (1969, 631; see also Kahl 2001, 106) introduces the terms ‘substrate’ and ‘constrate’, the former being the foundation that supports script, and the latter the script itself. While this division is useful for compartmentalising data for analysis, Mountford’s characterisation of this relationship as strictly uni-directional—“[t]he substrate determines the kind of constrate...”—is not: it denies the agency of the composer and the cultural meanings that lie behind particular graphetic choices. I therefore employ Mountford’s terms in complementary fashion to Gibson’s, and with the latter’s conceptualisation of their interrelationship. Gibson’s model dovetails neatly with my overall emphasis on practice and the importance of embodied perception in the cultural characterisation and technological transformation of materials—conditions that recursively underpin all social meaning construction.

In exploring the significance of the materiality of the labels in practice (§1.8.2), analysis is directed to revealing the material choices made by label technician(s) and how these were informed by and re-informed related social structures (cf. Meskell 2004, 53). Dobres (2000, 216) sees the personal as necessarily social, the individual body forever part of the body politic, and the operational gestures of a single technician’s hands always tied to collective representations. Collective representations are nevertheless comprised of the results of individual decisions to participate in the reproduction of certain past choices, with some becoming more reified than others, thus forming structures. I am particularly interested in how individual choice informs and is informed by label-related structures, and the extent to which these are challenged and renegotiated over time and space. In conceptualising labels via a practice-centred method, it is important to populate this account with past people and embodied actions rather than focus on tools and the results of their use alone (see Dobres 2000, 21–22, fig. 1.2). There is the danger, however, of over-individualising activities in the past. Whether episodes of action relate to single and/or multiple individuals is not always archaeologically visible, but analysis of material patterning gives some idea of the scale of practice (see, e.g. Piquette 2014; Piquette and Whitehouse 2013); and how it varied among and between tombs and cemeteries over time, in order to shed light on related social structures. This inquiry begins, then, by exploring the creation phase of the label and its decoration, through to subsequent transformations.

5.3 Label Materials

General materials identification was accomplished as set out in §3.5. First-hand study was achieved for 227 objects. For 200 unseen labels, published materials were used where provided. It is often stated that the labels are made of wood and ivory (e.g. Trigger 2001 [1983], 56), nevertheless five main material types are attested: bone, elephant ivory, hippopotamus ivory, stone and wood.¹ First-hand observation revealed some inaccuracies in published materials identification (noted in the Label Database). Figure 40 gives the overall percentages of ‘substrate’ material and the percentages according to the two

¹ See comments on wood in §3.5.

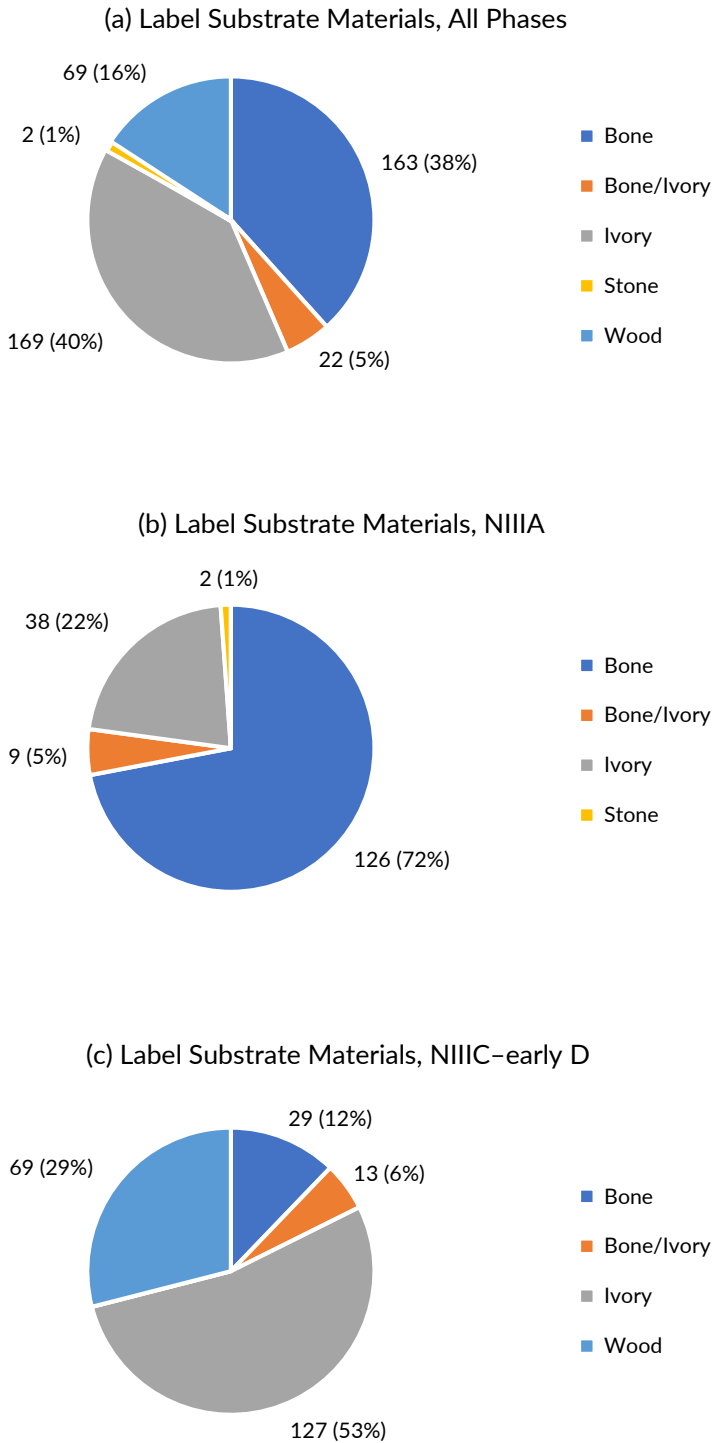


Figure 40: Substrate materials used in the manufacture of labels. (a) All labels (425) for which material could be determined, (b) NIIIA1 labels, (c) NIIC-early D labels (Kathryn E. Piquette, CC BY 4.0).

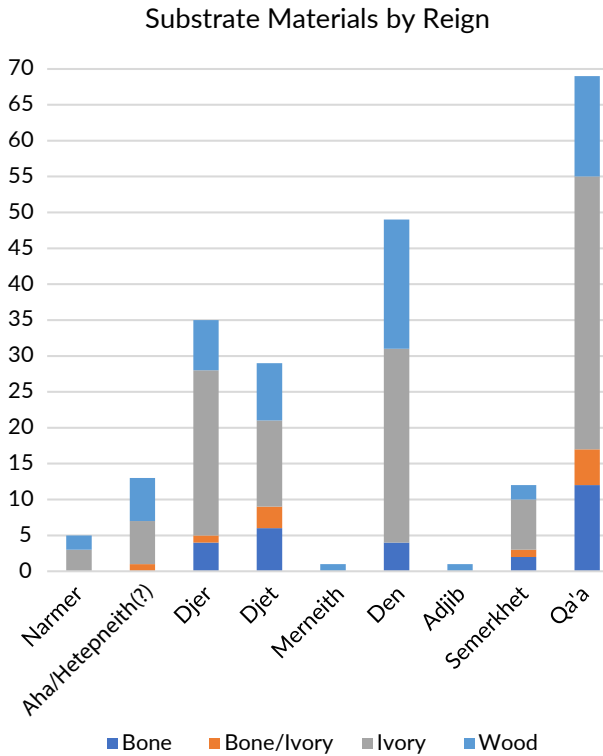


Figure 41: Distribution of NIIC-early D label substrate materials by reign (Kathryn E. Piquette, CC BY 4.0).

main chronological phases.² The chronological distribution of materials is given for both phases of use, alongside their distribution for the NIIC-early D reigns, in Figure 41.

5.3.1 Bone

Among the 126 bone labels, especially those dated to NIIIA1, the presence of morphological features, such as muscle attachment areas, nutrient foramina³ and metapodial seams (Figure 42⁴) gives some idea of the skeletal components utilised. The metapodial seam is diagnostic of the lower leg bone of ungulates, such as cattle, gazelle, antelope and sheep/goat found in archaeological contexts dating to the Predynastic and Early Dynastic periods (Ikram 1995, 292–295, based on NI–III evidence from Nag ed-Deir). The flatness and thickness of the compact bone layer of the caudal surface of the metapodial is suitable for making labels (§5.11). The distal tibia may have also been used,⁵ among other bones, depending on animal type and age. Features such as the spongy bone material and other marks indicate that the concern for smoothness and flatness

2 The substrate material of 22 labels could not be more specifically classified beyond “bone/ivory”. The reader is advised that the percentages expressed in the pie charts, here and below, are rounded to the nearest integer.

3 E.g. ID155/4382_A.

4 See also ID093/4391_A, ID095/43232a-b_A(?), ID101/4335_A, ID116/4352_A, ID131/4364_A.

5 Salima Ikram, pers. comm. 26.04.2007.

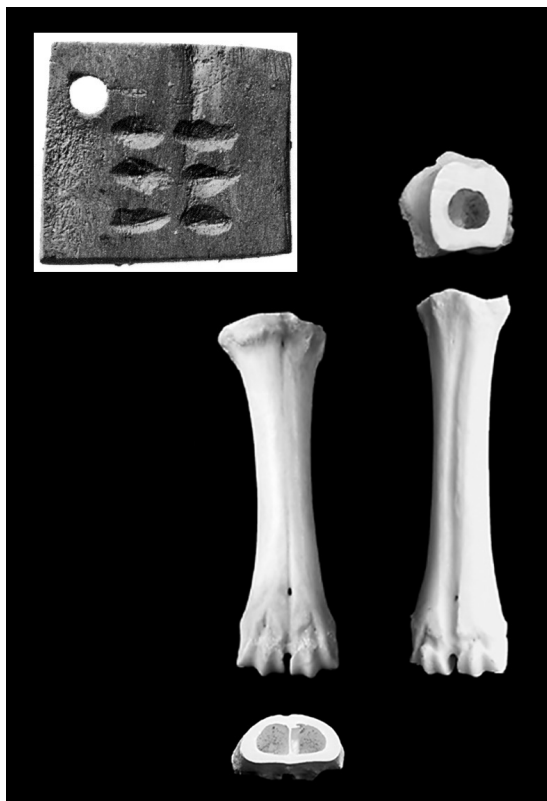


Figure 42: NIIIA1 bone label (ID011/4260_A) with metapodial seam, not to scale, and cattle metapodia in dorsal view and transversal section showing flat surface probably extracted for label-making (after Dreyer 1998, pl. 27.10 and after Páral et al. 2004, pls. 3–4; label: courtesy of German Archaeological Institute Cairo, CC BY 4.0).

was not always primary,⁶ and that recycling or use of off-cuts is possible.⁷ The use of human bone cannot be ruled out.

5.3.2 Elephant Ivory

At least 56 labels are made from elephant ivory. Two primary sources probably available to early Egyptians were the Asian elephant (*Elephas maximus*) and the African elephant (*Loxodonta africana*) (Krzyszowska and Morkot 2000, 320). By dynastic times if not earlier, the elephant became extinct in Egypt, but deliberately interred remains of at least two African elephants in the Hierakonpolis locality HK6 ‘elite’ cemetery (NIIA(B)) indicate that elephants could have been kept without being sourced for ivory: at least one tusk and fragments were found in the grave area (Friedman 2004). Elephant ivory for label-making probably had to be acquired through hunting expeditions or exchange, the earliest written references to which date to the Old Kingdom (Osborn and Osbornová 1998).

⁶ E.g. ID007/4246_A, ID042/4280_A.

⁷ ID075/4309_A, ID121/4358_A.

5.3.3 Hippopotamus Ivory

Although preservation and surface finish sometimes make distinction from elephant ivory difficult, hippopotamus ivory can be identified for at least 26 labels. It derives from the tusks, primarily from canine and incisor teeth, the lower canines averaging 60cm in length (Kolska Horwitz and Tchernov 1990, 67). Faunal and iconographic evidence for the hippopotamus is known from Predynastic times onward (Osborn and Osbornová 1998, 144; Petrie 1920, pl. 17.72). Mainly an inhabitant of swampy and riverine environments, such as the Nile Delta and areas where the river runs more slowly, the hippopotamus (*Hippopotamus amphibius*), as its scientific name implies, also dwells on land and can be very destructive of crops and people (Osborn and Osbornová 1998, 144, 146–147). Hunting may have been a way of reducing this threat, as well as providing an important source of meat and other products such as tusks (Krzyszowska and Morkot 2000, 326). The immediate practicalities of material acquisition, such as the distances travelled and whether the material was acquired directly through hunting or scavenging or through trade (in tusks or pieces of usable raw ivory), may have influenced values and meanings attributed to objects manufactured from hippopotamus ivory. Hippopotamus ivory could also have been sourced from Syria-Palestine (Krzyszowska and Morkot 2000, 326).

5.3.4 Stone

Stone is attested in two cases only, both dating to NIIIA1 and from Cemetery U, Abydos. ID186/4405_A is a relatively large, well-preserved and peculiarly inscribed example of light pinkish-grey limestone (Dreyer 1998, 136, no. 191). ID179(?)/--_A is a corner fragment of grey quartzite with traces of red⁸ (Dreyer 1998, 136). Outcrops of limestone are known throughout Egypt (the pinkish colour of ID186/4405_A may be the result of exposure and weathering; Aston et al. 2003). Quartzite is widely available in both the Eastern and Western Deserts, and occasionally in the Nile Valley (Aston et al. 2003, 53–54; Baines and Málek 1994, 19). The reason for the introduction and discontinuation of stone for label-making cannot be assessed from such a small sample. Moreover, I remain cautious in the classification of these objects as ‘labels’; ID186/4405_A is enigmatic with regard to its imagery, size and shape.

5.3.5 Wood

Wood is attested for 69 labels. All examples date to the NIIC–early D phase, comprising 29% for this phase and attested for every reign (see Chapter 4, footnote 141). The lack of wood among the NIIIA1 labels may relate to conventional choices, but preservation may also be a factor, although wood remains were encountered in Tomb U-j (Dreyer

8 The red is inherent to the stone and not applied colour (Günter Dreyer, pers. comm. 10.04.2016).




Figure 43: Top: An apparently blank label, ID335/--_S, made of a dense (as preserved) wood, *mastaba* S3035, Saqqara, The Egyptian Museum, Cairo, JE 70113 (photo: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0), Bottom: ID225/0615_A, made from a lighter-weight (as preserved) wood, Tomb O, Abydos, British Museum, EA35525 (photo: Kathryn E. Piquette, courtesy of The Trustees of the British Museum, CC BY 4.0).

1993, 34, 36). Variability in density and colour may be due to the species as well as the part of the tree used. Treatment, level of desiccation, and the conditions of preservation are also factors. Differences in density and weight were apparent in handling, particularly among the set of perforated but apparently undecorated plaques found in a leather bag in Saqqara Tomb S3035 (Emery and Sa'ad 1938, 39). ID340/--_S is much heavier

than its companions⁹ (see also Figure 43). Microscopy, necessary for species identification (Hodges 1965, 224–226), could not be undertaken during first-hand study but stands to contribute important insights into sourcing. Ebony is often named in publications as the wood type for dark-coloured labels,¹⁰ but, again, without analytical equipment these determinations remain conjectural. African black/ironwood or Egyptian ebony, *Dalbergia melanoxylon* Guill. and Perry. [Leguminosae-Papilionoideae] is also a possibility for dark wood. There is no botanical evidence that ebony grew in Egypt proper, but later written evidence indicates that sources lay somewhere to the south of Egypt (Gale et al. 2003, 338–339). Labels¹¹ of lighter-coloured woods might be Acacia (*Acacia nilotica*), Sycamore (*Ficus sycomorus*) or Tamarisk (*Tamarisk nilotica*), which all grew abundantly in Egypt at this time (Gale et al. 2000, 367). Cedar (*Cedrus libani*), as its scientific name suggests, was imported from Lebanon.

5.4 Materials of Manufacture: Discussion

An important question is whether a given material or its source was significant for its subsequent uses and meanings. As for the potential depiction of sources, /E26 appears on at least 12 NIIIA1 labels, but only 1 or 2 among those seen first-hand are elephant ivory.¹² An NIIIC–early D ivory label¹³ shows the spearing of a tusked or horned ungulate, possibly a hippopotamus. It would be interesting to know if this label was made from hippopotamus ivory, but it was unseen, and the ivory type is unspecified in the preliminary report (Dreyer et al. 2000, 115, pl. 10h). On the available evidence, even for wood and the depiction of trees,¹⁴ there is no clear correlation of depiction with material choice.

Primary sourcing by label-makers, i.e. hunting an elephant or cutting down a tree in order to make labels, cannot be ruled out, but it is more likely that these small plaques were formed from secondary sources, such as off-cuts or recycled pieces (see Gale et al. 2003, 368; also §5.5.1). Marks on selected labels,¹⁵ including grooves or apparently extraneous perforations that may have been for dowels, suggest that label (substrate) materials were, for example, reused furniture elements (Dreyer et al. 1996, 75). No fewer than six labels¹⁶ from Abydos Tomb Q (Qa'a) bear marks suggestive of previous use (e.g. Engel 1997, 474). It seems clear that pragmatic factors drove material selection in some cases. However, when materials are charted in relation to other variables, such as spatial distribution and graphical technique, it can be seen that other cultural factors informed choice.

9 ID334/--_S, ID335/--_S, ID336/--_S, ID337/--_S, ID338/--_S, ID339/--_S, ID341/--_S.

10 E.g. ID213/0284a-b_A.

11 ID206/0287_A, ID335/--_S, ID365/*_Ab.

12 ID059/4297_A, ID063/4298a-b_A.

13 ID326/4818_A.

14 E.g. ID240/0682_A.

15 See ID225/0615_A, ID284/2002_S (top edge), possibly ID267/0991_S(?) and ID362/1123_S(?).

16 E.g. ID382/4482_A, ID389/4492_A, ID392/4477_A, ID394/4481_A, ID395/4483_A, ID396/4473_A.

5.4.1 Spatial and Temporal Distribution of Label Materials

In plotting distribution of materials against the two main temporal groupings, we see that bone and ivory were employed in label manufacture during both, but stone is unique to NIIIA1. Bone accounts for 72%–77% of NIIIA1 labels, contrasting sharply with the 12%–18% of NIIIC–early D (Figure 40). Conversely, ivory constitutes 22%–27% of the NIIIA1 labels, increasing to 53%–59% among the later group. In as far as preservation is reliable, the use of wood for label manufacture is first introduced during the reign of Narmer¹⁷ and continues up to the end of label use, but overall remains less common than bone and ivory. Thus, if we accept that NIIIC–early D labels are part of a tradition continuous from the NIIIA1 labels, it is possible to chart at least two material changes in label practices. First, there is a materials change as seen with the elimination of stone and the introduction of wood. Second, label-makers increase use of elephant and hippopotamus ivory from one phase to the next, while reducing the use of bone.

Plotting of label materials according to inter- and intra-site spatial distribution shows different patterns for each site. For NIIIA1, finds are confined to Abydos Cemetery U, while the spatial situation for the NIIIC–early D labels is more varied (Figure 44). Abydos is the only site where labels were used from the full range of attested materials. At Saqqara, hippopotamus ivory is absent, but the concentration of wooden labels is notable: 30 (out of 69 wooden labels), 18 of which come from S3504 dated to Djnet and Qa'a. The significance of the absence of wood from Helwan is unclear from such a small sample (6 labels in total). The small sample size applies to all other label-yielding sites, including Naqada where wooden labels are also lacking—but of note there is the use of hippopotamus ivory for at least five¹⁸ of seven small 'numerical' labels (two are either bone or ivory but could not be identified with certainty). ID191/0226a–b_N and ID192/0243a–b_N appear to have been made by the same hand.

5.5 Preservation

The greatest number of labels has been recovered from Abydos (Table 1), where these finds are paralleled by large quantities of other contemporary graphical culture, highlighting the social importance of script and image in burial practices among early Egypt's upper classes and associated groups. Nevertheless, it is worth bearing in mind that this site has also received more thorough investigation than other cemetery sites of the same general period where further labels doubtless await discovery. In addition to taking account of the uneven sample sizes of the seven label-yielding cemeteries, general preservation for both substrate and constrate was assessed as part of the analysis. Separate evaluation of each is necessary. A well-preserved substrate may have poorly

17 ID201/0095_A.

18 E.g. ID194/0223a–b_N.

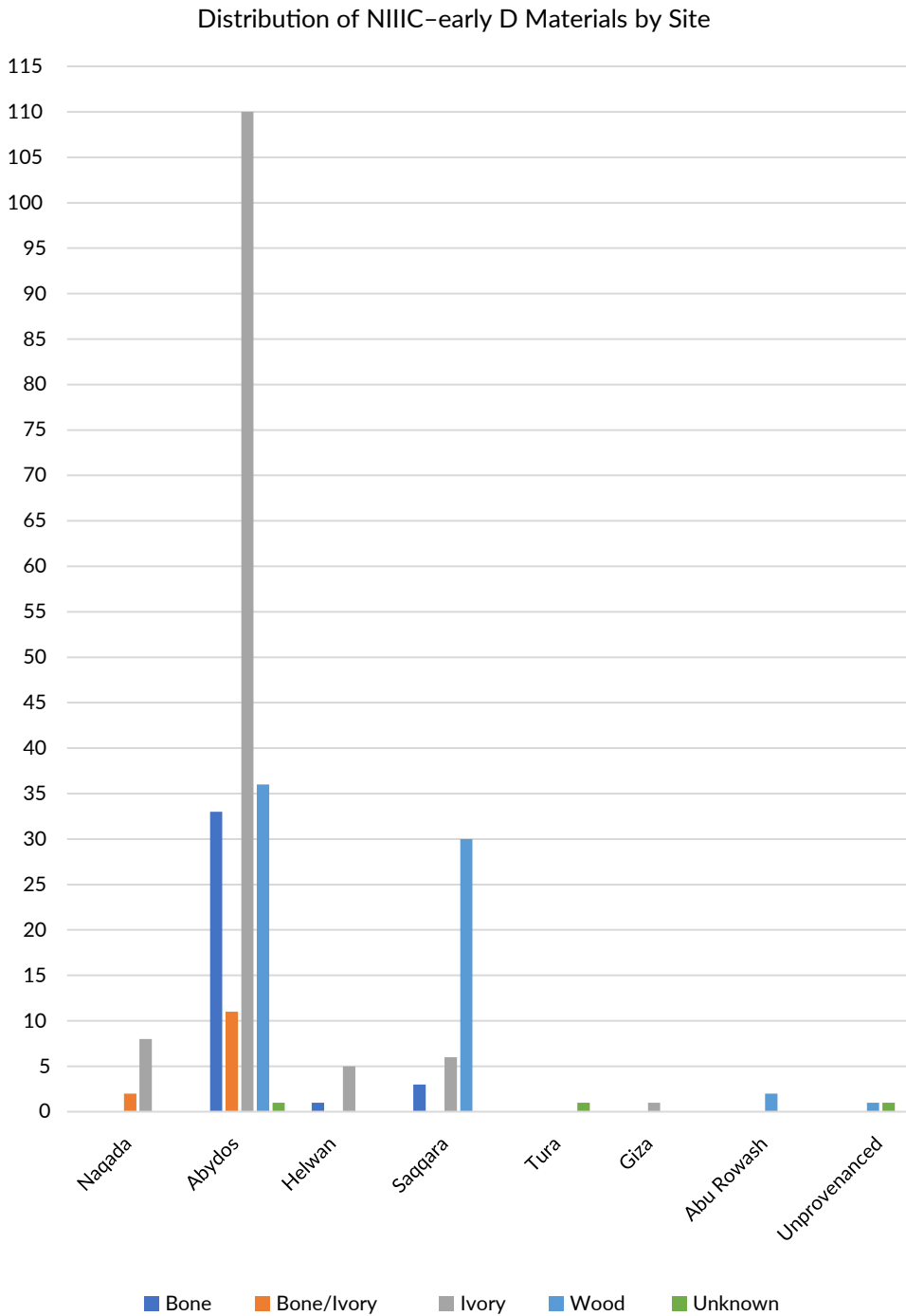


Figure 44: Spatial distribution of NIIC-early D label substrate materials by site from south to north, Kathryn E. Piquette, CC BY 4.0.



Figure 45: ID209/0240a-b_N and ID210/0241a-b_N, both elephant ivory, Naqada, NIIIC1-2 (c.3085–c.2867 BCE; photos: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0, and Kathryn E. Piquette, courtesy of The Garstang Museum of Archaeology, University of Liverpool, CC BY 4.0, respectively, left to right).

preserved decoration,¹⁹ or a poorly preserved substrate may still preserve most of its original constrate.²⁰ Bone and ivory tend to preserve better than wood, particularly if the tomb was fired (attested for the NIIIC–early D tombs only). When exposed to high heat, bone and ivory may become calcined but remain largely intact (Figure 45, note similar breakage patterns), while wood may be destroyed.²¹ Other threats to preservation include insect damage (e.g. Dreyer 1998, 14; Engel 1997, 7). Apart from Macramallah’s Cemetery at Saqqara (§4.6.2), excavation reports do not indicate that damp or salts posed particular problems.

Gauging preservation for unseen labels is hampered by inconsistently recorded/published condition information (e.g. Petrie 1900, 22–24). Many Saqqara labels are currently unlocatable²² and documented solely in the form of line drawings, which do not always make clear whether label edges are original or damaged. T.J.H. James (pers. comm. 2006), who drew the labels in Emery’s (1954) publication, recalls that many wooden labels seemed to be whole but were warped.²³

19 E.g. ID365/*_Ab.

20 E.g. ID234/0607_A.

21 But see ID207/0289_A.

22 Just prior to going to press, several if not all of these wooden labels from Saqqara were located in the Egyptian Museum in Cairo, with study now planned in the near future; see Preface, footnote 5.

23 E.g. ID364/1931_S.

5.5.1 The Substrate

For each label substrate, height, length and thickness (width) were recorded where possible. The minimum and maximum for the NIIIA1 labels overall is as follows:

- Minimum: H 1.05cm × L 0.95cm × W 0.1cm;
- Maximum: H 2.25cm × L 3.8cm × W 0.45cm.

These measurements for the inscribed NIIIC–early D labels overall are:

- Minimum: H 1.2cm × L 1.5cm × W 0.1cm;
- Maximum: H 8.5cm × L 9.45cm × W 0.71cm.

Thickness is absent in most early reports but noted in more recent publications. Analysis therefore focusses on the first two dimensions. To evaluate preservation of the substrate the following levels of completeness were recorded for each label substrate:

- 1) Complete;
- 2) Slightly fragmentary;
- 3) Moderately fragmentary;
- 4) Very fragmentary;
- 5) Unclear (label unseen and/or publication unclear).

Based on analysis of levels 1–4 (level 5 was excluded), the NIIIA1 labels are better preserved, with 61% being complete, compared with 33% completeness for the NIIIC–early D labels (Figure 46). When considering preservation among survivals according to material, certain patterns emerge. Since wood is weakest along the grain (Richter 2015, 5), it is here that fracturing is more likely. Label-makers consistently oriented the grain horizontally *vis-à-vis* the upright orientation of GOs, therefore horizontal breakage characterises most fragments. Whether breakage is deliberate could not be determined. Bone labels tend to fracture longitudinally, also indicating that makers oriented this material in a consistent way. Ivory labels tend toward oblique fracturing,²⁴ breaks often shearing off at angles,²⁵ with horizontal and vertical breakage attested only occasionally.²⁶ This pattern for the relatively consistent manipulation of substrate materials highlights one of the ways in which labels as material culture were reproduced. Here we see evidence for how practices, both social and embodied, were shared across time and space—in contrast to the variability among compositional and graphical choices discussed in later chapters.

The value of exploring practice at both macro- and micro-scales, and avoiding the pitfalls of assuming a linear process from production to consumption, is highlighted by the strikingly similar double-sided labels²⁷ from the same Naqada tomb (§4.3.1). Both

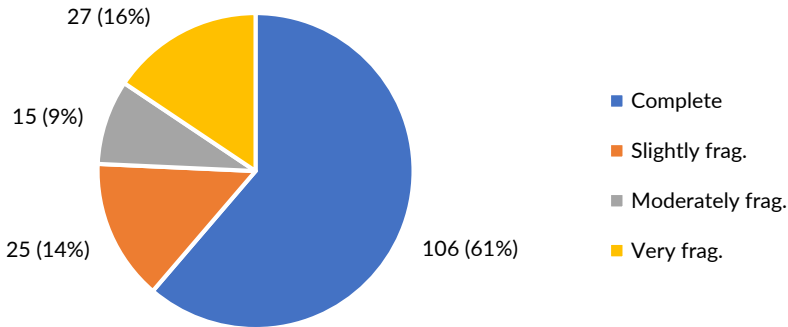
24 E.g. ID246/2021_A, ID290/1257_A, ID292/1245a–b_A, ID404/1869a–b_A.

25 E.g. ID236/0623_A, ID313/1247_A, ID319/1309_A.

26 E.g. ID143/4371_A, ID284/2002_S.

27 ID209/2040a–b_N, ID210/0241a–b_N.

(a) Substrate Preservation for NIIIA1 Labels



(b) Substrate Preservation for NIIIC-early D Labels

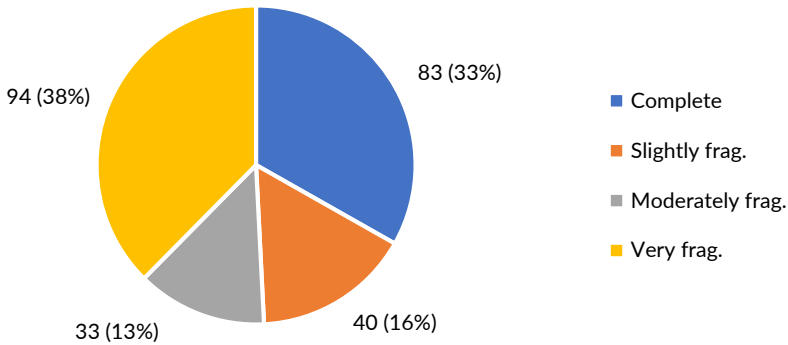


Figure 46: Substrate preservation levels for labels. (a) NIIIA1 labels. (b) NIIIC-early D labels (excludes “unclear” examples), Kathryn E. Piquette, CC BY 4.0.

bear virtually identical depictions, an erasure appearing in the same spot in the lower register, are severely warped from heat exposure,²⁸ have lost their lower right corner, and have similar corner breakage patterns. Examination of ID210/0241a-b_N shows that the upper left fracture occurred before burning, since the edges are shrunken/curled over the broken edge. The upper right corner appears to have broken after the burning episode, as does the bottom right corner. Like ID210/0241a-b_N, the lower left corner of ID209/2040a-b_N appears to have broken off after burning. The nature of its museum mounting and the refitting of some of its fragments precluded examination of some breaks (see online record). Whether the similarly broken lower right corners were the result of post-depositional processes or broken intentionally after the firing of the tomb could not be confirmed; nevertheless, the similarity of erasure and break locations is noteworthy.

28 ID210/0241a-b_N is completely calcined, almost stone-like.

Regarding overall preservation of label substrates, the relatively poorer preservation of NIIC–early D labels doubtless relates to their larger surface area but relative thinness, as well as greater disturbance of archaeological contexts (§4.2). Overall, analysis of substrate materials and size shows that larger labels tend to be made of wood (Table 4), but no clear pattern emerges for bone or ivory.

Material	Size			Total
	1	2	3	
bone	12	8	0	20
ivory	35	21	6	62
wood	4	12	15	31
bone/ivory	9	1	0	10
Total	60	42	21	123

Table 4: Cross-tabulation of the NIIC–early D labels with original dimensions preserved (1 = 0.9cm²–9.94cm², 2 = 10.15cm²–19.8cm², 3 =20.25cm²–80.07cm²), showing a trend for wooden labels to be larger while bone and ivory tend to be smaller, Kathryn E. Piquette, CC BY 4.0.

5.5.2 The Constrate

Preservation of label imagery, or constrate, was assessed according to the following categories:

- 1) Complete/fully preserved;
- 2) Moderately preserved;
- 3) Poorly preserved;
- 4) Unpreserved;
- 5) Unclear (label unseen and/or publication unclear).

Figure 47 shows that constrates of NIIC–early D labels, like substrates (§5.5.1), are also well preserved, with 59% complete compared with only 23% of NIIC–early D labels. Substrate preservation is a precondition of constrate preservation, but the limited completeness for NIIC–early D labels also reflects the occurrence of apparently blank labels (7%), and applied colour (24%; §5.7; §5.7.1.2) which tends to preserve less well. In as far as reports provide information on general tomb condition, no correlation can be made with substrate or constrate preservation. Within the Saqqara tomb S3504, both excellent and poor preservation is attested for label constrates²⁹ and substrates,³⁰ for example.

29 Compare ID262/0989a–b_S with ID268/0993_S.

30 Compare ID359/1122_S with ID372/4449a–b_A.

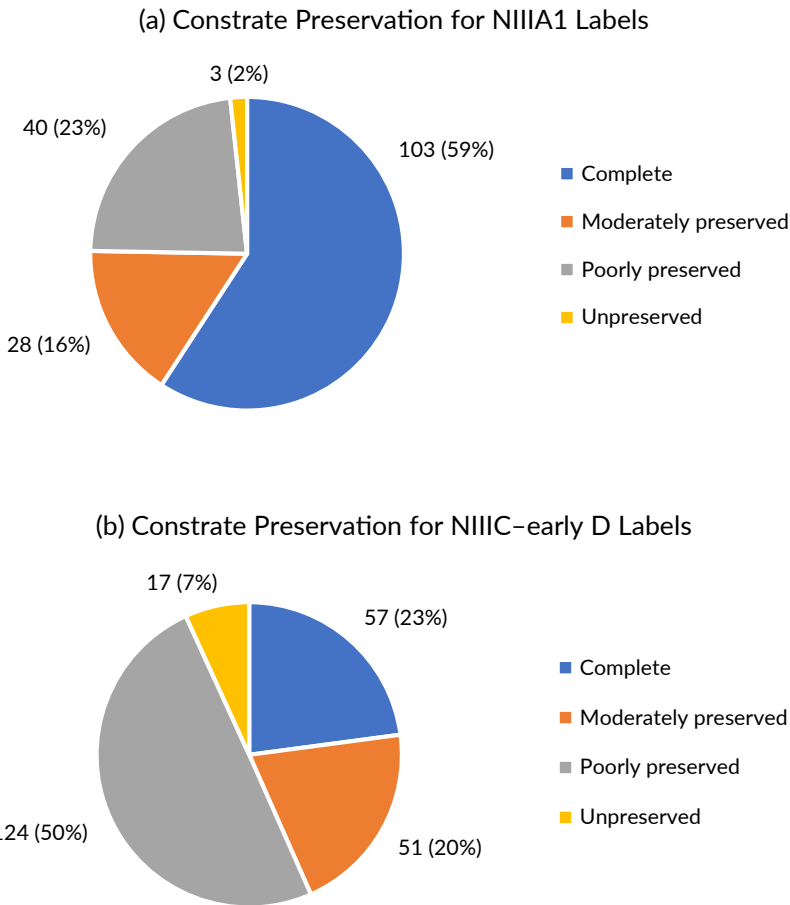


Figure 47: Preservation of label constricts. (a) NIIIA1 labels. (b) NIIC-early D. Data given here is for primary sides (excludes “unclear” examples), Kathryn E. Piquette, CC BY 4.0.

5.6 Materials Becoming Plaques: Making and shaping

The appearance, use and meaning of material objects are directly and indirectly informed by the processes that brought them into being. Raw materials present certain affordances, for example, the maximum size of a bone, or hippopotamus or elephant tusk, its texture, weight, workability and colour, all of which influence manipulation and transformation. In turn, the graphical intentions of the commissioner/label composer relate to intended function. Technical and bodily considerations, such as the force required to work materials relative to tool performance (flint and cold-hammered copper tool technologies are contemporary with the labels; Petrie 1917), were primary concerns during making but would have also contributed, at least indirectly, to subsequent appearance, and thus use and reception of graphical meanings.

It has been proposed that some NIIIA1 labels were produced from plates of animal bone (Dreyer 1998, 137; Kahl 2001, III). Many show evidence for deep scoring with

rough breaks from snapping off³¹ predominantly at the top and bottom edges, and rarely on the right and left sides (but see §7.2.2 on label-image orientation). These technical features and the presence of repeated image groups, a limited number of which appear to be executed by the same hand³² (Kahl 2001, 111), are seen as evidence for “mass-production” (Baines 2004; Dreyer 1998, 137)—or at least that labels were produced in series. The few ivory exemplars exhibit greater edge smoothing/polishing, often obscuring evidence for the method of separation. Where indicators are visible, cutting/sawing goes completely through the ivory rather than part way, as seen for the bone. Some bone labels were also subjected to edge finishing, thus it is unclear if the scoring and snapping method was employed for these.³³

First-hand study reveals that the image-bearing side was usually scored and cutting was done mainly from ‘front’ to ‘back’, suggesting that graphical elaboration had already taken place and the intention was to avoid obliterating the imagery, although avoidance was not always achieved, as a number of truncated GOs attest.³⁴ Scoring on ID075/4309_A appears to conform to the plate method (above; Baines 2004, 156, fig. 6.2), but a mark on the secondary face of unusual depth may relate to prior use (§1.4, §5.4). Over 20 bone labels are scored on their inscribed surfaces a short distance from the actual edge, perhaps intended to block out the upper and lower³⁵ outline of each label prior to inscription and/or cutting, if not also to establish orientation.³⁶ Overall, the plate method seems to be specific to bone labels. Differences in the method may lie with the habit of individuals or small collectives specialising in particular materials; comparative study of other contemporary evidence from a wider range of find contexts is needed to shed more light on early artisan practices.

As for wood, the technique of cleaving was practised as early as the Predynastic period (Gale et al. 2003). Wood conversion by sawing is indirectly evidenced on planks of Early Dynastic coffins. Saw marks running across the surface in many directions attest to the difficulty of this task (Gale et al. 2003, 354). Similar marks are visible on the primary side of ID229/0643_A when viewed obliquely. Saw marks commonly occur on the NIIC–early D labels, usually on the left and right edges relative to the upright orientation of the imagery. Tool marks on the top and bottom edges are less frequent, usually more-thoroughly sanded/smoothed by comparison. Such patterns give some idea of the sequence of conversion, showing that edge preparation on one axis preceded sawing off the opposite edge (Figure 48). A collection of copper tools discovered in S3471 (Emery 1949, 47–48, figs. 23–24) gives an idea of the kinds of tools possibly used to make objects such as labels, and included small engraving tools and thin-bladed awls for boring holes (Gale et al. 2003, 355–356), a topic to which I now turn.

31 E.g. ID069/4305_A, ID097/4334_A.

32 E.g. ID093/4391_A, ID094/4329_A.

33 E.g. ID021/4260_A.

34 E.g. ID078/4310_A, ID110/4344_A (also clipped by the perforation), ID122/4359_A.

35 The position for upper/lower accords with an orientation of the label with the perforation in the upper half.

36 E.g. ID027/4266_A, ID030/4269_A, ID032/4271_A.



Figure 48: Evidence for wood conversion techniques. Left: The upper right of right edge of ID226/0645_A exhibits a flared ‘facet’ of wood where the saw exited, Abydos, NIIC-early D (c.3085–c.2867 BCE), Ashmolean Museum, E.1528. Right: Saw marks and their direction on the right edge of ID203/0096_A, running from the upper right to lower left, also with a flared ‘facet’ where the saw exited at lower left, Abydos, NIIC-early D (c.3085–c.2867 BCE), Ashmolean Museum, E.1342 (photos: Kathryn E. Piquette, © Ashmolean Museum).

5.6.1 The Perforation

The hole or perforation, usually located in one upper corner, is an essential feature of a label as a material culture type, distinguishing it from morphologically similar objects such as furniture inlays, box lids, gaming pieces and other small rectangular plaques of unclear use.³⁷ Table 5 lists the types of perforation encountered on the labels, with single perforation being the most common.

Perforation Type	Total
Single	331
Single, tab, lateral	7
Single, tab, frontal	2
Double	1
Treble	2
Quadruple	1
Unpreserved/data unavailable	83
<i>Total</i>	427

Table 5: Perforation type and quantities for all labels. Multiple and tab perforation are attested only among NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

³⁷ ID276/*_A is a fragment of ivory with iconographic features that strongly suggest it is a label, yet it does not appear to have been perforated in the upper area.

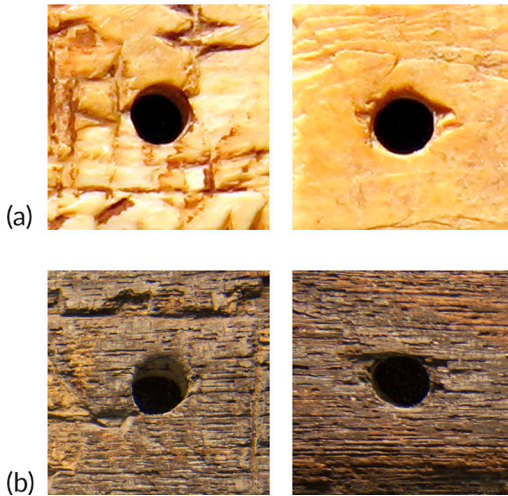


Figure 49: Details of front and back of perforated area on two labels. (a) ID240/0682_A, ivory, Abydos, NIIIC-early D (c.3085–c.2867 BCE), Ägyptisches Museum Berlin, 18026. (b) ID208/0282+0209_A, wood, Abydos, NIIIC1–2 (c.3085–c.2867 BCE), Ashmolean Museum, E.1339 (photo details: Kathryn E. Piquette, courtesy of Ägyptisches Museum Berlin, CC BY 4.0 and © Ashmolean Museum, respectively).

Through first-hand study I tried to discern the method³⁸ and directionality of drilling.³⁹ For some labels, one side of the perforation edge was quite smooth while the other was rougher with signs of splintering, presumably where the tool broke through. This can be seen in the two details shown in Figure 49. Here the edges around the perforation on the elaborated (primary) face are relatively smooth, in contrast to the slight horizontal splintering around the edges on the unelaborated (secondary) face. In these cases, the perforation seems to have been drilled from ‘front’ to ‘back’, but overall, I was unable to detect a preference for one side being treated as ‘primary’ for the direction of drilling, *vis-à-vis* pre- or post-graphical elaboration. Similarly, I looked for signs of use-wear that might indicate trauma from suspension, pulling or turning, or evidence for materials used for attachment, e.g. cord or leather, or harder substances such as copper wire, but was unable to discern any clear use-wear. Perforations that have broken out⁴⁰ may have been weakened from tension or pulling, but breakage of inherently weak corners may also be due to post-depositional processes.

Perforation distribution shows that placement on NIIIA1 labels occurs predominantly in the upper part on the inscribed face, in the right or left corner (Figure 50). It is noteworthy that despite tremendous variability among other label features across time and space, for single-sided, single-perforated labels, this feature is regularised to the upper part of the label for the NIIIA1 and then standardised to the upper right corner throughout the 1st Dynasty, with only two clear exceptions attested.⁴¹ For double-sided labels, this relies on the most heavily decorated side being treated as primary, although the situation is less clear for several small labels from Naqada, discussed in §5.9.

38 Compare ID069/4305_A with ID159/4388_A.

39 Observations conducted using $\times 10$ magnification. Microscopy would doubtless reveal further information.

40 E.g. ID002/4242_A, ID182/--_A, ID204/4081_A, ID205/0291_A, ID230/0608a-b_A, ID362/1123_S, ID381/4468_A, ID393/4476_A, ID394/4481_A.

41 ID217/0693_A, ID226/0645_A see also Figure 48.

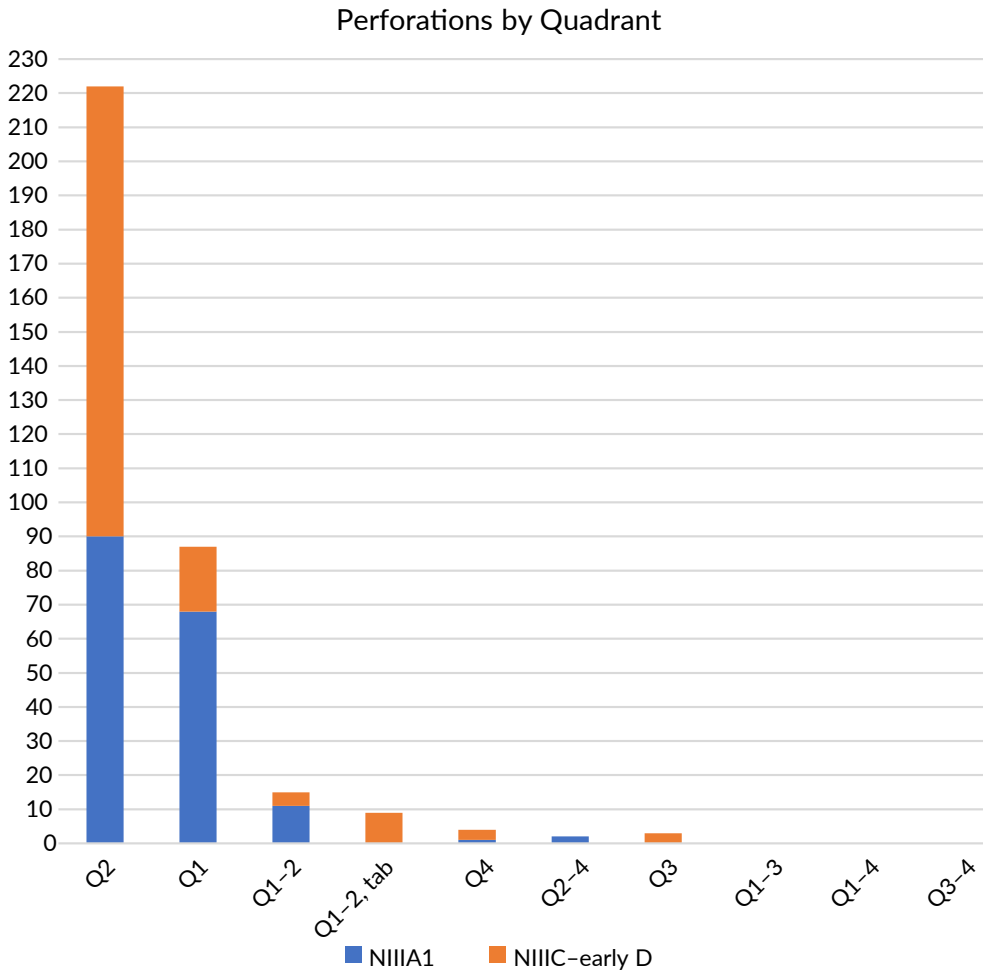


Figure 50: Distribution of perforations on label surfaces by chronological phase (11 labels of unclear archaeological date, but of the NIIIA1 type, are included with that data), Kathryn E. Piquette, CC BY 4.0.

Overall, a shift can be charted from variable placement of the perforation in the NIIIA1 period to its standardised location in the upper right of the label throughout the NIIC-early D phase. As with the standardisation of substrate material orientation noted above (§5.5.1), the manufacture and manipulation of the labels was also structured by the perforation. That the perforation could be an integral concern in the composition/decoration stage of production and designation of primary/secondary sides is attested in several instances.⁴² These, in turn, would have also engendered standardisation in subsequent labelling practices such as affixing and other embodied manipulation and ‘reading’, as discussed further below.

42 E.g. ID012/4251_A, ID013/4252_A, ID345/1677_A, ID402/4450_A.

5.7 Plaques Becoming Labels

Decoration of the label surfaces included subtractive or additive techniques, or a combination of both. Subtractive techniques usually involve incision of a single thin line to form the outline of an image, with varying degrees of detail indicated. Additive techniques include the application of colour to the surface. Depending on whether the pigments are mixed with binders, or adhesives or other media are used, and on how the surface onto which they are applied receives them, the pigments may be described as a dye, stain, ink, paint or paste. Given the present lack of chemical analysis, the neutral term ‘colour’ is preferable (Hodges 1965, 159). However, it is necessary to distinguish colour applied directly to the flat surface of the label from the thicker, often grainier substances filling many incisions. I therefore refer to the former as ‘colour’ and to the latter as ‘paste’. Combining these additive and subtractive techniques, four types of decoration are attested on the labels:

- Incision (subtractive)
- Incision with paste infill (subtractive and additive)
- Incision with applied colour (subtractive and additive)
- Applied colour (additive)

Whether the absence of paste infill is the result of preservation or intention requires further study. Microscopic analysis may reveal pigment traces I could not detect under $\times 10$ magnification. I discuss each of the techniques below, the distribution of which is given by phase in Figure 51.

5.7.1 Incision

Incision is the foundational technique for three of the four techniques attested on the labels. By itself it is attested on a total of 160 labels, making up approximately a third of the corpus in each period. Incision with paste infill is discussed separately (§5.7.1.1). In thinking about incision in practice, it is worth noting that NIIIA1 GOs are characterised by a pronounced V-shape while NIIIC–early D label incisions often appear finer.⁴³ The notch/z1 GOs forming ‘digits’ on the NIIIA1 numerical labels (§10.3) appear to have been made by two roughly parallel cuts with a narrow blade, material being removed from one side and then the other. On labels from both phases, slips show the direction of the force applied, and, for some, the sequence of marks can be determined (cf. Piquette 2014).⁴⁴ ID196/0225a–b_N shows tool slippage from left to right along the bottom edge of /r4. The style of this ‘less-careful’ incision differs in width and depth compared with the other side, suggestive of two episodes of decoration by different hands (see also Kahl 2001, 211), if not also a different tool.⁴⁵

43 E.g. ID292/1245a–b_A.

44 E.g. ID223/0622_A, ID253/0973_A, ID288/1421_S, ID289/1422_S.

45 Although it must be borne in mind that the tip of the same tool, whether of metal or stone, will change over the course of use (e.g. Rodríguez-Vidal et al. 2014, 13304).

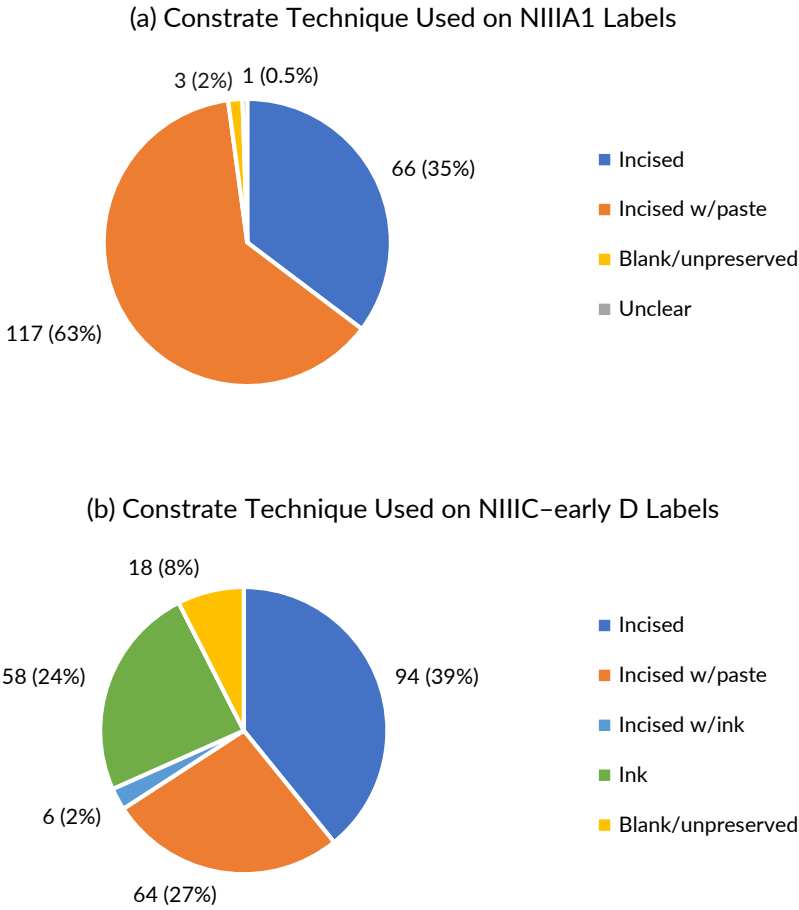


Figure 51: Label constrate techniques by phase. (a) NIIIA1 (includes 11 labels of unclear archaeological date, but of the NIIIA1 type). (b) NIIC-early D, Kathryn E. Piquette, CC BY 4.0.

A single line of incision (comprised of individual strokes of varying length) is used to form the contours of most GOs but ID288/1421_S and ID289/1422_S are unusual in bearing double outlines for □/O1 and the schematised hands of □/D28.⁴⁶ Also notable are ID374/3406_H, ID375/3407_H and ID376/3408_H, found together in Tomb 635 H.9(?) at Helwan (§4.7.2). All are of ivory (type unspecified) and similarly worked, possibly by the same individual(s) in the same tradition, yet incision style and orthography differ. On ID376/3408_H, ¶/S29 is rendered by a thin incised line, while ~-/M3 is depicted in outline, as is ¶/T15 (see Figure 52). Also of note is the transposition of stalk-w/multiple-notches/m5/23(?) with ¶/U33. In addition to the uncommon use of outline, the complete removal of a GO's interior is also an unusual practice but is used to render the heads of the seated figures and the necks/shoulders and rims of vessels, including

⁴⁶ These plaques are unusual in presenting mirroring compositions as well as multiple perforations (three each), which together may indicate that these are part of a different tradition and should not be considered labels in the same sense.



Figure 52: Differences in technical style and orthography on ID374/3406_H, ID375/3407_H and ID376/3408_H, all from Tomb 635 H.9(?), Helwan, NIIC-early D (c.3085–c.2867 BCE; after Sa'ad 1969, 177, pl. 97; Note: Handwriting is enhanced to show that “9” may be “7” © 1969 University of Oklahoma Press).

o/W24. Of note is the large vessel located in the lower left of each label, where a crazed pattern is left raised (indicative of stone inclusions?; see also Begon 2016, 179–180).

5.7.1.1 Incision with Paste Infill

Incision with paste infill is attested in both label phases; it is the only method of colour application attested on NIIC-early D labels. Compared with applied colour (below), its texture is visibly different, being coarser due to pigment particle size or type of binder, which may have also served as an adhesive. ID095/4332a–b_A shows dark paste filling in the score mark at the top of the primary face, providing some evidence for the sequence of manufacture (§5.11). Paste is inconsistently present on incised labels; again, whether representative of preservation or past intentions is unclear.

5.7.1.2 Incision with Applied Colour

Colour applied in a more liquid form to incisions occurs on a total of six NIIC-early D labels and includes red or black/dark grey. Both colours may be used together on the same labels and can occur in a single GO (Figure 53).⁴⁷

⁴⁷ E.g. ID225/0615_A, ID345/1677_A.

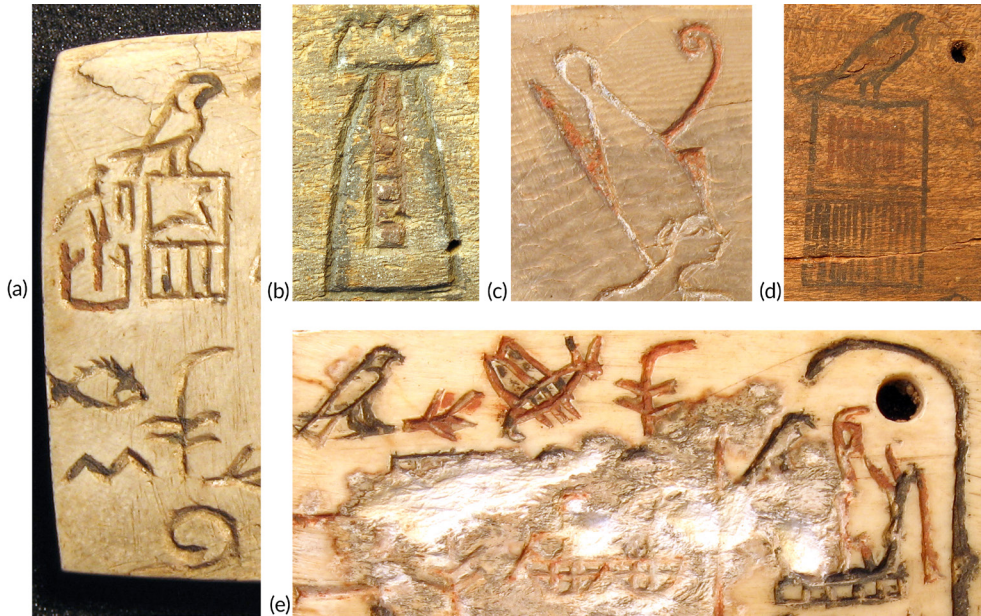


Figure 53: Examples of applied colour on NIIC-early D labels (c.3085–c.2867 BCE). (a) ID225/0615_A, wood, Abydos, British Museum, EA35525, (b) ID292/1245a–b_A, ivory, Abydos, The Egyptian Museum, Cairo, JE 34383, (c) ID345/1677_A, ivory, Abydos, British Museum, EA32668, (d) ID274/0986_S, ivory, Saqqara, The Egyptian Museum, Cairo, JE 16830, (e) ID227/0834_S, wood, Saqqara, JE 63346 (photos: All Kathryn E. Piquette, courtesy of The Trustees of the British Museum and The Egyptian Museum, Cairo, CC BY 4.0).

5.7.2 Applied Colour

Liquid colour applied directly to the surface is not attested on the NIIA labels but occurs on 58 NIIC-early D labels, the earliest of which dates to Narmer, if not Aha.⁴⁸ ID213/0284a–b_A and ID214/0283a–b_A are virtually identical on their primary sides, but bear different applied colour imagery on their secondary surfaces. This application of colour was probably done with a brush, perhaps made from a rush or similar material.⁴⁹

5.7.3 Unmade, Unpreserved or Unclear

In addition to the preservation of graphical marks, it is important to consider their absence. A total of 19 ‘blank’ perforated plaques are recorded, albeit from the NIIC-early D phase only. It is possible that once-applied colour has not survived; all show some surface discolouration, as do many decorated labels, but whether these are pigment

⁴⁸ ID198/--_A, ID199/--_A, ID203/0096_A.

⁴⁹ The reed pen was probably not introduced until the Ptolemaic Period (Leach and Tait 2000, 232–233).

traces was unclear from visual inspection. For those whole and fragmentary wooden plaques found in the leather bag at Saqqara (§4.6.1.2), these may represent label blanks that were part of scribal equipment of the deceased, or were prepared but unused for some aspect of tomb equipping.⁵⁰ We might also speculate that they were intended for use in the afterlife. Further study of ‘blank’ labels and related fragments will doubtless also benefit from spectral imaging.

5.7.4 Technique Summary

As the foregoing analysis shows, a limited range of additive and subtractive techniques were employed on the labels, including incision without paste,⁵¹ incision with paste infill, incision with applied colour, and applied colour on its own. Given that elaborate techniques of raised and sunken relief carving and inlay are employed on other contemporary material culture, e.g. wood and ivory furniture elements, ‘ceremonial’ palettes, maceheads, tomb stelae, and so on, why were these techniques not used on the labels? One could argue for a pragmatic explanation, perhaps a desire to reduce time and energy expenditure. Perhaps this is why the use of stone never gained acceptance? Yet the careful and detailed execution of many labels,⁵² as well as their complex subject matter and composition,⁵³ shows that other concerns are at play; how we interpret this surplus of aesthetic organisation or “artification”—the intentional making of something extraordinary or special by marking, shaping and embellishing it beyond its ordinary functional appearance (Dissanayake 2009)—is an issue to which I return later.

5.8 Colour

In this section I discuss the material dimension of colour further, with regard to the material substrate and the nature of colours used in graphical elaboration.

5.8.1 Substrate Colour

With regard to their present appearance, the colour of bone and ivory labels ranges from yellowish-white and orangey-browns to tans and shades of grey. Woods include tans and light browns to orangey-browns, very dark browns and black. Of the two

50 Use, or intended use, may be indirectly evidenced by the preservation of textile (string?) adhering to the surface of fragment ID338/--_S, the position of which suggests it may have been threaded through a no-longer extant corner perforation.

51 But the lack of paste may be due to poor preservation rather than indicative of past practice.

52 E.g. ID345/1677_A, ID421/4075_A.

53 E.g. ID202/4030_A, ID300/1389_A.

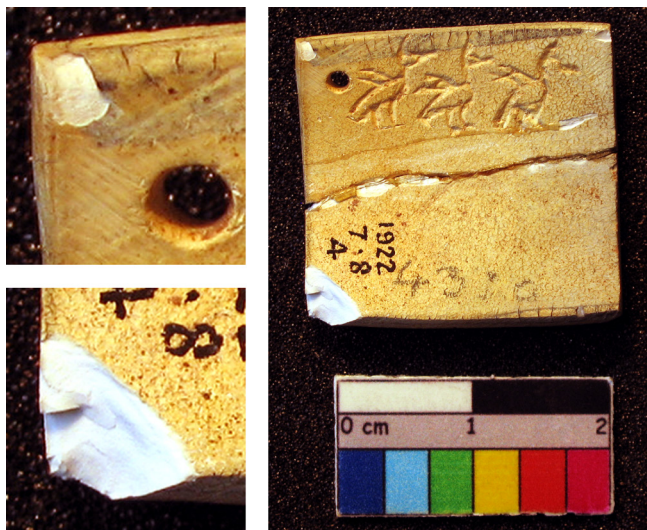


Figure 54: ID197/0242a-b_N, ivory(?), Naqada, NIIC1-C2 (c.3085–c.2867 BCE), British Museum, EA55588 (photo: Kathryn E. Piquette, courtesy of The Trustees of the British Museum, CC BY 4.0).

NIIA1 stone exemplars, the well-preserved label(?)⁵⁴ of limestone is pinkish-tan in colour while the fragment preserving just one corner with perforation.

Substrate colour can be altered by exposure to heat, as seen on examples from Naqada and Abydos, where tombs were set alight (§4.3–§4.4). ID207/0289_A is of wood that appears thoroughly charred. Two elephant ivory labels⁵⁵ bearing similar imagery from the Naqada *Mastaba* were exposed to high heat, based on warping and calcination, which doubtless altered colour. ID197/0242a-b_N appears completely calcined, but is unusual since, although its surface shows the grey colouration typical of heat exposure (see Baer et al. 1971, table I), the matrix is not darker than the surface. Instead, it is a bright white with no sign of the colour gradation or internal structure of bone or ivory (this is particularly clear in breakage and mending post-1980 publication; compare Figure 54 with Spencer 1980, pls. 46.449, 51.449).

5.8.2 Constrate Colour

Publications infrequently specify the presence or absence of colour and technique of application. Some written descriptions (e.g. Petrie 1900, 21, for ID292/1245a-b_A, which shows the unique usage of red and white paste fill) or colour-tinted drawings are provided (e.g. Emery and Sa'ad 1938, 35, fig. 8, pl. 18A; Petrie 1900, 23, pl. 17.26).⁵⁶ Constrate colour data could therefore only be assessed where well-published or through first-hand study. We must also bear in mind that, post-application, mineral or organic colourants and binding media may undergo changes due to the conditions of deposi-

⁵⁴ ID186/4405_A.

⁵⁵ ID209/2040a-b_N, ID210/0241a-b_N.

⁵⁶ In some cases, published descriptions or illustrations deviate from first-hand observation (e.g. ID239/0847_S). Disparities are noted in the Label Database, where updated drawings will also be collated.



Figure 55: Left: Original publication of ID234/0607_A showing a white substance infilling incisions in the lower part of this differentially heat-damaged label, 'Royal' Tombs Cemetery, Abydos, NIIIC-early D (c.3085–c.2867 BCE), Penn Museum, E9403 (Petrie 1901a, pl. 5.1, courtesy of The Egypt Exploration Society, CC BY 4.0). Right: ID234/0607_A as it appears today (photo: © Penn Museum).

tion, degradation over time, post-excavation conservation techniques or other factors (Green 2001, 43; Hodges 1965, 189). Indeed, a white substance appears on at least three NIIIA1 labels,⁵⁷ and may be adhesive, if not salts (Liz Pye, pers. comm. 06.2006), although residue analysis is required for certain identification. Some photographs in Petrie's publications show a pale-coloured substance in the incisions (e.g. Figure 55). Petrie mentions, with reference to vessel inscriptions, that "...by careful wiping with colour the hieroglyphs...are here brought out visible" (Petrie 1902, 5). I suspect this technique was used on dark-coloured incised labels to emphasise details otherwise difficult to see in black-and-white photographs. This seems to be borne out on ID237/0630_A, where a white substance had been applied over red colour (Figure 9). Similar white matter in the incisions on several labels may very well be modern.⁵⁸ The reddish-pink colour filling the incisions of ID189/0692a–b_A and ID240/0682_A (now held in the Berlin Ägyptisches Museum) was perhaps added after excavation (possibly after arrival to the museum?) since each originated in a different expedition to Abydos (Petrie and Amélineau, respectively), the former dating to NIIIA1, and the latter to NIIIC-early D. Further, the smearing on ID114/0195_A is uncharacteristic.

In as far as they seem to be original, preserved colours in the form of pastes are as follows. Among the NIIIA1 labels, paste⁵⁹ colour is restricted to black, bluish-black or bluish-grey, and light greyish-green in one instance.⁶⁰ Paste colours attested among the NIIIC-early D labels include black, dark grey, brown, reddish-brown, red, green, yellow

57 ID085/4319_A, ID106/4340_A, and especially ID108/4342_A.

58 ID229/0643_A, ID232(?) /0632_A, ID233(?) /0631_A, ID234/0607_A, ID294/1273_A, ID304/1253_A.

59 The identification of this substance as "paint" is probably an oversight (Wengrow 2006, 202).

60 ID037/4275_A (Dreyer 1998, 114, 118, 121; Kahl 2001, 111).

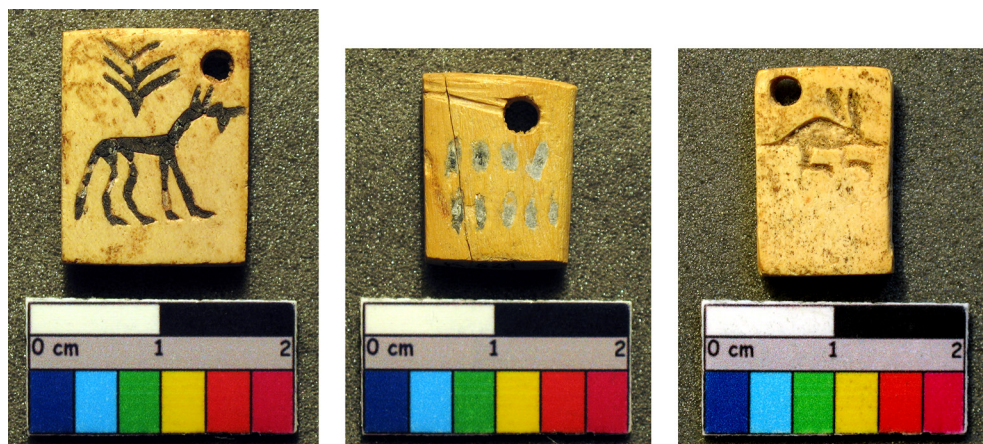


Figure 56: Substances exhibiting different colours, as far as preserved, in incisions on bone labels. Left: ID080/4315_A. Centre: ID037/4275_A. Right: ID087/4321_A, all Cemetery U, Abydos, all NIIIA1 (c.3325–c.3085 BCE; photos: Kathryn E. Piquette, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

and possibly white. As for colour applied in a relatively liquid form, as previously mentioned, this is only attested for the NIIIC–early D labels; only red and black are attested, with some variability in shade,⁶¹ and applied either directly to the surface or, in a small number of examples, to incisions. Examples of colour for both phases are shown in Figure 53 and Figure 56. For the latter phase, some patterning in the use of colour can be discerned (Griffith, in Petrie 1901a, 51). For example, red is often used for $\overline{\text{D}}/D46$, $\overline{\text{U}}/D28$ and $\overline{\text{V}}/V28$, and black for $\overline{\text{A}}/G5$, $\overline{\text{F}}/F4$, $\overline{\text{M}}/M4$ and $\overline{\text{W}}/W24$. Some GOs include both, e.g. $\overline{\text{L}}/L2$ is rendered in red with black dots in the wings.

Beyond visual observation, analyses of early Egyptian pigments and binding media are needed; few have been conducted to date that might shed light on the various pigments and colours preserved on the labels or other contemporary graphical culture (see Lee and Quirke 2003, 104, 107). Red ochre and other forms of iron oxide may have been used for the red colour (Green 2001, 46; Lee and Quirke 2003, 113–114). Black would have been made from lamp black or other charred materials. As carbon is a particularly stable substance (Green 2001, 47; Lee and Quirke 2003, 108), black hues as they appear today are probably more representative of past appearance.

Experimental label-making, discussed in §5.11, suggests that colour choice was to some extent related to the intrinsic colour of the material from which labels were made (§5.8.1). Incisions made in the surface of clean bone were almost invisible, although by using the medium of low, raking light, surface morphology became clearer. The use of colour infilling would have enhanced the visibility of incised imagery through contrast and texture (see also Macramallah 1940, 17; Piquette 2014, 247). Similarly, colours applied directly to the label surface had to contrast sufficiently with the substrate colour if visibility was a concern. Overall, the significance of colour in early Egyptian graphical culture presents an important area for further study, and the labels should be

61 E.g. ID226/0645_A.

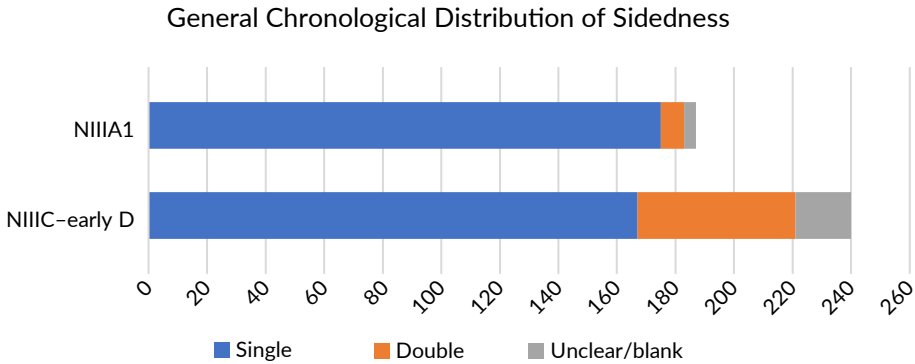


Figure 57: Quantity of single- and double-sided labels per phase (Kathryn E. Piquette, CC BY 4.0).

reassessed once the German finds from Abydos are fully published and, where possible, high-resolution spectral images acquired.

5.9 Single versus Double-Sided Labels

Important for understanding label ontology is determining which face past makers/users designated as primary. A total of 64 labels are inscribed on both *main*⁶² faces, 9 from NIIIA1 and 55 from NIIC-early D (Figure 57). Publications are usually explicit about whether a label is double-sided, but this is overlooked from time to time (e.g. Morgan 1897, 234, fig. 728⁶³; Garstang 1905⁶⁴), hence data on sidedness presented here are reliable in as far as labels were studied first-hand. Assignment was essential for qualitative analysis in ATLAS.ti and contextualising patterning such as perforation distribution.

The main criterion for single-sided labels is the presence of imagery, but, where both sides are elaborated, past intentionality is not always clear. If we place all single-sided NIIC-early D labels that preserve graphical marks (186) with those marks facing the viewer, all except five have the perforation in the upper right corner. When we turn all 54 double-sided labels so the perforation is in this position, we also find that the face bearing the greatest quantity of GOs is turned to face the viewer—in all cases except for 9 relatively small double-sided labels from Naqada⁶⁵ and one from Abydos.⁶⁶ These bear 2 GOs on the upturned face and 6–16 GOs (conventionally interpreted as numerical signs) on the ‘secondary’ face. The excavator Jacques de Morgan (1897, 167)

62 I highlight ‘main’ here as a reminder that each label has six sides. Given that the thin edge can be an important location for decoration for some material culture types (e.g. coins) or other meaningful marks, all six faces were examined during first-hand study. The four thinnest label faces are never inscribed but they do bear tool marks.

63 ID296/1366_A.

64 ID210/0241a-b_N.

65 E.g. ID192/0243a-b_N.

66 ID189/0692a-b_A.

treated the latter as primary and, although the basis for this is not stated, seems to have prioritised the numerical information. This raises interesting questions about how we should understand the priority of content and reading sequence—a question to which I return in Chapter 10.

Overall, the issue of sidedness is particularly significant for understanding how materiality informs meaning. Depending on the intended location of decoration, shaping and finishing, inscription and subsequent manipulation would have proceeded in different ways (see also §5.7). Was double-sidedness intended from the outset? If not, when was it determined? Was the secondary side utilised only when space on the primary side was insufficient? Among most NIIIC–early D labels, coverage of each face is unequal (see Chapter 7 on GO distribution), with greatest coverage being on the face perforated in what is thus the ‘upper right’, while the face with less coverage then has the perforation in the upper left, together defining the ‘secondary’ face. No double-sided example exhibits equal coverage.

When a label was decorated on both sides, an added concern for attachment may have been to ensure that both sides could be viewed, e.g. by using a flexible material of sufficient length to allow the plaque to be turned. This raises the question of which face would have been displayed and whether the presence of the ‘invisible’ imagery was signalled by the visible. Or would the viewer have been required to examine both faces of any label encountered? The nature of these questions is largely practical and may have been important only in certain use contexts. Within the cemetery arena, aspects of label function and meaning may have ceased to rely on embodied manipulation by the living (cf. Dobres 2000, 125).

5.10 Materials and Techniques Across Time and Space

As discussed, the material and technical choices label crafters made impacted appearance and function. These may have been employed strictly for practical reasons; perhaps one material was more readily available than another (possibly through recycling, Figure 58), or more suitable for subtractive or additive graphical techniques. The durability of incision over applied colour raises the question of whether makers selected techniques based on their preservative qualities. Techniques may have also been used for visual impact or symbolic meaning. In order to explore these possibilities, Giddens’ (1984, 244–262) point concerning the framing and ordering of practice within a time-space trajectory as being vital to accounting for and explaining social continuity and change is relevant. Although conventional philological interpretation lies outside the methods employed in this study (Chapter 2), by relating materials and techniques to each other and their temporal and spatial contexts, patterns can be discerned that highlight the value of more integrated interpretive frameworks.

As charted in Figure 59, NIIIA1 label-makers employed incision regardless of substrate material. Whether the absence of infilling for some was intentional or due to preservation, as mentioned, remains unclear. For the NIIIC–early D labels, the situation is more varied, with the full range of attested techniques occurring on all material types. One technical–material relationship is particularly prominent, that of colour applied to



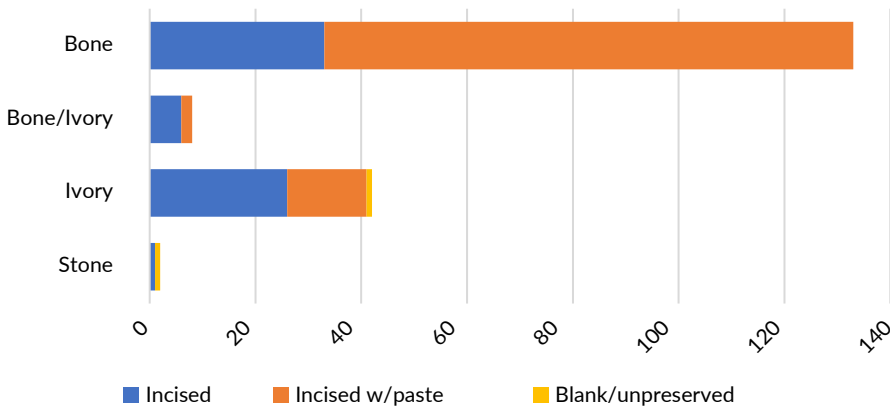
Figure 58: Left: Elephant ivory label ID284/2002_S. Right: View of same from secondary side with hole drilled in top edge. Also, chip at top of perforation appears to be from prior use or manufacture rather than use-wear, Abydos, NIIC-early D (c.3085–c.2867 BCE), The Egyptian Museum, Cairo, JE 86172 (photo: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0).

wood, used on almost half of the 69 wooden labels (and possibly more, if the 8 wooden ‘blanks’ from Saqqara were once decorated). When we consider this pairing spatially, this combination is most commonly found at Saqqara (see also Figure 44). Taking account of the specific archaeological context, we find that these labels come primarily from one tomb, S3504 (§4.6.1.3). This tomb was equipped with predominantly painted wooden labels around the time of Djed and refurbished in the reign of Qa’a, when the labels used again follow this particular material–technique combination. However, comparison with contemporary labels from Abydos Tomb Q (Qa’a, §4.4.4.7) reveals notable differences, as discussed in later chapters, in composition and content, and highlights how certain rules concerning the material aspects of labels were practised similarly across several sites while other aspects were negotiated differentially at local levels.

If we compare materials and technique against reign, another pattern emerges. Focussing on the 56 labels found in and around Tomb Q, in separating the painted from the incised (including incised+infilled), a survey of the imagery on each group shows that 23 incised bone and ivory labels bear $\} / M4$ along the right side. In contrast, this GO is absent from those 22 labels decorated with applied colour, the sole exception being wooden label ID372/4449a–b_A, which bears $\} / M4$ in applied colour.⁶⁷ Of note is the apparent lack of $\} / M4$ on ID414/4457_A. Nevertheless, from this correspondence, we can infer that the choice of technique was made in relation to GO types and therefore the symbolic meaning of $\} / M4$ and associated imagery may have been anchored to some extent in the physicality of its expression. Recalling Wenger’s (2002 [1998]) concept of participation and reification in the reproduction of social structures, we

67 The remaining labels are too fragmentary to assess.

(a) Relationship Between Material and Technique, NIIIA1



(b) Relationship Between Material and Technique, NIIIC-early D

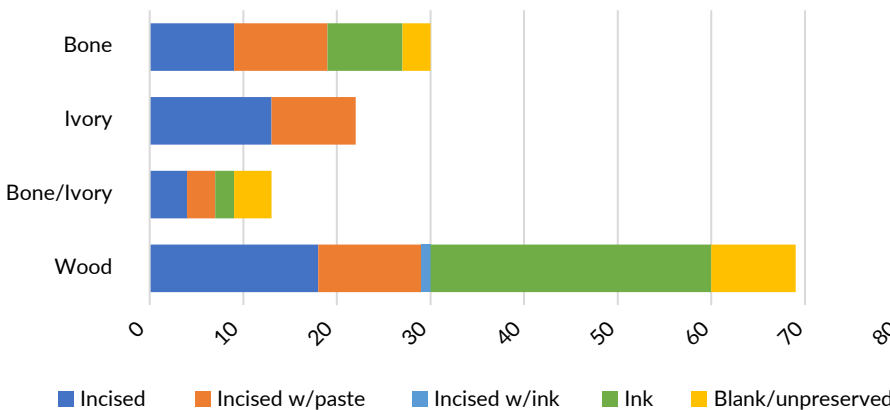


Figure 59: Correlation between label materials and techniques. (a) NIIIA1 labels (wood and ink unattested; material for two labels unavailable). (b) NIIIC-early D labels (stone unattested), Kathryn E. Piquette, CC BY 4.0.

can infer strongly sanctioned rules for label practices at Abydos during the reign of Qa'a, whereby label-makers constructed a certain kind of label via painting primarily on bone or ivory without γ /M4, while incision on bone or ivory with γ /M4 was important for the formulation of another type. Meanwhile those who deposited labels in the north at Saqqara negotiated label structures—the cultural criteria for what constituted a label—somewhat differently again. There, 9 (or possibly 10) labels, dating to the reign of Qa'a (Emery 1954, 5–6) are of the same general shape and size with a perforation in the upper right, but differ from their Abydos counterparts in material and technique: all are made of wood and are painted/drawn, and only one bears γ /M4.

Differential preservation of materials across label-yielding sites and differences in the number of survivals (Table 2) make it difficult to comment further on the significance

of material and technical choices from local and regional perspectives. Nevertheless, these surviving examples suggest an interdependence between symbolic meaning and the technological-material aspects of expression, highlighting the importance of accounting for such relationships and the ways in which they were negotiated in the construction of semantic meaning.

5.11 The Becoming of Material Visual Culture and Experimental Archaeology

The theoretical focus on social practice demands explicit concern with the meaningful “becoming” of artefacts through materially grounded activities conducted by individuals and groups (Dobres 2000, 132). As a way to think through this notion, similar to Wenger’s (2002 [1998]) concept of objects as both processes and products of those processes, and to consider the kinds of technological concerns and other determining structures that label-makers may have encountered (cf. Wylie 1989, 13), I undertook an experimental bone label-making project in order to gain a clearer idea of the influence of a particular material, tool or practical technique.

The superb quality of the published photographs of the NIIIA1 labels enabled identification of a seam in the bone exemplars that is diagnostic of the metapodial, a part of the lower limb in quadrupeds⁶⁸ (Dreyer 1998, e.g. 127, pl. 32.112 and 124; see also §5.3.1). I therefore utilised metapodial bone as the basis for the experiment, although the modern cattle bones I obtained from a London butcher were larger than their ancient counterparts (Louise Martin, pers. comm. 2004). Gauging the difference is difficult since published osteometric data for early Egypt are not readily available (even though complete cattle skeletons have been excavated; Grigson 2000, 39–40; but see Mudar 1982, 27), and sexual dimorphism and other factors mean that bone size will vary (Grigson 2000, 44). Nevertheless, the use of modern bone permitted a general understanding of the processes required for metapodial extraction and preparation, although acquisition by label-makers in such a raw state cannot be assumed.

With the assistance of several UCL Institute of Archaeology students participating in the Institute’s annual four-day Experimental Archaeology Course (in 2004 and 2005), I set about making replica bone labels. Working back from the finished object, we attempted to discern the possible sequences of actions, techniques and tool types required for extracting and shaping a label substrate. I was interested to think through where one action might have intersected with and therefore informed subsequent outcomes, such as planning the image composition, incising/painting the imagery or drilling the perforation.

Experimenting with different flint tools that we knapped, albeit crudely, we cut up the lower limbs of cattle, cutting away flesh, tendons and cartilage in order to extract

68 UCL Institute of Archaeology faunal specialists Louise Martin and Peter Popkin provided vital insight into bone identification.



Figure 60: (a)–(b) Cutting the hide, flesh and other soft tissue away from the bone with roughly knapped flint tools. (c)–(d) Improved vice to hold bone steady while sawing off caudal face of metapodial. (e) Sanding bone flat on a rough stone (photos: Kathryn E. Piquette, CC BY 4.0).

the metapodial (Figure 60, Figure 61, Figure 62). The process was time-consuming, no doubt due to our unfamiliarity with the tools, techniques and ‘optimal’ gestures for transforming the materials. Once the metapodial was extracted, cutting away the caudal face—the flattest of its available surface—presented many challenges. We surmised that past label-makers must have used a vice to increase stability while cutting (Figure 60). We also found that embodiment played a significant role in how we could position the tools *vis-à-vis* the materials and supports, such as the floor, one’s lap or a



Figure 61: Left: Cutting a depression in a block of wood in order to hold plaque firmly. Right: Plaque perforation drilling (followed by incising). Both: UCL Institute of Archaeology student Laura Hadley; photos: Kathryn E. Piquette, CC BY 4.0.



Figure 62: Left: Incising a label while holding it in the hand was more difficult due to lack of stability and control. Right: Plaque set on a rough surface to reduce slippage when applying pressure to incise. Modern tools are used in both instances. Right: UCL Institute of Archaeology student, Jennifer Booth; photos: Kathryn E. Piquette, CC BY 4.0.

tree stump, for efficient working. Ultimately, for reasons of time, we resorted to the use of a small modern hacksaw for separating the plate of bone.

Once extracted, the back of the bone plaque had to be chiselled and sanded quite a bit to match the smoothness of the original objects. After plate preparation, the available

surface area measured approximately 8.5cm × 3.5–4.0cm. Using the bone optimally, we could make 8–15 labels of the NIIIA1 size from a single metapodial—bearing in mind the larger size of our modern sample compared with ancient fauna.

The bone plate could be stabilised more effectively during incision and the cutting tool more easily controlled when the plate was kept whole, compared with attempting to work a pre-cut label held in the hand—a task which proved very difficult if not impossible. However, pre-cut labels could be incised with ease if held fast by setting the plaque on a rough surface that reduced slippage or, better, by cutting a depression in a block of wood and inserting the label (Figure 61). A purpose-made adjustable vice or frame would have also served this purpose. We observed that if soaked in water the bone surface softened slightly, requiring less force to incise. Once a whole plate was lightly scored to divide it into label sections, each of which was incised, a row of labels could then be cut through most of the way and snapped off as needed. The rough edges created by sawing and snapping off on our experimental labels resembled very closely the appearance of the edges on the un-sanded originals (Figure 63). Stone, moist sand on leather and modern sandpaper were all tested for sanding. Sanding on a hard surface produced a sharp straight edge. Rubbing the edge of the bone plaque against an abrasive surface with some give, for example sandpaper placed face up on the thigh, produced a gentle curve, precisely like that seen on ID021/4260_A, if the edge was originally cut at a slight angle. The longer one spent sanding on a flexible surface, the more pillow-shaped the edge became, very much like ID274/0986_S—an exceptionally carefully and skilfully made label.

In elaborating the surface, we found that the clean, white incisions of a width and depth comparable to those attested on the originals were extremely difficult to see (underlining Gibson's point concerning the relationship between perception and material properties, particularly the mediating role of "medium" *vis-à-vis* "surface", §2.4). The application of colour to the incisions of some labels was at least in part the result of a past concern for visibility. That some kind of adhesive or binding medium was required became evident during the experimental work when dark soil or charcoal was placed in the incisions: after a brief period of object manipulation, the infill fell away. With the addition of fish oil (to hand from another experimental project), adhesion was successful (and remains intact to this day!).

After various attempts, we succeeded in producing several labels that roughly resembled the original artefacts (Figure 64). As untrained reproducers and bearing in mind the influence of 21st-century, Western socialisation on our bodies, gestures, methods of decision-making, etc., we nevertheless gained much insight into the many factors label-makers may have confronted. The chain of operations was certainly not fixed or necessarily linear. Many scenarios are possible by adjusting the variables and we could only test a small range in a general way. Nevertheless, we came to understand better why label-makers selected the plate method, at least when using metapodial bone, and also gained a clearer idea of the sequence for steps in the conversion process. This experimental project highlighted the complex web of practices in which the labels were embedded. As material objects, they represented to us a significant time investment and accumulation of skill and social knowledge, much of which was prerequisite to, and therefore integral to, the actual business of inscription/decoration, not to mention the cultural and symbolic role they subsequently played.



Figure 63: Bone label ID097/4334_A showing rough protruding edges at the top and bottom suggestive of cutting partially through the bone plate prior to snapping off, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE; photo: Kathryn E. Piquette, courtesy of German Archaeological Institute Cairo, CC BY 4.0).






Figure 64: Left: Experimental label after ID092/4327_A. Right: Experimental labels after IDI48/4376_A and ID127/4379_A. Both made from a modern cattle metapodial (Left: UCL Institute of Archaeology student, Laura Jay. Right: UCL Institute of Archaeology student, Laura Hadley; photos: Kathryn E. Piquette, CC BY 4.0).

5.12 Making, Unmaking and Remaking

The majority of labels appear to be complete, and makers typically employed the same technique for the entire plaque, whether single- or double-sided. However, a small number exhibit features that point to complex life histories, including distinct creative iterations, as well as episodes of unmaking and apparent remaking. I discuss this elsewhere (Piquette 2013a) and for this and reasons of space I summarise key observations here. For example, two double-sided labels⁶⁹ appear to be made of the same type of

⁶⁹ ID213/0284a–b_A, ID214/0283a–b_A.

wood, bear similar decoration on their primary faces, date to the reign of Aha, and are provenanced to the same site (Cemetery B tombs B18, B19, Abydos; Petrie 1901a, 21, 51). Based on compositional similarities, the life histories of these two objects seem to have been closely related. It is notable that while incision is used on the primary face with traces of colour paste preserved in the cuts of some GOs, applied colour is used alone on the opposite face. For ID213/0284a–b_A, the secondary side bears a spindle(?) / U34^v# in red and other possible imagery too faded to identify without spectral imaging. The more fragmentary ID214/0283a–b_A bears a black rectangle understood as a gaming board upon which are set alternating GOs that may be two types of gaming piece, together apparently forming  / Y5 (Petrie 1901a, 21). The use of different techniques for each label face, entailing different tools and preparation of different materials (coloured paste versus liquid colour), points to a temporal separation in episodes of decoration. Perhaps incision of the primary side was the result of more immediate concerns of agents (commissioners, label-makers and users) closely related in time and space, while applied colour addenda(?) were undertaken at a different time and place. What is clear is that in some cases label-making was an ongoing process in response to changing circumstances.

Similar issues are raised by a number of NIIC–early D labels from which surface material has been removed after initial incision. Two virtually identical labels⁷⁰ from Naqada bear erasures in the same lower left corner, an area which comparison shows may have contained numerical or other commodity information (Newberry 1912, 288). Parallel treatment suggests that both were subject to the same set of changed circumstances from the original intentions of the label-maker. A small number of labels bearing the PI of Djet⁷¹ and Den exhibit modifications in areas where PIs otherwise appear, to the left of the  / O33+  CGO. If aspects of items, their quantities, or individuals involved in delivery or tomb equipping changed, why was this new information not then indicated? How did the labels perform their oft-assumed administrative function without presumably essential numerical or identity information? Or, by the time we encounter some labels archaeologically, have they been discarded? Other labels raise similar questions (see Piquette 2013a), but a key point to highlight here is the dynamic practices revolving around label-making and use.

5.13 Summing Up

In the preceding sections, label materials (bone, ivory, wood, stone) and materiality—the ways in which these are transformed into labels via certain techniques, tools and embodied practices—were examined. Although no direct evidence has been recovered for label production, many clues concerning their individual ‘life histories’ can be discerned through first-hand inspection and careful study of high-quality photographs and now through new techniques such as Reflectance Transformation Imaging (e.g.

70 ID209/2040a–b_N, ID210/0241a–b_N.

71 E.g. ID277/4084_A, ID315/1372_A.

Piquette 2016, 102–105). Through experimental bone label-making I also attempted to understand how these facets are interrelated via practice and participation, in an attempt to think through possible material conditions influencing the decisions and actions of label-makers. Insight was also gained into the label *chaîne opératoire*—an area of research that would benefit from further and more systematic investigation. The aforementioned notion of the ‘becoming’ (§2.4.1; Dobres 2000, 130–132) of these small objects is important to retain here—or perhaps more accurately, their ‘outcoming’. By thinking through the *chaîne opératoire* of the inscribed labels we come to understand that they simultaneously embody processes and the outcome of those processes. As particularly clearly demonstrated in the analysis of labels from Abydos Tomb Q, where painting and incision were each employed for different label content types (§5.10), plaque materials were not simply foundations to support image and script, but constituted and influenced the expression of the latter.

Nevertheless, the reasons for these and other material choices still raise many questions. Overall, label-makers exploited only a small range of possible materials. Why the focussed use of bone, ivory or wood, and not sun-baked clay (cf. Pinarello 2015, 18–19, 107–115), potsherds or limestone flakes? This restricted material choice cannot be explained simply via energy expenditure hypotheses or in terms of resource accessibility. Yet in what context and for whom would label materials or techniques have held significance? Differentiating bone and ivory from wood is usually straightforward, but differentiating bone from ivory less so, and it is even more difficult for ivory type, for the untrained eye. As noted, when ivory is smoothed and polished, and depending on the orientation of the piece as cut from the tusk, it can be particularly difficult to differentiate. Wood identification requires a similar familiarity. Unless materials knowledge was transmitted, few other users and viewers may have possessed the experience to discern some types. Further, the significance of material type probably varied throughout making and use, perhaps being unimportant in some situations, yet nevertheless informing use and perception at other levels.

A range of social factors clearly informed the specific cultural choices of knowledgeable individuals, and this chapter has identified selected patterning that shows how aspects of material use, manipulation and transformation through additive and subtractive techniques were chosen deliberately. From the onset of the early 1st Dynasty, actors had developed “recursively-organised sets of rules and resources” that simultaneously constrained and enabled label-related actions (see Giddens 1984, 25). These rules and resources established the label as a particular type of material culture and the choices that resulted in the shape, material, texture, and size of a label, as well as the techniques of its surface elaboration and general manipulation. But, beyond this, the way in which graphical content was deployed seems to have been open to much greater negotiation, yet nevertheless within certain social structural conditions. I now shift the focus of analysis to the graphical sphere of practice, first taking stock of the image repertoire in Chapter 6, followed by a detailed examination of image composition in Chapter 7.

6. The Graphical Repertoire

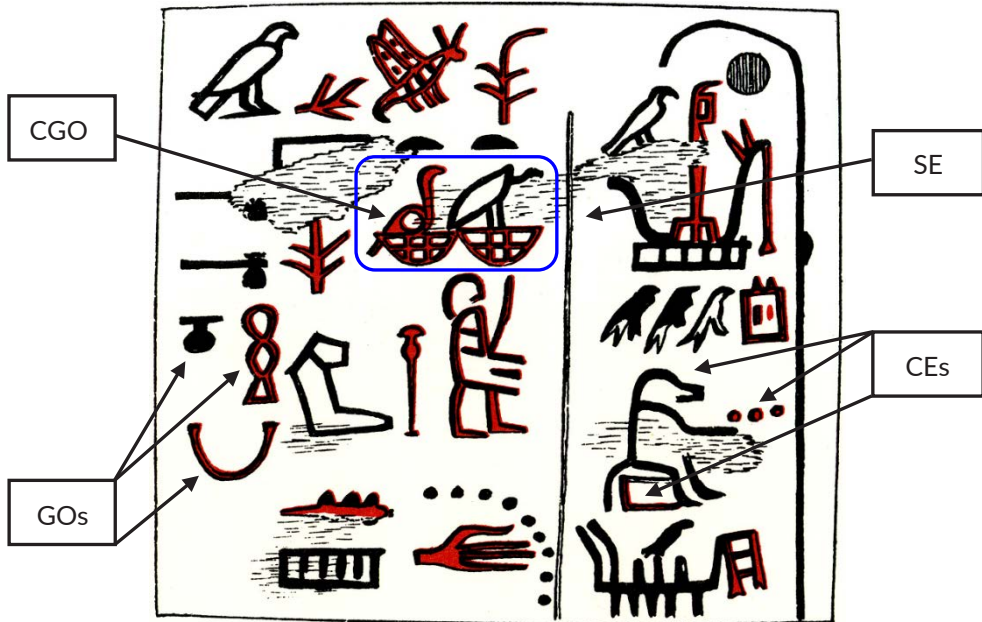
6.1 Classifying and Categorising Images

In this chapter, I present the first of a two-part analysis on the graphical content of the inscribed labels. I begin by characterising the repertoire at the level of individual images, followed by an exploration of the relationships between images and the general composition in Chapter 7. Before turning to the analysis, it is important to problematise the process of identifying graphical marks and classifying them into categories. For example, for imagery that appears to depict objects from the early Egyptian material world, such as the sun disc, a round bread loaf, or a loom weight, the projection of the 3D object onto/into a material surface—through subtractive and/or additive techniques—can introduce ambiguities for the unfamiliar viewer. A circular shape could resemble any number of objects. The question of intended perspective raises further possibilities.

Meskeil (2004, 41) discusses the notion that things belong unambiguously to discoverable natural kinds, noting the oft-cited example of Borges' Chinese encyclopaedia wherein animals are divided into categories, such as those belonging to the emperor, embalmed ones, fabulous ones, innumerable ones, ones that look like flies from a distance, etc. (see also Foucault 2002, xvi). By its very nature, classification is connected with essentialism—the idea that things possess inherent properties or qualities that make them one kind of thing or another (Goodman 1993, 6–7). It is therefore important to maintain a critical awareness of how a system is constructed, whether in the past or as a heuristic device in the present, as is the case here.

In developing his *List of Hieroglyphic Signs*, Gardiner (1973 [1927], 438–548) noted that form is apt to change according to its context or the method of depiction employed by artists. Indeed, "...that a visual display happens to *resemble* some real object does not guarantee it *depicts* that object" (Davis 1989a, 181, emphasis in the original). Image categories are not, and cannot be made, mutually exclusive (cf. Gardiner 1973 [1927], 439–440). Further, even where image morphology bears similarity, morphology may be open to different interpretations, explained at different levels by different groups of people within a past community (Skeates 2005, 54)—and at different times and places.

In maintaining an awareness of the constructedness of any classification process, the goal must be to avoid intellectual paralysis brought on by cultural relativism, on the one hand, and by homogenising universalism, on the other. The key issue I grapple with here is a methodological one—undertaking characterisation and organisation of the label repertoire, yet in keeping with a grounded approach, without recourse to evidence from future time-space social contexts. Accepting that characterisation is a subjective perceptual process, whether situated in the present or past, the arrangement outlined here represents only one of a number of possible organisational schemes. My aim in the first instance is heuristic, but, in attempting to characterise and assess the constituent components of the label image repertoire in their own terms or in relation to contemporary graphical culture, I hope to gain some insight into the concepts and categories that were meaningful to the individuals and groups involved in the manufacture and use of labels, if not to wider early Egyptian society.




Graphical Object	GO	Broad term for all image types	Any of the below
Simple Graphical Object	SGO	Images that form a single isolated entity and do not come into direct contact with other images	𓂏/L2, 𓂏/M3, 𓂏/F4, etc.
Composite Graphical Object	CGO	Comprised of two or more images in direct contact through the associations of contiguity and/or bounding	𓂏/G16
Composite Element	CE	Elements of a CGO are essentially SGOs, but to differentiate them in coding and analysis they are termed 'CEs'	𓂏/V30+𓂏/I10+𓂏/V30+𓂏/G14
Structuring Element	SE	Vertical and horizontal lines used to structure the composition (attested from the beginning of NIIC-early D)	'-' or ' ' (as shown above)

Figure 65: Graphical Object (GO) types, their abbreviations as used in the text, with brief description and examples, Kathryn E. Piquette, CC BY 4.0.

6.2 Identifying and Defining Graphical Objects

In his extensive study of Egyptian dynastic art, Schäfer (2002, 93) employs the terms “simple and composite visual objects”. I expand on these terms to distinguish several image categories (Figure 65), but swap the somewhat dematerialising, mono-sensory term ‘visual’ for the more substantive ‘graphical’ (Piquette 2008, 91). Thus, a ‘Simple Graphical Object’ or ‘SGO’ constitutes the smallest unit of analysis. Many SGOs are made up of a number of integral sub-elements, e.g. ‘tail feathers’ of a ‘bird’, or the ‘handle’ of a ‘vessel’. Such sub-elements are considered in as far as they aid SGO classification or

shed light on broader compositional practices (e.g. orientation of a bird's head or tail feathers signal directionality and view, which may in turn relate it to, or distinguish it from, other graphical elements; see Chapter 7).



It is not always possible to draw sharp lines between graphical entities in a given composition (Schäfer 2002, 93), but by identifying, comparing and contrasting imagery according to the GO categories—SGO, Composite Graphical Object (CGO), Compositional Element (CE) and Structuring Element (SE)—the analysis aims to expand our understanding of the repertoire and compositional devices that label composers employed. The reader should note that where I describe a GO through the mention of a real object, this is not intended as a certain interpretation of past iconographic intention, but provides a handle for getting to grips with the range of difference and similarity within the repertoire. The degree to which arbitrary meaning can be discerned, that is, symbolic content understood based on the conventions of a particular system (see Morphy 1989, 6), e.g. /G5 interpreted as representing or presencing a deity or linguistic value, constitutes a secondary, if not tertiary, level of analysis that, for methodological reasons, cannot precede the present foundational work. While detailed analysis and interpretation of palaeographical significance falls outside the scope of this study, the following sections should be considered in tandem with Regulski's (2010a) palaeographical study.¹

Of the 427 labels and fragments in this study, 404 preserve imagery. Label completeness, the level of GO detail, and stylised and/or schematic expression all influence levels of certainty for identification and classification. Larger GOs tend to carry more detail than smaller parallels.² For what I term a 'sub-GO', such as an element of the face or head (e.g. eye, nose and so on), variability can be more discernible on some larger labels, but details reduce as density increases regardless of surface area. GO identification based purely on morphology was not always possible, but could be deducible based on associated GOs, compositional and other features. For selected GO categories, then, some discussion of sub-GO or associated features are brought to bear, although focus remains on establishing the general GO repertoire. Thus, even the basic task of image identification and classification cannot be divorced from the wider material context. A key point here is that the relationships between GO appearance—its size, scale, mode of technical expression—and wider graphical-material space are recursively constructing.

Of about 4440 possible GOs, approximately 4300, or about 97%, can be distinguished with certainty (Figure 66). Frequency counts for identifiable GO types (Figure 67) and SGOs and CGOs (Figure 68) show that SGOs are the most common type in both label phases. CEs occur less frequently but constitute some 467 CGOs (§7.4). There are about 140 SEs attested, albeit only on NIIC–early D labels.

The GOs were classified into 23 'Families' for analysis in ATLAS.ti (§3.3.2), subdivided into four main categories: Iconic; Non-Iconic; Unclassified; Unclear (Table 6).³ In order to focus on the potentially more-productive data, the 'Unclear' group are omitted from

1 Under preparation when the bulk of the research presented in this section was undertaken.

2 Compare /F4 on ID264/0994_S with /F4 on ID410/4448_A.

3 Note that for methodological reasons classification was done without recourse to non-contemporary evidence and may thus not correspond with designations in previous research.

Quantity and Percentage of GOs by Phase

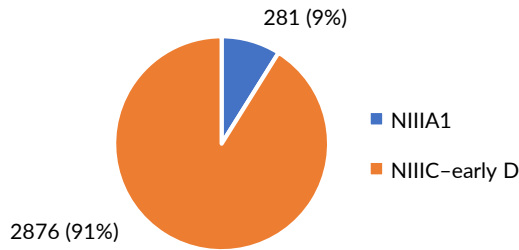


Figure 66: GO quantities and percentages identified with certainty, by phase (additional marks, 17 for NIIIA1 and 113 NIIC-early D, could not be identified as GOs with certainty), Kathryn E. Piquette, CC BY 4.0.

Quantity of SGOs and CEs by Phase

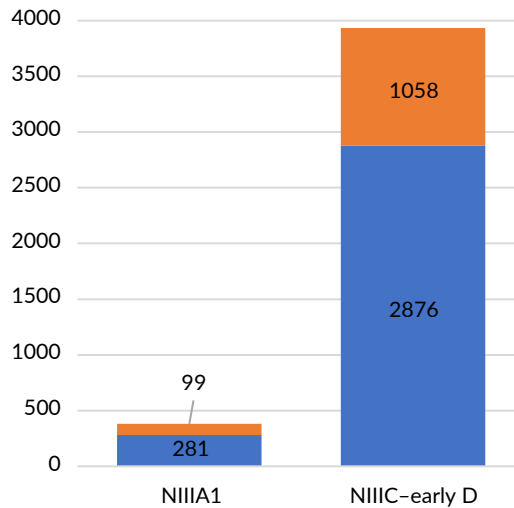


Figure 67: SGO and CE quantities identified with certainty, by phase (additional marks, 17 for NIIIA1 and 113 NIIC-early D, could not be identified as GOs with certainty), Kathryn E. Piquette, CC BY 4.0.

analysis. Re-examination of this category will be important once all fragments from the German work at Abydos are published. The groupings of Iconic and Non-Iconic, rather than ontological claims for ‘universal’ style categories, such as ‘representational’ (realistic) style as opposed to ‘geometric’ (non-representational) style (Wollheim 1987, cited in Gell 1998, 156), are heuristic, constructed as a ‘way in’ to begin exploration of the evidence and hopefully discover something of the categories and structures that were meaningful to people who commissioned, made, used and attributed meanings to the labels.

Each GO Family (e.g. Zoomorphs) and its types (e.g. bird, lion forepart, scorpion—the descriptive Code assigned to each SGO, or Quotation, in ATLAS.ti) are presented and

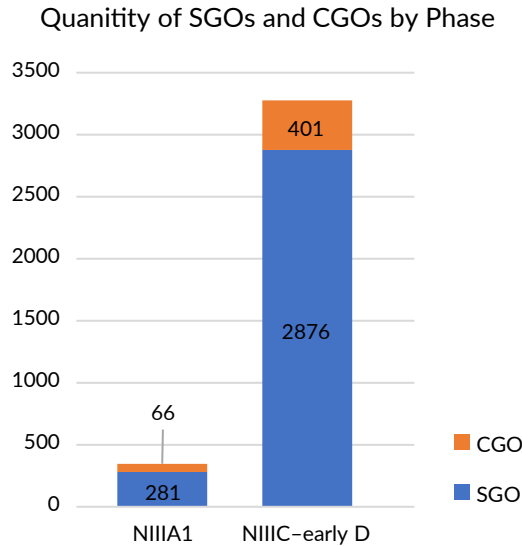


Figure 68: SGO and CGO quantities identified with certainty, by phase, Kathryn E. Piquette, CC BY 4.0.

described below. In each section, I describe the types and give their frequencies. General distribution within the graphical space of the label is indicated using the quadrant framework⁴ presented in §3.6 and Figure 10. I also give temporal distribution by phase, as well as highlight selected trends and patterns that shed light on the Research Questions (§1.8).

6.3 Iconic Imagery

The ‘Iconic’ group consists of c.2400 GOs organised into 12 Families. Each Family is examined below in alphabetical order, as listed in Table 6.⁵

6.3.1 Adornment

The ‘Adornment’ Family (14 Codes, 119 GOs; Figure 69⁶) comprises items relating to the dress and ornamentation of bodies, both zoomorphic or anthropomorphic. (The latter bodies may hold with their limbs items that could be considered adornment, but, given my focus on compositional relationships between GOs, items in ‘holding/held’ relationships are classified as ‘Implements’; §6.3.8). Adornment items include clothing,

4 Quadrant 1 (Q1), Quadrant 2 (Q2), Quadrant 3 (Q3), Quadrant 4 (Q4). A GO that straddles the upper left (Q1) and lower left (Q3) quadrants is given as: Q1–Q3.

5 I have chosen not to employ the undeniably useful organisation scheme established by Gardiner (1973 [1927], 438–548), but to employ a similarly random scheme to engender more reflexive thinking around how we classify and categorise the early Egyptian graphical world.

6 The data for this Family are itemised and visualised in detail in this figure, but, for reasons of space, such illustrations could not be provided for all GO Families.

Family Groupings	Description
Iconic	
Adornment	
Anthropomorphs	
Architecture	
Body Elements	
Containers	
Flora	<ul style="list-style-type: none"> • GOs resembling objects from the early Egyptian world yet familiar to the modern observer;
Furniture	<ul style="list-style-type: none"> • 12 Families, c.2400 GOs.
Implements	
Landscape	
Supports	
Transport	
Zoomorphs	
Non-Iconic	
Structuring Elements (SEs)	
Simple Linear Shapes	
Complex Linear Shapes	
Simple Rectangular Shapes	<ul style="list-style-type: none"> • Non-iconic but can be classified according to morphological features and compositional function;
Complex Rectangular Shapes	<ul style="list-style-type: none"> • 9 Families, c.1200 GOs.
Strokes and Notches	
Triangular Shapes	
Circular Shapes	
Curvilinear Shapes	
Unclassified Shapes	<ul style="list-style-type: none"> • Morphology does not fit into either of the above Family groupings; • 84 (sub-)Families, c.250 GOs.
Unclear GO	<ul style="list-style-type: none"> • Poorly preserved or laconic and therefore cannot be accurately identified or described; • 1 Family, c.350 GOs.

Table 6: Four main groupings of GO Families, with frequencies for those GOs sufficiently preserved to be classified, Kathryn E. Piquette, CC BY 4.0.

headgear, footwear and jewellery. The ‘tail’ GO presents a reminder of the culturally contingent nature of any classification exercise: where integral to animal bodies it is not classified separately from these bodies, but when suspended from the waist of anthropomorphs it is included in the present category.

Of the 119 adornment GOs, only 9% are SGOs, while 91% are CEs, virtually all of the latter are associated with anthropomorphs. Items of adornment on the NIIIA1 labels are few: a small number of individuals may wear penis sheaths (cf. Baines 1975), and four or five labels⁷ bear what appears to be a long garment SGO (s27). The large proportion of adornment items appearing on the NIIIC–early D labels relates to the preserved sample but also correlates with the increased depiction of anthropomorphs (§6.3.2),

7 E.g. ID172/0205_A.

Adornment	Frequency
Headgear	40
Kilt, short	28
Robe/wrap	14
Collar	9
Tail	6
Belt	5
Garment, long	4
Kilt, long	3
Sandal, pair	3
Tunic	3
Necklace beads(?)	2
Garment w/fringe	1
Loin cloth(?)	1
<i>Total</i>	<i>119</i>

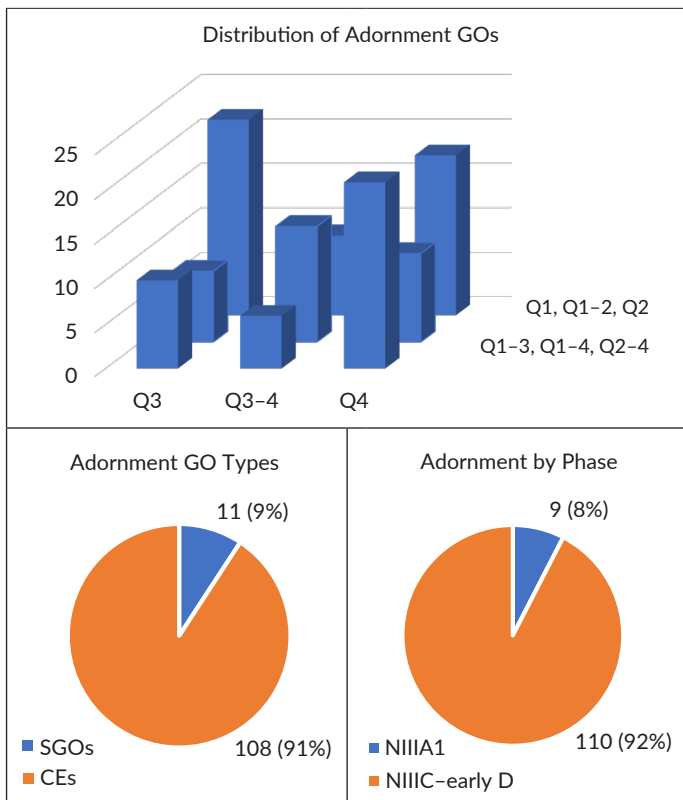


Figure 69: Adornment GOs, bar chart showing distribution across the label surface, and pie charts showing distribution by type and by phase (an additional 17 GOs not included in the data above, may also belong to this Family), Kathryn E. Piquette, CC BY 4.0.

although, in the second half of the 1st Dynasty, adornment GOs are less frequent, as are anthropomorphs.

Most adornment items exhibit subtype variability, but sandals, collars and beads show little variation, bearing in mind the relationships between the scale of physical expression, GO density and internal detailing. Several types of garments are worn. The kilt is most common, worn short or long, with a knot or tie at the waist,⁸ with perhaps skins(?) or textile hanging below the hemline.⁹ A kilt with front and back aprons overlapping at the front is attested on at least five labels.¹⁰ A wrap or robe appears on some seated figures.¹¹ The preservation of red and white colour on two items of headgear worn together— $\text{D}/\text{S1} + \text{D}/\text{S3}$ combined as $\text{D}/\text{S5}$ (Figure 53)—strongly suggests that nomenclature later attested, “Red Crown” and “White Crown”, was already established during the 1st Dynasty.

Distribution of adornment GOs is generally restricted to the primary face of labels, a notable exception being pairs of sandals: these occur on the secondary label face as SGOs (i.e. independent of a wearer).¹² GO distribution is otherwise relatively even across compositional spaces, but some clustering on the right side can be observed—a pattern that also corresponds to that of anthropomorphs, discussed in the next section.

6.3.2 Anthropomorphs

The ‘Anthropomorphs’ Family (3 Codes, 133 GOs) is thus named because many figures appear to depict humans but a broader term than ‘human’ is required since such figures may have been attributed divine or other significance. Anthropomorphs are one of the most elaborated GO types on the labels, virtually always embellished with items of ‘Adornment’ (§6.3.1), or distinguished by pose, activity, and other associations that make this category a rich source for studying the construction and visual expression of the body and early Egyptian identities (Piquette 2001; Piquette 2004; Wengrow and Baines 2004). Many depictions are of the Egyptian ruler, identified on the basis of headgear and other regalia. A wide array of graphical associations allows narrative relationships to be discerned. An anthropomorph may wield a bow,¹³ spear or harpoon,¹⁴ carry items,¹⁵ dance/run,¹⁶ grind/pound,¹⁷ or raise a weapon or implement in an apparent act of aggression.¹⁸

8 ID047/0274_A.

9 ID209/0240a-b_N, ID210/0241a-b_N.

10 ID293/1246_A, ID297/--a-b_A, ID298/--a-b_A, ID300/1389_A, ID305/4087_A, all of which probably date to Den.

11 E.g. ID239/0847_S, possibly ID304/1253_A, ID331/4088_A.

12 E.g. ID297/--a-b_A, ID300/1389_A.

13 ID050/4287_A.

14 E.g. ID297/--a-b_A.

15 E.g. ID213/0284a-b_A.

16 E.g. ID295/4078_A.

17 E.g. ID212/0943_A.

18 E.g. ID207/0289_A, ID239/0847_S. This much debated scene, where one figure raises what appears to be a knife to the chest of another individual, has been interpreted as depicting human sacrifice (e.g. Morris 2007a, 20; Baud and Étienne 2000; Crubézy and Midant-Reynes 2000; Emery and Sa’ad 1938, 84).

Further anthropomorphs are depicted in a variety of other poses, including standing or striding;¹⁹ stooping;²⁰ sitting;²¹ and kneeling or crouching.²² The sex of four, possibly five, individuals on the NIIIA1 labels is indicated by the presence of a penis/penis sheath;²³ anthropomorphs on NIIC–early D labels do not exhibit this identity marker, although it is indicated for a small number of zoomorphs (§6.3.12).

As for distribution on the label surface, anthropomorphic GOs are slightly more common in the lower right but generally occur in all areas of the label. The general graphical complexity surrounding the depiction of anthropomorphs is evident by the fact that about 90% are CEs. Such associations are clearly important for expressing the significance or status of a figure, unlike containers, for example, which are far less often distinguished by direct graphical associations. This pattern, which also applies to body elements (§6.3.4), anthropomorphic and zoomorphic, helps justify the separation of whole bodies and body elements into different categories. Structuring Elements (SEs; §6.5.1) and non-iconic GOs interpreted as numerical signs (e.g. §6.5.6) are the only categories with which anthropomorphs do not actively engage, suggesting that SEs and non-iconic GOs are perhaps more abstract in their meaning than others.

As for their temporal distribution, 5% of anthropomorphs appear on the NIIIA1 labels and 95% on later examples. Elaboration of the body with items of adornment or associations with implements and other objects parallels this trend, with less embellishing on the early labels and greater adornment for labels dating from Narmer up to Den, a period during which about 90 anthropomorphs are attested. This suggests a growing interest in expressing particularistic identities on the labels, but this practice wanes by the reign of Qa'a. Among his numerous labels no more than a dozen figures are attested, all part of the same motif involving a press or mortar and pestle.

6.3.3 Architecture

The 'Architecture' Family (10 Codes, 88 GOs) includes rectangular and other shapes that appear to be walls, some with openings that may be entryways. Exclusive to the NIIIA1 labels are 'theriomorphic structures', SGOs in the shape of an animal with a tail in profile and ears and/or tusks(?). Linear hatching is suggestive of woven materials (see Petrie 1901a, 31) and what appears to be an entrance at the base.

Classification of rectangular GOs with a crenelated external contour²⁴ as 'architecture' is supported by contemporary funerary structures exhibiting this shape in plan (Emery 1954, pl. 2; see also Figure 27). I am unaware of archaeological evidence for the circular crenelated features seen on some labels but an architectural designation seems likely. Rectangles bounding other GOs may serve an organisational purpose, like Structuring Ele-

19 ID239/0847_S.

20 E.g. ID209/0240a–b_N, ID239/0847_S.

21 E.g. ID306/1252_A, ID308/1254_A.

22 E.g. ID239/0847_S.

23 E.g. ID052/4286_A.

24 E.g. ID201/0095_A, ID344/4444_A.

ments (SEs; §6.5.1). From a grounded approach, I hesitate to classify these as ‘architecture’ and neglect their more explicit compositional function of bounding or framing other GOs, and therefore classify these motifs as ‘Simple Rectangular Shapes’ (§6.5.4). Other investigators may prefer to see architectural and framing GOs as part of the same Family.

A unique structure on ID286/1243_A is described as the “oldest architectural drawing known” by Petrie (1900, 23), who sees it as depicting a tomb with a mound superstructure with a sloping or stairway entrance. To the right of this he sees three graves marked with stelae, features attested on other structures, although not in this configuration. Other structures classified as architectural exhibit a rounded top,²⁵ rectangle with protrusions and notches,²⁶ and a tall, ladder-like element.²⁷ These are commonly interpreted as sanctuaries or shrines (Adams and Ciałowicz 1997, 63), albeit with some recourse to later evidence.

Of the 88 GOs, about 55% are SGOs and 45% are CEs. The latter are often associated with anthropomorphs and zoomorphs, such as snakes and birds, as well as headgear, trees, boats, and standards(+birds) or arrows(+bilobate beetles[?28]).²⁹ Compositionally, architecture GOs are most commonly placed in the upper right (Q2) of the graphical space. Temporally, all theriomorphic structures date to NIIIA1, while other architecture GOs are found among the NIIC–early D labels.

6.3.4 Body Elements

The ‘Body Elements’ Family (19 Codes, 300 GOs) comprises both zoomorphic and anthropomorphic parts. A small number cannot be classified clearly as one or the other due to stylisation and the lack of narrative associations among SGOs (as compared with CEs). This ambiguity may point to a classification system that does not necessarily conform to our own or that the iconic significance of an SGO is partially supplanted by other types of symbolic function, such as those relating to language.

Body elements are more common in the upper left of the graphical space, followed by the lower right. Of the 300 GOs, about 70% are SGOs and around 30% are CEs. About 7% date to the NIIIA1 and 93% date to the NIIC–early D phase. A dominant motif among the former is the horned animal head (usually) on a stake/support, e.g. f11 and f12.³⁰ A possible pair of $\sqcup(?)$ /D28 occurs on ID078/4310_A and ID152/4404_A, and may constitute one of the few NIIIA1 GOs that carries over into the NIIC–early D repertoire, a point to which I return in §11.1. The most common element is ☞ /F4. Upper limbs and animal heads also occur frequently. The large number of ☞ /D46 relates to numerous labels preserving the Personal Identifier (PI) of Den (☞ /N35+ ☞ /D46).

25 E.g. ID213/0284a-b_A.









26 E.g. ID206/0287_A.



27 E.g. ID213/0284a-b_A, ID275/1081_Un.

28 See Adams (1999).

29 On e.g. ID213/0284a-b_A, ID274/0986_S, ID331/4088_A, ID332/4089_A.

30 E.g. ID093/4391_A.

Disembodied elements are usually depicted in a manner suggesting they are static, but action is conveyed on ID284/2002_S, where multiple dots/n3 descend from /D46*. In a similar motif³¹ dots/n3 instead issue from vessels, perhaps conveying the idea of dispensing. Some GOs (e.g. /D28) interlock with other images, but this may relate to artistic use of space rather than an interest to convey the act of extending/raising the arms. Few body elements subtypes can be distinguished, but some differences are noteworthy, e.g. the variable number of digits on /D46 in the upper part of /O33 of Den (see also Regulski 2010a, 257–258).³² Likewise, the eye with pupil and eyebrow are sometimes fragmented from the larger bodily surface of the face.³³ Upper limbs, including hands and fingers, and the head may be fragmented at a joint.³⁴ /D58³⁵ and /D54³⁶ appear to fragment at the hemline of the garment, and /D36 at the mid upper arm rather than the joint. /F4 includes the animal's forelimb(s?), head and mane, a point of fragmentation that may relate to the artists' choice of the natural boundary of the mane when the head and body are seen in profile.³⁷ A depiction of an upper limb attached to part of the torso³⁸ is unusual in lacking a boundary line on its left side, an absence unattested on other NIIIA1 labels and rare among NIIC–early D examples.³⁹

The schematisation, fragmentation and unification of bodies and body parts also provide insight into the ways in which early Egyptian artisans conceptualised bodies and their properties and the extent to which the boundaries between these cultural categories were seen as permeable (Piquette 2004). The joining of anthropomorphic and zoomorphic body elements with other bodies or inanimate objects occurs for upper and lower limbs. Anthropomorphic limbs attached to a catfish/k4,⁴⁰ /O33,⁴¹ or /G5⁴² form a type of emblematic complex (Baines 1989, 474), a compositional device that continues in use during the dynastic period (Fischer 1976, 46; Fischer 1972).




6.3.5 Containers

The 'Containers' Family (5 Codes, 230 GOs) comprises images depicting vessels and other portable container types. Among vessel types closed forms predominate, including those with flat and round bases, with and without handles, globular forms with low

31 See ID374/3406_H, ID375/3407_H, ID376/3408_H.

32 Compare ID295/4078_A with ID299/4086_A.

33 E.g. ID186/4405_A, ID409/1863_A.

34 E.g. ID424/1654_A for /D28, ID290/1257_A for /D51, ID263/0990_S for /D1.

35 E.g. ID286/1243_A.

36 ID375/3407_H.

37 See ID264/0994_S.

38 ID186/4405_A, secondary side.

39 E.g. on ID281/2004_S the vessel base contour line is absent, but perhaps unintentionally if incised before being cut to shape at which point this line was trimmed off. The bottom edge of the label may have also substituted for this contour line (see also §7.2.1).

40 ID202/4030_A.

41 ID208/0282_A+0209_A, ID277/4084_A, ID278/4807_A.

42 E.g. ID209/0240a–b_N.

and high necks, and cylinder jars. Bags⁴³ and possible baskets or boxes are also attested.⁴⁴ In addition to morphological differences, some containers exhibit internal markings, possibly showing decoration,⁴⁵ contents (e.g. see §4.6.1.3),⁴⁶ or materials such as stone.⁴⁷

Of 230 ‘Container’ GOs, SGOs constitute about 65% and CEs 35%. SGOs tend to occur in the lower part of the composition, representing one of the strongest compositional distribution patterns for any GO Family in the label repertoire. Charted temporally, this pattern is restricted mainly to the beginning of the 1st Dynasty up until the end of the reign of Den.

Where containers are associated with anthropomorphs, open forms dominate, e.g. a tray(?) held by an anthropomorph,⁴⁸ or a bowl set between two figures.⁴⁹ Pairs of horizontally aligned baskets are usually accompanied by $\mathcal{L}/G14$ and $\mathcal{C}^s/I10$.⁵⁰ As seen on ID354/1125_S, the tabular format of the composition forces imagery into thin vertical columns (if we assume format preceded addition of images). Several containers are vertically bracketed by a GO cluster above and below. This isolation of containers through compositional format is notable (Chapter 7), as is the care taken to distinguish subtypes through internal details, as well as their co-occurrence with GOs conventionally understood as numbers (§10.3).

Overall, the labels bear about 230 containers, with more than one often occurring on the same label. The NIIIA1 labels include a single attestation;⁵¹ all other container GOs appear on the NIIIC–early D labels. Although I discuss GO composition below in Chapter 7, it is worth noting at this juncture that only about 55 of the container GOs can be interpreted as serving more ideographic or potentially indexical purposes, a point to which I also return with regard to how we re-construct the past roles of the labels.

6.3.6 Flora

The ‘Flora’ Family (18 Codes, 261 GOs) is the largest Family after Zoomorphs. Whole plants and trees are depicted, or parts thereof, such as a stalk with one or two pairs of leaves/stems(?). The schematic shape of most make discerning meaningful subtypes difficult and presents challenges for differentiating stylistic from categorical difference (compare the three flora GOs on ID263/0990_S with those on ID364/1931_S).

43 ID213/0284a–b_A, ID214/0283a–b_A, ID288/1421_S, ID289/1422_S.

44 ID354/1125_S.

45 E.g. ID201/0095_A.

46 ID288/1421_S, ID289/1422_S.


47 E.g. ID374/3406_H.





48 ID213/0284a–b_A.

49 ID207/0289_A, ID239/0847_S.


50 E.g. for $\mathcal{L}/G14$: ID345/1677_A, ID404/1869a–b_A, but cf. ID226/0645_A, ID239/0847_S, ID274/0986_S, ID275/1081_Un.

51 ID052/4286_A.

Nevertheless, based on the present approach, 261 flora GOs can be discerned. SGOs constitute some 80% of these, while CEs constitute about 20%. The latter are associated mainly with inanimate GOs, for example often occurring inside rectangles, e.g. /A34.⁵² Three floral elements (M16) extending from the head of a sprawled figure on ID202/4030_A constitute a unique example of this motif among the labels. A similar configuration attested on the Narmer Palette is understood to refer to a locality and/or signal social identity (Fairservis 1991, 11; Dreyer et al. 1998, 138–139).

NIIIA1 labels bear about 5%, and NIIC–early D labels around 95%, of the flora data. Compositionally they are more numerous in Q3, mainly from instances of /M3. /M22 and/or /M23 often occur in Q4 on labels dated to Qa'a. This GO Family remains prominent throughout label use. The most enduring type is /M3 which, possibly depicted on NIIIA1 ID157/4384_A, is certainly attested from the reign of Narmer through to that of Qa'a. Others may also carry over from the NIIIA1 through to the later label repertoire (see below, §6.7).

6.3.7 Furniture

The ‘Furniture’ Family (4 Codes, 16 GOs) comprises objects providing a supportive surface for anthropomorphs.⁵³ The top of /O33 serves a similar purpose for ‘birds’, as do ‘standards’ for a range of other entities, but these are classified separately as ‘Supports’ (§6.3.10). A vessel-shaped GO on the third row of ID353/1564a–b_S, currently ‘Unclassified’ (below), is similar in shape to an offering table found in the burial chamber of Saqqara Tomb X, where the label was also found (Emery 1949, 113, fig. 63), possibly warranting reclassification to the ‘Furniture’ Family.

From the perspective of function, all GOs in this ‘Furniture’ Family are essentially subtypes of ‘stool/chair’. The distinctions are based on slight morphological differences, but seem to be significant since they accord with different figures that sit on them (e.g. ruler, baboon, etc.). The stool-with-leg⁵⁴ is notable in that the front leg is not depicted but is provided by the leg of its bearded occupant, in a possible example of ‘visual play’. Apart from the aforementioned offering table, only a single furniture SGO⁵⁵ is attested, compared with 15 CEs. The latter all occur with seated anthropomorphs or an anthropomorphic-baboon/e21/e22. Several appear in narrative contexts, such as those on labels of Den in the architectural context of a pavilion⁵⁶ and others occurring in a procession.⁵⁷ All furniture GOs identified with certainty occur on the NIIC–early D labels, although a woven structure on NIIIA1 labels⁵⁸ has been identified as a ‘chair’ (Dreyer 1998, 124.103–104).

52 E.g. ID408/4460a–b_A.

53 E.g. ID239/0847_S, ID345/1677_A, ID375/3407_H.

54 ID374/3406_H, ID375/3407_H, ID376/3408_H.

55 ID307/1251_A.

56 E.g. ID304/1253_A.

57 ID239/0847_S.


58 ID109/4343_A, ID110/4344_A.

6.3.8 Implements

The ‘Implements’ Family (24 Codes, 341 GOs) includes objects such as the flail, the baton⁵⁹ or tools wielded to accomplish tasks such as cutting, piercing,⁶⁰ capturing,⁶¹ or sealing.⁶²

Most implements can be divided into discrete categories based on shape. A subtype distinction among ‘axes’ is particularly clear where two co-occur one above the other, especially on labels dated to Den–Qa’a.⁶³ Two types are distinguished by shape, careful elaboration of internal detail in some cases⁶⁴ and colour. On ID419/4071_A only one axe appears—perhaps the other is implied? Differentiation also occurs, for example, among staves, including through length and elaboration of the top⁶⁵ and/or lower portion.⁶⁶ Harpoons have a straight shaft and a single tang on one side, apart from a forked-end style wielded by a figure who plunges it into a pool(?).⁶⁷

SGOs constitute about 60% of GOs, and CEs make up the remaining 40%. Many Implement GOs are associated with (zoo)anthropomorphs, as mentioned, and are held to the side, raised up (e.g. staff, shield, flail) or placed in contact with the ground, or used to manipulate another object or figure, such as the rope of a clap-net being drawn around birds (see Emery and Sa’ad 1938, pl. 12C, Cat. No. 310; Houlihan 1996). Comparison of embodied action and associated objects aids in identifying implements that occur isolated elsewhere (e.g. harpoon, staff). A mace simply juxtaposed with the pole of a standard on ID295/4078_A is a rather unique association type where the mace may have itself come to embody the idea of killing or controlling.⁶⁸ Compositionally, implements occur most commonly on the left side of the label, especially the upper left.

Only 3% of the implements are found on NIIIA1 labels—including anthropomorphs holding a bow with arrow drawn,⁶⁹ while a bearded figure on ID053/4291_A raises a stick/staff. Among the 97% on NIIIC–early D labels, implements are mainly associated with anthropomorphs, but certain labels⁷⁰ are notable for showing a zooanthropomorph, e.g. a catfish/k4 with upper limbs or /O33 wielding a mace or staff. This emblematic use of imagery, associated mainly with ruler PIs, constitutes an important iconographic device for expressing power over others (Baines 1995, 114–119). The question of how grand themes expressed in miniature on selected labels would have been perceived and under what circumstances, if intended, is an issue to which I return later.

59 E.g. ID304/1253_A.

60 E.g. ID239/0847_S.

61 E.g. fowling net, ID305/4087_A.

62 E.g. cylinder seal, e.g. ID315/1372_A, ID410/4448_A.

63 E.g. ID421/4075_A.

64 E.g. ID407/1870a–b_A, ID408/4460a–b_A, ID410/4448_A, ID422/4445a–b_A, ID423/4447a–b_A, among others.

65 ID295/4078_A.

66 ID382/4482_A.



67 ID320/1313_A.







68 E.g. ID295/4078_A, ID300/1389_A.


69 E.g. ID052/4286_A.

70 ID202/4030_A, ID208/0282_A+0209_A, ID277/4084_A, ID278/4807_A.

6.3.9 Landscape

The ‘Landscape’ Family (9 Codes, 64 GOs) encompasses features visible in the ancient Egyptian landscape, including the relatively flat floodplain, the low and high deserts flanking the Nile Valley to the east and west (cf. Schäfer 2002 [1919], 237–238), and the river Nile or other bodies of water. Strips of undulating terrain resemble low desert or uneven areas of the floodplain.⁷¹ Hilly desert terrain may be depicted by /N26,⁷² /N25 and peak(4x)/n9.⁷³ Watery environments may be indicated on ID291/1260_A or ID320/1313_A. Rectangular motifs placed under boats seem to depict water (below), helping to support interpretation of (most) Structuring Elements (SEs) as dry land and similar surfaces (Schäfer 2002 [1919], 237–239).

SGOs comprise about 60% of landscape GOs; CEs make up the remaining 40%. The point concerning the identification of GOs through graphical context is exemplified by water. In isolation, the depictive significance of such ‘water’ GOs is not readily apparent to the modern eye, e.g. /N39, but through co-occurrence with boats, which either hover above⁷⁴ or rest on them,⁷⁵ this interpretation can be substantiated contextually (see also Schäfer 2002, 238–239). Note that when underlying a boat, /N39 is differentiated from the SE (discussed later in this chapter) in that it does not extend the full length of the label. /N25 and peaks/N25(n9) occur as SGOs, but as CEs co-occur with /E26, /G25 and a form of /I10. Undulating terrain also co-occurs with a bovid.⁷⁶ A smiting scene on ID300/1389_A is located in complex terrain detailed to an extent that is otherwise unique among the labels.

Regarding temporal distribution, about 20% of landscape GOs occur on NIIIA1 labels, all of which are hill/mountain-like motifs which various creatures tread upon or are otherwise associated with, while around 80% of landscape GOs appear on NIIC–early D labels. Peak(4x)/n9(N25?) occurs in both temporal phases, associated with /G25 in the earlier examples,⁷⁷ and a horned bovid on selected NIIC–early D examples.⁷⁸

6.3.10 Supports

The ‘Support’ Family (13 Codes, 92 GOs) comprises GOs that provide a foundation for other GOs. These support GOs include stands for vessels;⁷⁹ bovid-head+pike/support/fl1 or /fl2 (see also Regulski 2007, 114);⁸⁰ standards for canids/E18 and E19,⁸¹

71 ID300/1389_A.

72 E.g. ID145/4373_A, ID155/4382_A.

73 E.g. ID333/4819_A.

74 E.g. ID322/1310_A, ID355/4821_H, ID409/1863_A.

75 E.g. ID345/1677_A.

76 ID213/0284a–b_A.

77 E.g. ID145/4373_A, ID146/4374_A.

78 ID328/-a–b_A; cf. ID213/0284a–b_A.

79 E.g. ID376/3408_H.


80 E.g. ID094/4329_A.

81 E.g. ID295/4078_A.

crossed-arrows/T11a⁸² and other GOs,⁸³ as well as supports/s33(?) for birds.⁸⁴ This Family is therefore defined both morphologically and functionally. All support SGOs, by virtue of their iconic function, of providing support and thus being contiguous with other GOs, are CEs (see §7.4).

Of the 92 support GOs, about 30% occur on NIIIA1 labels, primarily as part of CGO bovid-head+pike/support/fl1 or /fl2 and as a support/s33(?) for birds. The NIIIC–early D labels bear the remaining 70% of this GO type.

6.3.11 Transport

The ‘Transport’ Family (8 Codes, 83 GOs) includes depictions of objects that provide the means of transportation for anthropomorphs, birds or goods. Two main types are boats/p/P(Various)⁸⁵ and /U15,⁸⁶ but there is notable variability in the types of boat depicted. A pair of boats appears in a rare example of overlapping GOs (see also Emery and Sa’ad 1939, 110) in the upper register of ID213/0284a–b_A, while three boats of a different type appear in the third register of the same label. Boats may be distinguished through the elaboration of their prows and/or sterns with what may be floral and zoomorphic elements.⁸⁷ The majority of boats/p/P(Various) appear to have cabins,⁸⁸ and some have a support/s33(?)+bird/G5(?),⁸⁹ a pavilion⁹⁰ or other objects amidships (cargo?) (see Regulski 2010a, 168–170).⁹¹

Only about 5% of transport GOs are SGOs; some 95% are CEs. Boats are the only GO that rest on or float just above the GO identified as water (§6.3.9). This water GO continues the full length of the label on two virtually identical examples,⁹² on each of which boats rest on the water GO. While 82 transport GOs occur on the NIIIC–early D labels, only a single possible transport GO is attested on a fragmentary NIIIA1 label bearing traces of what appears to be one end of a boat,⁹³ with a double horn-like feature seen on later labels.⁹⁴

6.3.12 Zoomorphs

The ‘Zoomorphs’ Family (21 Codes, 581 GOs) is by far the most diverse and widely depicted Family on the labels. Mammals, fish, fowl, insects and reptiles are rendered

82 E.g. ID191/0226a–b_N.

83 E.g. ID213/0284a–b_A, ID239/0847_S.

84 E.g. ID084/4318_A, ID131/4364_A.

85 E.g. ID355/4821_H.

86 E.g. ID303/1390_A.

87 E.g. ID209/0240a–b_N, ID345/1677_A.

88 E.g. ID213/0284a–b_A.

89 E.g. ID410/4448_A.

90 ID209/0240a–b_N.




91 E.g. ID240/0682_A.


92 ID213/0284a–b_A, ID214/0283a–b_A.

93 ID171/4399_A.

94 E.g. ID209/0240a–b_N, ID345/1677_A, ID410/4448_A.





as both SGOs and CEs (about 50% each). Regarding temporal distribution, about 15% of zoomorphs occur on NIIIA1 labels, while the NIIC–early D ones bear around 85%. Analysis of composition at the Family level shows no restriction to a particular area of the compositional space, although selected types such as birds exhibit spatial clustering.

Among zoomorphic GOs common to both label phases are birds, quadrupeds, snakes and fish (see also §6.7). Birds occur with greatest frequency—more than double the number of GOs in any Family. Birds of numerous types were a prominent part of the environment (Houlihan 1986) and there seems no reason to doubt that early Egyptian artisans would be intimately familiar with avian life along the Nile and in the adjacent desert. However, if the choice of imagery was in the interest of differentiation, this can hardly have been aided by the numerous types of bird depicted (Baines 2004, 158). Among low-frequency types are /E26, hedgehog(?)/e36, scorpion/l1, and aardvark(?)/e37, all of which are restricted to NIIIA1 labels. The NIIC–early D labels are exclusive bearers of baboon/e21/e22, /E34, /L2 and various quadrupeds. It is doubtful whether a complete lion is attested.⁹⁵ The sex and age of certain animals is made explicit in some examples. Two bulls⁹⁶ and a quadruped⁹⁷ have horns and penises.

In a small number of instances, we encounter anthropomorphisation (following Lorblanchet 1989, 140) of animal pose, gesture or activity. ID345/1677_A and ID349/4442_A, dated to Semerkhet, show a baboon seated on a stool (e21/e22), similar to seated figures elsewhere.⁹⁸ More emphatic anthropomorphisation is attested on earlier labels dating to Narmer, Aha, and Djet, where catfish/k4, /O33 and birds wield or carry objects.⁹⁹ Although less common, zoomorphisation of anthropomorphs or human figures—or anthropozoomorphisation (see Lorblanchet 1989, 140)—is exemplified by the adornment of the anthropomorphs with the aforementioned animal tail¹⁰⁰ attached to the waist or a snake affixed to the brow.¹⁰¹ The creation of hybrids through the fragmentation and unification of different elements again underlines the degree of fluidity (*vis-à-vis* modern categories) that characterised early Egyptian concepts of the body and the boundaries between different classes of beings (see also Piquette 2004).

6.4 Summary of Iconic GOs

Having presented the analysis for the Iconic GOs in the foregoing, several patterns can be highlighted. The most numerous category by far is that of the animal world. This

95 ID242/0627_A. A line appears to extend from the shoulder of /F4 to the rear, to a GO resembling /F22. However, a line delineating the belly area is absent. If the white pigment on this object was applied in modern times (e.g. Petrie 1902, 5), it may have been added mistakenly to cracks rather than intentional incisions, and /F4 and /F22 may not be iconographically related, making the latter the only occurrence on the labels and the earliest, if not sole, 1st-dynasty attestation on wood (cf. Regulski 2010a, 400).

96 One on ID213/0284a–b_A and one on ID239/0847_S.

97 ID375/3407_H.

98 E.g. ID304/1253_A, ID331/4088_A.

99 E.g. ID202/4030_A, ID208/0282_A+0209_A, ID239/0847_S, ID277/4084_A, ID278/4807_A.

100 ID292/1245a–b_A.

101 ID300/1389_A.

trend persists throughout label use with zoomorphs constituting the greatest proportion of the repertoire for NIIIA1 survivals and that of the NIIC–early D label repertoire, about 25% and 12%, respectively. As discussed, patterning is contingent upon how we recognise and organise imagery in a classification scheme. One underlying assumption necessary for classification is that differences and similarities lie mainly in morphology. As the analysis demonstrates thus far, a significant relationship also exists between image types and their distribution within the compositional space of the label. For example, containers are readily recognisable as a class, and sub-class distinctions can be discerned on the basis of certain morphological variations. The latter distinctions (of sub-class) are, however, strongly corroborated by spatial distribution, with certain container types occurring strictly in the lower left of the picture field while others occur elsewhere, and in specific types of compositional relationship.

6.5 Non-Iconic GOs

In this section, I turn to imagery that cannot be identified and classified according to an iconic scheme. Again, the aim is to gain fresh insight by avoiding schemas informed by knowledge from later periods and attempt to undertake identification within the immediate and contemporary contexts of the labels. Classification for these non-iconic categories is therefore primarily descriptive. One effect of apparent reduced iconicity, as least to my modern eye, is that the classification process is more sensitive to aspects of composition, the ways label-makers deployed images *vis-à-vis* each other and across label surfaces. Nevertheless, given the need to project some order onto the imagery where a more grounded one was not forthcoming, the analysis proceeds from linear to circular shapes, as set out in Table 6.

6.5.1 Structuring Elements (SEs)

The ‘Structuring Elements’, or ‘SE’, Family (6 Codes, 140 GOs) includes horizontal and vertical lines that extend from one edge of the label to the other or to another SE, dividing the picture surface into rows, columns or a combination. Horizontal SEs include a single horizontal line (‘—’)¹⁰² and double horizontal lines with short vertical strokes between them.¹⁰³ Likewise, vertical lines may be single (‘|’) or double (‘||’), and divide the picture field into 2–6 columns. SEs are consistently oriented either along a vertical or along a horizontal axis relative to each other (where co-occurring) and to other images, paralleling the rectilinearity of the label substrate.

The double horizontal lines with short vertical strokes occurring on ID213/0284a–b_A and ID214/0283a–b_A dated to Aha appear to depict water (§6.3.9), but they also perform the same structuring role as ‘—’. Their alteration to meet the topographical needs





102 ID240/0682_A.




103 ID213/0284a–b_A, ID214/0283a–b_A.

of the boats permits us to infer similarly that ‘—’ should be understood as depicting the ground as well as providing grounding for some GOs (see Groenewegen-Frankfort 1951; also Davis 1976, 417).

Horizontal or vertical SEs may be employed separately on different labels¹⁰⁴ or they may be employed on one label in two different configurations I discuss in Chapter 7, referred to as ‘tabular’ and ‘mixed’.¹⁰⁵ Only horizontal SEs are contiguous with other GOs (or GOs float slightly above them). The grounding function of ‘—’ is clear: GOs are never ‘suspended’ from it. Apart from tabular labels, horizontal SEs, when the sole SE type on a label, always co-occur with imagery that conveys sequence¹⁰⁶ or action¹⁰⁷ and therefore can be understood as integral to the construction of the visual narrative. Horizontal SEs are compositional devices yet may be iconic in character. In contrast, GOs do not ‘interact’ with ‘|’ or ‘||’;¹⁰⁸ these are used primarily, if not exclusively, for demarcating compositional space. SEs are unattested prior to the NIIIC–early D labels. ‘—’ is used exclusively up to the reign of Den, when ‘|’ is introduced,¹⁰⁹ used in combination with ‘—’¹¹⁰ or alone. The ways in which SEs are used to construct the composition and how this changes over time is detailed in Chapter 7.

6.5.2 Simple Linear Shapes

The ‘Simple Linear Shapes’ Family (6 Codes, 68 GOs) is comprised of single straight, wavy or zigzag lines that begin and end on the same axis. /N35 is most common with 44 occurrences, due in great part to its use in the PI of Den, as with /D46. The only possible subtype occurs among /N35, where the number of peaks varies.¹¹¹ When co-occurring with /K1 this GO has two peaks only,¹¹² suggesting that morphology depends upon context, or that a different GO is intended.

SGOs make up about 70%, and CEs some 30%, of simple linear shapes. Slightly more simple linear shapes occur in the upper right than elsewhere. The NIIIA1 simple linear GOs connect other GOs together, e.g. /I10 to /N25.¹¹³ Apart from /N35 in its PI capacity, NIIIC–early D examples are mainly SGOs and therefore not associated with narrative action. Regarding temporal distribution, about 5% of simple linear GOs occur on NIIIA1 labels, while about 95% appear on NIIIC–early D labels. This is consistent with the generally smaller quantity of Non-Iconic GOs among the earlier labels, a point to which I return below.

104 E.g. ID202/4030_A.

105 E.g. ID304/1253_A and ID354/1125_S, respectively.

106 ID239/0847_S.

107 ID295/4078_A.

108 E.g. ID353/1564a-b_S, ID423/4447a-b_A.

109 E.g. ID326/4818_A, ID329/1373_A.

110 ID304/1253_A.

111 Compare ID277/4084_A with ID325/1250_A.

112 ID274/0986_S, ID277/4084_A, ID311/1311_A, ID333/4819_A.

113 E.g. ID147/4375_A.

6.5.3 Complex Linear Shapes

The ‘Complex Linear Shapes’ Family (10 Codes, 36 GOs) includes shapes mainly oriented along horizontal or vertical axes, and formed by two or more perpendicular, contiguous or intersecting lines. These are differentiated from rectangles and triangles on the basis of their open form. GOs with a variable number of intersecting horizontal (H) or vertical (V) lines have been grouped together and coded H2–5 and V3–4,¹¹⁴ but it is possible that the number of lines is significant, perhaps representing distinct GO types or subtypes.

SGOs comprise about 80% and CEs make up around 20% of complex linear shape GOs. None occur in the context of narrative action, and complex linear shape GOs more commonly occur in the upper part of the label. This linear imagery tends to follow a rectilinear orientation that parallels, or is perpendicular to, SEs and/or the edges of the label itself (the framing influence of the substrate is examined further in Chapter 7). This GO Family occurs exclusively on NIIC–early D labels.

6.5.4 Simple Rectangular Shapes

The ‘Simple Rectangular Shapes’ Family (12 Codes, 85 GOs) includes closed forms that are distinguished from complex rectangular shapes as, unlike the latter, they do not bound nor are they contiguous with separate GOs. Some rectangles have internal horizontal, vertical or diagonal markings, or notches. Two are empty but have external elaboration in the form of a dot¹¹⁵ or \sphericalangle /V20, the latter being somewhat similar to \sphericalangle /X1 but taller; because these cannot be clearly distinguished as CEs, they have been accounted for as elaboration of a single GO type. Minor variability among types is present in the number of internal vertical lines or external elaboration.

SGOs comprise about 60% and CEs constitute some 40% of simple rectangular shapes. Overall simple rectangular shapes tend to occur in the lower part of the label, although the NIIIA1 rectangles occur only in the lower part of the label in association with support/s33(?) + bird/G5(?).¹¹⁶ ID138/4367_A shows $\text{▬}/\text{N39}(\text{?})$ surmounted by bird/G5(?), a motif suggestive of the later $\text{▬}/\text{O33}$, and may be more appropriately classified as architecture. Two NIIIA1 examples are contiguous with the bottom edge of the label;¹¹⁷ if not intentional, this apparent cropping may be the result of cutting labels to shape post-incision (see Chapter 5). Rectangular shapes tend not to be part of narrative imagery. Regarding temporal distribution, about 10% occur on NIIIA1 labels, while around 90% appear on NIIC–early D examples.

114 Compare ID281/2004_S with ID284/2002_S.






115 E.g. ID413/4453a–b_A.

116 E.g. ID130/0190_A.

117 ID137/0192_A, ID139/4368_A.

6.5.5 Complex Rectangular Shapes

The ‘Complex Rectangular Shapes’ Family (14 Codes, 172 GOs) includes rectangular¹¹⁸ (and some circular)¹¹⁹ GOs containing or bounding other GOs (see §7.3.2), and are thus classified more according to compositional function than according to morphology, although these are interrelated. All are closed forms apart from □/O1 and semi-circle.¹²⁰ Four oval-with-notch(4–7×)/O50¹²¹ partly fit these criteria, but whether the notches depict separate GOs remains unclear; hence, this GO is included in the ‘Circular Shapes’ Family (§6.5.8).

The most commonly occurring complex rectangular GO is a bi-partite rectangle conventionally termed a ‘*serekh*’. As discussed previously (§1.5.5), this term is anachronistic, and how this CGO it is to be understood iconically remains a matter of debate. I employ the descriptive phrase ‘niched-frame’ to maintain emphasis on morphology and composition, although publication in the present form necessitates use of stylised hieroglyphic fonts, e.g. . The lower part of this GO contains a series of vertical lines thought to represent a type of architectural panelling or niched walling known from early Egyptian architecture and early high-status coffins (Wilkinson 2000, 149). The upper section is a rectangular outline containing 1–3 CEs interpreted as the PI of a ruler. In addition to the changing PI, among the niched-frames there is variation in two main elements: the upper horizontal line of the upper part of /O33 is usually straight but on eight from Naqada¹²² and Abydos,¹²³ all dated to Aha, this GO exhibits a slightly concave top that swoops up to the right (see Regulski 2010a, 254 and references, but note that on pp. 550–551 the examples from Aha are missing). Variability in the lower part of the frame includes different quantities of vertical lines (4–8),¹²⁴ and a series of interconnected lines forming niches¹²⁵ that may be elaborated with a lattice pattern¹²⁶ or zigzag line—variability that within a single reign can range widely (see Regulski 2010a, 254, fig. 5.20).¹²⁷ This does not appear to be the result of technique,¹²⁸ but perhaps the stylistic choices of individual artists or collectives, or “real” differences in the referent. /O33 is surmounted by /G5 in all examples apart from one.¹²⁹ The frame on ID240/0682_A may be contiguous with a bird (to the right of /D21), but proximity is more likely to be the result of spatial constraints when compared with ID241/0833_S.

Given that complex rectangular shapes are defined according to their compositional function (cf. simple rectangular shapes, above), all are CEs. They tend to occur in the

118 E.g. ID401/4044_A.

119 E.g. ID201/0095_A, ID213/0284a–b_A.

120 E.g. ID333/4819_A.

121 E.g. ID163/4393_A.

122 E.g. ID209/0240a–b_N.

123 E.g. ID208/0282_A+0209_A, ID211/0273_A.

124 Compare ID343/4046a–b(=4557)_A with ID228/0646_A.



125 E.g. ID254/0811_A, ID295/4078_A, ID343/4046a–b(=4557)_A.

126 ID232(?)/0632_A.

127 ID424/1654_A.


128 See painting on ID303/1390_A and incision on ID424/1654_A.

129 ID200/4028a–b_A.

upper part of the label. Apart from a label dated to Qa'a,¹³⁰ complex rectangular shape GOs occur on the primary faces. In the context of narrative scenes, they appear to be a destination¹³¹ or location for activity.¹³² This suggests some complex rectangular shapes perform an iconic function and should be understood as architecture and be considered part of this class of GOs. At least two possible examples occur on the NIIIA1 labels.¹³³ Otherwise, complex rectangular shapes are a phenomenon of the NIIIC–early D labels, appearing on 25% of all labels of this period apart from the reign of Merneith. /O33+ /G5 are unique among this group in engaging directly in anthropomorphic activity.¹³⁴

6.5.6 Strokes and Notches

The ‘Strokes and Notches’ Family (17 Codes, 126 GOs) includes notch/z1, a slightly ovoid shape oriented horizontally or vertically depending on label/perforation orientation (§5.6.1, §7.2.2); *∕*Z1, a thin vertical line; and pairs of short horizontal or angled lines.

SGOs comprise about 98% of such GOs and CEs constitute some 2%. Of the total, 53% occur on NIIIA1 labels, while 47% appear on NIIIC–early D exemplars. Notch/z1 GOs are only found on the former, occurring in Clusters of 6–12, and on at least 70 labels, where in all cases they are not combined with other imagery. Thus, as a label type ‘notch labels’ constitute 36% of the NIIIA1 exemplars. *∕*Z1 is attested on the NIIIC–early D labels in Clusters of *∕*Z1(6×) and *∕*Z1(4–5× [?]).¹³⁵ Longer strokes (Z1) occur singly or in Clusters of 2–8 and tend to occur in Q3/Q3–Q4, the latter location also being observed for vessels and *∅*/V1, and the significance of which becomes more apparent when GO Clusters are examined in Chapter 7. *∕*Z1 often occurs below or just to the right of other SGOs,¹³⁶ or in isolation in two cases on the secondary side,¹³⁷ while *∕*Z1(6×) is restricted to Q2–Q4/Q2 in association with certain Clusters, including /M4. Short-horizontal-lines/z3 occur in horizontally stacked pairs with a circle (incised outline) or disc (with interior removed).¹³⁸

6.5.7 Triangular Shapes

The ‘Triangular Shapes’ Family (5 Codes, 55 GOs) consists of simple (i.e. non-intersecting and non-elaborated) triangular and wedge shapes that are closed in form. This

130 ID372/4449a–b_A.

131 ID239/0847_S.

132 ID209/0240a–b_N.

133 ID167/4395_A, ID170/4398_A.

134 ID202/4030_A, ID208/0282_A+0209_A, ID277/4084_A, ID278/4807_A.

135 ID240/0682_A, ID241/0833_S.

136 E.g. ID209/0240a–b_N, ID354/1125_S.

137 ID210/0241a–b_N, ID262/0989a–b_S.

138 Compare ID102/4336_A with ID116/4352_A.

Family also includes inverted-V-shape/V20(?),¹³⁹ which is not included in the ‘Simple Linear Shapes’ Family due to its lack of rectilinearity. Δ /N29¹⁴⁰ is by far the most common GO in the Family given that it is part of the PI of Qa’a (for ID343/4046a-b(=4557)_A, see Dreyer et al. 1996, 73). When painted, Δ /N29 may be somewhat more amorphous than when incised,¹⁴¹ but overall no clear subtype distinctions can be discerned.

SGOs comprise about 50% of triangular shapes and CEs make up the remaining 50%. ‘Triangles’ occur primarily in Q1 or Q2–Q4/Q4, due in part to being an element in the PI Cluster of Qa’a. None occur in the context of narrative scenes. The different shape and context of triangular GOs on selected labels confirm differences in types.¹⁴² Regarding temporal distribution, about 5% of the total occur on the NIIIA1 labels, while around 95% appear on the NIIIC–early D labels. All three instances of vertical-wedge/X1(?) occur on NIIIA1 labels; the remaining triangular shapes are found on the NIIIC–early D labels and, as mentioned, almost all date to Qa’a.

6.5.8 Circular Shapes

The ‘Circular Shapes’ Family (14 Codes, 110 GOs) includes both circular and oval forms. ‘Circle’ or ‘oval’ refers to a single contour line, ‘ring’ is used if the line is doubled to form two concentric circles, ‘disc’ indicates that the interior has been removed (subtractive technique attested only), and a ‘dot’ is no wider than the width of a contour line. Overall, circles are the most common GOs, followed by dots.

On the NIIIA1 labels, circles and discs may have been used interchangeably.¹⁴³ Oval-w/notch-multiple/O34 GO on four NIIIA1 labels¹⁴⁴ may depict a threshing floor (Dreyer 1998, 14), but remains conjectural, and hence is classified here as non-iconic. A possible subtype is found among circular shapes occurring in Q2 of the NIIIC–early D labels, but only on labels with λ /M4: these circular shapes may be empty or contain 1–2 dots.¹⁴⁵ Some circles and rings are elaborated with internal lines. Some differences may be related to the level of detail or technique chosen by individual label-makers, while for others the intention is clearly to depict different GO types.

SGOs comprise about 80% of circular shape GOs and CEs around 20%. As for distribution, circular shapes are predominantly found on the right side of labels. A small number occurs in narrative contexts. At least two labels¹⁴⁶ dated to Aha show five circles floating above the heads of three anthropomorphs enclosed in an architectural structure. On a label¹⁴⁷ dated to Djer, one of four circles is held by a bird (g15~y2) and

139 ID320/1313_A, ID333/4819_A; see Regulski (2010a, 201).

140 E.g. ID378/4471_A.

141 Compare ID386/4489_A with ID421/4075_A.

142 ID045/4283_A, ID240/0682_A, ID241/0833_S, ID320/1313_A.




143 Compare ID101/4335_A with ID102/4336_A.

144 E.g. ID166/4391_A.



145 Compare ID419/4071_A with ID402/4450_A (to be compared with caution as the latter is documented via drawing only).




146 ID209/0240a-b_N, ID210/0241a-b_A.

147 ID239/0847_S.


two by an anthropomorph, while a fourth rests on the ground(?). Action may be suggested by series of dots issuing from: seated-baboon/e21/e22,¹⁴⁸ /W16,¹⁴⁹ /D46*,¹⁵⁰ and /v6(V30)(2×).¹⁵¹ Regarding temporal distribution, 26% of circular GOs date to the NIIIA1 labels while 74% date to the later corpus.

6.5.9 Curvilinear Shapes

The ‘Curvilinear Shapes’ Family (13 Codes, 393 GOs) includes shapes formed by non-transecting curved lines, both closed, e.g. /X1, and open forms, e.g. /S29. No meaningful subtypes can be discerned.

SGOs comprise some 95% of curvilinear GOs and CEs about 5%. These shapes occur less often in Q4. /M4 is notable for its consistent placement in Q2–Q4. Using the approach employed for this study, the iconic significance of /M4 cannot be discerned, although from later evidence it can be understood as a stripped palm frond that functions as a temporal indicator (Allen 2000, 103; §1.5.6). It is first attested on ID274/0986_S and ID275/1081_Un dated to Djert and continues in use thereafter. It often accompanies narrative scenes up to the reign of Den. The SGO spiral/v8, both in its clockwise(5×¹⁵²) and counterclockwise(1×¹⁵³) versions, occurs alone or clustered with a vertical-wedge/X1(?)¹⁵⁴ on the NIIIA1 labels. On the NIIC–early D labels, /V1¹⁵⁵ is always clockwise and usually occurs with clusters of marks understood as numerical signs (see §10.3). As for temporal distribution, 98% of curvilinear GOs occur on the NIIC–early D labels, while 2% appear on the NIIIA1 labels, including spiral/v8 and an upturned crescent (see also G7*).

6.6 Unclassified Shapes

This Family of SGOs consists of images that cannot be identified via the present approach and do not fit easily into any of the Non-Iconic Families. In inventing such a category there is a concern, expressed in a similar context by Lorblanchet (1989, 110), that the impression of spurious exactitude is given—that somehow the foregoing categories are more meaningful or valid. Whether using the present scheme, which foregrounds morphology, composition and to some extent technique of production (e.g. notch/z1 versus /Z1), or the standardised classification and stereotyped sign forms set out by Gardiner (above), some distinctions may only be illusions, as previously touched on (§6.1).

148 ID345/1677_A, ID347/1752_A.

149 E.g. ID374/3406_H.

150 E.g. ID284/2002_S.

151 E.g. ID226/0645_A.

152 ID042/4280_A, ID043/0189_A, ID044/4281_A, ID045/4283_A, ID046/4282_A.

153 ID041/4279_A.

154 E.g. ID045/4283_A.

155 Regulski (2010a) lists the three occurrences on ID202/4030_A under V1 and Z7, the latter presumably an oversight.

Comparative investigation of other contemporary graphical evidence will doubtless clarify GO classification, but extends beyond the remit of the current study. We can be somewhat comforted by the fact that only about 5% of GOs falls into this ‘Unclassified’ Family. Of the approximately 250 such ‘Unclassified’ SGOs, 75% are SGOs, and CEs make up the remaining 25%. These unclassified GOs occur slightly more commonly on the left side of the primary face of labels. Compositionally they are not associated with other GOs in ways that might provide clues to aid our ‘seeing’ iconicity, e.g. depicted in a narrative relationship. Regarding temporal distribution, about 5% of the unclassified GOs occur on the NIIIA1 labels, while around 95% appear on the NIIIC–early D examples. This attests to the iconic recognisability of the early repertoire, but also relates to the small quantity of GOs among the NIIIA1 labels compared with the later corpus.

6.7 Summing Up

Given the spatial and temporal unevenness of the two main label groups compared above—almost 180 NIIIA1 labels from one site and mainly from one tomb, versus about 225¹⁵⁶ NIIIC–early D labels from seven sites¹⁵⁷ and numerous tombs spanning several generations—change and continuity in label practices can only be charted in a general way between the two groups. The richer later group naturally holds more potential for charting finer-resolution patterning and relationships.

Overall, about 4440 GOs were identified, approximately 4300 were classifiable (based on iconicity, morphology and, to some degree, on compositional features), and categorised into 23 Families (12 Iconic, 9 Non-Iconic, 1 Unclassifiable, 1 Unclear), although it should be noted that the ‘Furniture’, ‘SEs’ and ‘Complex Linear Lines’ were not clearly attested among NIIIA1 repertoire—based on the approach taken in this study. In general, the most prominent Iconic Families with regard to frequency and diversity of types (Codes) are implements, zoomorphs, body elements and flora (Figure 70).

The results of classification into the Non-Iconic Families of GO Codes are illustrated in Figure 71. Given that these groupings are based on GO shapes for which iconicity could not be discerned with certainty according to a grounded approach (Chapter 3), most of these results say more about the method employed than the significance of this categories for past label practitioners. A more meaningful analysis must await comparative examination with contemporary iconography—work that would doubtless enable iconicity to be contextually inferred and permit integration into the iconic data analysis. Two Families are, however, representative of past categories of similarity and difference. SEs, the linear elements comprised of horizontal and vertical lines, were used to structure graphical space throughout the 1st dynasty phase of label practice. Many of the GOs classified as strokes and notches, i.e. v/Zl and $\text{v}/\text{z}1$, are conventionally understood to represent numerical values, an interpretation which I consider further from a grounded approach later on (§10.3).

156 In addition to unpublished label finds from German Institute work at Abydos.

157 Bearing in mind Tura and Giza yielded only one label each, and Abu Rowash only two.

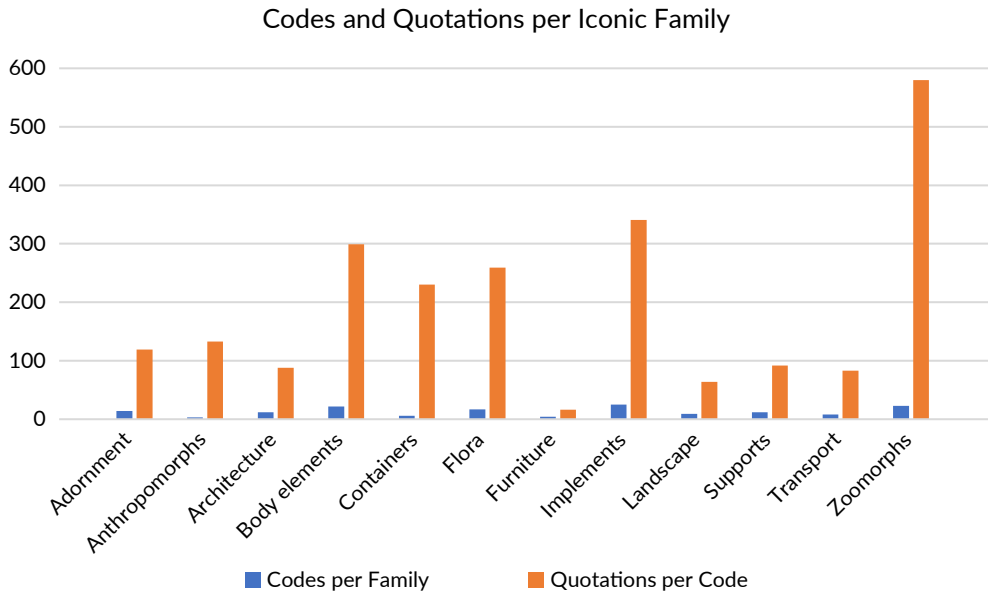


Figure 70: Bar chart showing the 12 Iconic Families of Codes (GO types) and number of Quotations (GOs) per type, as attested for both label phases, Kathryn E. Piquette, CC BY 4.0.

Returning to the iconic repertoire, various shifts in emphasis for image types can be observed from the earlier to the later phase of label use. Zoomorphs make up almost 25% of the NIIIA1 label repertoire, but comprise only 12% of the NIIIC–early D labels. A gradual reduction in proportion of zoomorphic imagery is a trend also exhibited in the wider early Egyptian image repertoire over time (Baines 2004, 158). However, despite a gradual reduction in proportion of the zoomorph repertoire, types increase over time, and overall, for both phases, it is striking that zoomorphs occur almost twice as frequently as any other Iconic GO Family. Alongside the continued emphasis on the faunal world is the increase in the depiction of anthropomorphic bodies and elements from the beginning until the middle of the 1st Dynasty, when whole bodies then decrease in frequency. On the one hand, the focus on the human form is unsurprising given trends evidenced elsewhere in contemporary material culture and body treatment practices. The body is a major focal point for the construction of social identity in early Egyptian society (Wengrow and Baines 2004) and is particularly important for the developing ideology of Egyptian “kingship” (Baines 1995). The latter is especially borne out on the labels where we see embellishment of the body of the ruler, particularly with the adornment of the head (Piquette 2001). There is a marked decrease in the depiction of whole figures after the reign of Den, but this is not paralleled within the wider graphical and artistic milieu, where images of human, divine and other bodies continue to increase in frequency and elaboration. This pattern indicates a significant change in the label function, a change that is corroborated when we consider the repertoire within the wider context of label composition, discussed in the following chapter. Nevertheless, possible continuities between the NIIIA1 and the later label repertoires include selected birds, a water motif, and possibly a cobra, among others (Table 7). The most enduring type is \sim /M3 which, possibly depicted on NIIIA1

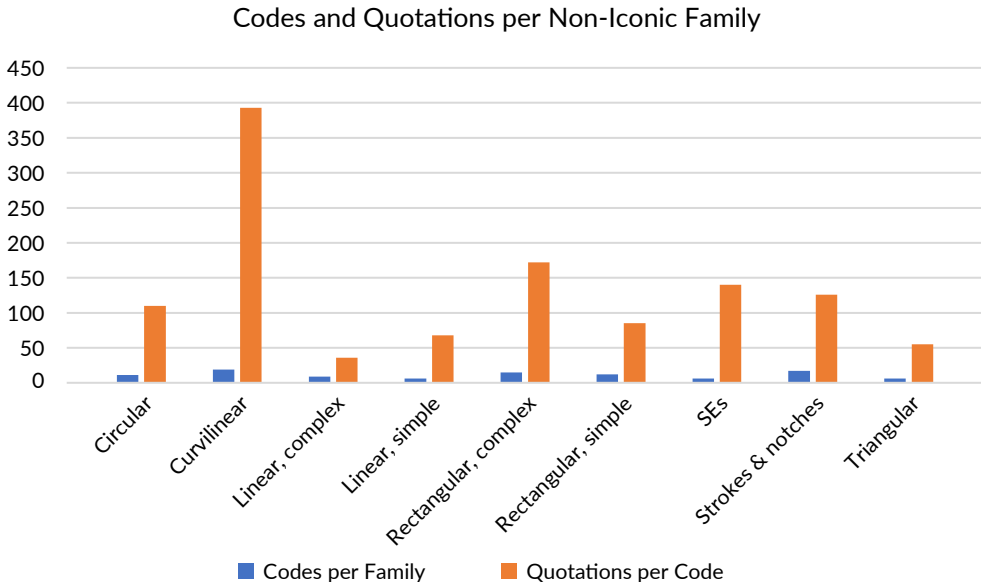


Figure 71: Bar chart showing the nine Non-Iconic Families of Codes (GO types) and number of Quotations (GOs) per type, as attested for both label phases, Kathryn E. Piquette, CC BY 4.0.

ID157/4384_A or wavy handled jars (e.g. Figure 102), albeit in a vertical orientation, is certainly attested from the reign of Narmer through to the reign of Qa'a.

Kahl (2003a) has also outlined possible repertoire continuities across a variety of graphical substrates, including the continuity of support/s33(?)+bird/G5(?).¹⁵⁸ The schematic nature of some GOs may make observing additional parallels difficult (Baines 2004, 158). Formal similarities with imagery from later times and different places are often used to explain early graphical functions and meaning, but evidence for continuities in cultural practice is highly fragmented. I revisit this issue in Chapter 10, where I outline a method for exploring selected conceptual continuities from a grounded approach.

In sum, taken on its own, analysis of the graphical repertoire suggests that the discontinuities between the two main phases of label practice are stronger than the continuities, and from this perspective one wonders whether the two corpora should be considered part of the same cultural tradition. Indeed, graphical evidence for the intervening NIIIA1-B¹⁵⁹ is scarce and ascertaining its duration is equally fraught (Regulski 2010a, 49). Only one poorly preserved label¹⁶⁰ from Abydos Tomb B50 may date to this intervening period, yet typologically it is more similar to labels dating to the reign of Aha/Hetepneith than to those from Cemetery U or the reign of Narmer. Nevertheless, given the strength of the archaeological and material similarities (Chapters 4–5) it is reasonable to understand the NIIC–early D labels as continuation of the labelling tradition, albeit with the

¹⁵⁸ Compare ID124/4360_A with ID208/0282_A+0209_A.

¹⁵⁹ After Tomb U-j and including the so-called dynasty '0'; Regulski's (2010a, 274) Phase 2 of palaeographic development.

¹⁶⁰ ID188/4817_A.

GO	NIIIA1	NIIIC-early D
Open arms/D28	ID078/4310_A, ID152/4404_A	ID228/0646_A
Eye (with eyebrow)/D4(?)	ID186/4405_A	ID409/1863_A
Bovid-head+pike/support/f11 or /f12	ID100/4331_A	ID208/0282+0209_A
Bird/G27(?)	ID107/4341_A	ID217/0693_A
Triangular support/s33(?)+bird/G5(?)	ID124/4360_A	ID208/0282+0209_A
Boat(?)+bird	ID114/0195_A	ID209/0240_N
Rectangular structure(o21/22)+bird(g14 ^v)	ID135/4348_A, ID138/4367_A	ID204/4081_A
Snake/l10	ID155/4382_A	ID263/0990_S
Boat/p(?)	ID171/4399_A(?)	ID209/0240_N
Tree(?)	ID065/4300_A	ID241/0833_S
Plant element/m5(?)	ID080/4315_A	ID320/1313_A
Plant element/M29(?) or M30(?)	ID082/4317_A	ID374/3406_H
Branch/M3(?)	ID157/4384_A	ID424/4071_A
Reed(?)/M17(?)	ID158/4386_A	ID282/2003_S
Peak(3×)/N25(?)	ID064/4299a-b_A	ID331/4088_A
Peak(4×)/n/9>N25(?)	ID147/4375_A	ID328/*a-b_A
Notch(6×)/z1	ID001/4241_A	ID401/4044_A
Spiral/v8>v1(?)	ID042/4280_A	ID191/0226a-b_A
Circle+notch(multiple)/O50	ID163/4393_A	ID300/1389_A
Rectangle/N39(?)	ID136/4349_A	ID326/4818_A

Table 7: SGOs and CGOs which tentatively carry over from the NIIIA1 labels to the NIIIC-early D labels and examples, Kathryn E. Piquette, CC BY 4.0.

introduction of many new GOs (see also Regulski 2010, fig. 5.71) and with additional substrate and constrate materials and techniques. In order to further contextualise our understanding of the repertoire, however, I now examine the ways in which individual GOs were deployed within the wider context of the label composition.

7. Graphical Composition

7.1 Introduction

In the following I continue to explore the complex web of practices that constitute the inscribed labels, with a focus on the ways in which label-makers organised imagery. In picking up a tool and commencing *intentional* mark-making—fashioning one mark and not another—a process of limiting and filtering occurred cognitively and in practice. This process and its outcome are also influenced by the method of expression (technique), by the location, size, and orientation of the marked object relative to the marker, and by knowledge of past marks elsewhere and their meanings as perceived by the maker(s) and audience. An important component of image-making/perception is therefore the comparative process to establish: 1. units (equal and unequal); 2. elements (arrangement according to degrees of difference; Foucault 2002 [1966], 59).

To further contextualise trends observed for Graphical Objects (GOs) in the previous chapter, and to finish tackling Research Question 3 (§1.8.3), the main aims of this chapter are:

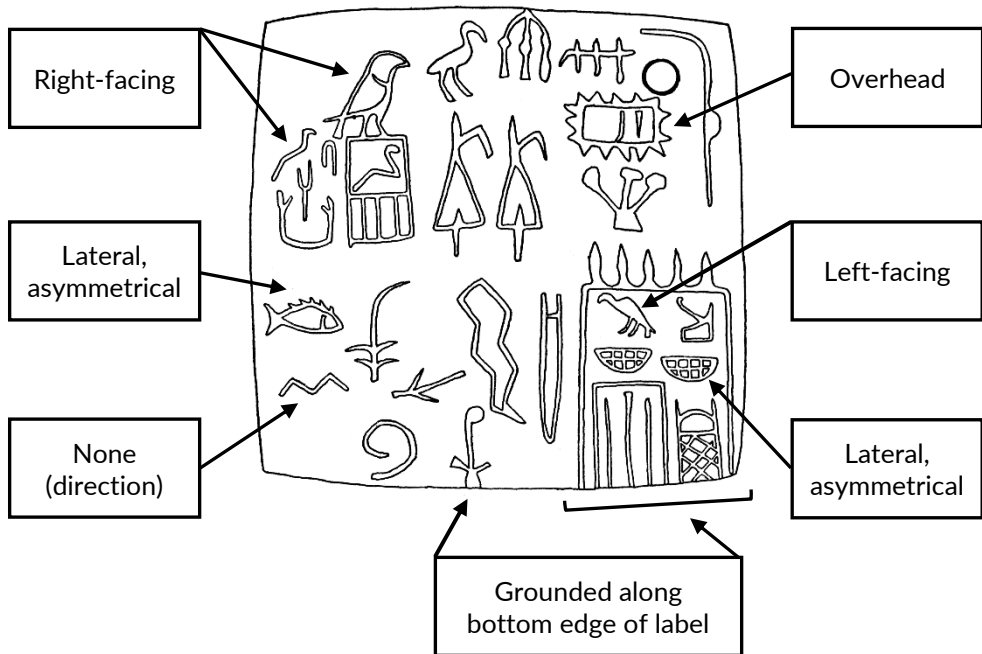
- To continue grounding study and comparison in the images and their immediate material-graphical context using the methods developed in Chapter 3; and
- To assess the mechanics of individual image expression and the ‘internal’ organisation of content (cf. Rose 2001, 178).

7.2 Graphical Object Attributes

As established in §6.1, about 4300 Graphical Objects (GOs) were identified (and were also classifiable) on the labels. Each was characterised as a Simple Graphical Object (SGO), Constituent Element (CE) or Structural Element (SE). Four main attributes further characterise a GO within the composition:

- Mode;
- Orientation;
- View;
- Direction.

Each GO was encoded for these attributes (Figure 72) using the analytical software ATLAS.ti, permitting these to be queried in combination with temporal data, spatial data, and material, technical and other variables (§3.3.2). Each attribute is described and the results of analysis are presented below.



Code Family	Codes	Definition
Mode	Floating	A lack of contact between GOs
	Grounded (on '—' SE/on bottom edge of label)	Contact between GOs and a '—' SE (or lower edge of label)
Orientation	Upright	Orientation of a GO
	Rotated 90° clockwise	
	Rotated 90° counterclockwise	
	Rotated 180°	
View	Frontal	The view from which the GO is depicted
	Lateral, symmetrical	
	Lateral, asymmetrical	
	Overhead	
Direction	Right-facing	Direction a GO faces
	Left-facing	
	Right- and left-facing	
	None	

Figure 72: List of Code Families, Codes and their definitions for characterising the ways in which the imagery on the labels is visually expressed, Kathryn E. Piquette, CC BY 4.0.

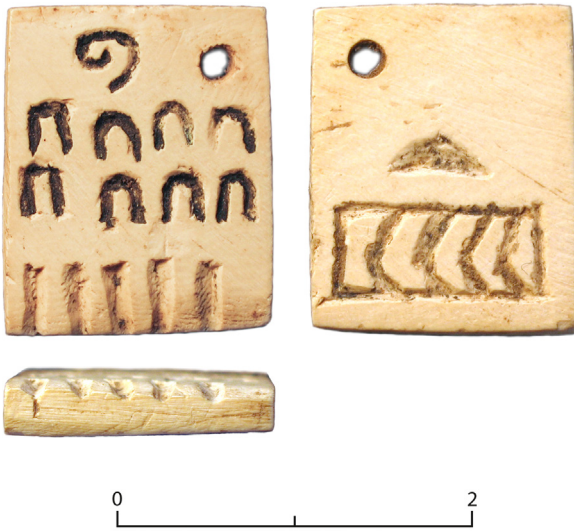


Figure 73: ‘Primary’ side and bottom of ID194/0223a-b_N showing //Z1(5×) ‘grounded’ along label edge, Naqada, NIIC1-C2 (c.3085–c.2867 BCE), The Egyptian Museum, Cairo, JE 31774 (Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0).

7.2.1 Mode

‘Mode’ refers to two mutually exclusive compositional aspects of a GO that distinguish whether it occurs within the graphical space in isolation or in relation to a horizontal line:

- Floating;
- Grounded;
 - On ‘—’ SE;
 - On the horizontal lower edge of the label.

‘Floating’ describes a GO not in physical contact with another GO. ‘Grounded’ describes a GO sitting on or just above the ‘—’ SE (§6.5.1),¹ although it is uncommon, label composers may employ the bottom edge of the label similarly² (Figure 73). Mode was assessed for SGOs and CGOs. The CEs that constitute CGOs may also be described as floating, and rarely grounded (see ‘bounding’, §7.3.2), but given that these are part of a large compositional unit it was deemed more informative to focus on coherent graphical units.

As Figure 74 illustrates, the floating mode is by far the most common on both faces of all labels. Grounding occurs only on NIIC–early D labels (apart from one exception) and is restricted to the primary side. That a supporting or ‘grounding’ function is unattested for vertical lines indicates their more clear-cut role as structuring devices. This contrasts with the dual role of ‘—’ and water as SEs and serving an iconic purpose. Grounded GOs are more likely to be directly associated with other images via the ‘associations’ (see §7.3) of contiguity or overlap, etc., creating relationships that convey

¹ E.g. ID304/1253_A.

² E.g. ID274/0986_S.

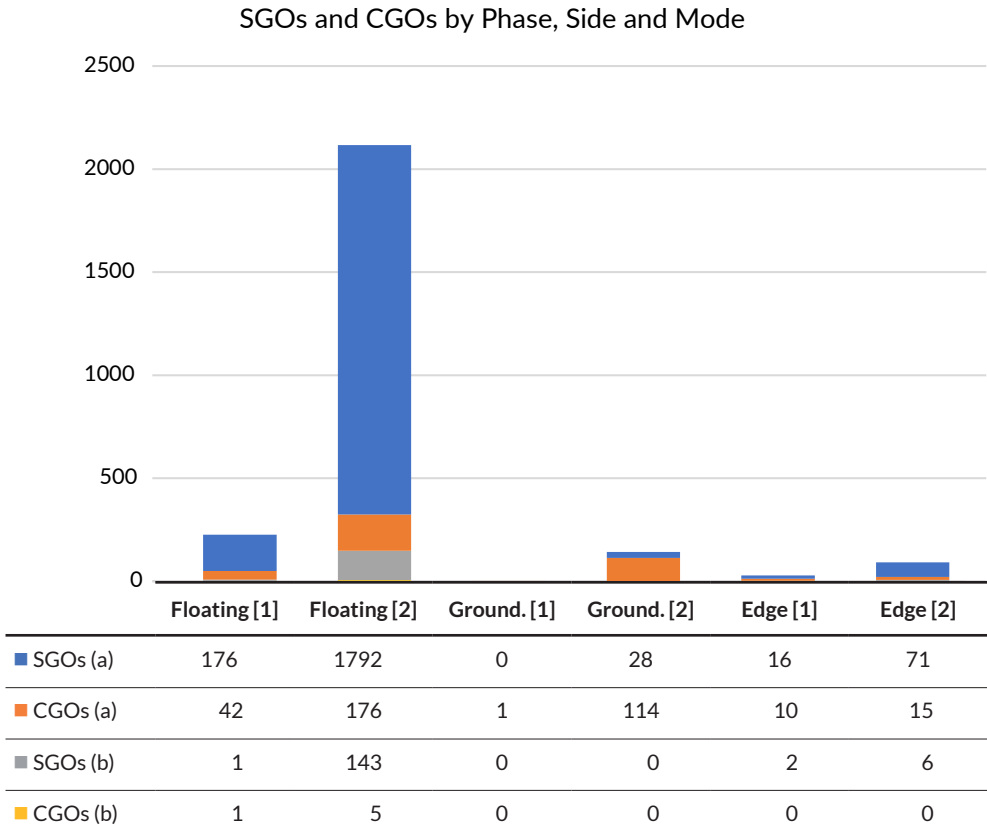


Figure 74: SGOs and CGOs by mode and according to label phase and side. Grounded = Ground.; (a) = Primary Side; (b) = Secondary Side; [1] = NIIA1; [2] = NIIC-early D; Edge = the bottom edge of the label, Kathryn E. Piquette, CC BY 4.0.

sequence and narrative action.³ Floating SGOs, CGOs, and the CEs that comprise the latter, lack this physical connection, but sequence or action may be implied, albeit less often, through adjacency or clustering (§7.3.6).

A possible, and otherwise unattested, example of one vertical GO grounded on another may be seen on ID343/4046a-b(=4557)_A, where $\frac{\pi}{E}18$ appears to be grounded on $\frac{1}{M}4$. However, this label could not be studied first-hand and the graphical association in question may be the result of tool slippage or a crack (Figure 75).

7.2.2 Orientation

When a label is turned so the perforation is at/near the top, iconic GOs (whether depicted from an overhead or side view; §7.2.3) maintain an upright orientation *vis-à-vis*

³ E.g. ID239/0847_S.

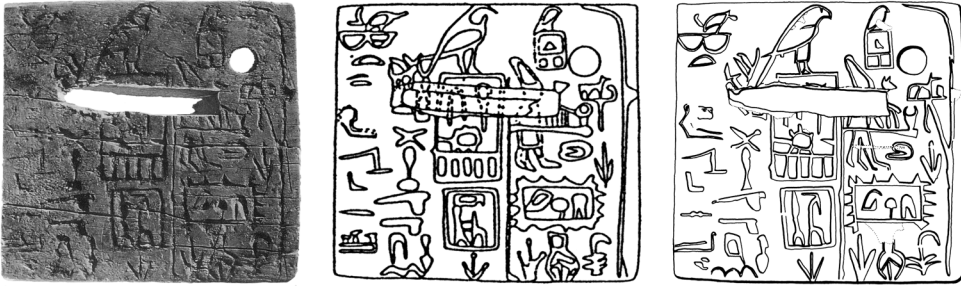


Figure 75: Photograph and drawings of ID343/4557_A with variously interpreted markings on the label (after Dreyer et al. 1996, pl. 14d; Wilkinson 2001, 79, fig. 3.3; Engel 1997, 437, fig. 217.4, left and right, courtesy of German Archaeological Institute Cairo, CC BY 4.0, middle © Toby Wilkinson).

each other. One possible exception is $\text{—}/V27$, which is oriented horizontally on one label, and vertically on four others.⁴ For double-sided labels, the imagery on the secondary face remains upright when turning over horizontally, as one turns the page of a book. ID353/1564a–b_S presents the sole exception. Although poorly preserved, GOs on its ‘verso’ such as $\text{—}/D28$ and $\text{—}/S29$ indicate the label must be turned vertically to maintain an upright position. Apart from the aforementioned exceptions, orientation remains constant (cf. Regulski 2010a, 183, e.), analysis focusses on two other aspects of image orientation: view and direction.

7.2.3 View

‘View’ refers to the view from which a GO is depicted. Four types can be determined (Figure 76):

- Lateral symmetrical;
- Lateral asymmetrical;
- Frontal;
- Overhead.

GO view can only be determined once iconicity is established. As Regulski’s (2010a) palaeography shows, GO expression was not practised uniformly across time-space. Some GOs are rigidly reproduced, while expression of others was apparently more negotiable. For example, one might expect a Personal Identifier (PI) of the Egyptian ruler to be standardised, but we find that $\text{—}/D46$ in the PI of Den could be depicted in profile⁵ or from an overhead view,⁶ while fingers may or may not be articulated. When the digits are distinguished, only three are depicted (see also Regulski 2010a, 258–259).

4 Compare ID344/4444_A (Semerkhet) with ID368/4467a–b_A, ID369/4469a–b_A, ID423/4447a–b_A, ID424/1654_A (all Qa’a).

5 E.g. ID295/4078_A, inside upper part of $\text{—}/O33$.

6 E.g. ID345/1677_A (bottom centre).

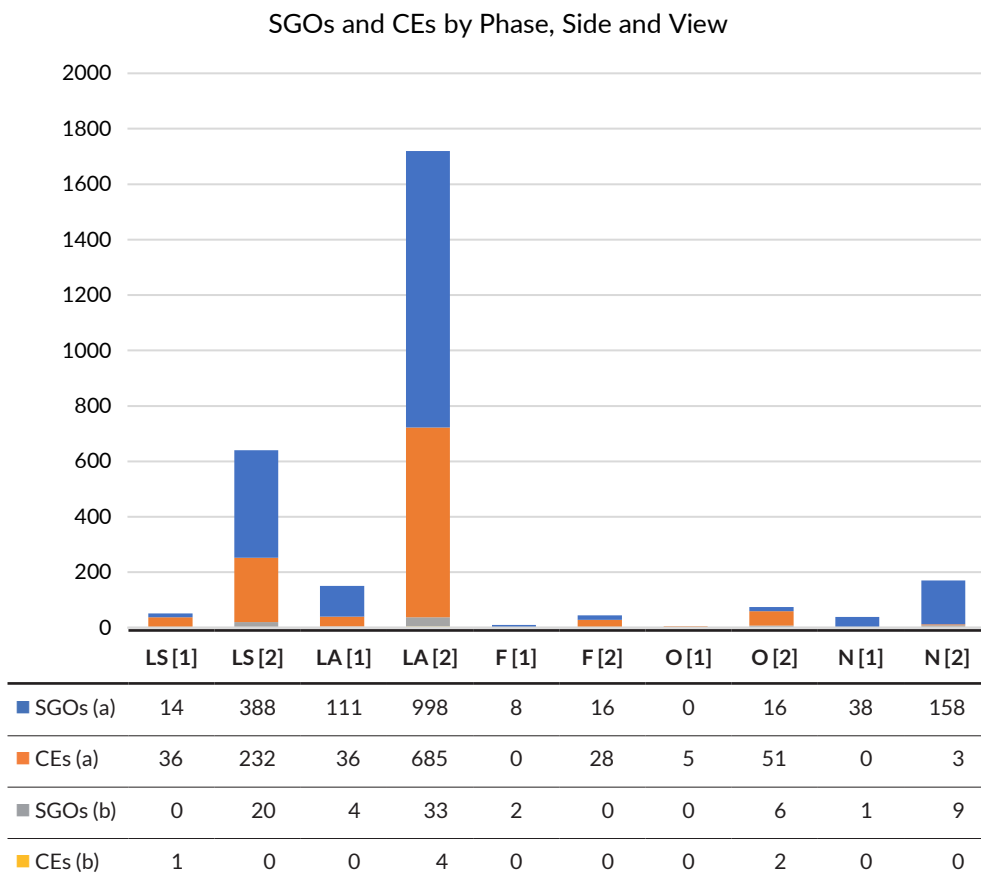



Figure 76: SGOs and CEs by view and according to label phase and side. (a) = Primary Side; (b) = Secondary Side; [1] = NIIIA1; [2] = NIIIC-early D; LS = Lateral Symmetrical; LA = Lateral Asymmetrical; F = Frontal; O = Overhead; N = None, Kathryn E. Piquette, CC BY 4.0.

Discerning view for complex rectangular shapes is difficult. Those with a zigzag border⁷ are paralleled on contemporary objects such as palettes (e.g. the Cities [or Libyan] Palette, Cairo JE 27434; Morgan 1897, pl. 3; see also §6.5.5). These zigzag-bordered frames are neither elaborated on top to indicate a roof feature nor grounded, and thus likely do not depict an architectural structure from a frontal or side view.⁸ It is probably correct to understand these GOs as enclosures with a niched façade, or a similar construction technique, from an overhead view (see O'Connor 1989, 58–61, fig. 5). The same view can be understood for □/O1, with the opening indicating an entrance. 𐀀𐀀/O33 appears to depict the façade of a panelled structure or object (it is unclear from the label evidence, at least, whether a portable object such as a box or small shrine can

⁷ See e.g. rectangular-frame-with-toothed-contour/o17 in Q2 of ID274/0986_S and a circular-frame-with-toothed-contour/o1 in Q4 of ID320/1313_A.

⁸ E.g. Q2 on ID213/0284a-b_A.


be ruled out⁹) from the frontal view, particularly in the more detailed renditions.¹⁰ What is intended by the rectangular space above /O33 (see e.g. Figure 72) is more difficult to determine.


Overall, in both label phases composers tended to depict GOs from the lateral view, with asymmetrical GOs being more common than symmetrical ones (Figure 76). The frontal and overhead views are the least common, but again quantities depend on how one interprets various shapes on selected labels.¹¹

7.2.4 Direction

Direction, the lateral orientation of a GO, includes:



- Right-facing;
- Left-facing;
- Right- and left-facing;
- Indiscernible/none.

Direction is clearest for asymmetrical GOs, which may be right- or left-facing. Symmetrical GOs, e.g. /D28, are considered here as exhibiting indiscernible directionality. Analysis shows that such non-directional (asymmetrical) GOs are the most common type for both main phases of label use. Right-facing images are slightly less common, but nevertheless twice as common as left-facing GOs (Figure 77).¹²

The rare combination of left- and right-facing directionality in a single GO is attested on ID202/4030_A, where an anthropomorph is about to be struck with a mace: the body of the defeated individual turns to the right but the head turns leftward toward the impending blow. On ID305/4087_A, a figure pulling a rope to close a fowling net moves in a rightward direction, but the head faces left, toward the catch. This was also the case on fragment ID304/1253_A (*contra* Godron 1990, 63–64; see also §7.5.3). Other GOs, such as horned animal heads with horns shown from the frontal view while the head is shown in profile,¹³ are simultaneously directional and non-directional. Left-facing GOs occur in a small number of situations. Where two figures or other entities are engaged in an activity, one turns to face the other.¹⁴ ID295/4078_A presents an example of /G36 facing left into a figure; although not clearly engaged in an activity as seen in ID239/0847_S, the directional relationship is similar. Left-facing heads and/or bodies of anthropomorphs or zoomorphs may also be accompanied by left-facing GOs rendered in the floating mode. The significance of directionality is considered further below in the context of both Clusters and CGOs (§7.5.3).

⁹ E.g. ID239/0847_S, see panelled box(?) carried by an anthropomorph.

¹⁰ E.g. ID232(?) /0632_A.

¹¹ E.g. NIIIA1: circle-with-dots/O50(?), e.g. ID163/4393_A; NIIIC-early D: e.g. /S12 on ID307/1251_A; /D46* on ID284/2002_S; a possible pool on ID320/1313_A; and various frames.

¹² Where fonts are used in the text, direction follows GO direction as rendered on the original object.

¹³ E.g. NIIIA1: ID094/4329_A; NIIIC-early D: ID208/0282_A+0209_A, ID210/0241a-b_N, ID419/4071_A.

¹⁴ E.g. ID047/0274_A, ID209/0240a-b_N, ID210/0241a-b_N, ID239/0847_S.

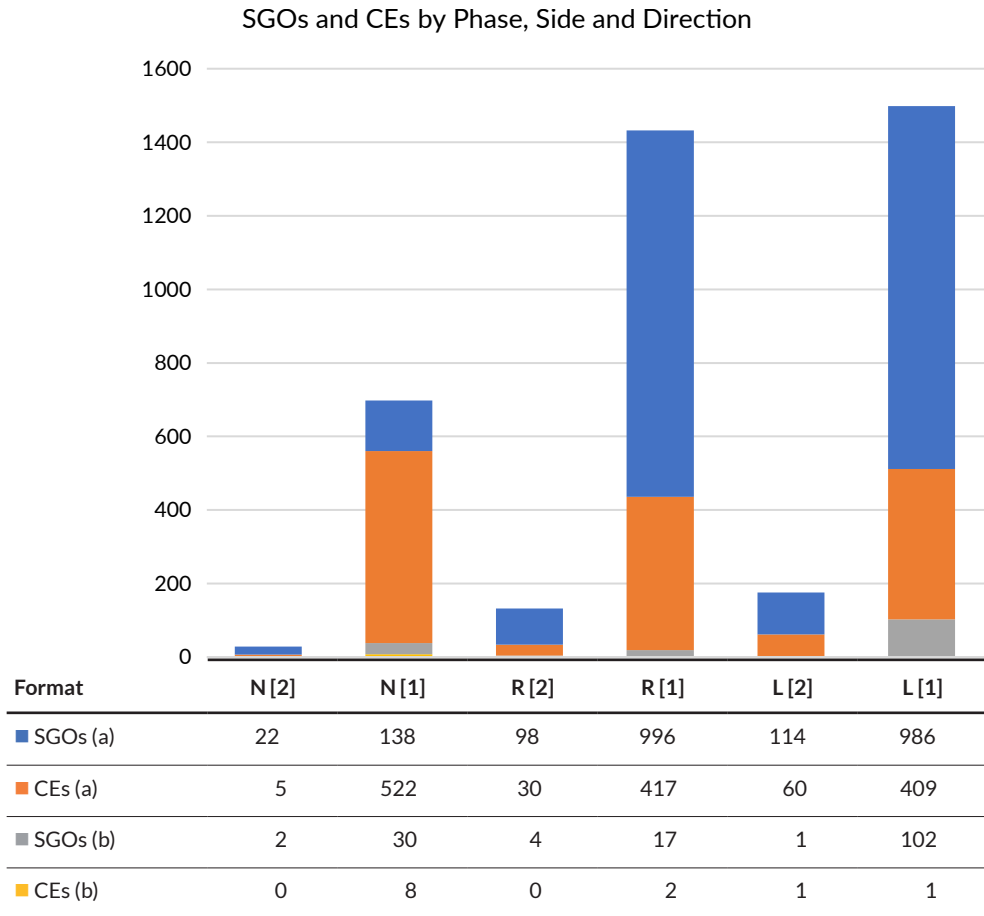


Figure 77: SGOs and CEs by direction and according to label phase and side. (a) = Primary Side; (b) = Secondary Side; [1] = NIIIA1; [2] = NIIIC-early D; R = Right-facing; L = Left-facing; N = None (relates to symmetrical images, for which directionality is not discernible), Kathryn E. Piquette, CC BY 4.0.

7.3 Graphical Associations

In his study of Egyptian visual culture, Schäfer (2002 [1919], 159, 166) interprets spatial relationships between objects in two-dimensional art, for example ‘grouping’ and ‘layering’, as expressions of real object relationships in the world, e.g. ‘in front’, ‘behind’, ‘near’, ‘far’, etc. In later evidence, to show that something was inside a container, the Egyptian artist might show the contents floating above or ‘resting on’ the container. For label and other early imagery, however, it is not always clear how to interpret spatial relationships, or whether an association is a product of compositional constraints, rules of linguistic syntax or other factors. It is useful to draw on Schäfer’s terminology, but, in keeping with an artefact-centred approach, GO associations are described below with reference to the immediate environment of the picture field. The main types of association identified include (Figure 78):

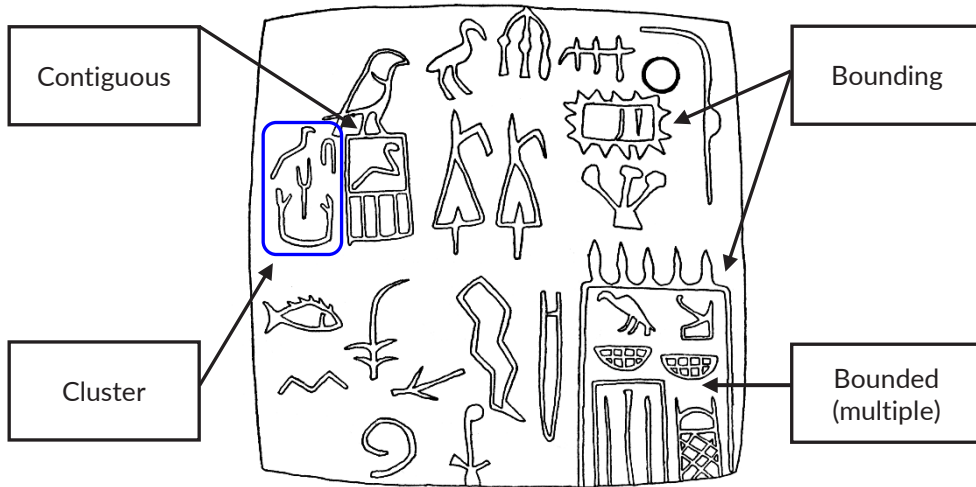


Image Association	Image Type
Aligned	SGO, Cluster
Interlocking	
Aligned	
Bounded/Partially bounded	
Bounding/Partially bounding	CE, CGO
Contiguous (Held by anthropomorph/Holding)	
Overlapped/overlapping (e.g. ID300/1389_A)	

Figure 78: Examples of image associations (ID274/0986_A), with table listing the types of image associations attested on the labels and the image types characterised by a given association, Kathryn E. Piquette, CC BY 4.0.

- Contiguity;
- Bounding/Bounded;
- Overlapping/Overlapped;
- Clustering;
- Alignment.

The results of analysis of image association on labels are presented in Figure 79, with each area discussed below.

7.3.1 Contiguity

Contiguity is a direct type of association involving two or more GOs sharing a line, which may be accomplished according to three different methods:

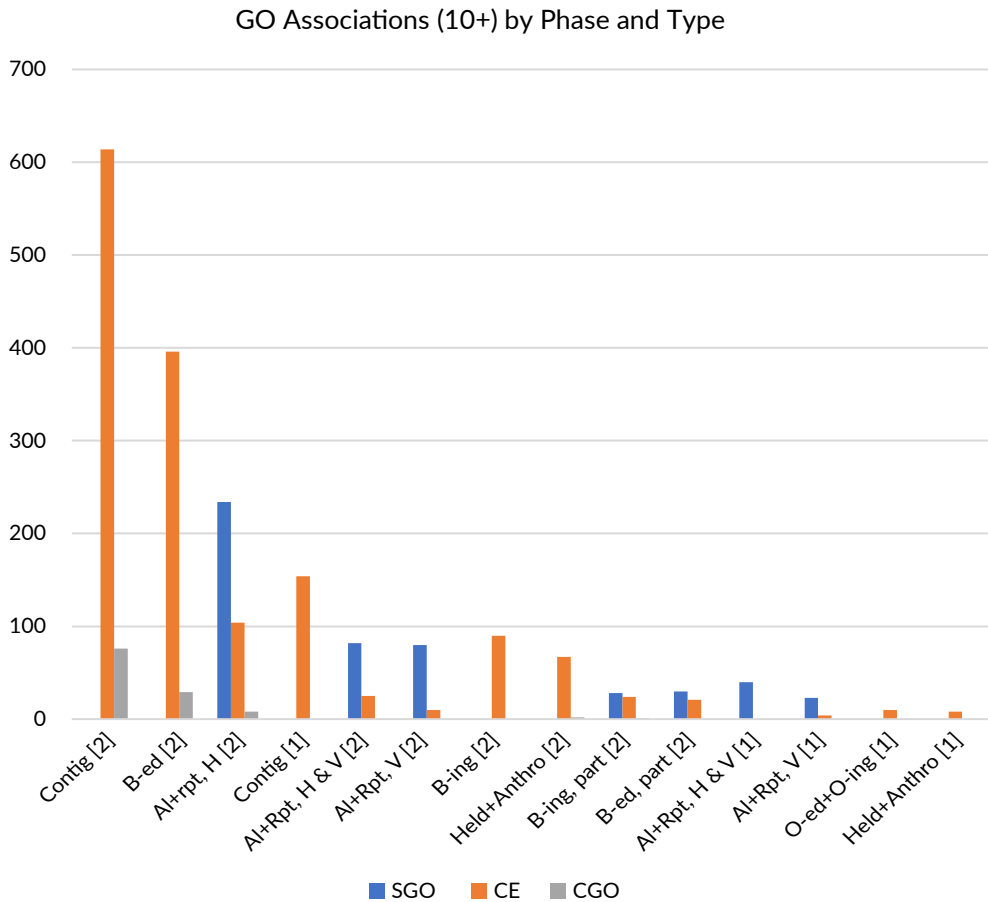


Figure 79: SGOs, CEs and CGOs by graphical associations according to phase. [1] = NIIIA1; [2] = NIIC-early D; Contig = Contiguous; B-ed/B-ing = Bounded/Bounding; O-ed/O-ing = Overlapped/ Overlapping; Al+Rpt = Aligned and Repeated; H = Horizontal; V = Vertical; Anthro = Anthromorph. Only association types with frequencies of 10 or more are shown, Kathryn E. Piquette, CC BY 4.0.

- Inanimate contiguity;
- Holding;
- Held.

Contiguity is one of the criteria for distinguishing between SGOs and CGOs (§7.4). Contiguity often occurs with animate GOs, e.g. anthropomorphs (§6.3.2). Again, GOs characterised by a contiguous association are termed ‘CEs’ (§6.2). Contiguity is also the key criterion for the grounded mode (§7.2.1), but the emphasis here is on the relationship between GOs rather than on the overall structuring of the composition via ‘—’ SEs (§7.8.1).

There are 1120 GOs characterised by contiguity (Figure 80). Bovid heads on stake/support/fl1 and /fl2 frequently occur on the NIIIA1 labels, hence the larger number of zoomorph and support GOs exhibiting this association. Contiguity between animate

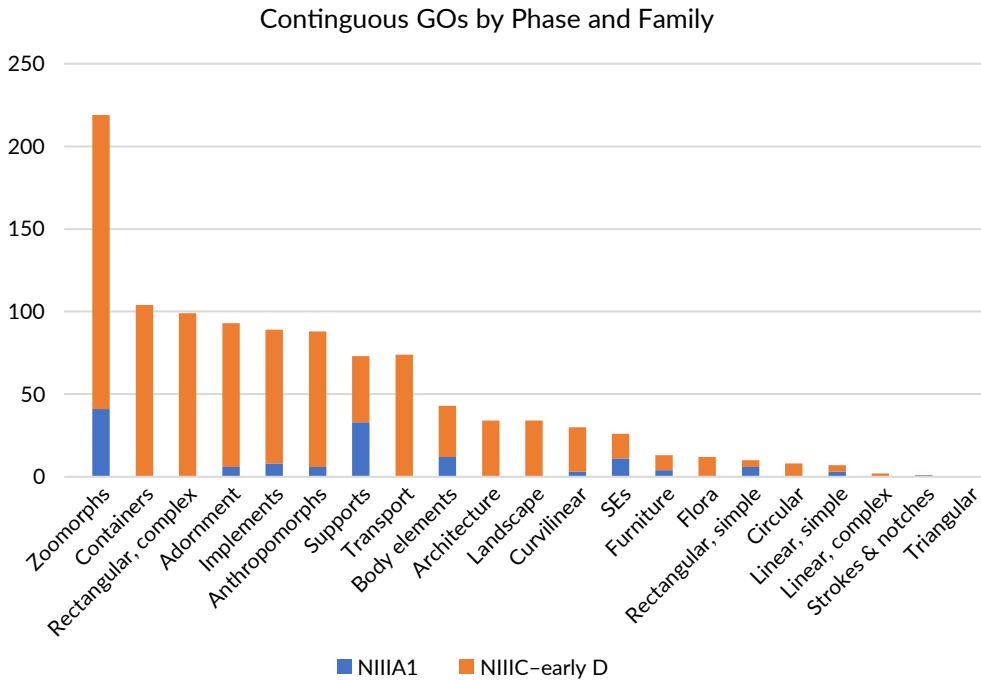


Figure 80: Contiguous GOs (i.e. CEs) by Family for the NIIIA1 and NIIIC-early D label phases, Kathryn E. Piquette, CC BY 4.0.

GOs (anthropomorphs, zoomorphs and body elements) and implements is also apparent for both periods. Some GOs, however, are never characterised by this association, e.g. $\text{𐀓}^{15}/\text{T7a}$, $\text{𐀔}/\text{T7}$, $\text{𐀕}/\text{L2}$, as well as $\text{𐀖}/\text{M23}$ and other floral GOs, $\text{𐀗}/\text{N25}$, $\text{𐀘}/\text{U7}$, and various vessels and disarticulated body elements.

7.3.2 Bounding



‘Bounding’ describes the association whereby:

- 1 × GO contains 1+ GO(s) within it.

This association is integral to differentiating GO types (e.g. SGO, CE and CGO; §6.2). The bounding function of rectangular GOs is used above (§6.5.4–§6.5.5) to differentiate ‘Simple Rectangular’ from ‘Complex Rectangular’ GO shapes, categories which are therefore self-defining. The frequencies and distribution presented for the ‘Complex Rectangular Shapes’ Family therefore mirror patterning for bounding. Some GOs exhibit internal marks, such as the hatching in $\text{𐀙}/\text{V30}$, but this most likely

15 Note that the font employed does offer the correct orientation of this GO, which should be rotated 90° clockwise.


















denotes the construction method and materials, such as basketry, rather than distinct bounded GOs.¹⁶

For the NIIIA1 phase, seven bounding GOs are attested, including circles, dots, circle-with-protrusions, and ovals. For the NIIIC–early D phase, 163 bounding GOs are attested, the most common being the upper part of /O33, and small-rectangle//O6¹⁷ (mainly attested on labels from Abydos dated to Qa'a).

7.3.3 Bounded

‘Bounded’, the inverse of bounding (§7.3.2), describes:

- 1 × GO(s) contained entirely within another GO.

Quantities according to Family and phase are given in Figure 81. Bounded GOs are far more common on the NIIIC–early D labels than on the NIIIA1 ones, and all occur as the contents of complex rectangular shapes (the whole of which constitutes a CGO, §6.2). In any one complex rectangular shape, 1–13 bounded CEs may be present, rendered mainly in the floating mode. Less frequently, bounded CEs may be grounded along the baseline of the frame,¹⁸ such as the group where small-rectangle//O6 bounds /A34—a CGO within a CGO (again, notable are 29 occurrences of this group on labels dated to Qa'a¹⁹). Bounded Clusters include small-rectangle+/G5+single-barbed-harpoon/t1 inside small-rectangle/O6, /N35+/D46, and /D36+/N29. Objects such as pots, baskets or other containers, boats, or even bodies, do not seem to show GOs ‘inside’. SGOs which never, or very rarely, occur in a bounded relationship include /D28, many birds, /F4, /L2, /M3, /M4, /T7a, /T7, /T8, /U7 and /X1.

7.3.4 Partially Bounding/Bounded

‘Partially bounding’ or ‘partially bounded’ refers to:

- 1 × GO that interpenetrates or interlocks with another GO.

In this situation GOs do not make direct contact through contiguity (§7.3.1) or overlap (§7.3.5). As analysis by main phase shows (see Figure 82; Figure 83) only eight examples are attested for NIIIA1 labels.²⁰ In contrast, 91 occur among NIIIC–early D labels: 50

16 E.g. ID226/0645_A, ID374/3406_H, ID401/4044_A.

17 E.g. ID419/4071_A.

18 E.g. ID353/1564a–b_S.

19 E.g. ID419/4071_A.

20 E.g. Support/s33(?)+bird/G5(?) with implement+anthropomorph/A24 on ID053/4291_A and (?)/D32(?)+zoomorph on ID078/4310_A; see also ID151/4378_A.

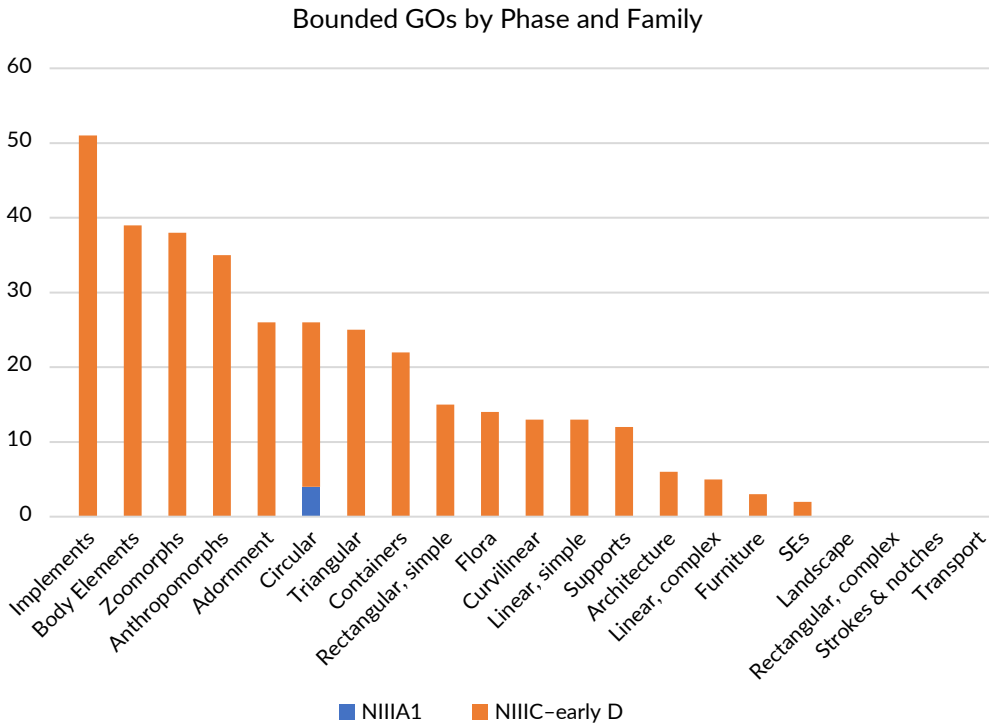


Figure 81: Bounded GOs (i.e. CEs) by Family for the NIIIA1 and NIIC-early D label phases, Kathryn E. Piquette, CC BY 4.0.

partially bounding GOs and 41 partially bounded.²¹ Examples of $\square/O1$ interpenetrate with $\text{♀}/T4$, and the latter may be partially bounded to different extents by the former.²²

Overall, GOs characterised by ‘partially bounding/bounded’ associations show more variability in their configuration than those with bounded/bounding associations. For example, GOs within the upper part of $\text{|||||}/O33$ never transgress the bounding line nor are the GOs juxtaposed with the ‘frame’, from the outside for instance, in contrast to $\text{○}/W24$ which may be inserted into $\text{U}/D28$ or placed outside it completely.²³

It is clear that label composers reproduced certain compositional practices very closely while other aspects were negotiable. My interest here is to attempt to gain a better understanding of the rules and resources that makers drew upon in the production and reproduction of label practice and the conditions governing individual choices (cf. Giddens 1984, 16–28). In addition to established symbolic meanings and rules of syntax, in some cases aesthetic concerns within compositional space influenced choice. For example, the upper part of $\text{|||||}/O33$ bearing the PI of Narmer shows $\text{U}/U23$ slotting into the space that,

21 E.g. ID228/0646_A, ID308/1254_A.

22 Compare ID359/1122_S with ID364/1931_S. An implement, possibly $\text{U}/S42$, is inserted into $\text{U}/D28$ in the same Cluster seen on labels from Abydos (e.g. ID228/0646_A) and Saqqara (e.g. ID274/0986_S, see Cluster in upper left in Figure 78).

23 Compare ID403/4458a–b_A with ID345/1677_A.

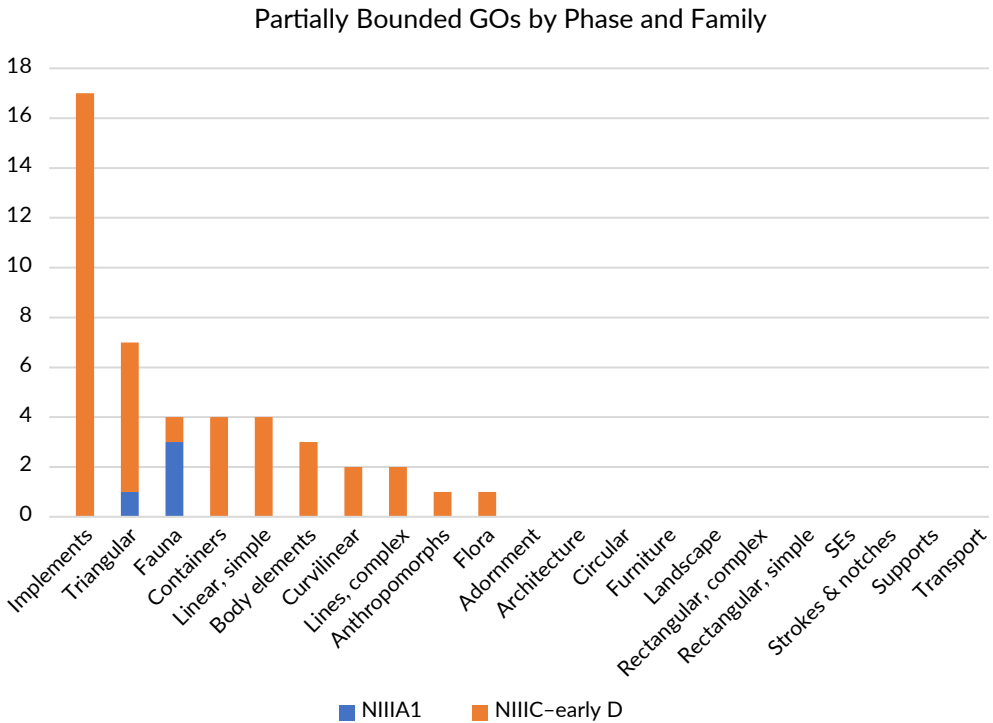


Figure 82: Partially bounded GOs by phase and Family for the NIIIA1 and NIIC-early D labels. None are attested for the NIIIA1 labels, Kathryn E. Piquette, CC BY 4.0.

on all later labels bearing this motif, is filled entirely with the vertical niched patterning. Juxtaposition with the long GO, i.e. fish/k4, creates an awkward fit, but it seems that rules governing the vertical orientation of ¶/U23 (when expressed) were not negotiable, and rather than lay the GO horizontally within the upper rectangle of ¶¶¶/O33, ¶/U23 was inserted into the niched façade,²⁴ where the vertical patterning of that motif and GO shape complemented each other. This ‘visual play’ may have also exploited symbolic meanings afforded by this configuration. Similar play is seen in the composition of ¶/G5 in relation to the PI of Aha, where ¶/G5 wields the GOs forming the PI.

7.3.5 Overlap

‘Overlap’ describes an association where:

- 1 × GO obscures or transgresses the outline of another.

²⁴ Compare ID201/0095_A with ID202/4030_A (see also Regulski 2010a, 551, 752). As mentioned, ID200/4028a-b_A is unique among the labels in lacking ¶/U23 and for having the upper frame of ¶¶¶/O33 located against the top edge of the plaque, making the addition of ¶/G5 impossible (cf. Regulski 2010a, 551, Source No. 0084_N).

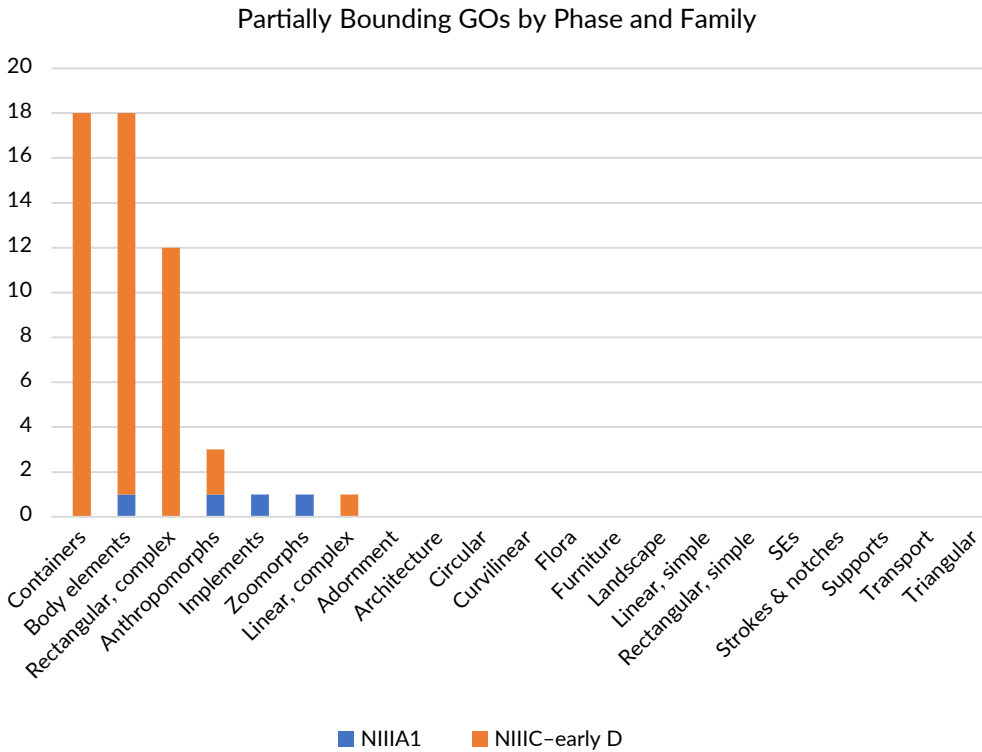


Figure 83: Partially bounding GOs by Family for the NIIIA1 and NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

Analysis shows (Figure 84; Figure 85) that the artisans typically render figures carrying or holding object(s) such that obscuring of the body or carried object is minimised. In the second register of ID213/0284a-b_A, the figure and the basket/tray carried are relatively clearly delineated. The compositional situation in the upper register of ID239/0847_S is unusual (Figure 86): the shoulders, chest and left arm of the carrier are partially obscured by the fish carried, although the right arm can be seen supporting the load. The artist seems to have elongated the torso and neck slightly, perhaps to compensate and depict these more fully.

Technically, clothing and other items of adornment overlap or cover parts of human and other bodies in depiction. Obscuring sections of the underlying body seems permissible for most types of adornment (§6.3.1). However, composers make a concerted effort to avoid obscuring the body in some cases, thus foregrounding some GOs over others. This is particularly evident for the tail, an item of regalia used to identify the ruler, which in all instances protrudes from the lower back and passes behind the rear leg and never in front.²⁵ In addition to overlap providing insight into image hierarchies and priorities, we can also infer how compositional relationships may be used to symbolically signal social

²⁵ ID295/4078_A, ID297/--a-b_A, ID298/--a-b_A, ID300/1389_A, ID303/1390_A, possibly ID304/1253_A, ID305/4087_A.

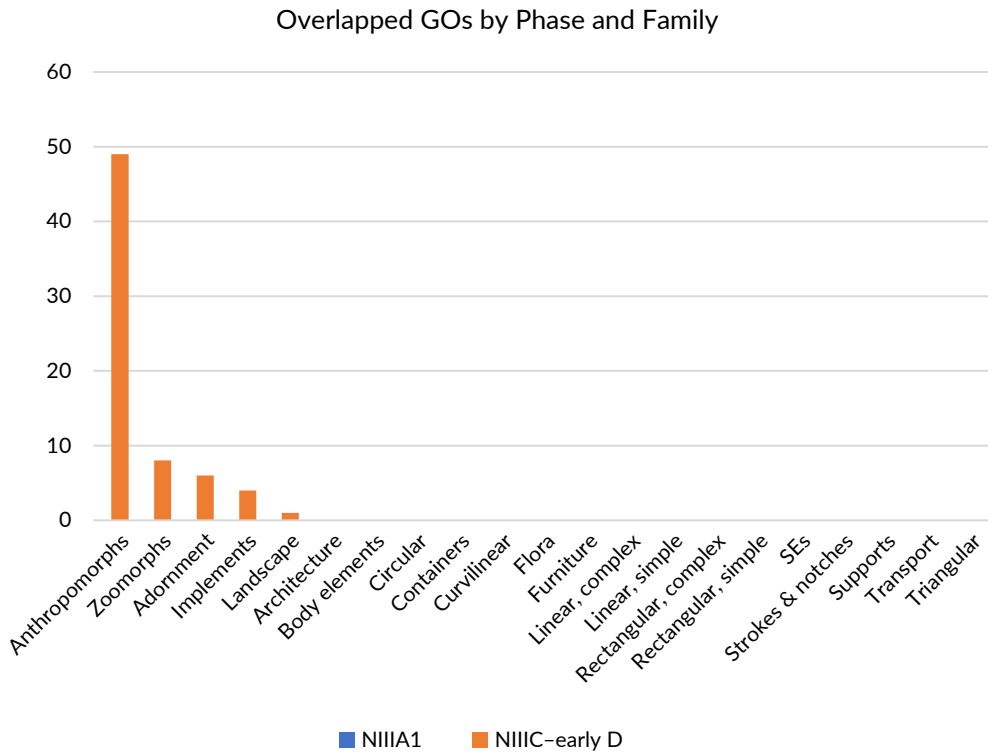


Figure 84: Overlapped GOs by Family for the NIIIA1 and NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

relationships. ID300/1389_A bears the figure of the Egyptian ruler in a smiting pose, set in relation to an individual about to succumb to the ruler's blow. Beyond the upright posture of the ruler versus the sprawled figure, the body of the former is in full view and overlaps other imagery at five–six junctions. In contrast, the subdued body is intersected by GOs at four–five points. We might venture that here the artisan was reproducing rules concerning overlap that were intended to emphasise the control of one body over another, re-enforcing other graphical content that also conveys the social identity and status of these individuals (e.g. Piquette 2004). Of course, we must then ask why such potent themes were expressed on these small objects²⁶ and who their intended audience were—issues to which I return in later chapters.

7.3.6 Clustering

'Clustering' is an association type describing:

- 2+ × GOs in the floating mode in close proximity.

²⁶ ID239/0847_S.

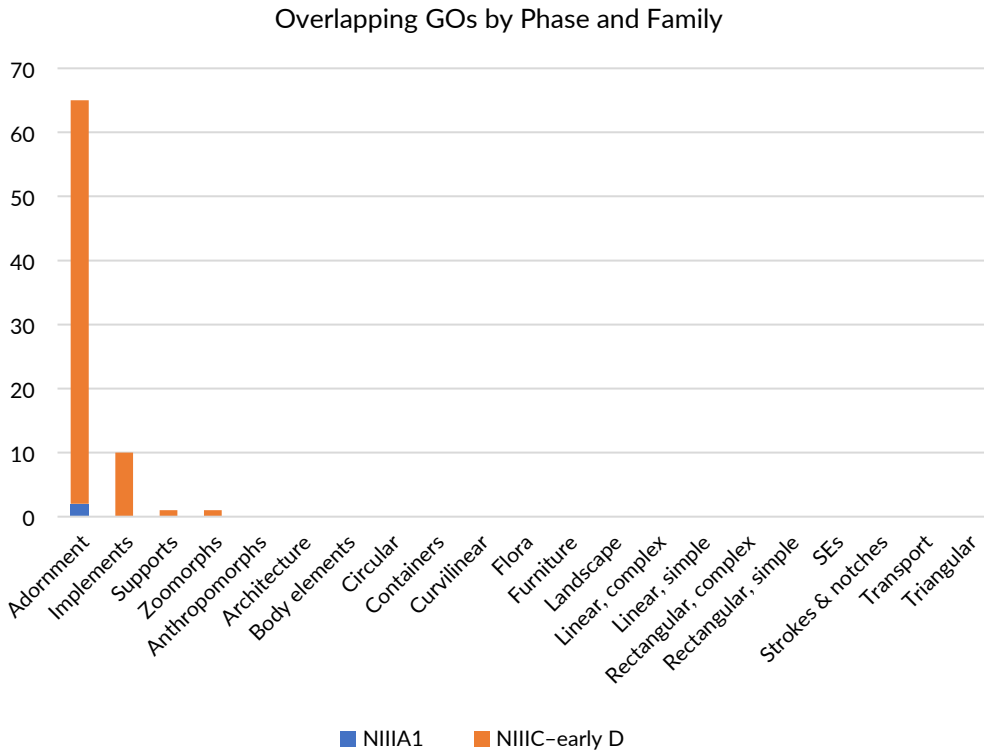


Figure 85: Overlapping GOs by Family for the NIIIA1 and NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

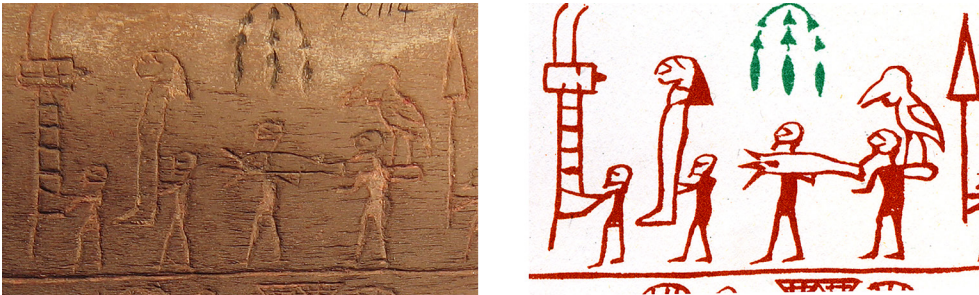


Figure 86: Detail of ID239/0847_S showing how the fish overlaps the body of the figure carrying it, wood, Saqqara, NIIC-early D (c.3085–c.2867BCE), The Egyptian Museum, Cairo, JE 70114 (photo: Kathryn E. Piquette, courtesy of The Egyptian Museum, Cairo, CC BY 4.0; drawing: After Emery and Sa'ad 1938, pl. 18a, CC BY 4.0).

Clusters are similar to CGOs in that two or more GOs are located in close proximity, but differentiated by the lack of contiguity. Analysis shows the presence of at least 138 Cluster types. All incorporate SGOs, CEs and/or CGOs and are attested for both main phases. This unit of analysis is treated more fully in §7.5 given its importance for characterising the increasing distinction between pictorial and scriptorial functions within Early Dynastic graphical culture.

7.3.7 Alignment

‘Alignment’ refers to the way in which similar or identical GOs, most of which are part of a Cluster (§7.3.6; §7.5), may be configured. Types include:

- 2 × GOs aligned and repeated horizontally;
- 2 × GOs aligned and repeated vertically;
- 3 × GOs stacked and repeated both horizontally and vertically;
- 3 × GOs aligned and repeated diagonally/following a curve.

For NIIIA1 labels, alignment for identical iconic GOs is horizontal;²⁷ for short strokes it is vertical²⁸ or diagonal;²⁹ and it is horizontal for wavy-lines.³⁰ Among NIIIC–early D labels, horizontal alignment of repeated GOs is most common, followed by vertical and then stacked (Table 8). Diagonal/curving alignment is attested only for dots issuing from/entering into \curvearrowright /D46*³¹ or a container.³² Composers may align three or more identical GOs horizontally (e.g. Figure 87; see also Table 8), but the GO itself is also a mitigating factor since vertically aligned examples are of long, broad shapes. Curvilinear shapes, strokes and notches, containers and flora are among the most commonly aligned GOs (Figure 88). Overall, a matrix of factors—shape, similitude and the circumstances of the wider composition, including the narrative and, doubtless, semantic meaning—influenced the types of alignment composers chose.

7.4 Composite Graphical Objects (CGOs)

Composite Graphical Objects (CGOs) are comprised of 2–4 CEs during the NIIIA1 phase of label use and 2–12 CEs for the NIIIC–early D labels. Among some 475 CGOs overall, approximately 70 types can be identified. Bovid-head+pike/support/fl1 or fl2³³ and peak(4×)/n9(N25)+ \curvearrowright /E26³⁴ CGOs are exclusive to NIIIA1 labels but others continue in use (e.g. support/s33(?)+bird/G5(?), implement+figure; see also §6.5 and Table 7). Distribution by reign of types that show continuity is illustrated in Table 9. Several aspects of CGOs are examined below and main trends discussed.

27 ID149/4372_A

28 E.g. ID106/4340_A.

29 E.g. ID102/4336_A, ID116/4352_A.

30 ID141/4380_A, ID161/4389_A.

31 E.g. ID345/1677_A.

32 E.g. ID375/3407_H.

33 E.g. ID064/4229a–b_A.

34 E.g. ID146/4374_A.



Figure 87: Ivory label fragment ID286/1243_A showing repeated SGOs aligned horizontally and vertically, with traces of $\text{N}25(2\times)$ surviving in the upper right, 'Royal' Tombs Cemetery, Abydos, NIIC-early D (c.3085-c.2867 BCE), Penn Museum, E6843 (photo: © Penn Museum).

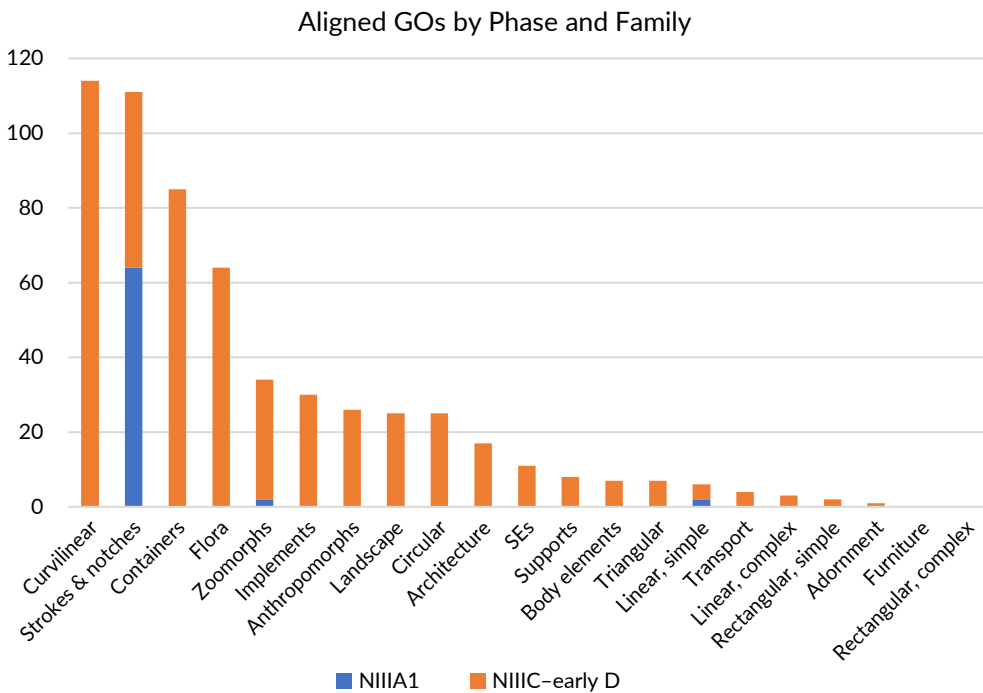


Figure 88: Aligned GOs by Family for the NIIC-early D and NIIC-early D label phases, Kathryn E. Piquette, CC BY 4.0.

Identical GOs Aligned and Repeated Horizontally	Label	Identical GOs Aligned and Repeated Vertically	Label	Identical GOs Repeated Horizontally and Vertically	Label
√/Z1(2-6×)	ID354/1125_S	√/Z1(3×)	ID423/4447a-b_A	√/Z1(3-8×)	ID354/1125_S
√/V20(2×)	ID192/0243a-b_N	≡/aa52(2×)	ID304/1253_A	√/V20(6-9×)	ID194/0223a-b_N
∅/Z7(3×) or V1(2-6×)	ID200/4028_A	∅/V1(2×)	ID313/1247_A	∅/V1(4×)	ID197/0242a-b_N
Anthropomorph(3×)	ID210/0241_N	~(2×)	ID141/4380_A	Anthropomorph(3×)	ID243/1274_A
∅/G24(3×)	ID197/0424a-b_N	-(2×)/z3	ID102/4335_A	Bird/G36(3×)	ID302/2019_Un
Flora/M13 or 22(3×)	ID420/4461_A	Semi-circle(3×)	ID304/1253_A	Semi-circle(3×)	ID410/4448_A
~/M3(2×)	ID423/4447a-b_A	~/M3(2×)	ID422/4445a-b_A	Notch/z1 (6-12×)	ID001/4241_A
∅/W24(3×)	ID367/4470a-b_A	≡/D50(4×+)	ID290/1257_A	^/'V20'(3×)	ID320/1313_A
Ring, small/z2(?)(5×)	ID209/0240_N	Ring, large/y2(?)(4×)	ID239/0847_S	•/m1 or m2(3×)	ID333/4819_A
~/V6 or V30(2×)	ID369/4460a-b_A	∫/I10(3×+)	ID273/4085_A		
∅/m2(?)(3×)	ID354/1125_S	∞/N25(2×)	ID331/4088_A		
Boat/P or p (2×)	ID214/0284_A	∫ ³⁵ /T7a, ~/ T7(2×)	ID343/4557_A		
∅/D1(3×)	ID286/1243_A				
∅/X1(2×)	ID321/1255_A				
Container(?)/W2(?)(3×)	ID410/4448_A				
†/aa27 or aa51(3×)	ID286/1243_A				
∫/R8(2-3×)	ID410/4448_A				

Table 8: GOs associated through horizontal alignment, vertical alignment or both, with label examples, Kathryn E. Piquette, CC BY 4.0.

7.4.1 Presence/Absence of Constituent Elements

The CEs of attested CGO types are relatively fixed, although minor differences can be observed, with some elements being absent occasionally or seemingly falling out of use. Several NIIIA1 labels bear the CGO bovid-head+pike/support/fl1 or /fl2 (e.g. ID098/4333_A) but on ID100/4331_A and ID101/4335_A stake/support (or what may

35 Two types of axe are clear on some labels, i.e. ∫³⁵/T7a, ~/T7.











CGO	NIIIA1	Narmer	Aha/Hetepneith	Djer	Djet	Merneith	Den	Adjib	Semerkhet	Qa'a
Bovid-head+pike/support/f11 or /f12	●	○	○	○	○	○	○	○	○	○
Peak(4x)/n9(N25)+  /E26	●	○	○	○	○	○	○	○	○	○
Support/s33(?) +bird/G5(?)	●	○	●	○	○	○	●	○	○	○
Anthropomorph, upright	●	○	●	●	●	○	●	○	●	○
 /O33+  /G5	○	●	●	●	●	○	●	○	●	●
Standard+various	○	●	●	●	○	○	●	○	●	○
Notched-frame (circular)/o1+GOs(various)	○	●	●	●	○	○	●	○	○	○
Notched-frame/O36+GOs(various)	○	○	●	●	●	○	○	○	●	●
 /A34	○	○	●	●	●	○	●	○	●	●
Boat/P or /p(various)	○	○	●	●	○	○	●	○	●	●
Anthropomorph, sitting or crouching	○	○	●	●	○	○	●	○	○	○
Frame-w/protrusions/o15 or /O11+GOs(various)	○	○	●	○	●	○	○	○	○	○
 /G16 or  /G16	○	○	○	○	○	○	○	○	○	●
 /W25	○	○	○	○	○	○	●	○	○	●
 /T4+  /O1	○	○	○	○	○	○	○	○	○	●
Small-rectangle+  /G5+harpoon/t1	○	○	○	○	○	○	○	○	○	●

Table 9: Chronological distribution of CGO types with 7+ attestations, ● = Certain, ○ = Uncertain, ○ = Unattested, Kathryn E. Piquette, CC BY 4.0.

be a beard, Regulski 2010, 117, f11) is absent. Likewise, on ID200/4028a-b_A dated to Narmer, the $\overline{\text{III}}/\text{O}33$ motif is rendered, unusually, without $\text{U}/23$ and $\text{A}/\text{G}5$.³⁶

The earliest instances of CGO $\text{A}/34$ occur in a narrative scene on two almost-identical labels dated to Aha³⁷ (Figure 45). This group also appears on ID212/0943_A, with one curious difference—the anthropomorph to the right of $\text{A}/34$ is erased (Figure 89; see §5.12; Piquette 2013a, 220–222). This absence is maintained in all subsequent attestations, although the compositional presentation is further altered by being located within small-rectangle/ $\text{O}6$, a configuration attested through to the reign of Qa'a.³⁸

In addition to absence/presence of some CEs, change also occurs in the form of apparent substitution. The combination of $\text{I}/10 + \text{A}/\text{G}14$ hovering just above $\text{v}6(2\times)$ (therefore constituting a Cluster, not a CGO) is first attested on labels dated to Aha.³⁹ In contrast, two labels⁴⁰ dated to Djet give $\text{v}6(2\times) + \text{S}3 + \text{A}/\text{G}14$ (see g23). From the reign of Den, this group appears as CGO $\text{S}/\text{G}16$ (31 attestations). On two labels dated to Qa'a,⁴¹ however, $\text{S}3$ again substitutes $\text{I}/10$. This Cluster/CGO also exhibits changes in directionality. Such variability raises questions about the extent to which absence/presence, substitution and differences in compositional expression signal significant changes in symbolic meaning or relate to stylistic change over time.

7.4.2 Configuration

Variability is also present in CGO configuration. For example, CEs bounded in the frame above $\overline{\text{III}}/\text{O}33$ usually float within, but exceptions include the aforementioned interlocking position of $\text{U}/23$ within the niching,⁴² and the dynamic configuration of $\overline{\text{III}}/\text{O}33 + \text{A}/\text{G}5$ of Aha's PI where the lower limbs of $\text{A}/\text{G}5$ extend into the bounded area and appear to grasp mace+shield, similar to $\text{D}/34$.⁴³ In one case, $\overline{\text{III}}/\text{O}33$ itself has arms, wielding a mace with one and grasping the head of a kneeling, bound figure with the other.⁴⁴ This 'visual play' (§6.3.7, §7.3.4) is unattested for later instances of this motif, perhaps indicative of a growing separation between iconic and semantic functions of certain GOs, reinforced by compositional conventions.

7.4.3 Ordering and Direction

The asymmetrical CEs of a single CGO typically face to the right. For a small number of CGOs, however, elements within the same group may face opposing directions. This is

36 Cf. ID201/0095_A, ID202/4030_A.

37 ID209/0240a-b_N, ID210/0241a-b_N.

38 E.g. ID304/1253_A, ID419/4071_A.

39 ID209/0240a-b_N, ID211/0273_A.

40 ID274/0986_S, ID275/1081_Un.

41 ID401/4044_A, ID402/4450_A.




42 ID201/0095_A, ID202/4030_A.

43 E.g. ID209/0240_A.

44 ID208/0282_A+0209_A.



Figure 89: Ivory label fragment ID212/0943_A, ‘Royal’ Tombs Cemetery, Abydos, NIIC-early D (c.3085–c.2867 BCE), Royal Museums of Art and History, Brussels, E.0078 (photos: © RMAH, Brussels; drawing: Petrie 1900, pl. 13.5, courtesy of The Egypt Exploration Society, CC BY 4.0).

seen where two anthropomorphs (both CGOs) or an anthropomorph and a zoomorph co-occur with another CGO type.⁴⁵ Such ordering and directionality among figures, in addition to the associations of contiguity or holding/held, construct complex visual units wherein sequence and action are conveyed. These configurations typically appear on labels with ‘—’ SEs (see also §6.5.1). Directionality for /G16 also exhibits variable patterning based on juxtaposition with /O33+ /G5. Since this combination of CEs also occurs as a Cluster, the topic of the next section, I defer closer examination of this patterning to the discussion (§7.6).

7.5 Clusters

Having examined variability among CGOs, including presence/absence of constituent components, configuration, ordering and direction, above, I now consider these aspects for Clusters. More than 130 Cluster types were identified for both phases. Table 10 shows a selection for the NIIC-early D labels. Some gaps in the data are likely to reflect poor preservation (e.g. reigns of Merneith and Adjib). As it stands, the patterning

45 E.g. NIIC-early D labels: ID202/4030_A, ID207/0289_A, ID239/0847_S, ID300/1389_A.



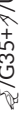














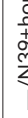

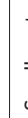





Clusters	Narmer	Aha/Hetepneith(?)	Djer	Djet	Merneith	Den	Adjib	Semerkhet	Qa'a
 /O33+  /G16	○	○	○	○	○	○	○	○	●
 /G35+  /U7+  /V28+  /G27	○	○	○	○	○	○	○	○	●
 /O50+  /Z1(6x)	○	○	○	○	○	○	○	○	●
 /M23(+short-horizontal-line)+  /U1	○	○	○	○	○	○	○	○	●
Rectangle+  /W25	○	○	○	○	○	○	○	○	●
*  /N35+  /T22+  /D20	○	○	○	○	○	○	○	○	●
 /D36+  /G5+  /V28	○	○	○	○	○	○	○	○	●
 /N39+horizontal-line-with-dot(s)/O43(?) or /R33(?)  /M17	○	○	○	○	○	○	○	○	●
Small-rectangle/O6+  /G5+single-barbed-harpoon/t1	○	○	○	○	○	○	○	○	●
 /I10+rectangle+  /M3(1-3x)	○	○	○	○	○	○	○	○	●
 /F35+  /D21+  /I9	○	○	○	○	○	○	○	○	●

Table 10: Chronological distribution of NIIC-early D Clusters by reign. Only those with six or more occurrences are shown. Order is by first appearance and then quantity. (*) indicates Clusters which are Personal Identifiers (PIs) of rulers, ● = Certain, ○ = Uncertain, ○ = Unattested, Kathryn E. Piquette, CC BY 4.0.

shows that some Clusters are restricted to a single reign while others span two or more. It is particularly striking that the greatest continuity is attested for only one Cluster type: container+☞/F4. This provides a further indication of the extent to which labels constituted a fixed category of material culture on the one hand, yet were dynamic and changeable in practice on the other.

Some Clusters introduced in the early part of the 1st Dynasty are unattested beyond the reign of Den, while many new ones then come into use, several of which endure until label practices cease. Also coinciding with the end of the reign of Den is the disappearance of numerical-signs+☞/M3 and most other uses of the numerical signs (see also §10.3). The greatest range in Cluster types is attested on labels dating to Qa'a.

7.5.1 Presence/Absence of Constituent Elements

Like CGOs, some Cluster Families vary in their constituent components, but types can be established based on repeated occurrence of a majority of group elements. This is often corroborated by similarities in surface distribution (§7.7.3) and the wider graphical context. The most comprehensive and consistent combination of elements attested for any one Cluster is designated as the Family 'standard', e.g. Family ☞/T7+☞/L2+☞/T7+☞/L2, but 'variations', e.g. ☞/L2+☞/T7+☞/L2+☞/T7 (a reversal in order) or the apparent abbreviation ☞/L2+☞/T7, are also included in the Family.⁴⁶ Of course, 'standard' and 'variation' are heuristic categories only; what label composers considered standard/non-standard may not be knowable or necessarily a relevant concept for explaining why Clusters were rendered in similar or varied ways.

Certain constituent elements are always expressed while others are not. For example, all elements appear consistently for the Clusters ☞/Q1(or ☞/O40)+☞/G5+☞/V13 (albeit in different sequences), ☞/X1+☞/N25(2×), ☞/L2+☞/S19, and boat/p4+☞/G5+☞/T18, among others. Patterning in absences varies widely. The flora element may not be expressed in Cluster ☞/M23(+short-horizontal-line)+☞/U1.⁴⁷ An element commonly absent from several Clusters is ☞/X1; in Cluster ☞/T7+☞/T7a+☞/X1+☞/M23, it is absent in examples dated to Den⁴⁸ and Semerkhet⁴⁹ but present in most dated to Qa'a. Cluster ☞/X1+☞/L2+☞/X1+☞/M23 is fully expressed in 14 instances across the reigns of Den, Semerkhet and Qa'a, yet ID320/1313_A⁵⁰ (Den) shows only one ☞/X1, and both are absent on ID368/4467a-b_A and ID378/4471_A (Qa'a). In contrast, ☞/X1 is consistently present in Cluster ☞/X1+☞/N25(2×) on labels dated to

46 For each variant of this Cluster type compare the right-hand columns of ID401/4044_A, ID402/4450_A, ID407/1870a-b_A, respectively.

47 Cf. ID401/4044_A, ID405/4452a-b_A, ID408/4460a-b_A, ID421/4075_A (all Qa'a).

48 ID303/1390_A, ID304/1253_A, ID309/1312_A.

49 ID345/1677_A, ID347/1752_A.

50 It may be significant that the flora (☞/M22) SGO exhibits a single set of leaves only, but this Cluster occurs in a similar context including ☞/X1+☞/N25(2×) on ID303/1390_A, ID304/1253_A and ID321/1255_A, all of which have double sets of leaves, suggesting all instances represent the same 'Cluster' Family.

Den,⁵¹ suggesting that the importance of certain GOs was contingent on the context of their expression.

Another type of absence/presence variability is exemplified by Cluster $\overline{\text{N35}}+\overline{\text{T22}}+\overline{\text{D20}}$, all on labels bearing the PI of Qa'a. Each SGO in this Cluster may be alternately absent or present, as comparison of ID407/1870a–b_A, ID409/1863_A and ID418/4451a–b_A shows. It would seem that only two of the three elements were essential at any one time. This is also seen for $\overline{\text{O33}}+\overline{\text{G5}}$ of Narmer where $\overline{\text{U23}}$ may be omitted.⁵² Similarly, the Cluster trees+architecture exhibits differences in CE quantities.⁵³ Clusters including notch/zl and $\overline{\text{Z1}}$ or with $\overline{\text{V20}}$ often co-occur in various quantities and patterns of absence/presence. $\overline{\text{V1}}$ also appears in series of 1–8, sometimes with $\overline{\text{M12}}$. These Clusters, conventionally interpreted as numerical values, are discussed in more depth in §10.3.

Overall, variability in Clusters according to presence/absence is minimal, but is nevertheless informative for assessing the ways in which composers, or collectives of composers, could develop, challenge, adapt or reinterpret aspects of compositional practice.

7.5.2 Organisation

Analysis shows that GOs in aligned configurations (§7.3.7) may occur along a horizontal axis or less commonly along a diagonal or arced pattern, as well as in the even less common vertical alignments (Table 8). Most of these aligned groups form Clusters (§7.3.6). Clusters comprising different GO elements are less commonly aligned horizontally, e.g. $\overline{\text{T8}}+\overline{\text{F4}}$, and more usually arranged vertically, e.g. $\overline{\text{X1}}+\overline{\text{N25}}(2\times)$. Combinations of horizontally and vertically stacked elements are often configured into compact graphical units, e.g. $\overline{\text{Q1}}$ (or $\overline{\text{O40}}$)+ $\overline{\text{V13}}+\overline{\text{G5}}$ ⁵⁴ or $\overline{\text{O50}}$ +stroke/ $\overline{\text{Z1}}(2\times/6\times)$.⁵⁵ The least common configuration is diagonal alignment, e.g. the three last GO elements of Cluster $\overline{\text{G35}}+\overline{\text{U7}}+\overline{\text{V28}}+\overline{\text{G27}}$.⁵⁶

For NIIIA1 Clusters, organisation of the picture field is relatively fluid with areas of the picture space left empty between or around the GOs. Clusters on many NIIIC–early D labels show more rigidity in organisation, with Clusters tending toward alignment along a horizontal/vertical axis. An interest in symmetry is particularly apparent on ID409/1863_A, where the neatly incised $\overline{\text{T22}}$ is carefully centred between $\overline{\text{V6}}(\text{V30})$ (2×) above. This can be seen on the majority of labels from Abydos and Helwan, in contrast to Clusters on labels from Saqqara, most without SEs and less likely to form block-like configurations.⁵⁷

51 E.g. ID321/1255_A, ID331/4088_A.

52 Compare ID202/4030_A with ID200/4028a–b_A where $\overline{\text{G5}}$ is also absent.

53 Compare ID240/0682_A with ID241/0833_S.

54 E.g. ID240/0682_A.

55 E.g. ID402/4450_A.

56 ID404/1869a–b_A, secondary side.

57 E.g. ID227/0834_S (Djer), ID364/1931_S (Qa'a), ID420/4461_A.

7.5.3 Ordering and Direction of Clusters and Constituent Elements

Clusters also exhibit variability in order and direction, both with regard to their elements and as a whole. Order reversal for Cluster $\overline{\text{T}}/\text{T}7\text{a}+\overline{\text{L}}/\text{L}2+\overline{\text{T}}/\text{T}7\text{a}+\overline{\text{L}}/\text{L}2$ was noted above. Variable order is also attested for Cluster $\overline{\text{G}}/\text{G}35+\overline{\text{U}}/\text{U}7+\overline{\text{V}}/\text{V}28+\overline{\text{G}}/\text{G}27$, which in 13 of 15 occurrences appears on secondary sides of labels. The last three aforementioned elements of this Cluster may be swapped around,⁵⁸ and direction may also change⁵⁹ or the overall configuration may vary.⁶⁰

ID213/0284a-b_A and ID214/0283a-b_A are identical in material, technique and format, and very similar in content, but the container present in the Cluster in Q4 of ID213/0284a-b_A is absent on ID214/0283a-b_A, although there is space almost large enough to accommodate the GO. Perhaps the intention was to add in the relevant vessel but circumstances intervened. If so, this could offer a glimpse into the temporal dimension of label production and nodes in the process where certain decisions were actively negotiated or more contingent than others. On the same labels difference in ordering can be observed for $\overline{\text{V}}/\text{V}1(1\times/3\times)+\overline{\text{M}}/\text{M}3+\overline{\text{G}}/\text{G}5$: all are stacked vertically on ID213/0284a-b_A, but on ID214/0283a-b_A the composer has changed the configuration of $\overline{\text{M}}/\text{M}3+\overline{\text{G}}/\text{G}5$ to align horizontally above the sequence of $\overline{\text{V}}/\text{V}1(3\times)$ below. In Cluster $\overline{\text{U}}/\text{U}1+\overline{\text{V}}/\text{V}28$ on ID303/1390_A, the $\overline{\text{V}}/\text{V}28$ is inserted into $\overline{\text{U}}/\text{U}1$ rather than occurring to the left of $\overline{\text{U}}/\text{U}1$. The order of the GOs seems to accommodate an aesthetic interest in a block-like arrangement, yet this does not occur for other attestations of $\overline{\text{U}}/\text{U}1+\overline{\text{V}}/\text{V}28$.⁶¹

As regards Cluster reversal, two GO grouping are relevant: $\overline{\text{V}}/\text{V}6(\text{V}30)(2\times)+\overline{\text{G}}/\text{G}14+\overline{\text{I}}/\text{I}10$ and $\overline{\text{M}}/\text{M}23+(\overline{\text{X}}/\text{X}1?)+\overline{\text{L}}/\text{L}2+\overline{\text{X}}/\text{X}1$. Overall 33 instances of the former are attested on the labels. Twenty-nine are CGOs, while a further four variants include two expressed as Clusters.⁶² Indeed, the earliest instance of this group⁶³ is configured more as a Cluster than an independent CGO. After the reign of Djjet, the group is unattested again until that of Semerkhet,⁶⁴ when two appear as CGOs, but with $\overline{\text{I}}/\text{I}10$ substituted by $\overline{\text{S}}/\text{S}3$ in each.⁶⁵ In his extensive study on early Egyptian writing, Kahl (1994, 519) examines “ $\overline{\text{G}}/\text{G}16$ ”, listing its semantic function as logographic and the phonetic value as *nb.ti* (both derived retrospectively). Following traditional sign-list presentation (Gardiner 1973 [1927], 438–548), the stylised font is utilised as an archetype for all occurrences of this group. The G16 glyph combination is printed in a left-facing orientation, presumably in accordance with the left-to-right reading convention for the accompanying Latin script. The artefact source for each occurrence is listed and ID209/0240a-b_N is given as bearing the earliest attestation of $\overline{\text{G}}/\text{G}16$. Yet

58 Cf. ID405/4452a-b_A, ID413/4453a-b_A, ID416/4455a-b_A.

59 ID408/4460a-b_A, based on the orientation of both bird SGOs.

60 Compare ID411/4459a-b_A with primary side of ID401/4044_A, where $\overline{\text{V}}/\text{V}28$ may be partially erased(?).


61 E.g. ID288/1421_S, ID304/1253_A.


62 ID274/0986_S, ID275/1081_Un (both Djjet, left- and right-facing, respectively).

63 ID209/0240a-b_N (Aha, right-facing) and labels listed in preceding footnote.













64 E.g. ID343/4046a-b(=4557)_A.

65 ID401/4044_A, ID402/4450_A (Qa'a, both left-facing).

examination of this label shows that this group is not as emphatically contiguous as the later forms. It is also bounded within a complex rectangle shape or architectural structure and thus sits within a larger CGO and should be distinguished from its later counterparts characterised by contiguity. The present approach prompts us to question in what respect equivalences should be drawn between /G16 and these variants (see also Regulski 2010, 121, 129, 270).

In addition to differences in contiguity and constituent elements, directionality is also variable for /G16. On labels of Qa'a, eight instances are right-facing⁶⁶ and 17 left-facing.⁶⁷ This is the largest number of left-facing CEs for any CGO (or Cluster) type, raising the question of why label-makers deviated from the NIIC-early D norm of a right-facing direction (§7.2.4). Emery commented on this reversal, which as a CGO occurs only on labels of Qa'a:

The argument that when the *nebti* name and the [*sic*] Horus name of a living king are coupled together, the *nebti* group i. [*sic*] written in the reverse way to the Horus group, has no foundatione [*sic*]⁶⁸ It is true that on the labels of King Ka'a the two names face each other,⁶⁹ but there is a [read “no”?] significance in this, for the variation in direction of groups of hieroglyphic signs at this period is not unusual and is a common feature on many ivory and wooden labels. (Emery 1961, 35)

Despite editorial errors in Emery's publication, it seems clear that he attributes no importance to the reversal of G16. However, subsequent finds by the German Institute work at Abydos yielded at least 25 occurrences, all dated to Qa'a. Without exception, when the CGO is juxtaposed with /O33+/G5, it faces left. In contrast, /O33+/G5 consistently faces right for all 60 attestations across all labels. It is therefore reasonable to conclude that the left-facing direction of G16, which also Clusters with /N35+/T22+/D20, is deliberate and intended to actively construct new or augmented meaning, compared with when these CGOs are not juxtaposed within composition. Henry Fischer (1977, 9–10, fig. 4⁷⁰) suggests elements confronting each other relate to some type of royal protocol. As discussed in §7.2.4, ordering and directionality were important compositional principles in establishing narrative relationships between GOs, especially those involving anthropomorphs. Perhaps in the case of G16 the particular ordering and directionality were deployed to set up a narrative or dialogic relationship, but with the compositional immutability of /O33+/G5 prioritised. One might venture that the turning of /G16 to face or 'respect(?)' /O33+/G5 CGO could translate symbolically to the social dimension whereby some notion of respect or honour between social or cosmic entities is conveyed. In

66 E.g. ID419/4071_A, ID420/4461_A.

67 E.g. ID359/1122_S.

68 Text appears to be missing, if not a bibliographic reference.

69 At the time of Emery's writing, no right-facing examples were documented. All have been recovered during the German Institute Abydos re-excavation.

70 Fischer cites ID409/1863_A as being made of wood, but first-hand examination suggests it is made of elephant ivory.

many examples of zooanthropomorph or anthropomorph interaction,⁷¹ it is often the higher status entity that retains a right-facing direction, perhaps establishing or re-enforcing a social hierarchy in the cases where $\overline{\text{|||||}}/O33+$ $\text{A}/G5$ and $\text{B}/G16$ face each other.

A final observation regarding ordering and direction occurs on ID303/1390_A and ID304/1253_A. In the third register, we see that Cluster $\text{f}/M23+\text{o}/X1+$ $\text{v}/L2+\text{o}/X1$ faces left rather than the usual rightward facing direction (Figure 77), a reversal that has provoked debate over the years (for a summary, see Godron 1990, 61–64, 188). Close examination of the published photographs of ID303/1390_A (in Godron 1990) and first-hand examination of ID304/1253_A, in comparison with ID305/4087, the reason for the reversal becomes apparent. On fragment ID305/4087 is incised a scene showing the Egyptian ruler wearing the red crown and pulling a clap net closed around four birds (see Altenmüller 2008). I suggest that this left-facing configuration of $\text{f}/M23+\text{o}/X1+$ $\text{v}/L2+\text{o}/X1$ relates to a similar striding figure on the other two labels. Although the key areas of ID303/1390_A and ID304/1253_A suffer from poor preservation, it is apparent that each scene should be understood as containing a human figure in the act of pulling the rope of a clap net in order to capture several birds. The body strides and pulls to the right, but the head turns back (left) toward the catch, and it is here that we see Cluster $\text{f}/M23+\text{o}/X1+$ $\text{v}/L2+\text{o}/X1$ rendered left-facing—in compositional symmetry with the key agent in the scene, namely the Egyptian ruler. This example illustrates the ways in which a compositional approach sheds light on the rules that label-makers reproduced or renegotiated in the course of constructing semantic difference, as well as unity (cf. Fischer 1977, 3–4).

7.6 Summing Up: CGOs and Clusters

In the first half of this chapter, I examined the compositional features of individual GOs, including mode and association, and presented two types of GO groupings, CGOs and Clusters. Various trends between the two main label phases and other temporal-spatial shifts were observed. Having examined graphical relationships at the level of CGOs and Clusters in this section, I now turn to image distribution more broadly to understand how makers constructed label compositions as a whole.

7.7 General Image Distribution

Space on label surfaces is structured in several ways. Structuring Elements (SEs), including horizontal and vertical lines, occur on at least 102 labels (all NIIIC–early D). These explicitly divide and subdivide the graphical space and organise imagery into particular configurations. For labels where SEs are absent, image distribution is gauged using the quadrant framework, where all decorated label surfaces are divided into regions and

71 E.g. ID202/4030_A, ID300/1389_A, respectively.

GO frequencies are counted for each (§3.6). Charts showing GO distribution by Family were discussed in Chapter 6. Here I focus on composition for each chronological phase rather than on content.

7.7.1 Distribution of SGOs and CEs: NIIIA1

Quadrant analysis for SGOs and CEs on the NIIIA1 labels (Figure 90) shows that the number of GOs in each quadrant ranges from 0–4, although composers tended to place imagery centrally (Q1–Q4) or in the lower half (Q3–Q4, Q4). Perhaps the aim was to accommodate placement of the perforation in the upper half. Clusters of comparatively small SGOs, mainly circle or disc+short-horizontal-line(2×)⁷² or +diagonal-line(2×)⁷³, tend to occur in Q3–Q4. GOs occur on the secondary side far less frequently but here too preference for central placement is evident. Overall, NIIIA1 imagery is characterised by low density and large size relative to the small surface area of the label (generally between 1.5cm–2.5cm in either direction).

7.7.2 Distribution of SGOs and CEs: NIIC–early D

The NIIC–early D labels exhibit increased variability in SGO and distribution (Figure 90). CEs occur more commonly in Q1–Q2 as do, therefore, the CGOs they constitute (§7.7.3). A significant increase in density can be observed; the GOs in any one quadrant range from 0–14, as compared with 0–4 on NIIIA1 labels. A reduction in GO overlap across quadrant boundaries can be observed, indicative of a decrease in GO size relative to the available surface, a pattern that is even more pronounced for many late 1st-dynasty labels (discussed in relation to changes in format below).

Apart from the peculiar example of ID186/4405_A, NIIIA1 labels do not approach the density of the vast majority of NIIC–early D labels. The smaller exemplars from the Naqada *Mastaba* and selected labels from Saqqara Tomb S3504 and Abydos⁷⁴ tend toward the NIIIA1 patterning, with large (relative to label size), dispersed GOs that exhibit a general avoidance of the perforated corner. A pattern can be discerned whereby the influence of the perforation (§5.6.1) on GO distribution generally diminishes in relation to increased graphical density (the number of GOs within a given area). This trend is accompanied by greater frequencies in Q1 and Q2, such that the relative small scale and shapes of certain GOs⁷⁵ enables composers to integrate the perforation into the graphical composition, as seen with }/M4 where the perforation and various GOs are accommodated within the label's upper left-curving area.

72 ID101/4335_A.

73 ID119/4355_A.

74 E.g. ID191/0226a–b_N, ID266/0995_S, ID224/0614_A, respectively.

75 Compare e.g. ID113/4347_A with ID208/0282_A+0209_A or ID280/1194_A.

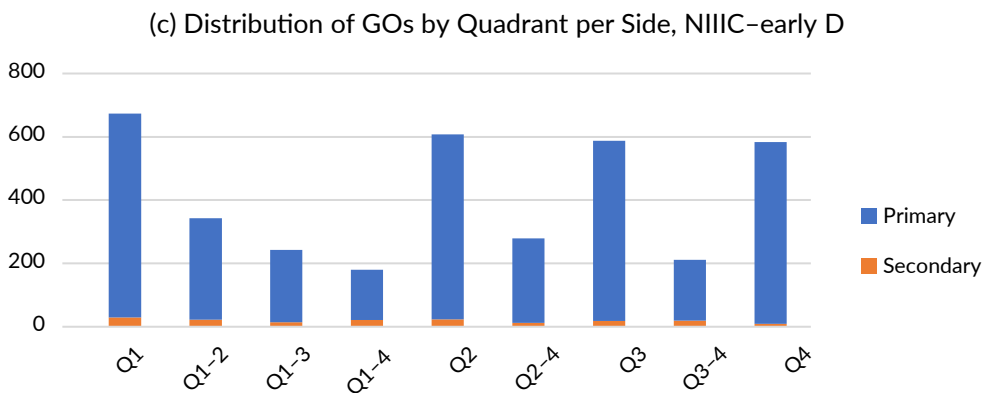
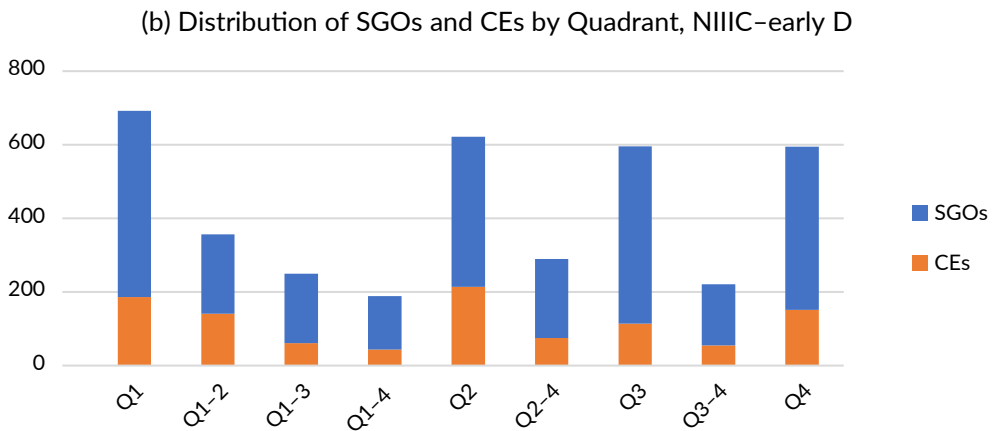
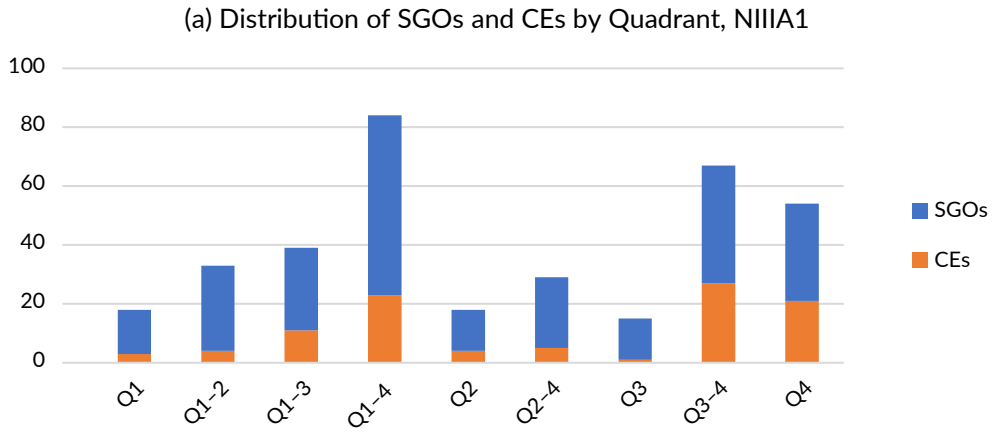


Figure 90: Frequencies of SGOs and CEs by quadrant. (a) NIIIA1 labels. (b) NIIC-early D labels. (c) Per side for NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

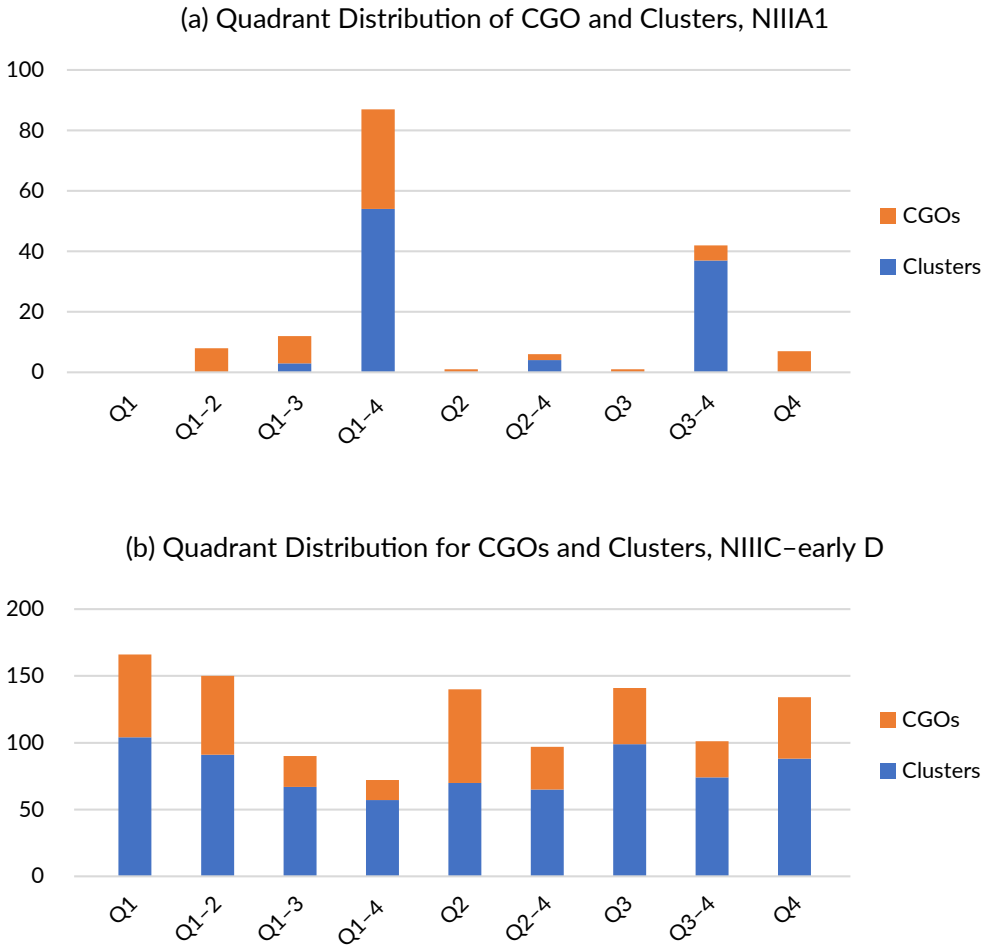


Figure 91: Distribution of CGOs and Clusters by quadrant for both sides. (a) NIIIA1 labels. (b) NIIC-early D labels, Kathryn E. Piquette, CC BY 4.0.

7.7.3 Distribution of CGOs and Clusters: Both phases

Because CGOs and Clusters are comprised of multiple GOs and cover a larger surface area, their distribution shows increased quadrant overlap compared with the distribution of single GOs (above). For NIIIA1 labels, the tendency for CGOs and Clusters to be located in the centre (Q1-Q4) of the picture field is apparent, with the next most frequent concentration occurring in Q3-Q4 (Figure 91). For the latter, 26 of 36 occurrences include Clusters of notch/z1(5 \times -12 \times). The result for NIIIA1 labels at this scale of GO analysis mirrors the patterning noted above for SGO distribution. In contrast, NIIC-early D CGOs and Clusters tend to concentrate in Q1/Q1-Q2 but are otherwise relatively evenly distributed across the quadrants.

When we look at the distribution of specific CGO or Cluster types, we see that many regularly occur in a particular area of the picture field. What are presumably

early attestations of $\mathbb{H}/A34$ are expressed in more narrative fashion⁷⁶ (§7.4.1), but later bounded examples are placed in specific locations within the composition, but only on labels also bearing $\overline{\text{III}}/O33+$ $\mathbb{A}/G5$. $\mathbb{H}/A34$ always occurs in the upper part of the left column (Q1) on labels dated to Den⁷⁷ and directly below $\overline{\text{III}}/O33+$ $\mathbb{A}/G5$ in Q3 on labels of Semerkhet, and usually occurs in the lowermost of the two or three frames aligned vertically on those bearing the PI of Qa'a.⁷⁸

7.8 Compositional Format

Having examined the various GO elements attested on the labels and their general distribution using an artificial grid (§3.6), I now examine composition based on the presence and absence of Structuring Elements (SEs; §6.5.1). Of some 410 labels preserving decoration, just over 100 bear ‘—’ and/or ‘|’ SEs. Labels devoid of SEs, which I refer to as exhibiting a ‘plain’ format, are attested during both NIIIA1 and NIIIC–early D phases. Horizontal and vertical SEs are employed on the NIIIC–early D labels only, forming horizontal, vertical and mixed formats. As shown in Figure 92, Kaplony (1963, 143–144) devised a general classification of selected labels into four types based on the presence of explicit formatting, the position of the ruler’s name, commodity information, and the presence/absence of $\mathbb{H}/M4$. Other researchers have discussed how general trends in label composition relate to an increase of administrative titles and other bureaucratic designations, noting the use of a horizontal format up to the reign of Den and a more vertical format thereafter (Redford 2001, 95–96; Trigger 2001 [1983], 56–58; Kaplony 1963, 308, pls. 143–144; Jiménez-Serrano 2002, 20–22). In the following I examine SEs in detail and the ways in which they construct the composition and inform GO distribution in contrast to labels in the Plain Format (§7.8.3). I also consider those cases where SEs are not expressed explicitly (cf. Davis 1976, 412), and how the rectilinearity of label shape itself and other uses of the available space structure the composition.

7.8.1 Using Horizontal Lines and Edges

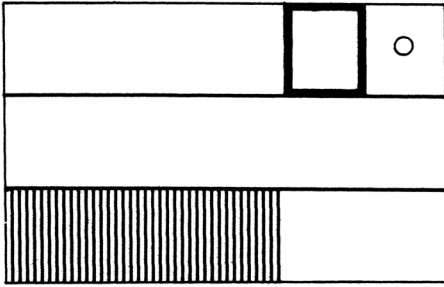
Approximately 35 labels incorporate ‘—’ SEs. Typically extending from one edge of the label to the other or providing separations within a column, ‘—’ SEs divide the picture surface into registers or cells, simultaneously separating and grouping the imagery. ‘—’ SEs also act as a grounding line for GOs which are typically animate, such as anthropomorphic and zoomorphic figures, as well as boats (§6.3.11) and a small number of inanimate objects. Label-makers during both the NIIIA1 and the NIIIC–early D phases also use the bottom of the label in a similar way, abutting GOs along this horizontal edge: the earlier occurrences appear to relate to the production

76 E.g. ID209/0240a–b_N.

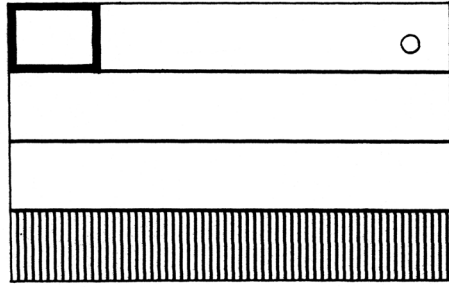
77 E.g. ID303/1390_A.

78 E.g. ID408/4460a–b_A.

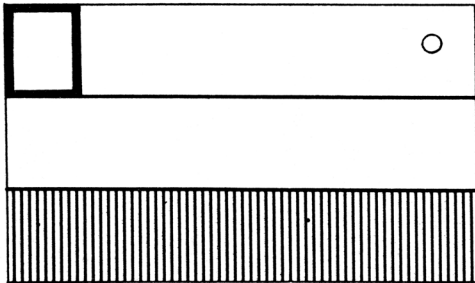
Aha, Type a



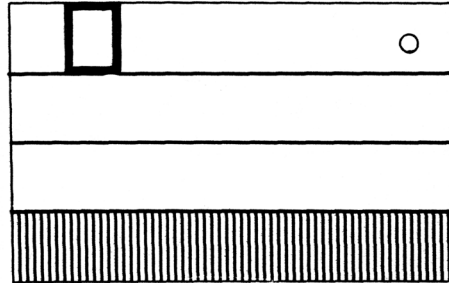
Aha, Type b



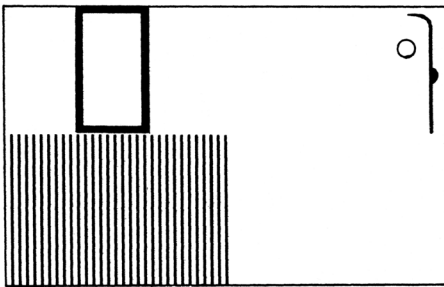
Djer, Type a



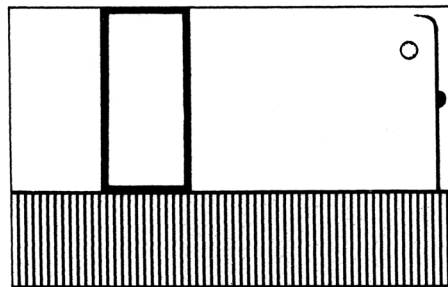
Djer, Type b



Djet, Type a,1



Djet, Type a,2



Den, Type a

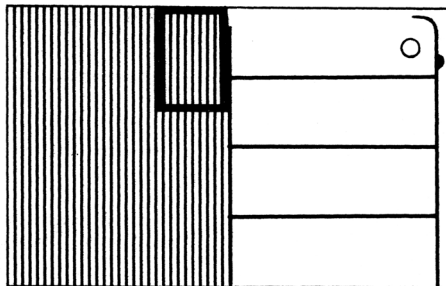


Figure 92: Changes in the composition of labels from the reigns of Aha to Den (but excluding Merneith), with the position of the niched frame motif highlighted (after Kaplony 1963, pls. 143-144, 847A, courtesy of Harrassowitz Verlag, CC BY 4.0).

practice of decorating the surface prior to cutting out the final label shape (§5.6). This may also be the case with some NIIC–early D labels, or later occurrences may relate to a compositional requirement that certain GOs be ‘grounded’. GO types grounded via both methods include architecture,⁷⁹ \int /Z1,⁸⁰ containers,⁸¹ and a floral GO.⁸² Where architectural GOs are grounded along the bottom edge, the lower line of the GO is often not explicitly expressed—the edge would seem to double as part of the depiction. This abutting may also have to do with graphical technique: if the composer was incising a line close to and perpendicular to a label’s bottom edge, she or he may have (deliberately?) ‘followed through’ with the tool, incising the line to, or over, the label’s edge. Likewise, if the label was cut to size after incision and sanded, truncating selected lines may have occurred in the process (Figure 73). The use of label edges as a frame for the composition (§7.2.1), and even as the groundline for selected GO types, sometimes influencing the configuration of CGOs and Clusters, supports the main argument of Chapter 5—that the form and expression of graphical media are embedded in and influenced by materials and materiality and that therefore these must be understood together.

7.8.2 Using Vertical Lines

Just over 60 labels incorporate vertical lines, including single (‘|’) or double (‘||’) SEs. These divide the picture surface into vertical bands or columns. The ‘|’ SE may extend from the top to the bottom edge of the label, although some hover just shy of the edge, or may be used in conjunction with horizontal lines. All ‘||’ SEs extend fully from one edge of the label to the other. In some instances, \int /M4 appears to play a dual role, performing a symbolic and compositional function, sometimes in coordination with adjacent or contiguous ‘—’ SEs.⁸³ \int /M4 is always located on the far right—GOs never appear to its right—and it almost always extends from the top to the bottom of the label,⁸⁴ acting as an inner vertical border or bracket for the picture field. A similar compositional function is also seen in later vessel inscriptions from Hierakonpolis dated to Khasekhemwy (Quibell 1989 [1900], pl. 38) where the height of \int /M4 corresponds to that of the graphical content to its left. On ID274/0986_S, this bracketing role is particularly apparent, and that the height of \int /M4 is intended to signal a compositional relationship with particular Clusters, to the exclusion of others as reinforced by the use of an explicit ‘—’ SE on the similar ID275/1081_Un.

79 E.g. ID256/0819_A, ID274/0986_S, ID382/4482_A, ID410/4448_A, ID412/1871a-b_A.

80 E.g. ID191/0226a-b_N.

81 E.g. ID281/2004_S.

82 E.g. ID274/0986_S.

83 E.g. ID303/1390_A, ID304/1253_A, ID355/4821_H.

84 E.g. ID401/4044_A.

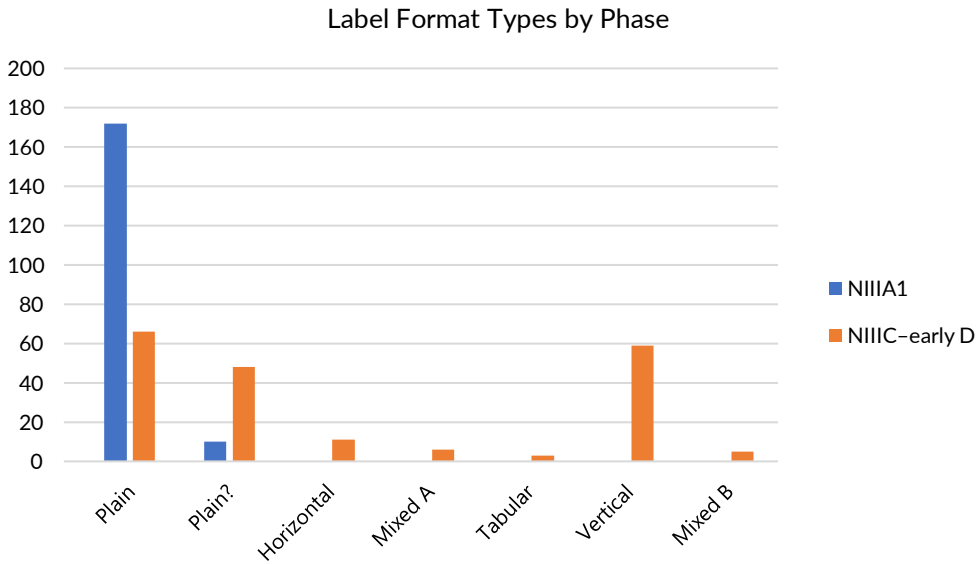


Figure 93: Format type quantities by phase (all for both whole and fragmentary labels where format is certain; ‘Plain?’ refers to labels where this format is likely but preservation is particularly poor), Kathryn E. Piquette, CC BY 4.0.

7.8.3 Label Format Types

The explicit use of ‘—’ and ‘|’ SEs, or their absence, defines six main label format types spanning the period of label use (Figure 93). Each is presented and described below.

Plain Format: This earliest format is comprised of an undivided surface. Imagery floats within the picture field, frequently clustered toward one edge or area, often in relation to another Cluster. Less commonly imagery appears unevenly dispersed.⁸⁵ This is the only format type attested during the NIIIA1 phase and continues in use through to the end of NIIC-early D, and is attested for most reigns. Two variants of the ‘tab’ label are attested: a front-back perforated tab,⁸⁶ and a laterally perforated tab.⁸⁷

Horizontal Format: This format includes at least 11 labels and is introduced during the reign of Narmer, where an ‘—’ SE runs from one vertical edge to the other, dividing the picture surface into 2 horizontal registers. From the reign of Aha/Hetepneith(?) into the reign of Djet, 2–4 registers were used, and 4 registers in the reign of Den, after which this format type is no longer evidenced.

Mixed Format A: This format, which includes at least five labels, is comprised of a mixture of ‘—’ and ‘|’ SEs and is attested during the reign of Den only. The whole is divided into two columns, the right column being subdivided into four registers and the left remaining undivided (cf. Mixed Format B, below).⁸⁸

⁸⁵ E.g. ID227/0834_S.



⁸⁶ E.g. ID255/0820_A.

⁸⁷ E.g. ID256/0819_A.

⁸⁸ ID304/1253_A, ID318/1249a–b_A.

Tabular Format: The Tabular Format, i.e. the division of the field into a grid using ‘—’, ‘|’, or ‘||’ SEs, is attested on three labels, two from Saqqara⁸⁹ and one from Helwan.⁹⁰ SEs form 2–3 rows and 2–6 columns. The earliest, ID353/1564a–b_S, is from Saqqara *Mastaba* ‘X’ and is dated to the reign of Den, while the other two probably date to Semerkhet and/or Qa’a. ID353/1564a–b_S could be the sole example of a label with a horizontal line placed below the imagery yet above the label’s bottom edge, unless the lower part of this label has been lost.

Vertical Format: This format includes almost 60 labels. In the reign of Den, label-makers begin dividing the picture field into two vertical columns. While the ‘|’ SE initially runs roughly down the centre, it is shifted slightly to the left during the reign of Den, and usually to the right thereafter.⁹¹ Labels from the reign of Semerkhet exhibit 2–3 columns, and many from the reign of Qa’a also exhibit this format. Both co-occurring PIs and tomb association point to the ‘||’ SE as being characteristic of Memphite label practices and the reign of Qa’a.⁹² ‘||’ may be used right of centre or on the left.

Mixed Format B: Five labels, which are mainly columnar in format, show a short horizontal line in the left column, extending roughly from the centre toward the left edge of the label, running underneath /O33+ /G5. This format is attested on labels dating to Qa’a only (cf. Mixed Format A, above).

In sum, six main label format types are identified, with quantities (Figure 93) and presence or absence charted according to phase and/or reign (Figure 94, Table 11). The Plain Format was the only one used during the NIIIA1 phase, while the Plain and Horizontal Formats were used simultaneously during the 1st Dynasty from the reign of Narmer to that of Djet or Merneith. A shift away from horizontal organisation toward a vertical arrangement occurs during the reign of Den. From the end of his reign to the end of label use, compositions are formatted in a predominantly vertical format, although the Plain Format also persists. The use of the ‘||’ SE appears to feature only during the reign of Qa’a,⁹³ or is tentatively proposed for the reign of Semerkhet,⁹⁴ as discussed further below. Among these six types, various configurations can be discerned (Figure 95).

7.9 Image Distribution and Patterns According to Format

It now remains to draw together the analyses of label repertoire (undertaken in Chapter 6) and of GO types and configurations (discussed at the beginning of this chapter) in order to examine how GOs are deployed within the broader compositional context of label format. General patterning for SGO distribution according to format type is plotted in Figure 96. We cannot know whether frequencies for each format type

89 ID353/1564a–b_S, ID354/1125_S.

90 ID355/4821_H.

91 ID326/4818_A, ID329/1373_A, ID331/4088_A, ID332/4089_A, and probably ID327/4090_A and ID333/4819_A.

92 E.g. ID378/4471_A; see also ID350/1565a–b_S, which may date to Semerkhet or Qa’a.

93 E.g. ID378/4471_A.

94 ID350/1565a–b_S.

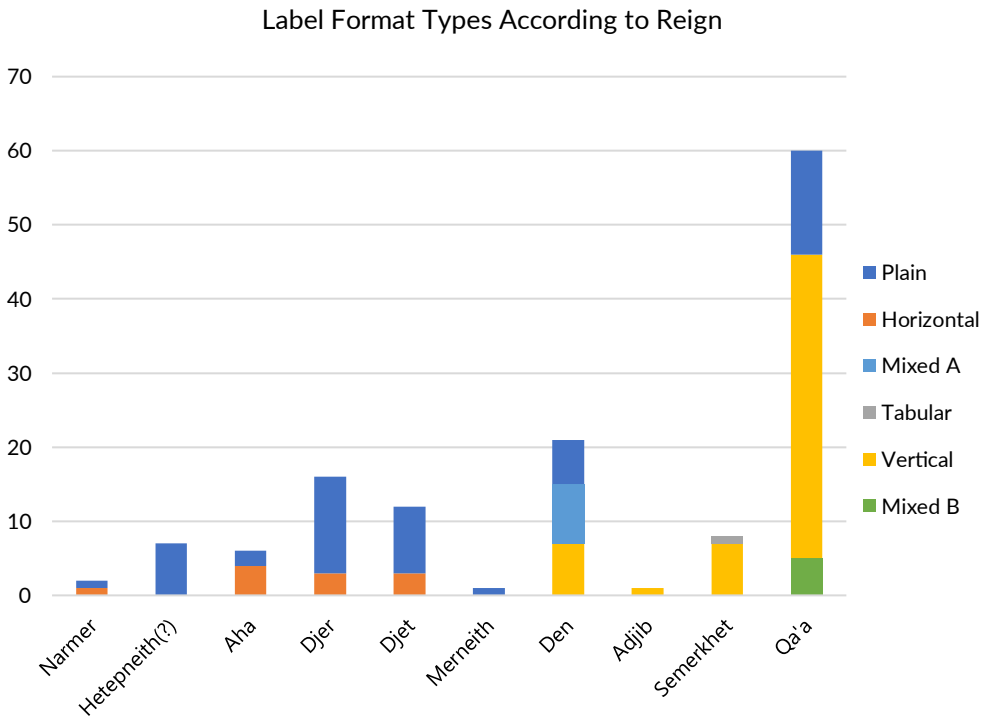


Figure 94: Quantities and types of label format by reign, based on 93 labels well preserved enough to discern format, Kathryn E. Piquette, CC BY 4.0.

	Format	Plain	Horizontal	Mixed A	Tabular	Vertical	Mixed B
Phase/Reign	Qa'a	●	○	○	○	●	●
	Semerkhet	○	○	○	○	●	○
	Adjib	○	○	○	○	○	○
	Den	●	○	●	○	●	○
	Merneith	●	○	○	○	○	○
	Djjet	●	●	○	○	○	○
	Djer	●	●	○	○	○	○
	Aha/Hetepneith(?)	●	●	○	○	○	○
	Narmer	○	●	○	○	○	○
	NIIIA1	●	○	○	○	○	○

Table 11: General label format types in order of appearance according to phase/reign, ● = Certain, ○ = Uncertain, ○ = Unattested, Kathryn E. Piquette, CC BY 4.0.

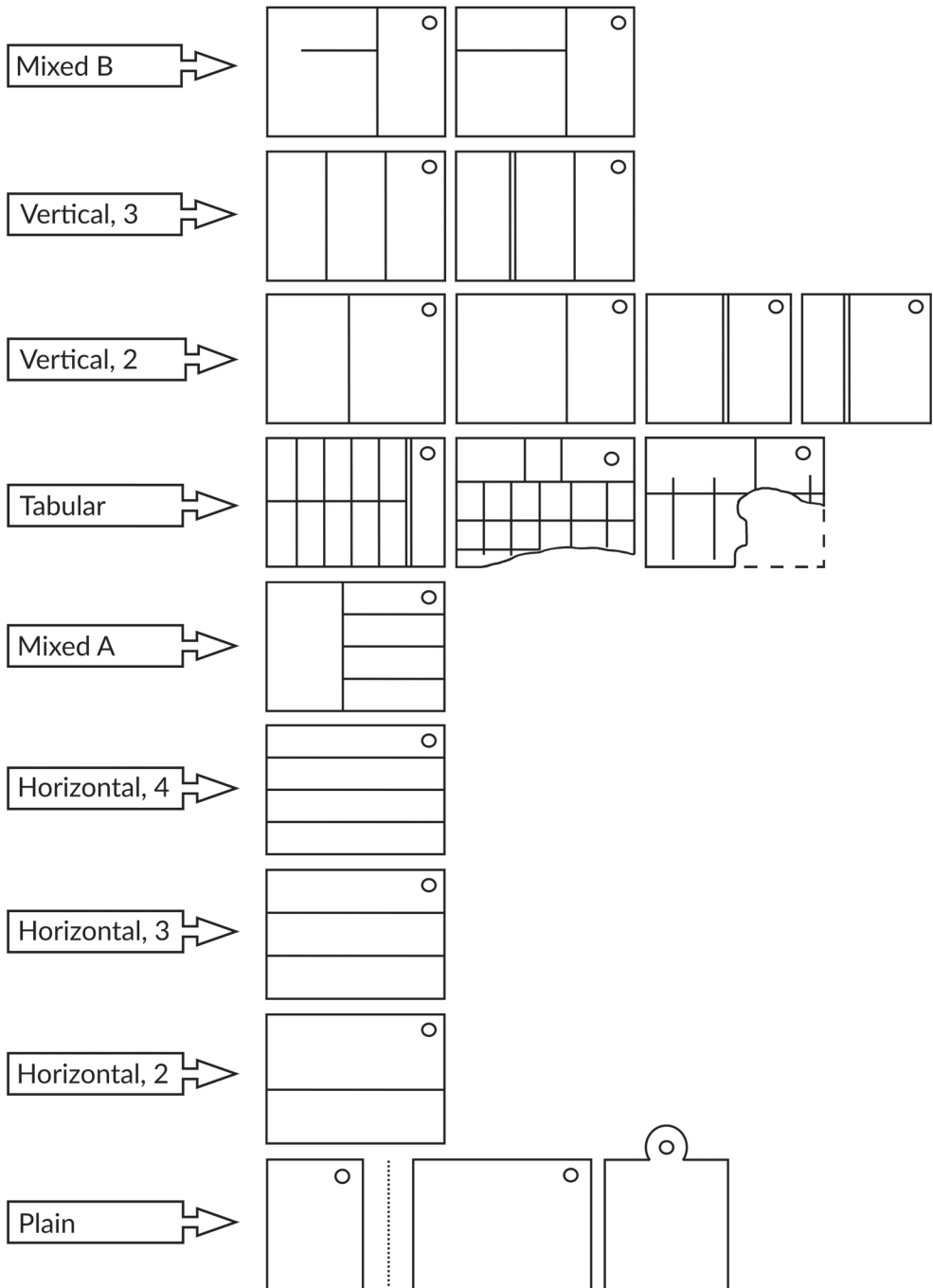


Figure 95: Schematic drawings of the main types of label format and their variants in ascending, chronological order according to first occurrence. Apart from the small plain type, all date to NIIC-early D (Kathryn E. Piquette, CC BY 4.0).

GOs per Format Type According to Preservation

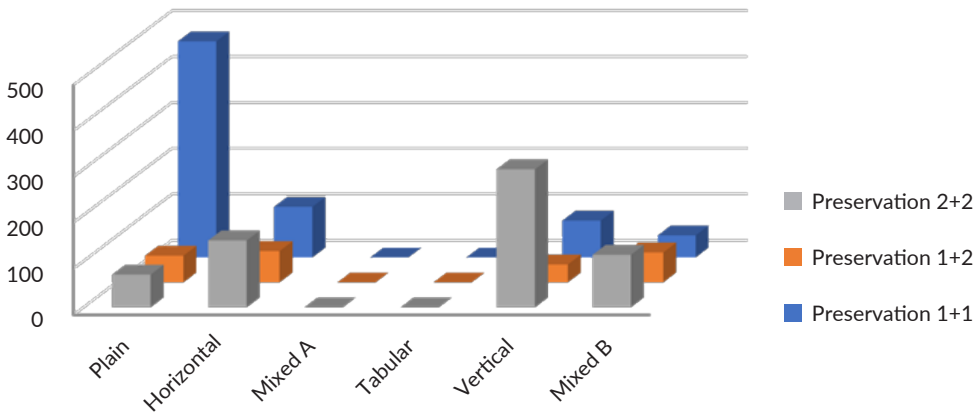


Figure 96: Quantity of GOs per format types, listed from left to right in order of first occurrence. The results are presented according to three levels of preservation: 1+1 = complete substrate and complete decoration; 2+2 = well-preserved substrate and well-preserved decoration; 1+2 = complete substrate and well-preserved decoration (see Chapter 5 for discussion of preservation), Kathryn E. Piquette, CC BY 4.0.

are the result of preservation or cultural practice. Nevertheless, the available data provide insights into the changes and continuities in relationships between format and content, including patterning among SGO, CGO and Cluster types. These are fleshed out in the following sections, with focus directed to the explicitly formatted labels, e.g. those formats where SEs are used.

7.9.1 The Horizontal Format

The Horizontal format is attested on at least 11 labels of wood and ivory (Figure 97). Within this format, anthropomorphs, zoomorphs, $\overline{\text{|||||}}/O33$ and other architecture, and boats typically occur in the upper register(s), where they are grounded on horizontal lines (§7.2.1). Where animate entities and directionality can be discerned, activity may run the entire length of the register from right to left,⁹⁵ or form internal units signalled by direction reversal. This latter scenario is seen on the right of the top register of ID239/0847_S, where two anthropomorphs face each other. Likewise, on ID209/0240a-b_N and the similar ID210/0241a-b_N, anthropomorphs flank a grinding/pressing(?) activity with individuals on the right racing those on the left. $\overline{\text{|||||}}/O33 + \text{A}/G5$ is restricted to the upper register and $\text{M}/M4$ to the right side, while GOs restricted to the lower register include: $\text{A}/G5$, $\text{=}/V13$, $\text{L}/Q1$ (or $\text{L}/O40?$), $\text{~}/M3$ and other plant elements, $\text{E}/F4$, various containers, $\text{V}/V1$ and $i/Z1$ (see also Helck 1987, 173).

⁹⁵ E.g. middle register of ID213/0284a-b_A.

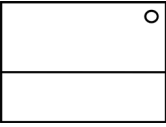
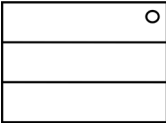
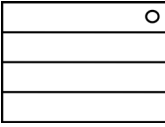
Horizontal Format A	Horizontal Format B	Horizontal Format C
		
ID202/4030_A	ID209/0240_N	ID213/0284_A
ID275/1081_Un	ID210/0241_N	ID214/0283_A
	ID239/0847_S	ID240/0682_A
	ID277/4084_A	ID241/0833_S
	ID278/4807_A	

Figure 97: Schematic drawings of Horizontal Format types with examples, Kathryn E. Piquette, CC BY 4.0.

Overall, CGOs occur more commonly in the upper registers, including selected narrative themes, while SGOs are more frequent in lower registers.

7.9.2 The Mixed A Format

The Mixed A Format is represented by two well-preserved labels and at least 8–19 others probably also of this type. The right column is divided into four horizontal registers that almost all bear narrative scenes, although the themes differ from those encountered in the Horizontal Format (compare those listed in Figure 98). Where $\} / M4$ is preserved, it is often abutted by the ‘—’ SE, suggesting that the function of SEs and this GO may overlap (§6.3.9). Many of the GOs in the left column are characteristic of those encountered in the Vertical and Mixed B Formats (§7.9.4, §7.9.5) during subsequent reigns. The Mixed A Format is highly restricted in time-space. All attestations were found at Abydos, in or around Tomb T (Den). All technique types are attested, although applied colour is attested only on ID303/1390_A.

7.9.3 The Tabular Format

Only three labels exhibit the Tabular Format.⁹⁶ Overall, GO distribution within cells is restricted to tight, often stacked, configurations (Figure 99). Where an SGO is present, it is often in the floating mode, roughly centred horizontally and vertically. The locations of $\surd / V20$ and $\surd / Z1$ on ID354/1125_S are similar to their locations on earlier labels, including those from Naqada,⁹⁷ where an item may be located in the upper part while

⁹⁶ ID353/1564a–b_S, ID354/1125_S, ID355/4821_H.

⁹⁷ E.g. ID195/0227a–b_N.

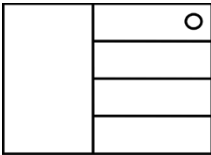
Mixed A Format			
			
Whole Examples	Fragmentary Possible Examples		
ID303/1390_A	ID305/4087_A	ID312/1248_A	ID319/1309_A
ID304/1253_A	ID306/1252_A	ID313/1247_A	ID320/1313_A
	ID307/2051_A	ID314/*_A(?)	ID321/1255_A
	ID308/1254_A	ID315/1372_A	ID322/1310_A
	ID309/1312_A	ID316/4464_A	ID323/1258_A
	ID310/*_A(?)	ID317/*_A	
	ID311/1311_A	ID318/1249_A	

Figure 98: Schematic drawing of the Mixed A Format type with whole examples and fragments that may belong to this type, Kathryn E. Piquette, CC BY 4.0.

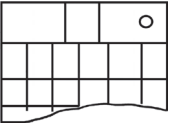
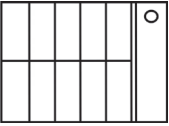
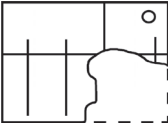
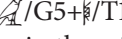
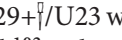
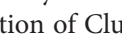

Tabular Format A	Tabular Format B	Tabular Format C
		
ID353/1564a-b_S	ID354/1125_S	ID355/4821_H

Figure 99: Schematic drawings of Tabular Format types with examples, Kathryn E. Piquette, CC BY 4.0.


$\curvearrowright/V20$ (if present) and $i/Z1$ are below (see e.g. Figure 73). Some of the lowermost GO(s) in a cell may be contiguous with the ‘—’ SE, as seen with $i/Z1$ on ID354/1125_S, but this may be related to available space rather than to intentional grounding. In contrast, the series of preserved $i/Z1$ and $\perp/S27$ in three adjacent cells in the middle register on ID353/1564a-b_S appear to be grounded deliberately. The same label bears a black-and-red triangular GO (head of $\overline{\perp}(\?)/T7a$; a handle may be discernible), which appears to straddle the horizontal line in what might be the only example of GO-SE overlap.⁹⁸ ID355/4821_H is the sole tabular label bearing $\} /M4$, where this GO is incorporated into the grid format in a way that blurs its distinction from SEs.⁹⁹

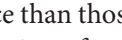
⁹⁸ Observations here are restricted by the variable quality of line drawings and black-and-white photography.

⁹⁹ Cf. ID304/1253_A.

The presence of Cluster boat/p4+  on ID355/4821_H may be informative. Although this Cluster first appears in the reigns of Merneith and Den, it is located in the lower right (Q4) of the label during those reigns.¹⁰⁰ Its location in the upper right (Q2) is only clearly attested on labels dated to the reigns of Semerkhet and Qa'a.¹⁰¹ Also found on ID355/4821_H is Cluster  which, apart from appearing on another Helwan label with which it was found,¹⁰² only occurs on labels as part of the PI of Semerkhet. While ID355/4821_H is dated by its excavator to the NIIIC–D phase (Köhler 2004b, 13, 38), the presence and position of Cluster boat/p4+  may point to a late 1st-dynasty date. ID377/4822_H found along with tabular label ID355/4821_H also points to a later date through the presence of the '||' SE, which, for labels bearing ruler PIs, is only associated with the two final reigns of the 1st Dynasty (see §6.5.1). Tabular label ID354/1125_S may also be helpful here, being found with labels bearing the PI of Qa'a and probably deposited in Tomb S3504 during remodelling and restoration dated to that reign (Emery 1949, 22, 107; §4.6.1.3). Of further relevance is tabular label ID353/1564a–b_S, found in Saqqara Tomb X, which may date to the reign of Den (Emery 1949, 109), but, on the basis of it being found with ID350/1565a–b_S and associated finds, may also date to Semerkhet or Qa'a. Not only does ID350/1565a–b_S exhibit the later columnar format (see the next section, §7.9.4), but the presence of the '||' SE and partially preserved Cluster boat/p4+  again fits the pattern for labels datable to Semerkhet and Qa'a.¹⁰³ In sum, based on present evidence and taking these various patterns into account, we can conclude that the Tabular Format was probably developed by label-makers in the Memphite region during the late 1st Dynasty.

7.9.4 The Vertical Formats

The Vertical Format is characterised by an increase in the frequency of SGOs and a decrease in CGOs. Associations of contiguity and holding/held are less common and the narrative relationships between GOs diminishes in use. The grounding role of '—' SEs and their partially iconic usage (i.e. as land and water) are not apparent for vertical lines, which play an almost exclusively structuring role (although the dual semantic–bracketing role of  should be recalled). In the few instances where contiguity is attested between GOs and ']' or '||' SEs, this appears to be symptomatic of spatial constraint rather than a deliberate iconic usage for support or suspension.

Among exemplars of this format type listed in Figure 100, Cluster types in the left column are more fixed over time-space than those in the right column. For example,  is attested at least 31 times from the reigns of Den to Qa'a, and always occurs in Q3 or Q1–Q3. All labels in the Vertical Format from Abydos bear a ruler PI

100 ID280/1194_A, found in association with Tomb Complex Y (Merneith; Petrie 1901a, 38, pl. 39.54), and ID322/1310_A and ID323/1258_A, both associated with Den (Petrie 1900, pl. 16.22 and 29; Petrie 1901a, 25–26, pl. 7a.6).

101 ID345/1677_A, ID346/1823_Tu, ID347/1752_A, ID349/4442_A, ID409/1863_A, ID410/4448_A, probably ID350/1565a–b_S.

102 ID377/4822_H.

103 Cf. ID345/1677_A, ID346/1823_Tu, ID347/1752_A.


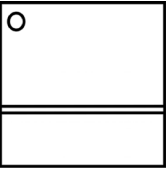

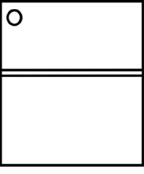


Vertical A, Type 1	Vertical A, Type 2	Vertical B	Vertical C	Vertical D, Type 1	Vertical D, Type 2
					
ID333/4189_A	ID350/1565a-b_S	ID343/4557a-b_A	ID284/2002_S	ID347/1752_A	ID421/4075_A
ID326/4818_A		ID344/4444a-b_A	ID374/3406_H	ID348/4443_A(?)	ID422/4445a-b_A
ID327/4090_A(?)		ID345/1677_A	ID375/3407_H		ID423/4447a-b_A
		ID346/1823_Tu	ID376/3408_H		ID424/4071_A
		ID349/4442_A	ID377/4822_H		
		ID379/4478_A-	ID378/4471_A		
		ID400/4487_A			
		ID401/4044_A-			
		ID415/4056a-b_A			

Figure 100: Schematic drawings of Vertical Format types and sub-types with examples, Kathryn E. Piquette, CC BY 4.0.


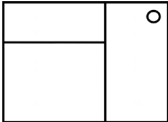
Mixed B Format, Type 1	Mixed B Format, Type 2
	
ID416/4455a-b_A	ID419/4441_A
ID417/4454a-b_A	ID420/4461_A
ID418/4451a-b_A	

Figure 101: Schematic drawings of Mixed B Formats with examples (note that the ‘—’ SE for ID418/4451a-b_A, extend further across the label) Kathryn E. Piquette, CC BY 4.0.

lower section is sub-divided into three implicit columns. The right column contains Clusters which had been common to the lower register of horizontal labels while the middle column includes frame/architectural CGOs, also with parallels to content in the middle register of some horizontally formatted labels (e.g. $\frac{A}{A34}$). Clusters including $\frac{A}{T7}$ and/or $\frac{A}{T7a}$ take the full length of the left (implicit) column for Type 1.¹¹⁰ The re-introduction of the ‘—’ SE, not employed since the reign of Den, seems to relate to a concern to set the ruler PI apart from other information in this left column. Like other compositional patterns, this has important implications for understanding the expression of social relationships and hierarchies through compositional principles, a topic that is vital for understanding the range of symbolic meaning encoded on the labels, but extends beyond the present focus.

7.10 Constructing a Label Typology and Database Organisation

In the foregoing, I outlined the compositional practices developed and reproduced by label composers. Patterning in mode, orientation, view and the general use of space was systematically examined for SGOs. Groups were distinguished via recurrence and association types as Clusters or CGOs. Patterning in absence and presence of CEs, ordering, configuration and directionality was also highlighted. I noted the recursive relationship between the rectilinearity of the label substrate, compositional structuring and CGO/Cluster configuration. The shape of the label influences composition in two ways: firstly, it provides a relatively flat, rectangular canvas; secondly, it frames the compositional field. Explicit and implicit horizontal and vertical SEs may in turn divide the compositional field into smaller rectangular spaces. GO distribution and behaviour were examined in relation to these divisions of graphical space, showing that CGOs

¹¹⁰ E.g. ID416/4455a-b_A.

and Clusters tend toward an internal rectilinearity, with elements running parallel with and/or perpendicular to each other.

Combinations of GO and format types are sufficiently distinct to enable tracing continuity and change over time-space to reveal a dynamic and complex tradition of label practice that has not been previously appreciated. As a result of this analysis, I augmented the label typology mapped out by Kaplony (1963, pls. 143–144) and propose the types illustrated schematically in Figure 95. It is according to these types that I have organised whole labels and fragments in the Label Database, a method that I hope affords its effective use by other researchers. Beyond division according to the two main temporal phases, changes and continuities in composition are foregrounded, while also taking into account key features of content, such as Personal Identifiers (PIs; see also §10.2). This last feature introduces the temporal aspect of regnal sequence, but we must remain cautious concerning when a given label was made or used/reused. For example, labels bearing PIs spanning three reigns are found in one tomb (see §4.6.1.2 on S3035 [Hemaka]). Likewise, ID132/0609_A, found in the area of Tomb O (Djer), exhibits content and compositional similarities with NIIIA1 labels. ID424/1654_A has been dated to Semerkhet (Helck 1987, 164–165, 17; Kahl 1994, 285, Source No. 1654); however, as Engel (1997, 445–446) suggests and I have also demonstrated through reconstructive analysis (Piquette 2010a, pl. 6),¹¹¹ this label fits with the compositional practices exhibited by labels bearing the PI of Qa’a, traces of which are apparent. Due to heavy disturbances of most label archaeological contexts, spatial distribution is weighted against PIs and compositional features in catalogue organisation.

Over the course of this chapter, I also hope to have demonstrated how “material structural conditions” constrain and afford—and are themselves influenced by—processes of making and composing (see Barrett 2001, 158). Graphical activity on the labels takes place in close relation to material boundaries; GOs are not placed obliquely to the label edge or an SE, nor do they typically traverse these. The significance of distribution within the explicit formats was also explored in relation to graphical associations which convey/embody action or signal other types of relationship, bringing us to the point where—via a grounded, non-retrospective approach—the symbolic significance of these can be explored in some depth (see Chapter 10).

When mapping these compositional variables onto the temporal-spatial framework, we can see that, on the one hand, the development and reproduction of some practices, such as the directness of graphical associations among animate entities, often anthropomorphic, or the inclusion of $\bar{\text{I}}/\text{M}4$ on most explicitly formatted labels from the reign of Djet, transcended time and space. On the other, some practices were confined to a particular phase or reign, site, or region, as seen for use of the Tabular Format in the north, the Mixed A Format at Abydos, associated only with Tomb T (Den), and the exclusivity of the Mixed B Format to Tomb Q (Qa’a). In contrast, labels with a Mixed B Format and the two- and three-columned labels dating to the reign of Qa’a bear a similar repertoire of Cluster and CGO types, yet comparison reveals variability in the placement

111 *Contra* Regulski (2010a, 685), on ID424/1654_A, $\bar{\text{I}}/\text{V}31$ and GOs below should be understood as $\bar{\text{I}}/\text{N}39+\bar{\text{I}}/\text{I}10+\bar{\text{I}}/\text{M}3(2\times)$.

and configuration of graphical units. This suggests that rules governing composition were sufficiently flexible that individual or collectives could develop personal or local styles of expression for use in the same spatial-temporal context. Here we begin to gain insight into the structuration of label practice—the conditions governing the continuity or transmutation of associated social structure (§2.3.1).

As for understanding the meaning of the graphical content on the labels from a grounded approach, Whitney Davis (1989a, 183) reminds us that because of the possibility of ambiguity in two-dimensional display, as well as fortuitous resemblance and variability in ‘seeing-as’, no amount of study of the visual properties of a mark can tell us for certain whether it is an image or what exactly it is an image of. Indeed, no object in the world is meaningful outside embodied perception and its socio-cultural context. While I have therefore presented the kind of account that emphasises the relational nature of imagery and its immediate material context, I now turn to two comparative datasets in order to situate the material covered in this and the two preceding chapters within its wider graphical and socio-cultural milieu.

8. The Wider Graphical Context

8.1 Introduction

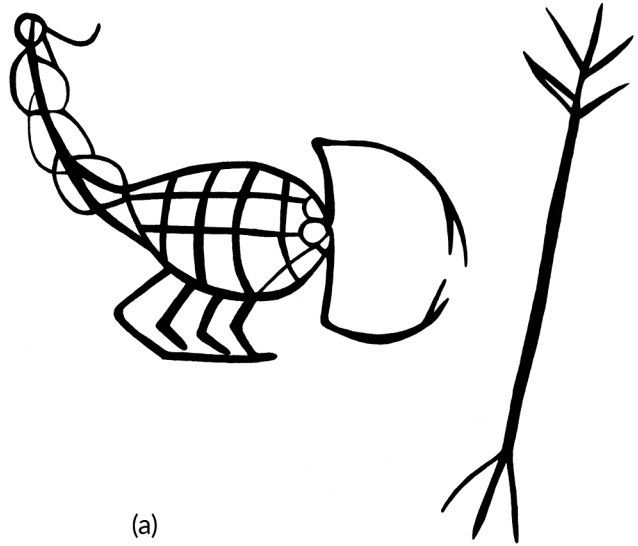
This chapter is the first of two that explore the inscribed labels from a comparative perspective, thereby addressing Research Question 4 (§1.8.4). Our understanding of the wider early Egyptian graphical world is informed by a range of survivals from among the more robust material types—stone funerary stelae; stone or wooden cylinder seals or their impressions on mud sealings; markings on stone and ceramic vessels; and so on (Kahl 1994, 171–310; Wengrow 2006, 200). For comparative examination, I have selected two provenanced and well-published object types of an adequate sample size:

- 1) NIIIA1 painted jar markings from Tomb U-j, Abydos, for comparison with the NIIIA1 label corpus;
- 2) NIIC–early D funerary stelae, also from Abydos, for comparison with NIIC–early D labels.

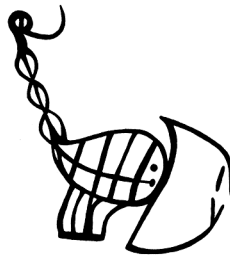
Like the labels, both object types were deployed as marking technologies in funerary contexts. Unlocking the meanings of material has often involved deriving ‘interpretive keys’ from later, better-understood sources (see Wengrow 2006, 9), yet the collapse of time-space axes of practice risks overlooking the distinctive roles that graphical objects played in the lives of the individuals and groups who made and used them. According to the present approach, the pursuit of more grounded ‘interpretive keys’ should precede the marshalling of later sources. My aim with these comparative case studies is therefore to continue to unpick the practice networks through which these material-graphical objects were actively constituted. Thus, similar to the analytical procedures applied to the labels, I also highlight the ways in which patterning in the areas of archaeological context, material form, image repertoire and composition sheds light on graphical practices associated with the jars and stelae. The first three areas—archaeological context, material form and image repertoire—are examined in this chapter, while the composition is considered in Chapter 9.

8.2 Comparative Case Study 1: NIIIA1 jar markings

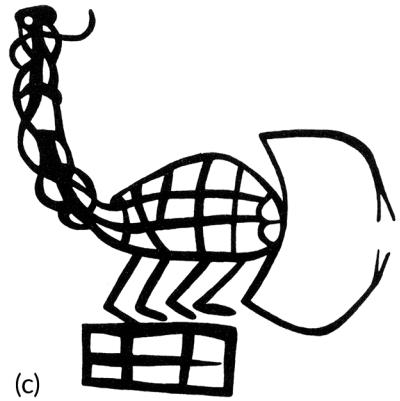
Approximately 120 marked ceramic wavy-handled cylinder jars (see Figure 102–Figure 110) were found during the German Institute excavations in Cemetery U, Abydos (Dreyer 1998, 47–83, pls. 11–22; see also Regulski 2007, 23, 298; Regulski 2010a, 16–17). The jars are inscribed on their external surfaces in a somewhat cursive fashion using applied black pigment. The graphical repertoire includes eight GO types, among which are floral, faunal, geometric and other shapes (Dreyer 1998, 183–187). Here the imagery mediates directly between the container and its contents, in contrast to the separable labels.



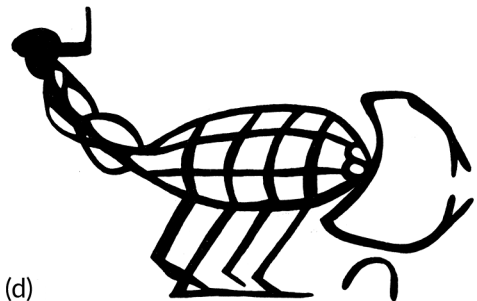
(a)



(b)



(c)



(d)

Figure 102: Left: Wavy-handled jar (j 5/6) bearing a depiction of a scorpion applied in black pigment, Cemetery U, Abydos, N111A1 (c.3325–c.3085 BCE). Right: Drawings of scorpions and co-occurring GOs, reconstructed from multiple fragments (after Dreyer 1998, pl. 13d, and 47, fig. 33a–d, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

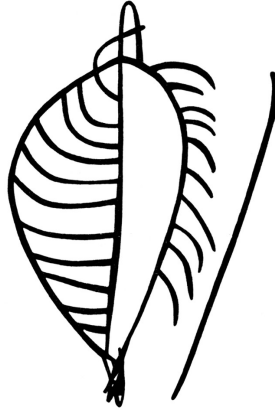


Figure 103: Left: Wavy-handled jar (j 2/12) bearing a depiction of a shell applied in black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same with floral element(?), reconstructed from multiple fragments (Dreyer 1998, pl. 16a, and 59, fig. 40, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 104: Left: Wavy-handled jar (j/2) bearing a depiction of a fish and branched floral element applied in black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 17b, and 63, fig. 43, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

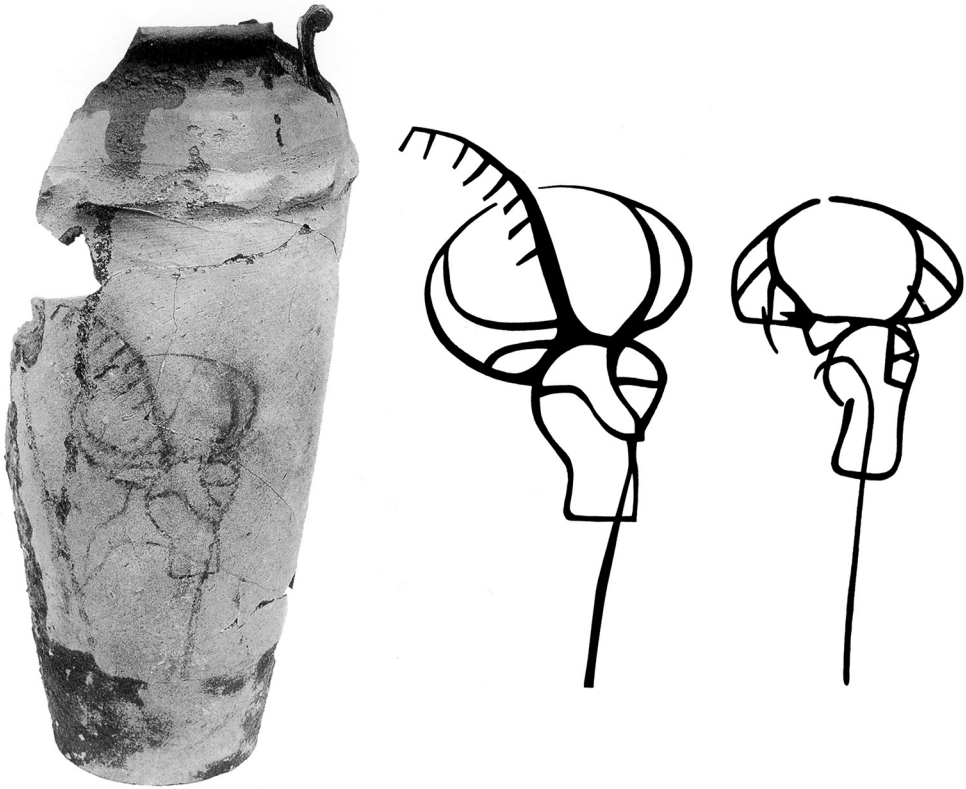


Figure 105: Left: Wavy-handled jar (j 2/1) bearing a depiction of a horned animal head on a pike or support applied in black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same, right-most reconstructed from multiple fragments (Dreyer 1998, pl. 18a, and 65, fig. 45, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

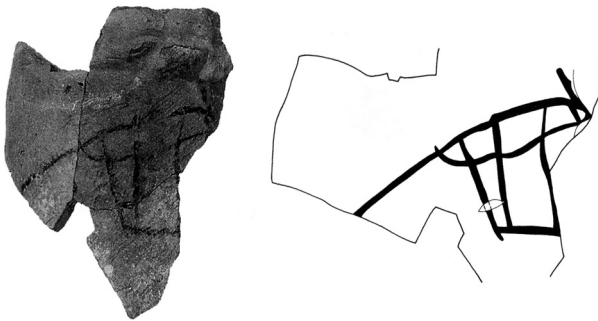


Figure 106: Left: Wavy-handled jar (j 11/10) bearing a depiction of an unidentified animal applied in black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 19a, and 68, fig. 48 [j11/10], respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

8.2.1 Archaeological Context

Most of these jars (over 100) were found in the large mudbrick Tomb U-j (§4.4.1; Figure 13), 95 of them sufficiently well-preserved for our purposes (Dreyer 1998, 47–91). Some held traces of a dark greyish-brown sponge-like substance (Dreyer 1998, 28, pl. 21;



Figure 107: Left: Wavy-handled jar (j 2/4) bearing a depiction of a bird in applied black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 19e, and 69, fig. 47, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 108: Left: Wavy-handled jar (j S/3) bearing a depiction of a boat in applied black pigment, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 19i, and 71, fig. 49, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

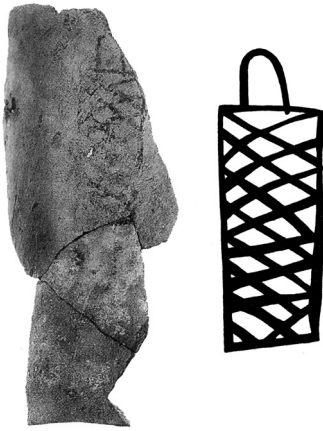


Figure 109: Left: Wavy-handled jar (j S/25) bearing a depiction of rectangular-shaped object with lattice-work pattern surmounted by loop, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 19n, and 71, fig. 51, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 110: Left: Wavy-handled jar (j 2/10) bearing a depiction of floral element, possibly palm frond, Cemetery U, Abydos, NIIIA1 (c.3325–c.3085 BCE). Right: Drawing of same (Dreyer 1998, pl. 20a, and 73, fig. 52, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

Newton 2005). The jars were concentrated in three adjacent chambers in the northwestern corner of the complex: Chamber 1 (Figure 14; the burial chamber according to the excavator, Dreyer 1998, 7, 9); Chamber 2 (Figure 111); and the northern part of Chamber 5 (Figure 112). In Chamber 2, some jars were found stacked vertically, with evidence that they were possibly stacked up to five high. An estimated 800 jars may have been



Figure 111: Left: Chamber 2 (note portal in east wall communicating with Chamber 3). Right: West wall of Chamber 2, both Tomb U-j, Abydos (Dreyer 1998, pls. 5a–b, respectively, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

deposited originally in this northwestern area, comprising at least 60% of total vessels deposited.

Whether indicative of the extraordinary wealth of the owner (Dreyer 1998, 28) or use of the burial ritual as a forum for the display of wealth by those conducting it (Parker Pearson 1982), the restriction of the wavy-handled jars to this northwestern area of the tomb is meaningful for understanding graphical practice. A clear separation between this marking technology and the labels can be observed (Wengrow 2006, 202). Although no skeletal remains were found in Tomb U-j, the presence of wavy-handled jars adds support to the assertion that Chamber 1 was used for burial (Dreyer 1998, 7–10). If we consider the tendency for this jar type to be deposited near the head of the deceased (Stevenson 2009, 134; also Stevenson 2015, 153), the position of those in U-j may indicate the orientation of the body. Further, one might venture the following scenario: if the aim was to place jars near the head, and deposition commenced in the northwestern end of Chamber 1, placement of grave goods may have been initially directed to this area (Figure 14). When full, additional vessels were deposited in adjacent Chamber 2, and this became full, instead of continuing into Chamber 3, with which Chamber 2 communicates via a narrow portal (see Figure 111), the jars were placed to its south in Chamber 5, thus maintaining proximity to the body. The intention to restrict wavy-handled types to the northern part of the tomb, despite the presence of separating walls, seems clear.



Figure 112: Chamber 5, Tomb U-j, Abydos (Dreyer 1998, pl. 6a, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

It is also noteworthy that these objects of similar type were not placed in communicating chambers. This could suggest a deviation from the originally intended use of chambers. We cannot be certain of the deposition sequence, nor of factors influencing related decisions, but thinking diachronically about the physical process of equipping the tomb offers some insight into the practices and intentions surrounding the distribution of graphical culture. The relevance of spatial distribution in understanding the roles of early Egyptian imagery is amplified when we recall that the labels were restricted to Chamber 11 (see §4.4.1.2).

8.2.2 Materials and Techniques

Wavy-handled jars are so named because each is elaborated with alternating impressed and raised ‘wavy-handle’ decoration at the shoulder. All are made of marl tempered with sand, crushed limestone and other crushed stone of varying amounts and grades of coarseness (Dreyer 1998, 22). The jars measure from 21.7cm–39.7cm in height and 9.0cm–14.4cm in diameter at the narrowest point and 10cm–16.6cm in diameter at the widest point (Dreyer 1998, 23–28). The jars are divided by size into the larger type-A

and smaller type-B, with marks occurring on almost all the former, compared with 85% of type-B jars.

The marks were added post-firing to the upper exterior, usually closer to the wavy-handle encircling the shoulder than to the base.¹ The black colour (in as far as preserved and documented in the published photographs) appears relatively consistent, in contrast to the variance attested among paste infilling on the labels (§5.8). Strokes appear to have been applied using a coarse brush-like instrument, perhaps a rush (reed is unlikely; compare Regulski 2007, 297, with Leach and Tait 2000, 232–233). Günter Dreyer (pers. comm. 04.09.2015) states that liquid colour was used for all except one vessel, recovered by Amélineau, to which carbon (charcoal?) appears to have been applied directly (but cf. Regulski 2007, 298, figs. 5.88–5.89).

The shape of Graphical Objects (GOs) on the jars is rougher or more “cursive” than the shape of GOs on the labels, although some general similarities are apparent between scorpion GOs and between bovid-head (fl1 or fl2) GOs.² Embodied technological concerns inevitably influenced appearance (see also Baines 2004, 159), a different set of tools being required for label elaboration via incision, entailing gripping and possibly rotation of the plaque relative to the maker’s body. The purely additive process of applying colour with a rush pen or brush to a small area of relatively large, heavy jars probably required minimal gripping (embodied or mechanical), as placement on the base likely afforded marking while upright. As mentioned, composition is discussed more fully in the following chapter.

8.2.3 Graphical Repertoire

The repertoire on the NIIIA1 wavy-handled jars is limited to about eight or nine main types, including a geometric shape similar to $\surd/V20$; a bird; bovid-head+pike/support; fish; mollusc; scorpion; plant-element or branched-pole; a boat(?); and a textile/basketry item, possibly a bag (Dreyer 1998, 84, nos. 193–187; Wengrow 2006, 200; see Table 12).

Most occur individually except for the plant-element, which may be paired with and to the right of the fish or mollusc. Dreyer (1998, 178) interprets the plant-element as indicating a plantation supplying the commodity contained within the jar, while the sign to the left designates the owner of the plantation. The preponderance of scorpion GOs (60–64 jars) leads Dreyer to attribute the owner of Tomb U-j to a ‘king Scorpion’. In addition to the lack of skeletal or other evidence to substantiate a claim for male gender or sex, how this interpretation squares with the plantation-name theory and the possibility that the numerous scorpion GOs could equally indicate a prominent donor remains problematic. Further, Kemp et al. (2000, 233) point out the unlikelihood of so many signs each referring to a different king occurring in one tomb, rather than being evenly spread through the necropolis. Others have voiced similar doubts, preferring a

1 Pigment on the base of one vessel is too poorly preserved to assess the content or deliberateness of application (Dreyer 1998, 50, 56, fig. 37, pl. 14.d).

2 Compare Figure 102 with ID154/4385_A and Figure 105 with e.g. ID093/4391_A; see also Regulski (2007, 114–115).


Jar GO Type	Jar Quantity	Possible Parallels on Labels
Scorpion+branch/stick with thorns(?) ³	10	--
Scorpion+reed	6	Reed: ID158/4386_A, ID159/4388_A, ID160/4387_A, ID161/4389_A, ID162/4390_A
Scorpion+loop	3	--
Scorpion+rectangle, H1, V multiple	4	Cf. rectangle, V multiple: ID129/4363_A, ID130/0190_A, ID131/4364_A, ID132/0609_A(?), ID133/4365_A, ID134/4362_A(?), ID135/4348_A, ID136/4349_A
Scorpion	38	ID153/4381_A, ID154/4385_A
Shell+branch/stick with thorns(?)	20	--
Fish (head down)+flora	6	--
Fish (head down)	3	--
Support/elongated tongue(?) + bovid head ⁴	3	ID088/4323_A, ID089/4322_A, ID090/4324_A, ID091/4325_A; +circle/disk: ID092/4327_A, ID093/4391_A, ID094/4329_A, ID095/4332a-b_A, ID096/4330_A, ID097/4334_A, ID098/4333_A, ID099/4326_A; w/o support: ID100/4331_A; +circle/disk+H2: ID101/4335_A, ID102/4336_A; +bird: ID103/4337_A
Support/elongated tongue(?) + feather/reed(?) + bovid head	4+	--
Fauna, unidentified	3	Unclear
Bird (falcon?)	3	ID113/4347_A
Ship	8	ID171/4399_A?
Rectangle, vertical element with loop	1	ID169/4397_A
Plant element	9	Peak(4x)/n9(N25)+  /E26: ID064/4299a-b_A, ID065/4300_A; +canine: ID080/4314_A, ID081/4315_A, ID082/4316_A, ID083/4317_A

Table 12: GOs occurring on the inscribed wavy-handled jars from Tomb U-j (ordered after Dreyer 1998, 4, see also 83; Figure 102–Figure 110) and their quantities, and possible parallels on contemporary labels, Kathryn E. Piquette, CC BY 4.0.

more cautious interpretation (e.g. Breyer 2002; Kahl 2001). Overall, how these marks may have related to jar contents and the role they played in the funerary ritual is difficult to grasp. Compared with the label repertoire (Chapter 6) the range is far less. Differences in repertoire, GO morphology, and manner of composition between the

3 The identification of this GO as a ‘tree/branch’ (Dreyer 1998, fig. 34) does not seem to explain the protrusions from both ends in some examples, i.e. j2/13, j5/3 and probably j1/2.

4 Wengrow (2006, 202) identifies this image as a cattle “skull”, but details such as the ear (articulated on j2/2) and the pupil (jS/2) and closed eye (e.g. j2/1) suggest that soft tissue is intact.

jars and contemporary labels indicate greater separation between these graphical traditions compared with the later labels and stelae discussed below (see also Regulski 2007, 348–350; Regulski 2010a, 40–42). I now turn to another labelling practice employed in the cemetery context, namely carved stone slabs.

8.3 Comparative Case Study 2: NIIC–early D funerary stelae

Stone grave-markers, or funerary stelae, are identified as such based on their association with human and canid burials, usually consisting of single inhumations, and on the presence of the depiction of a single anthropomorph or canid and accompanying imagery. At least four cemeteries yielded stelae that are roughly contemporary with the NIIC–early D labels, including Abydos, Helwan, Saqqara and Abusir (see Regulski 2010a, 40–42). Like the labels recovered from these locations, distribution is highly uneven. A single 1st-dynasty stela survives from Saqqara (Emery 1961, 89–90, fig. 53, pl. 30a; Kemp 1967, 26), compared with almost 40 from Helwan, although the latter can only be dated broadly from the 1st to 4th Dynasties. Abydos provides the largest contemporary sample of survivals; hence I have selected this group for comparative examination.

8.3.1 Archaeological Context

About 375 stelae have been documented from Cemetery B and the ‘Royal’ Tombs Cemetery at Abydos and date to the 1st Dynasty. The stelae can be divided into three groups based on size and the presence/absence of the ruler PI motif, $\overline{\text{N}}/\text{O}33+$ $\overline{\text{A}}/\text{G}5$:

- 6 × large round-topped stelae with $\overline{\text{N}}/\text{O}33+$ $\overline{\text{A}}/\text{G}5$, including a fragment that may belong to this group (Figure 113–Figure 115 and Figure 117–Figure 119);
- 2 × large round-topped stelae without $\overline{\text{N}}/\text{O}33+$ $\overline{\text{A}}/\text{G}5$ (Figure 116, Figure 120);
- 356⁵ × small stelae, without $\overline{\text{N}}/\text{O}33+$ $\overline{\text{A}}/\text{G}5$ ⁶ (e.g. Figure 121–Figure 123).

Most of the large stelae are conventionally classified as ‘royal’ and the small ones as ‘private’. However, the assumptions implied by these terms can be problematic (see Martin 2003), and, given my focus on physical morphology, I refer instead to ‘large’ or ‘small’ stelae. Details of the examples of large stelae derived from museum records and publications (e.g. Fischer 1961; Fischer 1963, 41–43; Vanhulle 2013) are compiled in Table 13.⁷ For details of the stela given in Figure 120 and all small stelae, the reader is referred to the invaluable work of Geoffrey Martin (2003; Martin 2011).

⁵ See Martin (2011, 3).

⁶ No. 171/4797_A bears traces of a small-scale $\overline{\text{N}}/\text{O}33$ containing the PI of Den in the upper frame but is otherwise of the small type.

⁷ The details compiled consist of materials, technique and measurements gleaned from publications and museum records, and would benefit from first-hand verification given some differences between records, particularly in stone identification.



Figure 113: Limestone stela fragment thought to date to Narmer or Aha, Tomb B10, 'Royal' Tombs Cemetery, Abydos, NIIIIC–early D (c.3085–c.2867 BCE), H: 21.5cm, W: 21.5cm, D: ?, No. 168/0260_A, Petrie Museum, UC14278 (Martin 2011, pl. 45, courtesy of German Archaeological Institute Cairo, CC BY 4.0).



Figure 114: Limestone stela of Djer, Tomb O, 'Royal' Tombs Cemetery, Abydos, NIIIIC–early D (c.3085–c.2867 BCE), H: 72cm, W: 52cm, D: ?, Source No. 0859_A, The Egyptian Museum, Cairo, JE 34992 (photo: Udimu⁸, CC BY SA 3.0).

8 Wikipedia, https://en.wikipedia.org/wiki/Djer#/media/File:Djer_stela_retouched.jpg (accessed 27.10.2017).



Figure 115: Limestone stela of Djed, Tomb Z, 'Royal' Tombs Cemetery, Abydos, NIIC-early D (c.3085-c.2867 BCE), H: 143cm, W: 65.5cm, D: 25cm, Source No. 0911_A, Musée du Louvre, E.11007 (photo: Guillaume Blanchard, CC BY SA 1.0).

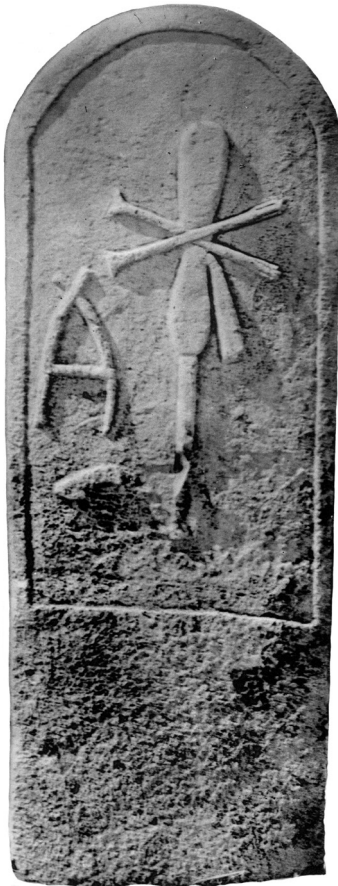


Figure 116: Limestone stela of Merneith, Tomb Y, 'Royal' Tombs Cemetery, Abydos, NIIC-early D (c.3085-c.2867 BCE), H: 154cm, W: 59cm, D: 20cm, Source No. 1186_A, The Egyptian Museum, Cairo, JE 34550 (Petrie 1900, pl. 1, courtesy of The Egypt Exploration Society, CC BY 4.0).



Figure 117: Greywacke stela of Den, Tomb T, 'Royal' Tombs Cemetery, Abydos, NIIIC-early D (c.3085–c.2867 BCE), H: 78.5cm, W: 54.5cm, D: 15cm, Source No. 1370_A, Royal Museums of Art and History, Brussels, E.0562 (photo: © RMAH).

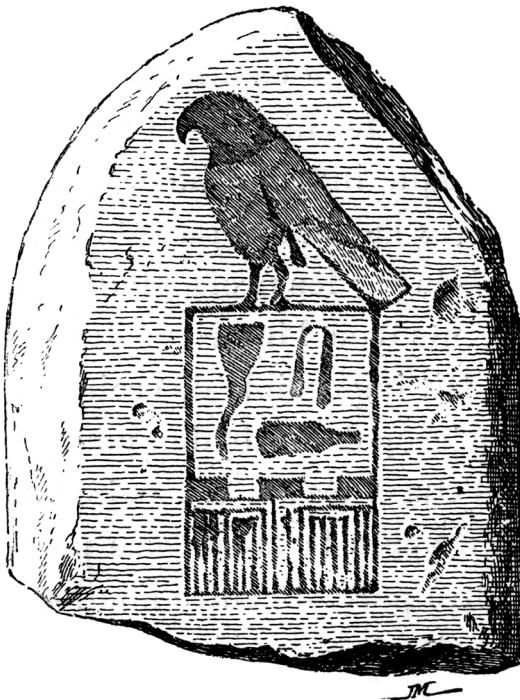


Figure 118: Drawing of black granite(?) stela of Semerkhet, Tomb U, 'Royal' Tombs Cemetery, Abydos, early NIIID (c.2867 BCE), H: 65cm, W: ?, D: ?, Source No. 1670_A, The Egyptian Museum, Cairo, CG 14633 (Morgan 1897, 232, fig. 780, CC 0 1.0).



Figure 119: Basalt/black quartzite stela of Qa'a, Tomb Q, 'Royal' Tombs Cemetery, Abydos, early NIIC (c.2867 BCE), H: 148cm, W: 41cm, D: 24cm, Source No. 1877_A; Penn Museum, E6878 (© Penn Museum).

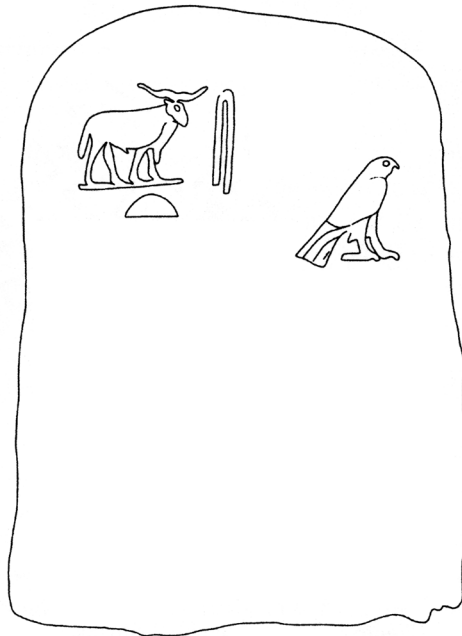


Figure 120: Limestone stela, 'Royal' Tombs Cemetery, Abydos, NIIC–early D (c.3085–c.2867 BCE), H: 63.5cm (previously 78.0cm[?]), W: 56.5cm, D: about 16.0cm, Source No. 1238_A, Musée du Louvre, E.21710 (photo and drawing: Martin 2003, 79, pl. 3 © Geoffrey Martin).

Ruler	Quantity	Material	Dimensions	Technique	GO Direction	Provenience	Reference	Museum	No./Source No.
Narmer(?) or Aha(?)	1	limestone	H: 21.5cm, W: 21.5cm, D: ?	carved relief	unclear	Tomb B10	Petrie 1902, 1, 8, fig. 13.168	Petrie, UC14278	168/0260_A
Dier	1	limestone(?)?	H: 72cm, W: 52cm, D: ?	carved relief	right-facing	fragments in Tomb O(?)	Petrie 1901a, 32; Newberry 1914, 35 (6), pl. 3.1	Egyptian, JE 34992 / CG 15633	0859_A
Djet	1	limestone	H: 143cm, W: 65.5cm, D: 25cm	carved relief	left	in Tomb Z	Amélineau 1899, 133, 244, fig. 63, pl. 42, top left	Louvre, E.11007	0911_A
Menneith	2	limestone	H: 154cm, W: 59cm, D: 20cm	carved relief	left and right(?)	(1): in Tomb Y, near east side of central chamber; (2): part of similar stela ("defaced"?) found near this	(1): Petrie 1900, 6, 26, frontpiece; (2): Petrie 1900, 6, 26, pl. 64.9	(1): Egyptian, JE 34550; (2): probably left in situ	1186_A
Den ⁹	2	greywacke	(1): H 78.5, W: 54.5cm, D: 15cm; (2): unavailable	hammered, carved relief, polished	(1): right-facing; (2): unavailable	(1): lying down in Tomb I; (2): unavailable/ fragments left in situ(?)	(1): Amélineau 1899, 243; (2): Petrie 1901, 10	(1): Brussels, E.0562; (2): CG 14586(?)	(1): 1370_A; (2): unassigned
Semerket	1	black granite/ schist	H: 65cm, W: ?; D: ?	hammered, carved relief	left-facing	in/near Tomb U	Amélineau 1899, 245, fig. 65	Egyptian Museum, CG 14633/JE 31861	1670_A
Qa'a	2	(1): black granite/ schist/basalt; (2): basalt/ black quart- zose	(1): H: 130cm, W: 65cm, D: 18cm; (2): H: 148cm, W: 41cm, D: 24cm	carved relief, highly polished	(1): right-facing; (2): left-facing	(1): in/near Tomb Q; (2): east side of Tomb Q, found lying over Chamber 3	(1): Amélineau 1899, 245, fig. 64; (2): Petrie 1900, 6, 15, 26; Petrie 1903, pl. 5	(1) Egyptian Museum, CG 14631/JE 31861; (2): Penn, E6878 (also part CG 14632)	(1): 1877_A; (2): 1905_A

Table 13: Key details and reference information for large stelae from Abydos, Kathryn E. Piquette, CC BY 4.0.

⁹ See footnote 23 in Fischer (1961, 54) for details on whereabouts of stela fragments.

Amélineau and his team (Amélineau 1899, pls. 34–37; Amélineau 1904, pl. 18) recovered a large limestone stela of Djed (Figure 115) and some 40 small stelae. A somewhat enigmatic, large limestone stela was also found in the area between Tomb Complexes T (Den), U (Semerkhet) and Q (Qa'a) (Amélineau 1899, 247, pl. 41, lower left; Amélineau 1904, 30, fig. 12; Martin 2003; Figure 120). Together with his workers, Petrie subsequently recovered over 145 stelae (Petrie 1900 pls. 30–36; Petrie 1901a, pls. 26–30A). Unfortunately, “some” were lost¹⁰ before they could be photographed, having been reduced to crumbled masses of flakes in a rainstorm, although most had been recorded through drawings.¹¹

For over a century Amélineau's (1899; Amélineau 1902; Amélineau 1904; Amélineau 1905) and Petrie's (1900; Petrie 1901a; Petrie 1925) reports remained the primary published sources for the numerous small stelae. A great deal of information can be gleaned from the extensive photographic documentation and drawings, but some details are unclear and many photographs are cropped due to space constraints, if not also to the epistemological priority often accorded to ‘text’ over artefactuality (Piquette 2014). The appearance in 2011¹² of Geoffrey Martin's meticulously prepared catalogue, with its excellent photographs and drawings of almost all 356 known stelae, provides essential documentation for renewed study. If we suppose that every subsidiary burial was marked by one stela, c.820 may have been installed at Umm el-Qa'ab, and taking account of the North Cemetery graves (based on Bestock 2011), give a possible total of c.1375. The surviving 356 stelae (Martin 2011, 2–3) may thus represent only 26% of the possible original total.

Most large stelae were found in association with a specific tomb complex, and on this basis and according to the PIs carved into their surfaces, eight can be linked to known 1st-dynasty rulers (Table 13). A fragment found in Tomb B10, No. 168/0260_A, may belong to Narmer (Petrie 1900, pl. 13) or Aha (Kaiser and Dreyer 1982, 213–219; see also Martin 2011, 124). Based on the find locations of the stelae of Merneith, Semerkhet and Qa'a, each main tomb probably had two large stelae set up side-by-side on the east side at ground level (Petrie 1900, 6), on the north side (Petrie 1900, 15, pl. 60), or possibly on top of the superstructure (Dreyer 1991, 104; see also Engel 2008, 35–36).

As for the archaeological distribution of the small stelae, this is generally recorded to the level of a particular tomb complex (Table 14). A smaller number are linked to specific graves/chambers at Umm el-Qa'ab (Table 15), and associated with graves of the so-called “Tombs of the Courtiers” at the Abydos North Cemetery. Additional finds were recovered among the ‘Royal’ Tombs during the more recent German work (Martin 2011, 176–200). Petrie gives grave designations for some stelae on their published drawings and indicates the position of others on the tomb plans. It is worth noting that the information on the plans for Tomb Complex U does not correspond in all cases with the stelae drawing information, e.g. No. 46/1767_A is assigned generally to

10 No. 98/0760_A and No. 104/0766_A among others (Petrie 1901a, 33).

11 Since the present research was completed, German work at Abydos yielded some 60 pieces of hard grey stone yet without graphical elaboration, found in the burial chamber of Tomb U (Semerkhet) together with a large “rough stela”, apparently ‘royal’, based on its dimensions (Dreyer 2008, 51, pl. 7.c, d; also Martin 2011, 200), while the most recent finds derive from work of the Pennsylvania-Yale-Institute of Fine Arts, New York University Abydos Project (Martin 2011, 3, Nos. 273–358).

12 This publication appeared after the bulk of the present research was completed.



Figure 121: Drawings of small stela Nos. 1-48, all limestone, 'Royal' Tombs Cemetery, Abydos, NIIC-early D (c.3085-c.2867 BCE; after Petrie 1900, pl. 31, courtesy of The Egypt Exploration Society, CC BY 4.0).

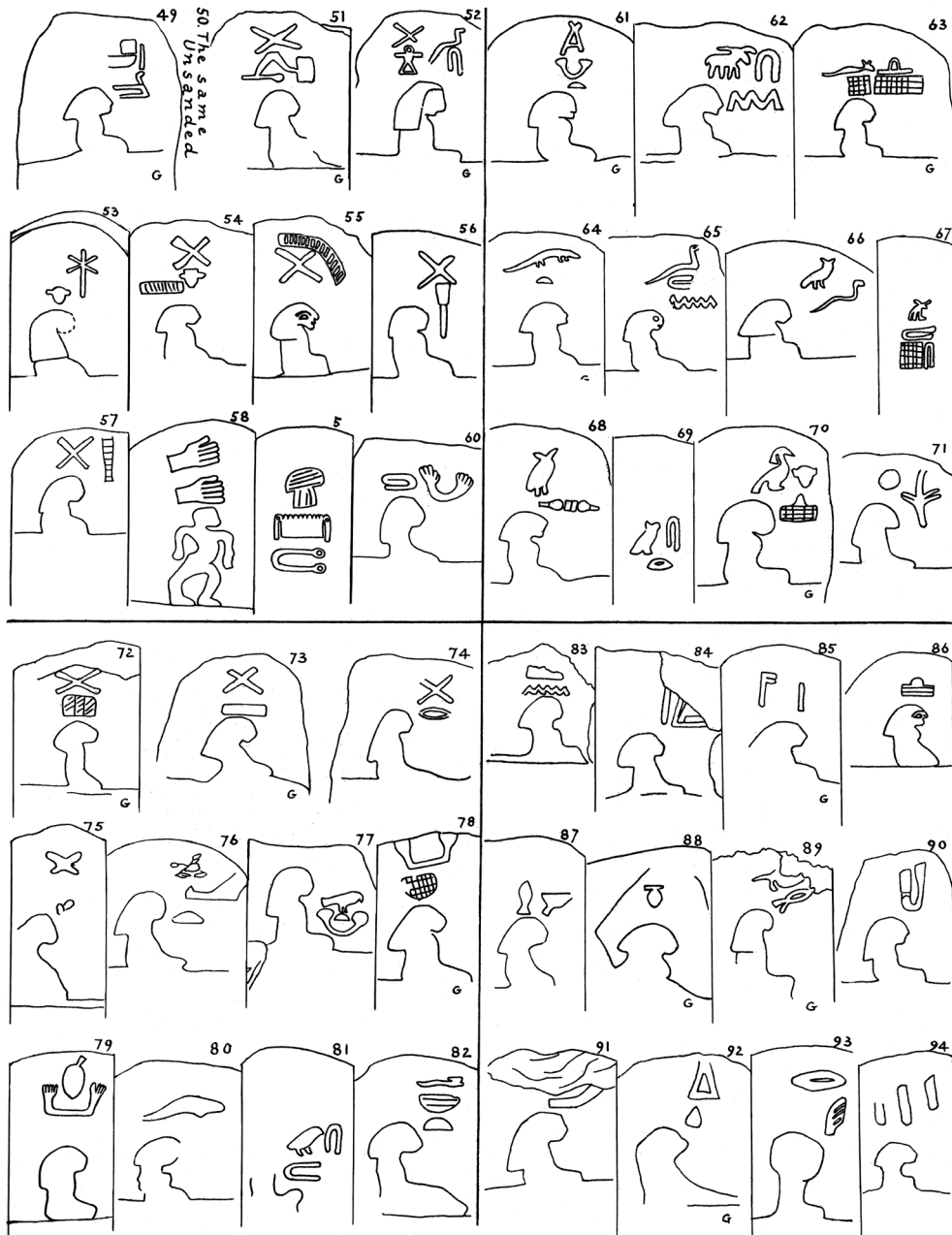


Figure 122: Drawings of small stelae Nos. 49-94, all limestone, 'Royal' Tombs Cemetery, Abydos, NIIC-early D (c.3085-c.2867 BCE; after Petrie 1901a, pl. 26, courtesy of The Egypt Exploration Society, CC BY 4.0).



Figure 123: Drawings of small stelae Nos. 95-146, all limestone, 'Royal' Tombs Cemetery, Abydos, NIIIc-early D (c.3085-c.2867 BCE; after Petrie 1901a, pl. 27, courtesy of The Egypt Exploration Society, CC BY 4.0).

Burial Complex	Stelae Quantity	GO Quantity Range ¹³
B10/B15	1	1
O (Djer)	87	2-4 (*10)
Z (Djet)	19	1-3 (**10)
W (Djet)	7	2-5
Y (Merneith)	3	3-5
T (Den)	72	4-12
X (Adjib)	1	5
U (Semerkhet)	16	2-8
Q (Qa'a)	5	4 (**43)
U/Q	9	3-8
Z/T	22	2-7
<i>Total</i>	242	

Table 14: Estimated number of stelae associated with each Umm el-Qa'ab tomb complex, and the quantity range of GOs per stela. Poorly provenanced and/or poorly preserved exemplars are excluded, Kathryn E. Piquette, CC BY 4.0.

Tomb U or Q (Petrie 1900, pl. 31), while on the plan the stela is noted as coming from Chamber N of Tomb U (Petrie 1900, pl. 60). Numerous stelae bear seated figures presumed to represent females, while standing figures are understood to depict males (but see cautionary note in Morris 2007a, 19, footnote 5). A small number depict standing canids. The interred may have been court functionaries and members of the rulers' personal entourage (Emery 1961, 62; Petrie 1900, 4; Trigger 2001 [1983], 52); the idea that they were servants has been contested (Bestock 2011, 137; Keita and Boyce 2006). Overall, given the extent of disturbance at the site and unsystematic documentation, grave associations in the published reports should be used with caution (Martin 2011, 2-3).

8.3.2 Materials and Techniques

All stelae from Abydos are made from stone, with the large exemplars being listed in publications and museum records as including limestone, greywacke, basalt, black quartzose, black quartzite or schist (Table 13). The most fully preserved in height is a stela of Merneith, but all are incomplete and range in size from 21.5cm-154cm in height, 21.5cm-65.5cm in width and 20cm-25cm in depth. In contrast, small stelae are made only of nummulitic limestone (Martin 2011, 3). These range from 30cm-48.7cm in height, 16cm-23.3cm in width and 3.5cm-6.5cm in depth (e.g. Martin 2005; Martin 2011).

¹³ * No. 95/0757_A and No. 96/0758_A are unique in bearing 8 and 10 GOs, respectively; ** No. 8/1392_A alone bears 10 GOs; *** No. 48/1865_A alone bears 43 GOs.

Burial Complex	Subsidiary Grave with Associated Stela
B10, B15, B19 (Aha)	B10(?): No. 113/0259_A
	B10: No. 168/0260_A (Figure 113)
	B15(?): No. 119/0268_A
O (Djer)	O6(?): No. 71/0733_A
	O9(?): No. 77/0739_A
	O(? ¹⁴)22: No. 225/*_A
	O24: No. 52/0687_A
	O24(?): No. 108/0770_A
	O50(?): No. 58/0720_A (Figure 125)
	O52: No. 112/0774_A
	O57(?): No. 57/0719_A
	O63(?)/3(?): No. 63/0725_A
	O107(?): No. 107/0769_A
Z (+W ¹⁵) (Djet)	Z2: No. 1/0941_A
	Z8: No. 8/0944_A
	Southern chamber: No. 3/1096_A
	Southern chamber: No. 5/1098_A
	Southern chamber: No. 6/0953_A
	W9: No. 157/0909_A
	W30: No. 16/0885_A
	W34: No. 12/0889_A
	W50: No. 14/0898_A
	W51: No. 10/0899_A
W55: No. 15/0900_A	
W58: No. 11/0901_A	
Y (Merneith)	Y28: No. 17/1217_A
	Y38: No. 19/1219_A
T (Den)	T127(?): No. 127/1288_A
	T131(?): No. 131/1292_A
X (Adjib)	X2: No. 25/1597_A

14 Based on my understanding of Amélineau's descriptions of grave/tomb locations (see Amélineau 1904, 56).

15 Petrie (1900, pl. 59) designated subsidiary tombs to the north of Tomb Z (Djet) as "Cemetery W", now understood to be part of the larger Tomb Z complex.

Burial Complex	Subsidiary Grave with Associated Stela
U (Semerkhet)	U2(?): No. 33/1686_A
	M: No. 37/1689_A
	Unnumbered: No. 29/1682_A
	Unnumbered: No. 30/1683_A
	Unnumbered: No. 31/1684_A
	Unnumbered: No. 32/1685_A
Q (Qa'a)	Unnumbered: No. 35/1688_A
	Unnumbered (west side ¹⁶): No. 48/1865_A (Figure 124)

Table 15: Stelae from Abydos associated with a subsidiary grave at Umm el-Qa'ab, Kathryn E. Piquette, CC BY 4.0.

The stelae were shaped and elaborated using a range of techniques, including pecking, hammering, scraping and engraving, with edges chamfered or tapered, and backs roughly or smoothly dressed (Martin 2005, 2, 5). All large stelae have rounded tops that are framed by a band of stone, apart from the stela of Den which, nevertheless, exemplifies well the method of blocking out by hammering or carving the area around the GOs to a shallow depth (Figure 117). All GOs are rendered in raised relief with some detailed modelling and polishing (e.g. preserved fragments of the stelae of Qa'a, Figure 119). Based on published images and excavator commentary, no evidence for applied pigment, whether for drafting or for GO elaboration, can be discerned on these large stelae.

As for the smaller examples, these too have rounded tops, but bands that frame the compositional space are largely unattested.¹⁷ Most of the GOs are roughly rendered through low or “false relief” using pecking or carving, with incision of single lines or contours being less frequent. Subtractive techniques may be used in combination, as evidenced on No. 122/1283_A (Petrie 1900, 27). Applied pigment was also used to indicate GO outlines and some internal details. Red colour is used on No. 102/0764_A to render a Cluster that is virtually identical to relief on No. 59/0721_A, but, curiously, at half the scale (Petrie 1901a, 33, pls. 34 and 37). Both were recovered from the area of Tomb Complex O, but whether they relate to the same burial, a question also raised by the similar No. 37/1690_A and No. 38/1759_A, cannot be determined. The complex life histories of the stelae are highlighted by, e.g. No. 122/1283_A and No. 132/1293_A, the latter bearing remarkably tidy erasures of three GOs and the seemingly incomplete erasure of a fourth (β/M17), such that Petrie was nevertheless able to reconstruct the GOs (Figure 123). The range of techniques and styles employed on the stelae to make or unmake imagery recalls the aforementioned notion of the ‘becoming’ of graphical culture (cf. Dobres 2000, 130, 132) and need to model and understand images as constituting both processes

¹⁶ “This lay in a chamber on the west of Qa'a” (Petrie 1900, 26).

¹⁷ But see No. 48/1865_A, No. 159/1315_A, No. 189/0966_A, No. 122/1283_A.

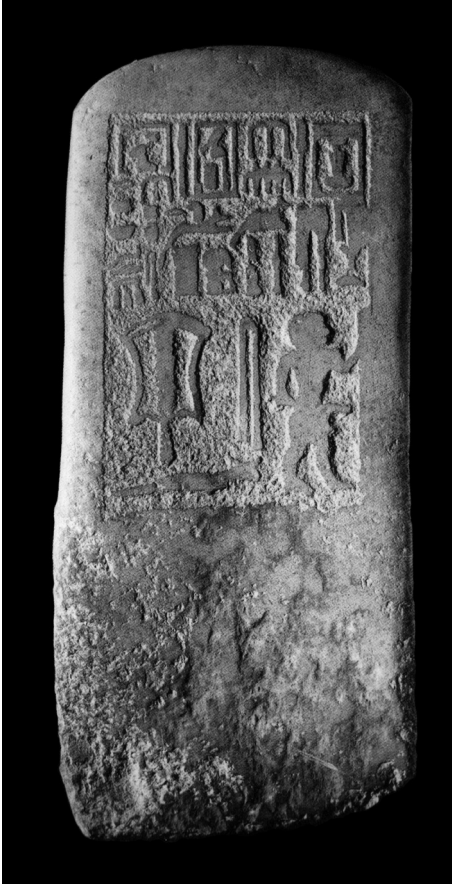


Figure 124: Limestone stela No. 48/1865_A with rectilinear image organisation, Abydos, early NIIID (c.2867 BCE), The Egyptian Museum, Cairo, JE 34416/M3317 (Martin 2011, pl. 14, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

and outcomes of those processes (Piquette and Whitehouse 2013). Conventional frameworks are valuable for the study of graphical cultural (e.g. “Signary” of Martin 2011; “Palaeographic Tables” of Regulski 2010a, 332–777), but we also need to develop more contextualising methods and concepts that set imagery in relation to those social and material practices of which they were part.

8.3.3 Graphical Repertoire

More than 20 GO types are attested among the stelae (Martin 2011, 4–13). Sufficiently preserved small examples dated prior to the reign of Den tend to be inscribed with 1–4 GOs, whereas those associated with the Tomb Complex T (Den) or later complexes bear 4–12 GOs, with No. 48/1865_A presenting a notable exception with over 30 GOs (Figure 124). Overall, a general increase in GO quantities as well as density can be observed over time with, once again, the reign of Den being a pivotal period for this change. Similar trends were traced among the inscribed labels in Chapters 6–7. While the stelae repertoire (Martin 2011, 4–13) is substantially larger than that of the NIIIA1



Figure 125: Left: Limestone stela depicting a seated figure, associated with Tomb Complex O, Abydos, H: 38.2cm, W: 23.7cm, D: 12.5cm, No. 62/0724_A, The Metropolitan Museum of Art, 01.4.93 (photo: The Metropolitan Museum of Art, CC0). Right: Limestone stela depicting a standing dwarf, associated with a subsidiary grave near the Tomb Complex Z, Abydos, H: 66cm, W: 30cm, D: 10cm, No. 58/0720_A, Penn Museum, E9499 (photo: © Penn Museum).

jars and labels, it is more restricted than that of the contemporary labels, although significant overlap suggests that designers/makers shared and reproduced similar graphical forms, perhaps as members of the same or closely related communities of practitioners. At the same time, the combinations in which GOs appear either on the stelae or on the labels and the conventions of their composition are largely unique to each object type.

A recurring image in many small stelae is the seated, and, less commonly, standing, anthropomorph, while on a small number of others a standing canid also appears in a similarly prominent position. Figures are typically accompanied by a GO Cluster of the quantities noted above (Table 14). Clusters are virtually all unbounded on the small stelae, while on the large examples 1–3 CEs are bounded by the upper frame of the $\overline{\text{III}}/\text{O33} + \text{A}/\text{G5}$ CGO, although No. 34/1687_A (U) bears traces of what may be a $\overline{\text{III}}/\text{O33}$, as does No. 171/4797_A (T), albeit the latter with the PI of Den. Unbounded GOs do not co-occur on most large exemplars, apart from that of Merneith (Figure 116) where $\overline{\text{III}}/\text{O33} + \text{A}/\text{G5}$ is absent. Nevertheless, its exceptional status is declared by the large size of the stone slab, the large scale of the PI Cluster extending across much of its upper area, and the high relief in which it is carved. The same can be observed for the previously mentioned enigmatic large stela (Figure 120): likewise, the presence of $\text{A}/\text{G5}$, often occurring in the context of the $\overline{\text{III}}/\text{O33}$ PI, may allude to the high status of the individual

commemorated, although its distance to the right of the surviving Cluster on the left is unusual (Martin 2003, 82). These stelae challenge the boundary between the categories of ‘private’ and ‘royal’ stelae and—even before we have begun to grapple with the details of symbolic and semantic content—further illustrate the point that meaning and function are inextricably embedded in the material world of their expression and practice.

8.4 Selected Comparisons

From the foregoing examination of archaeological context, materials, techniques and image repertoire for the jars and stelae, several points of comparison with the labels can be drawn out. Spatial distribution *vis-à-vis* a given tomb is best attested for the jars from impressions in the chamber floors and walls of U-j. Despite the greater quantity, and more expansive temporal and spatial distributions, of the stelae and labels, direct evidence for how they were deployed is less forthcoming. Although none of the small stelae seems to have been found *in situ*, patterns of weathering suggest some were set upright with the lower portion buried in the ground (Petrie 1900, 27). Indeed, several found on the east side of Tomb O (Djer) during the German Institute work bear weathering on their left sides. This pattern, together with the fact that the prevailing wind in the lower Nile Valley blows from the north, leads excavator Günter Dreyer (pers. comm. 10.04.2016) to suggest that these stelae were set up facing toward the main burial, indicating that display for the benefit of the living visitor was a secondary concern. Drawing on work at Helwan, where a number of stelae were recovered from archaeologically intact contexts (Haeny 1971; Köhler 2004b, 34–36), we can hypothesise further about methods of display. Comparative evidence from a 1st Dynasty *mastaba* subsidiary grave at Abu Rowash illustrates how small stelae could have also been installed as part of the super structure (see Montet 1938, 22–23).

The spatial distribution of these marking technologies relative to the burial or to each other reveals a distinct separation. The NIIIA1 jars were placed within the burial chamber or, as hypothesised above, in close proximity to the deceased’s head, whereas labels seem to have been deposited in a separate annex. In the later ‘Royal’ Tombs Cemetery, stelae were set up outside the tomb while contemporary labels were primarily, if not always, deposited within. The stelae make reference to something that is not readily apparent from the grave’s exterior (to a living audience at least), including the identity of the deceased, differentiating human from canid bodies, and differentiating types of human body (e.g. male, female, presence/absence of dwarfism), with social status also indicated through stela material, size and quantity, as discussed further below.

The material substrates used for jars, stelae and labels are mutually exclusive, apart from two possible NIIIA1 labels of stone. Preserved constrates show that applied colour is common to all object types. Subtractive techniques are absent on the jars but present on the other datasets. For the stelae, surface material may be removed from around the intended GO through pecking or carving to create “false relief”, or, also exclusive to the stelae, through the more technically complex raised relief; detailing may be added with

fine incision and/or applied colour. Relief is uncharacteristic of the labels but incision is common. Colour in liquid form may be applied directly to the surface or into/around incisions on the labels, while paste is restricted to incisions—a practice that appears to be exclusive to the labels. I was unable to discern erasure or adjustment on the jars from the published photographs, but changes to GOs on both phase groups of labels and on the smaller stelae are clear. Such comparisons are instructive for unpacking the diversity of technologies and practices we typically group under the modern categories of early Egyptian writing and art. In order to manipulate and employ these various materials and techniques, a range of tools, skills and degrees of specialisation were required. Interpreting the significance of the limited overlap in materials and techniques for the object types, for example, as a measure of the interaction and relationships between practitioners engaged in image-making requires consideration of similarities and differences in the graphical content for each object class.

Comparison of graphical repertoires shows that only flora, zoomorphs, body elements, and possibly transport (in the form of boats) appear on all three datasets. Complex rectangular shapes and architecture are rare¹⁸ among the NIIIA1 objects, whereas these occur frequently on NIIIC-early D labels and the large stelae (§6.5.5). Only scorpions, a bird, a floral element, and possibly bovid-heads (bearing in mind certain palaeographical differences, e.g. horn orientation, presence/absence of feather/reed head adornment; Regulski 2010a, 117, 415) and simple rectangular shapes can be said to be common to both NIIIA1 jars and NIIIA1 labels. I would argue that this limited overlap in repertoire, as well as many aspects of expression (also discussed in the next chapter), challenges the assertion that the jars and labels bear two graphical realisations of the same overall system (cf. Baines 2004, 60–61).

Among the NIIIA1 label GO repertoire, which is comprised of about 50 types, overlap with the NIIIC-early D stelae GO repertoire is limited to less than 10 types (see also discussion in Regulski 2010a, 240–242). In contrast, the NIIIC-early D labels and stelae share some 60 GOs in common, a pattern that is not unexpected given that both object types were produced during the same general temporal phase. Among CGOs and Clusters, however, the overlap is markedly less pronounced, with about three CGOs and five Clusters in common only. So, while practitioners are drawing on and reproducing GOs from the same or related graphical repertoire(s), the combinations in which they are deployed differ significantly. Choice is clearly contingent upon object type and symbolic as well as mechanical purpose, but also bound up in the material affordances presented by, for example, the external wall of a ceramic vessel, a roughly dressed limestone slab, or a carefully smoothed rectangular bone plaque. Depending on the variables taken into consideration and the scale of analysis, there is yet rich potential for expanding our understanding of the material world of early Egyptian graphical culture and its role in actively constructing semantic and other social meanings. In the interest of pursuing a line of inquiry dealing with semantic interpretation—via a grounded and as discussed further in Chapter 10—I now focus attention on one Family of GOs, namely anthropomorphs.

18 Possibly ID170/4398_A.

Anthropomorph Types on the Small NIIC–early D Stelae

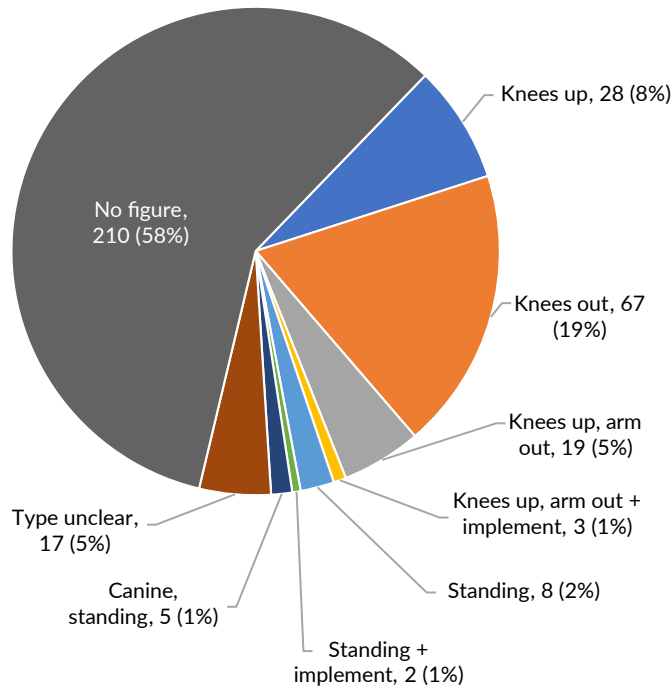


Figure 126: Anthropomorphic types on the 356 small NIIC–early D stelae from Abydos. All seated unless noted otherwise, Kathryn E. Piquette, CC BY 4.0.

A dramatic rise in the use of this image type can be traced from the NIIIA1–early D. Although anthropomorphs are absent on the surviving jars, 8–10 occur on the NIIIA1 labels. Over 130 occur on the NIIC–early D labels (see §6.3.2), where they exhibit the greatest morphological variety and compositional complexity of any GO class in both label phases. Among the 356 surviving small stelae, almost 150 anthropomorphs are preserved. Compared with the labels, these are more standardised and exhibit less formal and compositional variability (Figure 126). Postures include standing or seated/kneeling, many of the latter being characterised by unarticulated upper limbs and a large headdress or voluminous arrangement of the hair that extends down to the middle of the back. Based on form and associated semantic meanings, as derived mainly from later evidence, this type of seated figure is presumed to depict a female body. On similar epistemological grounds, standing and some seated anthropomorphs with little or no adornment or elaboration of the head are understood to depict male individuals. Indicators such as beards¹⁹ or breasts are unattested for anthropomorphs on the stelae. The lower limb(s) of certain seated/crouching anthropomorphs protrude(s)

19 The ‘beard’ shown in Petrie’s line drawing of Stela No. 39/1760_A is in fact not present (Martin 2011, 38).

Type	Features
Female (Posture)	Seated w/knees up+upper limbs not articulated+long hair
	Seated w/knees out+upper limbs not articulated+long hair
Male (Posture)	Seated w/lower limb and both upper limbs articulated+short hair
Male (Body shape)	Dwarf-like+standing
	Non-dwarf-like+seated (all types above)
Male (Occupation/skill/status)	Seated w/lower and upper limb out+short hair+implement
	Standing w/upper limb out+short hair+implement

Table 16: Types of figures depicted on the stelae, Kathryn E. Piquette, CC BY 4.0.

sharply to the right and sometimes left, perhaps to emphasise the feet or make clear a particular seated posture, such as legs folded, in contrast to figures with knees raised in front of the chest or projecting outward (perhaps indicating a kneeling posture). Stela No. 176/1113_A shows an anthropomorph holding a bow with an arm extended, reminiscent of the standing, male (based on the presence of a penis/penis sheath) figures with bow and arrow drawn on the NIIIA1 labels.²⁰ The body shape of 9 out of 10 standing/striding anthropomorphs (e.g. Figure 125) suggests dwarfism.²¹ Two such standing figures on No. 36/1689_A and No. 37/1690_A are unique in that they float above their respective associated Clusters. Otherwise, virtually all other anthropomorphic GOs, whether seated or standing, are positioned below or to the left of the associated Cluster.

Although not explored here in further detail, such bodily postures, types and association (e.g. with implements; Table 16) are informative for charting sex and gender constructions, body classification and allusions to occupation or skills that were important in graphical expression in the funerary context. In addition to the compositional placement just noted, dwarf bodies may be emphasised by a standing posture. Accepting conventional gender identification, gender seems to be differentiated mainly through pose and limb articulation. A staff or bow may also be indicative of gender, if not also status, age, occupation or other aspect of social identity. The significance of the absence of figures on some stelae is difficult to discern, but perhaps absence implied a default identity that was understood by the intended audience. Direct archaeological evidence for a meaningful relationship between stelae find spots and sufficiently intact and sexable skeletal remains that might clarify this proposal is extremely limited. For example, skeletal remains of a dwarf found in Chamber M of Tomb Complex U and stela No. 37/1690_A depicting a dwarf also found there (Petrie 1900, 13) may be the closest archaeological evidence comes to providing a direct connection between a stela and the deceased individual it commemorates.

20 ID049/4285_A, ID050/4287_A, ID051/4288_A, ID052/4286_A.

21 Although the upright posture is usually interpreted as male, the question of gender is probably best left open here.

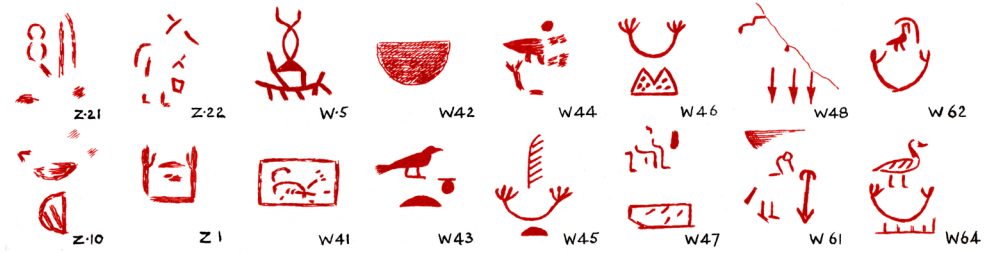


Figure 127: Clusters (“names”) painted on south walls of private graves (area Z and Cemetery W) around the Z burial complex attributed to Djet (Petrie 1900, pl. 63, courtesy of The Exploration Society, CC BY 4.0).

Tantalising clues for additional links are offered by another marking practice attested in at least 16 subsidiary graves in the W and Z areas (both ascribed to Djet): a patch of whitewash was applied to the mud-plastered brick of the top edge of the southern walls of the graves. Over this, a Cluster was painted in red and black (“traces of”) pigment with a broad brush (Figure 127), interpreted by Petrie (1900, 8, pl. 63) as the name of the deceased.²² The contrast of red and/or black on white and the high placement of the GOs may have permitted visibility whether one was inside the chamber or on the desert surface. Perhaps this aided correct placement of the bodies and deposition of any accompanying items, which could be achieved without obscuring the GOs on the wall, thus allowing verification of accurate deposition prior to roofing over (see also Morris 2007a, 20). The visibility of these GOs may have also aided correct installation of stelae. However, none of the surviving stelae found near these graves (Table 14) coincides precisely with the painted Clusters (Figure 127), although there are two or three possible candidates (Martin 2011, 3²³).

Returning to the aforementioned stela No. 37/1690_A (Figure 121), said to come from Grave M (Martin 2011, 36, Petrie 1900, 13, pl. 60), its imagery, as with all stelae, is conventionally read as representing a personal name and, in some cases, the title(s) of the deceased. This is apparently according to a retrospective method—again investigators are often not explicit about the interpretive strategy employed. In this particular case, however, the archaeological association of a stela depicting a figure with dwarf-like proportions with skeletal remains exhibiting this ‘pathology’ (Petrie 1900, 13) provides a more grounded basis for interpretation. From this example, we glean an ‘interpretive key’ for explaining the relationship between the stelae and the deceased: that the stela with its figure and accompanying GO Cluster marked the physical remains of this individual and commemorated aspects of her/his personal identity using images as signs to perform non- or less-narrative functions (as compared with previously discussed depictive imagery). Accessing further layers of symbolic meaning, such as the precise semantic function and meaning of GOs, raises a different set of difficulties (e.g. Petrie 1900, 8; Wilkinson 2001, 72). As established above, in the interest of maintaining reduced levels of extrapolation from later contexts, I refer to a GO Cluster relating to

²² Petrie removed three of the ‘texts’ but their present location is unknown (Martin 2011, 3).

²³ Martin’s (2011, 3, 14, fig. 1) correlation of W61 (see Figure 127) with No. 17/1217_A seems to be in error. In addition to W44 and No. 233/0706_A, one might also posit a relationship with No. 31/1684_A.

personal or social identity as a Personal Identifier (PI). Accepting that the inference of function and meaning from this well-contextualised case can be generalised to other small stelae, in later chapters I use this interpretive key or strand as a point of departure for explaining similar GO Clusters on other stelae and contemporary labels and exploring expressions of personal identity.

The foregoing examination of selected comparative datasets has shown the extent to which the role of graphical culture and its social meanings are bound up in the materiality of expression. A key point to appreciate at this juncture is the degree to which meaning and function is apparent, even without having yet explored GO content in detail. It may very well have been the case that only 1% of the population was literate in the sense of reading and writing (Baines 1983, 586); nevertheless, without comprehending linguistic values encoded in the imagery, audiences could discern the hierarchies and boundaries, power relationships, and other aspects of social identity signalled through material type, size, technique and skill, as well as graphical density and scale. Whether from the standpoint of producers or from that of consumers, 'material literacy' is also bound up with compositional aspects of graphical expression, the theme that forms the focus of the next chapter.

9. The Wider Graphical Context: Composition

9.1 Introduction

In the preceding chapter, I comparatively examined datasets from Abydos—NIIIA1 wavy-handled jars and NIIIC–early D stelae—from archaeological, material and technical perspectives, as well as briefly surveyed their image repertoire. Below I explore how images are organised compositionally for each object type, including mode, orientation, direction, view and graphical associations.

9.2 Mode

As set out in §7.2.1, mode is characterised as either ‘floating’ or ‘grounded’. GOs on the NIIIA1 wavy-handled jars are of the former mode, apart from the scorpion, whose four walking legs rest on a horizontal line or rectangle shape. The floating mode also dominates on the NIIIC–early D stelae, although a kind of grounding is used on the small stelae for many seated and some standing anthropomorphs and a single canid. In the case of the seated anthropomorphs, the ground is carved away on either side of the figure’s base; the base is left open such that the raised surface of the figure¹ and the ground are undifferentiated (e.g. Martin 2011, pl. 59, No. 229/0703_A). This practice seems particularly common among stelae associated with Complex O (Djer; e.g. No. 71/0733_A). By contrast, for standing/striding bodies, whether anthropomorphic or canid, artisans indicate the lower contour, in some cases also grounding upright figures on a single horizontal line (e.g. Figure 125, right). This use of a grounding/structuring line is somewhat similar to uses by label makers during the first half of the 1st Dynasty. However, ‘—’ Structuring Elements (SEs) ground a much wider variety of animate and other GOs, and then later, are used to compartmentalise graphical space, for example as seen for the tabular labels (§7.8.3).

9.3 Orientation and Direction

Features of composition compared in this section include orientation and, for iconic asymmetrical Graphical Objects (GOs), direction. When a label perforation is positioned toward the top, the orientation of whole iconic images can be understood as ‘upright’.² When the NIIIA1 wavy-handled jars are standing on their flat bases, GOs are also predominantly upright. The orientation of the Red Sea Pteroceras/Lambis shell/l3 (e.g. Figure 103), with aperture and outer lip facing to the right, is consistent with other (probably) contemporary examples attested on the side panels of three co-

1 Sometimes an incised line isolates the hair/wig from the body, e.g. No. 112/0774_A.

2 See §7.2.2 on the contingent nature of orientation and inferring ‘real’ position in space.

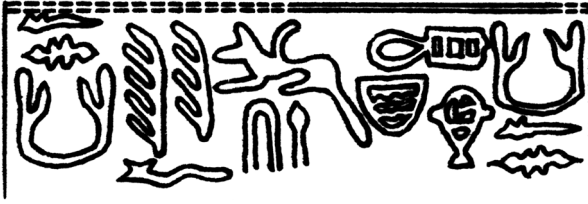


Figure 128: Cylinder seal impression showing the compositional rotation of cylinder seal on lanyard/S20 90° counterclockwise (Kaplony 1963, 739, pl. 93.362, courtesy of Harrassowitz Verlag, CC BY 4.0).

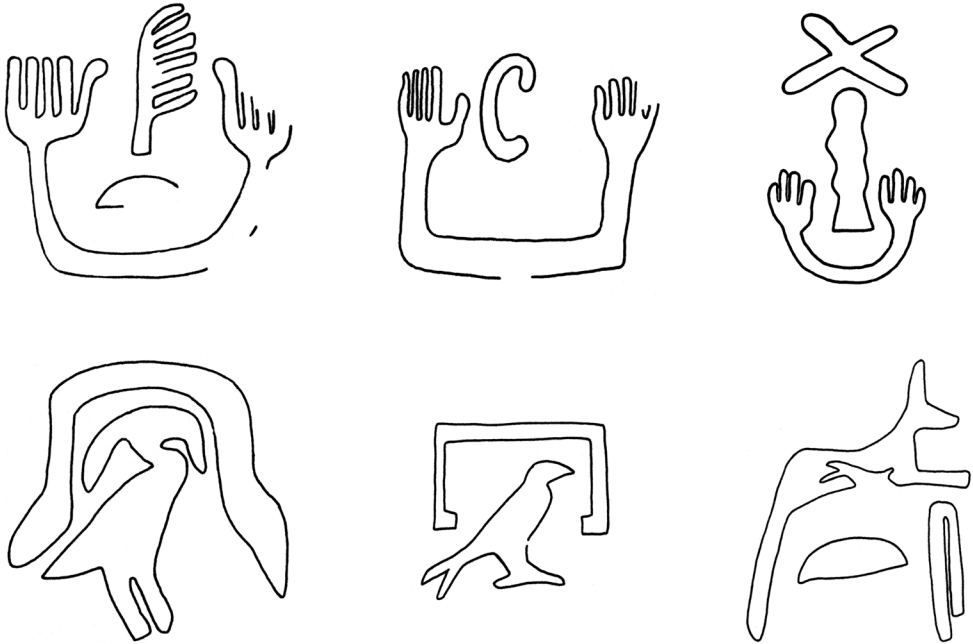


Figure 129: Drawings of stelae GOs exhibiting compositional ‘play’ (after Martin 2011, stelae Nos. 5, 14, 97, 175, 196, 201, courtesy of German Archaeological Institute Cairo, CC BY 4.0).

lossal statues from Coptos (Petrie 1896, pl. 3; Kemp et al. 2000; Ashmolean 1894.105d, 1894.105e; Egyptian Museum, Cairo, JE 30770). The vertical, head-down orientation of the fish GO (K1) could relate to compositional concerns (see below), but, given that rotation of iconic GOs for compositional purposes, regardless of symbolic function, is virtually unattested on the objects in this study, it is more likely indicative of a post-mortem status. Determining the orientation of symmetrical GOs such as floral elements (e.g. ID159/4388_A) is problematic, but preference for a vertical position is clear for the NIIIA1. Perhaps the head-down position of bovids, like fish, is indicative of an inanimate condition but nevertheless to be considered ‘upright’. For the stelae, the orientation of most recognisably iconic GOs appears to be upright, as also attested on the NIIIC–early D labels. Some variability in orientation occurs for disembodied upper limbs (compare No. 190/4801_A with No. 191/1112_A), although this depends on whether we interpret depiction from an overhead, frontal or other view. All floral GOs appear upright apart from the NIIIC–D attestations of \sim /M3, again perhaps to



Figure 130: Globular ceramic vessel with red painted decoration including stylised boat motif, unprovenanced, NIIC (c.3450 BCE), H: 17.5cm, D: 14cm, Ägyptisches Museum der Universität Leipzig, 5078 (photo: Ägyptisches Museum der Universität Leipzig,³ CC BY SA 3.0).


denote a changed condition—to distinguish it from its original position as part of a tree and avoid confusion with other vertically oriented branched floral GOs. Overall, the vertical/horizontal orientation of any one GO type remains consistent across the substrate types compared here.⁴

As for directionality, on the NIIIA1 jars all asymmetrical iconic GOs are right-facing. This contrasts slightly with the NIIIA1 labels where GOs face right or left (§7.2.4), although the latter is less common. On the stelae, asymmetrical iconic GOs are consistently right-facing (Martin 2011, 3), compared with 84% on the NIIC–early D labels (Figure 77).





³ Wikimedia, https://de.wikipedia.org/wiki/Keramik_im_Alten_%C3%84gypten#/media/File:%C3%84gyptisches_Museum_Leipzig_027_DW.JPG (accessed 27.10.2017).

⁴ A rare exception is $\text{—}/V27$ oriented horizontally on ID344/4444_A and vertically on e.g. ID423/4447a-b_A.

9.4 View

The views from which images are depicted on both the wavy-handled jars and the stelae include profile (e.g. boat), frontal (e.g. /D21, on stelae only), a combined profile-overhead view (e.g. scorpion on jars; anthropomorphs on stelae), and profile-frontal views (e.g. bird and bovid-head on jars)—view types also attested on labels (§7.2.3). Conventions for shape and internal detailing change over time and space, as examined in detail by Regulski (2010a). While the materiality of expression also affects appearance, it is notable that where a GO type occurs across different object types, there is minimal change with respect to the view combinations that artisans employed. For example, the depiction of a bird's body in profile combined with the frontal view of the eye persists across object type and time, while the depiction of four talons (e.g. Figure 107) is soon restricted to two shown from the side—bearing in mind that articulation of some details is contingent upon image scale in relation to material and technique choice.

9.5 Graphical Associations

The suite of graphical associations observed on the labels includes contiguity, bounding/bounded, overlapping/overlapped, interlocking and clustering (§7.3). On the jars GOs are associated mainly via clustering, with some instances of contiguity (e.g. scorpion+simple rectangle(?), bovid-head+pike/support/fl1 or /fl2). All associations occur on the stelae, but clustering is the most common, with contiguity, bounding/bounded and overlapping/overlapped occurring less frequently. Interlocking is attested for /D28 and /D32 on small stelae alone, the former with Clusters of various GO types,⁵ and the latter with a type of /G25 only.⁶ The holding/held association for anthropomorphs on the small stelae occurs with bows, staves/sticks, a shield and mace⁷—fewer implements/objects than on labels. Among the large stelae we would expect to find the holding/held association at a minimum between /G5 and the PI Cluster of Aha. However, the only candidate stela fragment does not preserve the tell-tale area (Figure 113). GOs with perpendicular or protruding elements are incorporated in compositional 'play' (Figure 129) more often than other shapes, although makers do not take up all possible opportunities for coalescence—no doubt due to the syntactical requirements in constructing certain symbolic meanings.

9.6 Sequence and Alignment




GO sequence, incidences of repetition, and horizontal or vertical alignment are compared in this section. Regularity in sequence is exemplified on the NIIIA1 jars by the position of the branched-pole, which occurs to the right of fish or scorpion, with a floral

5 E.g. No. 5/0952_A.

6 E.g. No. 24/1266_A.

7 E.g. No. A29/1113_A, No. 48/1865_A, No. 51/0715_A.

element or rectangular-shape placed below, the latter in a contiguous relationship. A mollusc and fish may also have linear elements placed to their right. Consistency in direction (above), GO morphology and location on the available surface indicate which compositional practices for the jars were regularised.

By contrast, imagery on the stelae and labels exhibits more variability in sequence. Anthropomorphs may be located above their associated Cluster or, more commonly, below or on par with it, variously placed to the right, centre or left. Alignment on the NIIC-early D labels occurs mainly for identical GOs (§7.3.7). On the stelae, vertical alignment is attested for /D46(2×), depicted from the overhead view with upward-pointing thumb,⁸ and /N25(2×),⁹ while horizontal alignment is attested for /T22(3×).¹⁰ Two to five non-identical GOs may be aligned vertically.¹¹ GOs are also organised into block-like configurations with tall GOs placed side-by-side, and low, broad GOs above or below one another.¹² The block-like configuration is discernible on many small stelae throughout the 1st Dynasty but is not as rigidly applied as on many labels. This rectilinearity is most strongly pronounced on stela No. 48/1865_A dated to the final reign of the period, both internally within the composition but also in the careful delineation of the graphical field in relation to the overall rectangular shape of the stone slab.

9.7 Format and Use of Space

The jars and stelae each present different artefactual conditions for ma(r)kers that influence the format of graphical space and its use. The surface area provided by the jar exterior is substantial, yet in every case only a portion—the area roughly halfway between the jar rim and base—is elaborated with SGOs or GO Clusters, with the wavy-handle decoration forming the upper boundary of the graphical field. Space to the right, left and below is unutilised. The field itself is not subdivided by explicit Structuring Elements (SEs) and can therefore be characterised by what I term the ‘Plain Format’ (§7.8).

In contrast, SGOs, CGOs and Clusters on the stelae are usually set off by areas of empty space to their sides, as well as a large unused expanse below. The makers of several large stelae and the smaller No. 48/1865_A (Figure 124) almost fully utilise the upper part of the slab, however. The changes in the use of space seen on the labels, e.g. where GO grounding virtually disappears with the introduction of the Vertical Format during the reign of Den, do not occur on the stelae. The Plain Format characterises all, apart from the implicit structuring observed on the enigmatic stela No. 48/1865_A: indeed, the GOs in its upper half are relatively smaller than those below, organised in dense configurations aligned such that two rows are created and thus distinguished from a third register below. Here a larger right-facing standing/striding

8 No. 58/0720_A.

9 E.g. No. 120/1281_A.

10 E.g. No. 13/0906_A.

11 Compare No. 2/0949_A with No. 186/1393_A, No. 211/1397_A.

12 E.g. No. 18/1191_A, No. 67/0729_A, No. 189/0966_A.

anthropomorph, holding a staff or other implement horizontally, is matched in height by three large GOs immediately to the left. These are loosely arranged to fill the field horizontally, but with a vertical dimension equivalent to the combined height of both registers above. The difference in scale here is striking and otherwise unattested on the stelae. Such differences in scale occur on occasion on the 1st-dynasty labels for selected anthropomorphs,¹³ zooanthropomorphs,¹⁴ and what may be an implement.¹⁵ In the case of No. 48/1865_A, the contrasting scale adds weight and emphasis to the subject matter in the lower register, a point I explore further below.

9.8 Jar and Stelae Imagery: Discussion

Because the investigator encounters only the material outcomes of action, it is easy to be seduced by the apparent fixity of the image and develop explanations and interpretations that are detached from lived experience. As touched on above, similarities in general cultural context and certain commonalities between image repertoires on different substrates may lead us to conclude this imagery belongs to the same overall system (e.g. Baines 2004, 60–61). At the same time, consideration of the particular relationships between material substrates and their transformation through the technological actions of embodied practitioners discloses a graphical landscape that is more dynamic and complex than perhaps abstract notions of ‘system’ fully capture. My aim in the following is therefore to delve further into graphical practice through comparisons, but with emphasis on creative concerns and how intentionality influenced the crafting of images and, in turn, use and perception.

9.8.1 NIIIA1 Jar Imagery in Action

The distribution of GO coverage in relation to available picture space is, of course, related to whether that material surface was made expressly to receive images, as in the case of labels and stelae, or not. It may seem obvious, but I think worth noting that, on the basis of object morphology and the presence of residues (Dreyer 1998, 28, pl. 21), the primary purpose of the wavy-handled jars was a containing one, although the potter may have taken into account the requirements of post-firing graphical elaboration in how she/he chose to finish the vessel exterior. That the graphical field occupies only a portion of the available surface contrasts with the labels, where the entire surface constitutes the graphical field, with size and shape also having an organising influence (e.g. §7.7). At the same time, the three-dimensional shape of the jar exerts an organising influence from the perspective of embodied perception. Surviving whole and fragmentary jars (with at least half the circumference preserved) show that the lateral spread of GOs around the jar is restricted to the point where the imagery begins to

13 E.g. ID300/1389_A (Den smiting).

14 E.g. ID202/4030_A (‘nar’-fish smiting).

15 See ID234/0607_A.

disappear around the ‘edge’ of the vessel. In other words, when viewed from a fixed position, the sides of the jar, like the edges of the label, self-delineate and effectively frame the imagery.

If the jars were marked when in a static position, the curvature of the vessel body away from the practitioner would restrict the available area accessible to the ink-dipped rush pen or other implement. If set on their bases side-by-side or stacked vertically—a configuration attested archaeologically (§8.2.1)—any adjacent/abutting vessels would also frame the area accessible to the marker. Whatever the reason for the restricted use of the available space, compositional practice for these NIIIA1 jars stands in marked contrast to the decorated wares (‘D-Ware’) of the preceding NII cultural phase (Wengrow 2006, 102), where the viewer would need to rotate or move around the vessel to perceive the imagery. The wavy-handled jars exemplify well the kinds of material conditions intertwined in processes of graphical expression, as well as prompt the need for consideration of their influence on subsequent use, perception and symbolic significance.

Likewise, the conditions of viewing and the intended audience are important for thinking about image reception (see also Baines 2004, 152). Viewing of GOs on the NIIIA1 jars may have occurred during transport or storage prior to, or in the course of, tomb equipping, albeit with visibility contingent upon GO scale. For example, the scorpion GOs on the jars measure 6cm–13cm in height and width (Dreyer 1998, 47), several times larger than their label counterparts, ranging from 0.5cm–1cm in height to 0.7cm–1.63cm in width.¹⁶ Jar imagery would therefore have been more easily discernible from a distance (Baines 2004, 158), potentially by multiple persons simultaneously, and without the need for direct engagement given the low number of GOs and their restricted location on a single plain, thus alleviating the aforementioned need for jar rotation. Whether significance lay in the act of marking itself or in the subsequent display of the vessels, and assuming the living audience were intended, a deliberate emphasis on visibility can be discerned here in contrast to the tiny labels.

9.8.2 Stelae Imagery in Action

The theoretical claim that graphical objects are products of ongoing social action is borne out particularly vividly for the previously mentioned stela No. 48/1865_A (Figure 124; Petrie 1900, 26–27, pls. 30–31 and 36). This stone slab was ground all over and its edges rounded off rather than squared. The inscription was then sketched onto the surface in red pigment and finalised in black. The ground around the GOs was hammered away to a shallow depth, although this work was never completed, and some GOs are unclear save for traces in red and black (Petrie 1900, 26).

Thinking through the composition in relation to practice shows how the maker(s) constructed and organised graphical space. The removal of most of the ground from around the GOs simultaneously leaves a band of raised stone around the outer edge of

16 ID153/4381_A, ID154/4385_A.

the slab that explicitly delineates the graphical space (Martin 2011, 44). This particular feature distinguishes this stela from all other small survivals while also aligning it stylistically with several large exemplars (of course, whether this could be appreciated by viewers was contingent upon visibility of such stelae within the cemetery). Further, as touched on above, the composition is rigidly organised to set up distinctions between GO types in the upper two registers in contrast to those in the lower, third register. Comparison of the block-like configurations of small, floating GOs in the upper two registers with the larger (more or less) anthropomorph below suggests a different symbolic role for each. The somewhat isolated striding figure holding an implement appears to perform a more narrative or pictorial function, in contrast to the non-narrative, and thus scriptorial, nature of GOs forming the two upper registers. At the same time, the pictorial:scriptorial distinction is somewhat blurred when considering the general clustering and relative scale of the anthropomorph and tri-partite GO group. Here a functional association is signalled that is not plainly one or the other, but is inarguably directed to symbolising personal identity.

Even if precise linguistic or other type of symbolic values cannot be fully grasped via a grounded approach, it is nevertheless evident that meanings were inextricably embedded in compositional and material aspects of expression, simultaneously preceding and constructing them. By setting the relationships between compositional and material features in relation to audiencing, in turn, we can construct a more situated understanding of the active role that stelae played—via viewer practices of looking and seeing as informed by levels and types of literacy—in structuring symbolic meaning and social space within the cemetery.

The more direct role that the stelae play in the cemetery in expressing social identity, compared with jars or labels, likely necessitated a more social active role for the ma(r)ker in conceptualisation and creation—requiring liaising closely with the eventual tomb/grave occupant, family members or others, in choosing a slab of stone of a particular material, quality and size. Pre-manufacture choices were related to post-manufacture intentions and social conditions, including identity priorities, intended audience and method of display. Ontologically, graphical elaboration is fundamental to stela function and meaning, yet the active graphical space on the small stelae is a fraction of the substrate and is restricted to one face, in contrast to the labels where the plaque is synonymous with the picture field and the field may be double-sided. The small number of GOs per stela, low graphical density and clustering toward the upper part of the slab, as evidenced on the better-preserved survivals (e.g. Figure 121), should be interpreted in relation to display intentions and viewing conditions. If the lower unelaborated part of the slab was reserved for installation in the ground (see Petrie 1900, 27), and recalling the compositional issue for seated and some standing figures of the inconsistent use of explicit grounding lines (§9.2), we might venture that when installed in the ground the figures on the stelae were understood as grounded compositionally, if not also symbolically. However, proportionally this unelaborated section of slab is shorter than for large stelae (where preserved), and these smaller stelae may have therefore been propped against the superstructure or otherwise installed for display in some above-ground feature.

In thinking through the imperatives presented by the technique and scale of graphical expression for visibility in particular environmental contexts and recalling Gibson's

(1979) tri-partite framework for material properties (substance, surface and medium; §2.4), the stelae present various scenarios that would have contrasted them markedly with the labels or jars. For visual engagement via the medium of light, full sunlight, for example, would cause shadow and light to play on the surface of carved stelae in specific ways. The greater GO scale and height of relief on the large stelae would create a more pronounced visual (and tactile) effect than the imagery on the more shallowly carved small stelae, and, in turn, than the (paste-filled) incisions or applied colour on the labels. Depending on whether the labels were viewed in full sunlight, in ambient daylight or in enclosed architectural spaces requiring torchlight or lamplight for visual perception, the contrast provided by colour or by light and shadow playing across incisions would be vital for perception. Related to the impact of the medium on perception are scale and manipulation. These would influence the distances required for observation and the number of simultaneous viewers, the stelae presenting potentially more public or shared viewing experiences than the labels.

Recalling the evidence for the production process of No. 48/1865_A, the stela's incomplete carving raises important questions about the location of manufacture and presence of unfinished objects in the cemetery context (see also §5.12; Piquette 2013a). Objects appear to be 'unfinished' on the one hand, but, given their presence in the cemetery, should we on the other hand consider them 'finished enough', or indeed 'finished'? Or are they in fact discard? The recovery of incomplete limestone slabs or 'blanks' in the 'Royal' Tombs Cemetery (Martin 2011, 1) presents the possibility that some aspects of manufacture took place on site, a point also to be considered for other objects.¹⁷ Given the degree to which stela No. 48/1865_A was completed, it seems reasonable to assume that the maker(s)/commissioner(s) considered it "finished enough" and that it was indeed installed.

Indirect evidence for stelae installation and display within the funerary landscape is found on the stelae themselves, while various scenarios can be hypothesised depending on the presence and configuration of superstructures. The aforementioned large, well-preserved stela (No. 48/1865_A) offers indirect insight. In addition to the deliberate positioning of the imagery in the uppermost part of the available surface, stelae such as the well-preserved 1.43m-tall stone slab of Djet (Figure 115) show weathering that strongly suggests exposure to the elements over time, compared with the lower half presumably installed in the ground. As currently displayed in the Louvre, the stela of Djet rests on a shallow support placed on the same surface as the museum visitor such that the graphical field is located at or above eye level. From a situated perspective, if the stela was set into the ground the imagery was positioned well below the eye level of a standing adult, offering a markedly different set of conditions for past perception and embodied engagement. In contrast to the manual manipulation that likely characterised jar and label practices, engagement presumably involved individuals moving their bodies relative to the stelae. Viewing or other activities, such as making ritual offerings (Reisner 1932, 329–330) or undertaking maintenance (e.g. periodic cleaning

17 ID229/0643_A is of interest here.

of windblown sand), may have required stooping, bending and crouching, or kneeling (cf. Whitehouse 2013), especially for the small stelae.

Our understanding is nevertheless hindered by the dearth of intact burial superstructure elements. Architectural preservation is almost exclusively substructural at Abydos. This may be due to emphasis on subterranean architecture as compared with 1st-dynasty *mastabas* at Naqada, Saqqara and elsewhere (Petrie et al. 1913; Wilkinson 2001, 233), but others suggest that the complexes had some form of superstructure. Dreyer et al. (1990, 67–68; see also Dreyer 1991, 104) propose that from the reign of Djet onward the superstructure may have comprised two elements: a hidden, perhaps symbolic, tumulus over the burial chamber and a larger mound over the whole tomb (see also Spencer 1993, 80), although this has been doubted (O'Connor 1991, 7). If superstructures consisted of low mounds, the large stelae could have constituted a relatively prominent feature, particularly if set up in pairs (e.g. Tombs Y [Merneith] and Q [Qa'a]). Small stelae were probably installed as single grave markers. Among the three similar pairs¹⁸ that survive, none is left facing to suggest two were set up at the same individual's grave, as attested for some of the large stelae.

Whether the stelae were displayed singly or in pairs, perceptual opportunities were also framed and reframed depending on how one moved through the cemetery. Audencing would have been multi-layered and dynamic, with iterative viewing characterised by visibility, invisibility, and intervisibility as one moved around this space. The visual impact of such monuments and markers must have also been augmented by the general location of the tomb complexes at the base of the desert cliffs, aligned with the large *wadi* issuing from the cliffs (Wilkinson 2001, 232). Through a practice-centred approach, we develop a more situated understanding of the stelae as actively constructing symbolic meaning and structuring social space within the 'Royal' Tombs Cemetery at Abydos.

9.9 Summing Up

This chapter formed the second part of an exploration of contemporary graphical culture in order to further contextualise the primary case study on the labels. Leaving the question of semantic meaning largely to one side, I explored the extent to which the significance of this early graphical culture—whether understood as writing or art or some other mode of symbolic expression—is anchored in the material world. Marked NIIIA1 wavy-handled jars and NIIIC-early D stelae were examined comparatively in Chapter 8 with a focus on archaeological context, material and technical choices and image repertoire. Chapter 9 explored how these informed the wider context of the composition. I then turned to one GO type, namely anthropomorphic figures, to begin grappling with the interpretation of these surface marks as signs and their semantic significance based on archaeological associations. Although this exercise may strike some

18 The similarities between No. 36/1689_A and No. 37/1690_A are striking; No. 59/0721_A and No. 102/0764_A including similar Clusters but the former is carved and that latter painted with an additional GO; No. 128/1289_A (fragmentary) and No. 129/1290_A are also of note.

readers as overly pedantic, one of the stated aims of the approach underpinning this study (see Chapters 2–3) is to remedy methodological gaps in previous research where explication of the ontological and epistemological bases of semantic interpretation is wanting. Drawing on selected insights on the labels gleaned from these comparisons and foregoing analyses, I now consider semantic function and meaning in more detail.

10. Exploring Semantic Significance

10.1 Identifying People, Quantifying Things

The theoretical approach for this study holds that, as in the present, people in the past lived and constructed their lives according to their cultural concepts, socio-political contexts, intentions and knowledge—some of which find expression in more permanent forms such as writing and art. While interpretation of early Egyptian ‘visual’ culture has often relied on later knowledge sources distant in time-space—effectively from the past’s future—this study prioritises explanation in dialogue with the past’s present through the lens of image materiality. Just as a pot is an artefact constituted through material practices, ontologically so are writing and other image types. It is with this fundamental level of inquiry that the previous chapters are concerned. In this chapter, I grapple with more interpretive layers of explanation, e.g. determining via a contextual approach how marks on a material surface encode iconographic meanings and semantic or other values. In the examples presented below and in keeping with the anchoring of image interpretation in contemporary evidence, I consider to what extent it is possible to access symbolic meanings by drawing together various strands of evidence from the foregoing analyses on the labels and comparanda. Taking inspiration from Alison Wylie’s (1989; see also Geertz 1979) “archaeological cables and tacking”, I attempt to exploit multiple strands of archaeological evidence to make inferences and, together with ‘dialectical tacking’ between theories and concepts, develop hypotheses concerning general semantic content. I have selected two GO categories as points of departure:

- Anthropomorphic GOs;
- Stroke/notch GOs.

Each are treated in separate sections below, in which I isolate the specific ‘strands’ of evidence drawn from archaeological associations, depictive evidence and compositional associations, and the inferences which together comprise the ‘cable’ of interpretation.

10.2 Finding the Individual

Many labels depict anthropomorphs in several poses, engaged in a variety of activities. Certain groupings are reminiscent of those on the small stelae with regard to associated GOs and their compositional proximity that cannot be explained narratively.

Strand 1

The interpretation of single anthropomorphs depicted on the small stelae as iconic signs for the interred body was hypothesised through archaeological association in §8.4. Few would disagree with the inference that the 1–7 GOs clustering in close proximity above or around said anthropomorph convey additional information in a non-narrative form concerning its identity. However, the question of whether personal or social identity is

highlighted cannot be determined via the present approach. I describe this grouping as anthropomorph+PI Cluster or anthropomorph+PI (see Table 16 for types of anthropomorphs depicted). Thus:

Strand 1: Cluster on stelae = PI, where anthropomorph co-occurs in compositional configuration and proximity.

Strand 2

On the labels, imagery most closely fitting the criteria of Strand 1 is encountered on three examples¹ from Helwan, on each of which a discrete bearded anthropomorph+Cluster is located in the right column. Rather than striding/standing or in a crouched/knees-up position, each anthropomorph is seated on a stool or chair. Separating the anthropomorph+Cluster from other imagery on each is a double vertical line or ‘||’ Structuring Element (SE). Similar to the anthropomorph and associated Cluster on the small stelae, here it also seems reasonable to conclude that the Cluster acts as a legend or caption specifying some aspect of the anthropomorph’s identity. Thus:

Strand 2: Cluster on labels = PI, which occurs with anthropomorph to right of ‘||’ SE and where compositional configuration and proximity cannot be explained narratively.

Strand 3

The pattern established as Strand 2 is next most closely paralleled on ID284/2002_S, with the notable exception that no anthropomorph is depicted. That the label’s content is semantically similar to Strand 2 is supported by at least 20 ink-inscribed labels from Abydos Tomb Complex Q (Qa’a) bearing a similar compositional configuration. The right column of all these labels contains the ruler PI, either alone or bounded within $\overline{\overline{\overline{\quad}}}/O33+\overline{\overline{\overline{\quad}}}/G5$. Similar to ID284/2002_S, here too other GOs are set apart by a ‘|’ SE. ID376/3408_H likewise bears a Cluster in the right column, in this case kept separated by the ‘||’ SE. Thus:

Strand 3: Cluster = PI, where located to the right of ‘|’ or ‘||’ SEs. It is also worth noting at this juncture a parallel pattern where those labels exhibiting Strand 2 or 3 also tend to include a container/vessel GO in the left column, often accompanied by $\overline{\overline{\overline{\quad}}}/F4$.

Strand 4

As established above from a comparative compositional standpoint, ID284/2002_S bears a PI in the right column, namely $\overline{\overline{\overline{\quad}}}/D28+\overline{\overline{\overline{\quad}}}/Q3+\overline{\overline{\overline{\quad}}}/M17$. A further strand can be added to our ‘cable’ of reasoning by taking into account archaeological associations. Three labels found with ID284/2002_S in Tomb S59² also bear this Cluster, but with two differences. Firstly, they lack explicit division of the compositional space using the ‘|’ or ‘||’ SE. Secondly, while $\overline{\overline{\overline{\quad}}}/M17$ appears on the right on ID284/2002_S, the practitioner swapped the position of $\overline{\overline{\overline{\quad}}}/Q3$ on the three other labels. This graphic transposition does

1 ID374/3406_H, ID375/3407_H, ID376/3408_H.

2 ID281/2004_S, ID282/2003_S, ID283/2005_S.

occurs on several Saqqara labels at the top centre or top right.⁸ It can also be discerned in a central position on an unfinished(?) / partially erased(?) wooden label⁹ from Tomb Complex O (Djer) at Abydos.¹⁰ Thus:

Strand 6: Cluster = PI, where the PI conforms to Strand 5, and may occur in the upper or central part of compositions that do not bear $\overline{\text{III}}/\text{O33}+$ $\text{A}/\text{G5}$.

Strand 7

A survey of all PI Clusters conforming to Strands 2–6 reveals additional Clusters with which they are regularly juxtaposed. PIs located to the left of $\overline{\text{III}}/\text{O33}+$ $\text{A}/\text{G5}$ may be accompanied by Cluster $\text{A}/\text{L2}+$ $\text{C}/\text{S19}$ placed above, as attested on labels dated to Den,¹¹ possibly one from Adjib,¹² and one each from Semerkhet¹³ and Qa'a.¹⁴ In the last case, $\text{A}/\text{L2}+$ $\text{C}/\text{S19}$ includes $\text{D}/\text{X1}$. Comparison shows that the PI below may change from reign to reign, or continues across reigns as attested for Djer and Djet¹⁵ and Semerkhet and Qa'a.¹⁶

Cluster $(\text{D}/\text{X1}+)$ $\text{A}/\text{L2}+$ $\text{C}/\text{S19}$ is conventionally understood as “seal bearer of the one of the bee”,¹⁷ an interpretation that can be largely accessed from an iconic perspective. At this stage of analysis, however, I continue to focus on graphical practice in time and space and as such distinguish $(\text{D}/\text{X1}+)$ $\text{A}/\text{L2}+$ $\text{C}/\text{S19}$ as a ‘stable PI’, in contrast to the ‘changeable PI’ Cluster positioned below it. The changeability of the latter is also reflected in its modification as observed in the context of Strand 5 for labels dated to Djet. The changeability of the lower Cluster, which we might also term a ‘bi-partite PI’, is also seen on at least three labels¹⁸ dated to Den.

Further, another stable PI can be inferred from a label dating to Qa'a and by extension to others from this and the preceding reign. On ID410/4448_A, below the bi-partite PI just noted, is Cluster $\overline{\text{I}}^{19}/\text{T7a}+$ $\text{C}/\text{T7}+$ $\text{F}/\text{M23}$. A survey of all occurrences of this Cluster shows that $\text{D}/\text{X1}$ may be present while $\text{F}/\text{M23}$ may be absent, the Cluster possibly even being abbreviated to just $\text{C}/\text{T7}$ in two²⁰ cases; thus this Cluster may be characterised as $(\overline{\text{I}}/\text{T7a}+)$ $\text{C}/\text{T7}(+\text{D}/\text{X1})(+\text{F}/\text{M23})$.²¹ In addition to variability in

8 ID262/0989a-b_S, ID263/0990_S, ID264/0994_S, ID265/0992_S, ID266/0995_S, ID267/0991_S, ID268/0993_S, ID274/0986_S (all from S3504); see also ID275/1081_Un.

9 ID229/0643_A.

10 On other labels bearing the PI of Djer, two further Clusters are attested to the left of $\overline{\text{III}}/\text{O33}+$ $\text{A}/\text{G5}$: cross-hatched-circle/Aa1+ $\text{A}/\text{G1}+$ $\text{L}/\text{D58}$ (ID254/0811_A) and $\text{A}/\text{G17}+$ $\text{N}/\text{N35}$ (ID240/0682_A). We can thus infer the association of at least three individuals with the reign of Djer at Abydos and Saqqara.

11 E.g. ID304/1253_A.

12 ID342/1601_A.

13 E.g. ID343/4557a-b_A.

14 ID410/4448_A.

15 ID228/0646_A, ID274/0986_S, respectively

16 ID345/1677_A, ID410/4448_A, respectively.

17 I.e. the ruler in a particular guise that *may* refer to Lower Egypt (Erman and Grapow 1982, vol. 1, 434).

18 E.g. ID296/1366_A, ID315/1372_A, ID318/1249a-b_A.

19 Note that the font employed does offer the correct orientation of this GO, which should be rotated 90° clockwise.

20 ID419/4071_A, ID420/4461_A.

21 ID343/4046a-b(=4557)_A, ID344/4444_A.

constituent elements, the orthography of this Cluster may also vary.²² In all cases a changeable PI can be discerned. This is most clearly expressed on vertical labels bearing the PI of Qa'a.²³ In the upper left column, below $\overline{\text{𓏏}}/\text{T7a}+\overline{\text{𓏏}}/\text{T7}+\overline{\text{𓏏}}/\text{X1}+\overline{\text{𓏏}}/\text{M23}$, is the Cluster $\overline{\text{𓏏}}/\text{D28}+\overline{\text{𓏏}}/\text{W24}+\overline{\text{𓏏}}/\text{V28}$. This exhibits the characteristics already observed for changeable PIs, i.e. 2–3 GOs, often including $\overline{\text{𓏏}}/\text{D28}$. The interpretation of this group as PI-related is bolstered by the presence of the '𓏏' or '𓏏' SE (see Strand 2).²⁴ The same bi-partite Cluster also occurs where formatting is implicit.²⁵ Further, this bi-partite PI is repeated on four, probably five, labels bearing the PI of Qa'a, with a different changeable PI on a given label. Thus:

Strand 7: Strand 5 + stable Cluster ($\overline{\text{𓏏}}/\text{X1}+$) $\overline{\text{𓏏}}/\text{L2}+\overline{\text{𓏏}}/\text{S19}$ or ($\overline{\text{𓏏}}/\text{T7a}+$) $\overline{\text{𓏏}}/\text{T7}+(\overline{\text{𓏏}}/\text{X1})$ ($+\overline{\text{𓏏}}/\text{M23}$) + **changeable PI often with $\overline{\text{𓏏}}/\text{D28}$ = bi-partite PI.**

10.2.1 Discussion

Further observations can be made about these and related Clusters, but, given that the sample size of survivals of many Cluster types and their variants is often in the single digits, demonstrating a significant pattern becomes increasingly challenging. Nevertheless, several general patterns can be distinguished concerning the ways in which identity was expressed on the labels. An important yet challenging question revolves around the nature of the relationship between these identities and the role of the labels prior to and as part of funerary practice. Under what circumstances were these expressions visible and for whom would their meanings have held significance? On the one hand, modification/erasure of the changeable PI raises the question of whether the labels had ceased to perform certain functions by the time they were deposited. These absences also support the idea that certain identities were limited in time-space, such as a lifetime or period of service, and probably related to individuals, while the stable PI transcends the personal, pointing to more enduring elements of identity, such as an occupation or a social position within institutional structures, e.g. seal bearer of the ruler. This duality is also mirrored in the simultaneously stable yet changeable nature of the Egyptian ruler as expressed using the $\overline{\text{𓏏}}/\text{O33}+\overline{\text{𓏏}}/\text{G5}$ motif, with continuity embodied there in the (relatively) unchanging form of $\overline{\text{𓏏}}/\text{O33}$ and its bounding frame above, which stabilises the changeable elements bounded within.

The representation of social identity in compositional terms places emphasis on GO clustering, juxtaposition and a somewhat restricted location within the graphical space. Consistency in constituent elements is less of a concern in contrast to fixity in GO form, orientation and direction. Some flexibility in orthography is also attested. Temporally, and focussing on non-narrative, non-ruler imagery, we can trace an emphasis on personal identity from the reign of Djer up until the reign of Den, with de-coupling from an image of the human form (also in contrast to the small stelae). Spatially, expressions

22 Cf. ID407/1870a–b_A.

23 ID421/4075_A.

24 ID421/4075_A, ID422/4445a–b_A, ID423/4447a–b_A, ID424/1654_A.

25 ID417/4454a–b_A.

of identity are more common on labels from Saqqara and Helwan than on those from Abydos, the vast majority of which include the bi-partite PIs which incorporate stable expressions of identity. Labels from Abydos may therefore be seen as evidence for a particular concern for expressing collective or institutional aspects of identity as part of label practices at this site.²⁶

10.3 Enumerating Things

I now turn to another group of GOs that also provide a sufficiently substantial sample size and spatial and temporal distribution to provide insight into semantic meanings from a grounded approach. The following are conventionally interpreted as numerical signs, with the corresponding values indicated:

NIIIA1 labels:

notch/z1 = 1 or 10;
 spiral/v8 = 100;
 vertical-wedge/X1(?) = 1.

NIIC–early D labels:

i/Z1 = 1;
 n/V20 = 10;
 9/V1 = 100;
 𓄿/M12 = 1000.

10.3.1 Thinking Through Numerical Signs on the NIIIA1 Labels

Notch/z1 occurs on 40 NIIIA1 labels²⁷ in Clusters of 6–12. Six labels bear a spiral/v8, three of which also include vertical-wedge/X1(?).²⁸ The remaining proposed numerical signs occur in different combinations on at least 40 NIIC–early D labels. Some investigators have applied numerical values with caution (e.g. Legge 1906, 263), others with

26 Although it has been stated that the 1st-dynasty labels are “usually incised with the king’s name” (Hoffman 1991, 274), among 240 NIIC–early D labels only about 50 bear the 𓄿/O33+ 𓄿/G5 CGO. Space will not permit elaboration here on the expression of ruler identities, but it is worth stating that what constitutes a ‘name’ requires careful consideration. For example, it is not entirely clear what aspect of individual or institutional identity is encoded in the Cluster when inside the upper part of 𓄿/O33 and how this changes when expressed outside that context, not to mention the variable expression for other Clusters relating to ruler and other identities (see also Emery 1954, 3; Emery 1958, 3).

27 Note that ID004/0194_A, reported as found in Cemetery B (Petrie 1901b, 20, pl. 3.14, where “Aha B” is written on the back; *contra* MacArthur 2015, 114, fig. 5.1), is of the same type as those found in Cemetery U but exhibits some technical and stylistic differences. Its find location, along with that of others found in Cemetery B, may very well be the result of redeposition from looter activity, but a post-U-j date cannot be ruled out.

28 ID044/4281_A, ID045/4283_A, ID046/4282_A.

less caution (e.g. Emery and Sa'ad 1939, 105, No. 70; Spencer 1980, 63; Vikentiev 1959, 26, 30).

Strand 1

For the NIIIA1 labels, about 40 exemplars from Tomb U-j or nearby bear notch/z1 (6×–12×). Depending on how one orients the imagery/label these can be oriented horizontally or vertically. Dreyer (1998, 113–118, 140) proposes that each horizontal notch/z1 represents one unit while each vertical notch/z1 equates to '10' and could relate to different conventions for textiles versus grain. Although how published orientation is determined is unclear (Dreyer 1998, 139; see also Mattessich 2002, 201), the photographs and line drawings seem to assume that the vertical orientation for scored or more roughly cut edges was the intended orientation of the plaque,²⁹ regardless of patterns in GO distribution and perforation location (§5.6.1). Baines (2004, 157) observes that units of up to 12 cannot favour 12 as a base because 11 should then be the highest number expressed in single digits, and concludes that the decimal system and main counting base later attested in Egypt is likely. One would therefore expect horizontal and vertical notch/z1 to be combined on labels where these exceed nine, yet on a single label these range from 6–12. While the proposal that differences in orientation signal differences in value remains open to question, it seems reasonable to infer that notch/z1 represented one unit. Thus:

Strand 1: notch/z1 (horizontal or vertical) = numerical sign with value of 1.

Strand 2

Six labels bear a spiral/v8 to which, based on the later numerical sign 9/V1, Dreyer (1998, 113–118) attributes a value of '100'. Each spiral/v8 has at least 2.5 revolutions; one turns clockwise³⁰ while the rest turn counterclockwise. Three are accompanied by vertical-wedge/X1(?), the directionality and sequence of which is inconsistent. Given the lack of intervening numerical signs clearly demonstrating a shift from single units to 100, together with the compositional variability in expression, and the iconic potential of spiral/v8,³¹ non-numerical functions cannot be ruled out. Thus:

Strand 2: spiral/v8 = inconclusive.

10.3.2 Thinking Through Numerical Signs on the NIIC–early D Labels

Of the 245 NIIC–early D labels available for study, 57, or 23%, bear the posited numerical signs of $\text{v}/Z1$, $\text{v}/V20$ and $\text{9}/V1$, and $\text{M}12$, the majority of which are attested between the reigns of Narmer and Den. In contrast to the NIIIA1 examples, and depending on

29 Compare ID017/4256_A with ID020/4259_A.

30 ID041/4279_A (traces on the back of this label are suggestive of a spiral/v8, the incision of which may have been started and then abandoned and partially smoothed away).

31 Similar to the iconic function proposed for labels bearing garment/s27, spiral/v8 may depict a length of cloth, rope or other textile object.

the dating of a poorly preserved label³² from Abydos Tomb B50, none of these later labels is dedicated entirely to numerical content. When taking account of GO morphology and composition, one is hard-pressed to discern continuity between possible numerical signs on NIIIA1 labels and those on the next phase of labels. I therefore re-start the procedure of reasoning through strands of evidence in what follows.

Strand 1

I/ZI occurs 1–8 times on some 25 labels across the 1st-dynasty corpus, and may be aligned horizontally or vertically; grouped/stacked; or a combination. The earliest and most emphatic examples derive from Naqada, where I/ZI always co-occurs with N/V20 if not also with 9/V1 , and the group occupies most, if not all, of one surface, with what appears to be a string of beads being the subject of enumeration in two cases (see Bagh 2004, 592).³³ The groupings of I/ZI and N/V20 on tabular label ID368/4467a–b_S follow a similar compositional priority.³⁴ Because units do not exceed 10 we may conclude that the decimal system is in operation, although the specific unit of measure remains unclear. This interpretation must remain tentative, especially when considering how the compositional configuration of a stroke may change its numerical value (see Dreyer et al. 1998, 140), but it becomes even more conjectural where I/ZI does not co-occur with N/V20 ³⁵ as seen for most later label attestations. Compositional configurations and graphical associations among these are sufficiently varied that I/ZI clearly serves multiple notational functions and thus requires analysis that exceeds the present focus. Nevertheless, it seems reasonable to infer for groupings of the type found at Naqada that single numerical units of some type are intended. Thus:

Strand 1: $\text{I/ZI} = 1$ unit.

Strand 2

Turning to N/V20 , attested on 11 or 12 labels, where it co-occurs with I/ZI , we find that N/V20 is placed above or to the left of I/ZI in all cases except ID262/0989a–b_S. Given that I/ZI never exceeds frequencies of nine, it seems reasonable to attribute the value of ‘10’ to N/V20 . However, this combination is limited to the seven small labels from Naqada, a very similar exemplar from Abydos, and the aforementioned label from Saqqara, none of which bear more than $\text{I/ZI}(8\times)$. Thus:

Strand 2: $\text{N/V20} = 10$ (tentative).

Strand 3

9/V1 appears on at least 25 labels datable to the reign of Narmer up to the end of the reign of Den, after which it is no longer attested. Early on it co-occurs with I/ZI and N/V20 , placed consistently above the latter. That N/V20 occurs 1–9 times,³⁶ thus never

32 ID188/4817_A bears a partially preserved Cluster of at least $\text{N/V20}(7\times+)$.

33 E.g. ID195/0027a–b_N.

34 See also less-well-preserved ID355/4821_H.

35 E.g. cf. strokes on the obverse and reverse of ID262/0989a–b_S, the form of which also appears to differ, depending on the accuracy of the drawing (the location of the original labels is presently unknown).

36 Compare ID262/0989a–b_S with ID190/0228a–b_N.

exceeding 100, leads to the hypothesis that $\vartheta/V1$ held that value. However, this scenario is also restricted to six of the seven small labels from Naqada dated to Aha/Hetepneith (an eighth is discussed below). All other attestations of $\vartheta/V1$ are found at Abydos ($\vartheta/V1[1\times/2\times/3\times]$) or Saqqara ($\vartheta/V1[6\times]$), and, interestingly, on none of these does $\vartheta/V1$ co-occur with $\iota/Z1$ or $\rho/V20$. Additional questions are raised about the meaning of this sign when we consider ID239/0847_S, reported (Emery and Sa'ad 1938) as being found in Chamber Z of Tomb 3035 where (in as far as the archaeological context is indicative of original deposition and the publication is reliable; §4.6.1.2) it was found near a leather bag (Cat. 408/411) and other small finds. However, none can be linked to 600, whether in measure, weight or some other unit. Thus:

Strand 3: $\vartheta/V1 = 100$ in the context of the Naqada tomb, but less clearly substantiated elsewhere.

Strand 4

$\mathfrak{I}/M12$ is known in later evidence to have the value of 1000 (Allen 2000, 97), and a flora GO reminiscent of this form appears on some labels.³⁷ Where it co-occurs with $\vartheta/V1$ it consistently precedes it, suggesting an associated meaning and conforming to the numerical organisation pattern established in Strands 2–3. However, it co-occurs only with $\vartheta/V1(4\times)$. Its position on ID209/0240a–b_N and ID210/0241a–b_N is also where $\vartheta/V1$ usually occurs (i.e. Q3), but this area is erased (§5.7). What may also be $\mathfrak{I}/M12(3\times)$ also appears on various types of wooden labels,³⁸ but other numerical signs are absent. This leaves some doubt as to its meaning from a grounded perspective. Thus:

Strand 4: $\mathfrak{I}/M12 = \text{unclear}$.

10.3.3 Discussion

The assignation of the numerical values of 1 to notch/z1 for the NIIIA1 labels, and of 1 to $\iota/Z1$, 10 to $\rho/V20$, and 100 to $\vartheta/V1$ for the later labels does seem reasonable in many cases. At the same time, the facts that two different types of $\iota/Z1$ can be found on a single label³⁹ and that, apart from juxtaposition on several small contemporary labels from Naqada, elsewhere $\rho/V20$ and $\vartheta/V1$ are mutually exclusive, as are $\iota/Z1$ and $\vartheta/V1$, prompt caution in assuming that these are numerical values or that their functions remain constant.

Numerical signs co-occur with a limited number of GOs, including strung beads and what may be textile or an item of clothing.⁴⁰ They most commonly appear beneath or to the left of Clusters including vessels/containers and $\sim/M3$, suggesting an association with commodities, but are also often accompanied by $\mathfrak{L}/O40$, $\mathfrak{E}/V13$, $\mathfrak{E}/F4$, $\mathfrak{F}/M23$ and others. As observed above (§6.3.2), anthropomorphs do not actively engage with GOs classified here as numerical signs nor those conventionally accepted

37 E.g. ID197/0242a–b_N, ID274/0986_S, ID275/1081_Un, ID304/1253_A (traces in lower left column).

38 E.g. ID263/0990_S, ID264/0994_S, ID365/*_Ab.

39 E.g. ID210/0241a–b_N, ID262/0989a–b_S.

40 E.g. ID195/0227a–b_N, ID210/0241a–b_N, ID286/1243_A, ID354/1125_S.

as such. This adds further weight to a grounded interpretation of their meaning as more abstract than other GO types. Apart from two tabular labels⁴¹ possibly dating to the late 1st Dynasty, the enumeration of goods, using I/ZI , r/V20 or 9/V1 , as part of label function ceases around the time of the burial of Den. Selected labels associated with Tomb Complex Q at Abydos are the unique bearers of $\text{I/ZI}(2\times/3\times/6\times)$ in the upper right together with I/M4 and a restricted range of GOs/Clusters.⁴² This grouping associated with I/M4 is conventionally interpreted as year dates (Kahl and Engel 2001, 173; cf. Wilkinson 1999, 65), although this level of symbolic abstraction remains inaccessible via the present approach.

In the foregoing, I have endeavoured to cable together and reason through strands of graphical evidence and the limited archaeological associations from a grounded perspective, in order to test previous assumptions concerning numerical function of certain signs. If we accept Strand 1 for the NIIIA1 labels, and Strands 1–3 for the later labels, quantification played a significant role for NIIIA1 label practice, especially if labels were deployed in pairs or other multiples, as proposed above. Emphasis on commodity quantification is apparent at Naqada, but retains only limited importance elsewhere and only until the mid-1st-Dynasty, after which it wanes.

It is worth reiterating that the arithmetic values of numerical signs for early cu-neiform were subject to change depending on what was quantified and on whether they were referring to units or measures (Nissen et al. 1993, 134). In the Maya script, numerical signs require juxtaposition with iconic imagery because numerals were not understood in an abstract sense, but in relation to a real object (see Houston 2000, 147–149; see also Baines 2004, 156–157). From one perspective, numerical content on the NIIIA1 labels is emphatically separated from other content in that notch/zl never occurs with other GO types on the same label. The subject of numerical qualification would have been made clear through the act of label attachment, if not also through pairing with other labels. For example, a label⁴³ bearing garment/s27 attached to a garment (or garments) may have served an iconic function for what was not readily visible (if garments were bundled or packaged), while a numerical label could indicate the number of garments or some measure. A qualifying function could equally be served if notch/zl referred to thread count or grade of textile. Even if we cannot access the precise value or function, a key point is that during this early phase of label practice it would appear that numerical meanings were isolated in their physical expression but probably constructed and comprehended through physical bi- or tri-partite relationships of physical attachment with commodities and possibly other labels.

In contrast to the physical separation of content types seen on the NIIIA1 labels, numerical GOs on the NIIC–early D labels generally co-occur with other GO types on the same label surface or are on one face of a double-sided label. Separation is utilised, albeit less emphatically, via compositional clustering and location. Up to the reigns of Merneith/Den numerical information occurs in the lower or lower left part of the label. In the reign of Qa'a, numerical signs are limited to I/ZI and located exclusively in the

41 ID354/1125_S, ID355/4821_H.

42 ID410/4448, ID420/4461_A, ID416/4455a–b_A (aligned horizontally) or ID401/4044_A (stacked).

43 E.g. ID173/4401_A.

upper right, apart from tabular labels that may date to this reign.⁴⁴ Separation of content type is also signalled through the use of colour.⁴⁵

How we understand the unit of reference for a given value is critical for our understanding of label function. For example, whether a series of notch/zl on a NIIIA1 label refer to quality or quantity, and, if the latter, whether to a unit, weight or measure, and whether values changed depending on associated labels and commodities have significant implications for assessing tomb contents and reconstructing early administrative and accounting practices. Even for the NIIIC labels where commodities are depicted along posited numerical signs, e.g. ID239/0847_S, it is not clear whether $\text{1/21}(2\times)$ and $\text{2/1}(6\times)$ are indicative of vessel quantity or the quantity, weight or measure of items contained therein. Do the numerical signs on ID195/0227a–b_N and ID196/0225a–b_N refer to the number of beads or strands of beads? More evidence is needed to refine our understanding of the enumerative role of the labels, but it is clear that the meaning and function of a stroke, notch or other numerical sign was constructed through a web of practices including sets of inter- and intra-artefact relationships.

10.4 From Grounded to More Abstracted Methods of Interpretation

Strands of evidence may be quite weak on their own, but when bundled together they enable us to infer and contextualise patterns or “rules” of graphical expression and their reproduction or renegotiation. The compositional relationships and materiality of expression for PI Clusters (§10.2) and numerical signs (§10.3) were characterised and charted across time and space (both graphical and geographical). Enumerative practices associated with goods emerge at Abydos during the NIIIA1 phase but decrease in importance during the mid-1st-Dynasty, in contrast to an increase in expressions of social identity, increase seen in type, frequency and complexity of compositional configuration. Through these selected detailed analyses, we gain a glimpse into the construction of social identity and associated cultural categories. Although sign values and precise function may not be discernible with certainty, I hope to have demonstrated the potential for inferring and assessing semantic meaning through detailed examination of contemporary aspects of graphical and material practice—an approach which I think holds particular promise if extended to the wider body of graphical evidence from this early period.

As stated, it has been my aim to avoid reconstructions based on analogies with later Egyptian writing and art and to demonstrate the importance of thoroughly assessing the core archaeological data prior to undertaking more abstracted interpretation. Nevertheless, these approaches are complementary and integration is essential. But how should this proceed? Once the potential of evidence from a given past present has been exhausted, I see integration as involving pursuing strands of evidence forward in time and across space to those points where explanation can be hypothesised and

⁴⁴ E.g. ID354/1125_S, ID355/4821_H.

⁴⁵ E.g. ID262/0989a–b_S, ID354/1125_S. Colour publication of all labels and pigment analysis is needed to elucidate more fully the significance of colour choices.

tested. Important for reflexive assessment of the replicability and robustness of these strands and their bundling is the careful characterisation of continuities/discontinuities through dialectical processes of tacking back and forth between empirical evidence and interpretation (Wylie 1989). Clear explication of our inferential strategies, theories and assumptions employed, and assessment of degrees of certainty (direct and less direct forms of evidence), and so on, enable a grounded approach to reach the limits of its potential, followed by its augmentation through integration with those understandings that are gleaned via more abstracted methods.

11. Conclusion

Early Egyptian imagery—whether classified as art, writing or otherwise—has long been studied for the light it sheds on the development of artistic and written traditions, elite identities, religious belief, political ideology, and the centralisation of economic control. The NIIIA1 and NIIIC–early D inscribed labels of bone, wood, ivory and stone form a key source for such studies. However, these have tended to emphasise those labels bearing the names of rulers and narrative scenes, including those termed ‘year labels’—a subset of labels that has become representative of this object type, despite significant variability. In focussing on these objects for the information they provide *about* social-historical phenomena, their epistemological position as ‘sources’ has become somewhat entrenched and self-limiting. Semantic and symbolic interpretations are often based on pre-determined categories, implying a precision that risks over-simplifying what is in fact a complex and dynamic graphical landscape.

The research presented in this volume was therefore concerned with exploring this complexity through particular relationships between imagery and the materiality of expression. My aim was to expand our understanding of the labels with focus on these objects in their own terms. In the foregoing chapters, I attempted to develop a more context-sensitive, material- and agent-centred perspective, integrating theories of practice from sociology (e.g. Giddens 1984) and ecological psychology (e.g. Gibson 1979). This foundation is important for grounding explanations of early Egyptian imagery in the physical world and as part of the material actions and cognitive processes involved in past meaning-making. In addition to semantic intentions, I have argued for the importance of examining the embodied choices and processes involved in transforming a material surface in a certain way, and considering how this informs image appearance and meaning as constructed and instantiated through acts of perception and cognitive processes. Indeed, we can no longer be content with remarking upon apparent continuities in what images appear to depict or symbolise, but must also ask *how* they did so as part of social practice situated in particular material-time-space contexts. The artefactual facets of the image require greater integration with iconographic and semantic interpretations if we are ever to approach understandings of, not only *what* images meant, but *how* they meant what they meant as part of lived experience.

In order to develop more a holistic and reflexive approach, I undertook a critical epistemological exercise to disentangle those understandings constructed through analogical, inductive, and often anachronising methods, from those anchored more firmly in the material traces themselves. The Research Questions (§1.8) directed inquiry to the archaeological context, the material properties of the labels, and compositional aspects of graphical expression. These were examined comparatively through the study of inscribed jars and stelae inscriptions, in order to think through the significance of labelling/markings practices in the funerary sphere as well as possible practices preceding deposition in the cemetery.

The contextual method developed in Chapters 1–3 treated imagery together under the umbrella of “graphical culture”, endeavouring to avoid preconceived categories such as “art” or “writing”, or types of semantic function and symbolic meaning abstracted

from later evidence. In Chapter 4, I brought together the available empirical evidence from archaeological reports. Bearing in mind the variable quality of the archaeological data, I endeavoured to identify potentially meaningful contexts revealing of label use, as well as features that might shed light on pre-cemetery object biographies. The material aspects of the labels were examined in Chapter 5 based on published data, first-hand observation and experimental archaeology. Chapters 6–7 dealt with the graphical repertoire and traced patterns in composition at the level of the Graphical Object (GO), including, Simple GOs (SGOs), Complex GOs (CGOs) and the different relationships of which they are part (e.g. Clusters), at both inter- and intra-object scales. This detailed, multivariate data analysis was aided by the innovative application of the software program ATLAS.ti. Emergent trends and patterns were explored comparatively in Chapters 8–9 in relation to mark-making on contemporary ceramic vessels and stelae from Abydos. In Chapter 10, I cabled together strands of evidence in order to construct grounded hypotheses for general semantic meanings relating to expressions of personal identity and enumeration. Throughout I directed attention to the recursive relationship between embodied action, materials and tools involved in the production and use of images across time and space. In these final sections, I draw together key themes and insights.

11.1 Label Practice Across Time and Space

In exploring Research Question 1 (§1.8.1) concerning what the general archaeological context reveals about label practices, we saw that two main phases are attested: the Naqada IIIA1 cultural phase (c.3325–c.3085 BCE) and the Naqada IIIC to early Naqada IIID phase, or end of the 1st Dynasty (c.2867 BCE). Spanning at least 300 years, the labels range in space from Abydos in the south to Abu Rowash in the north. The early group comprising about 180 labels is restricted in time-space, all deriving from Abydos Cemetery U with the majority from Tomb U-j, but others also from three neighbouring tombs. Given high levels of archaeological disturbance and variability in excavation and recording methods, the significance of find locations should be assessed with caution. For example, ID189/0692a–b_A was found in the ‘Royal’ Tombs Cemetery in Grave 22 (Amélineau 1904, 56–58) but resembles the NIIIA1 labels (Dreyer 1998, 139) and may be the result of secondary deposition. Label evidence from the intervening NIIIB phase may be represented by a single example¹ from Abydos Tomb B50, but again post-depositional disturbance precludes secure dating (§4.4.2.1; see also Bestock 2009, 20–22) and graphical parallels² from Naqada point to a date during the reign of Aha. The later group of NIIIC–D labels comprise over 240 exemplars from six cemetery sites, with the majority deriving from Abydos Cemetery B and the ‘Royal’ Tombs Cemetery. Further archaeological discoveries doubtless await, and the full publication

1 ID188/4817_A.

2 E.g. ID190/0228a–b_N.

of labels recovered during the past three decades of German Institute investigations at Abydos will contribute vital new data to the NIIIC–early D group.

In addressing Research Questions 2–3 concerning the relationship between label materials and graphical features and social practice, I highlighted the correspondence of key changes with political transformations. Accompanying the acceleration of political unification and rule under Narmer, large format labels are introduced (alongside continued use of small perforated plaques). In addition to the use of bone and ivory (including elephant and hippopotamus), wood is introduced while stone, hardly used in any case, disappears. The painting technique is adopted alongside incision with paste infill and incision with applied paint. Perforation placement is regularised to the upper right corner from the beginning of the 1st Dynasty to the end of label use at the end of the dynasty. As for the imagery, overall about 4300 GOs were identified and classified into 23 Families (12 Iconic, 9 Non-Iconic, 1 Unclassifiable, 1 Unclear). The NIIIA1 repertoire is limited to 15 Families in contrast to all Families being represented for the 1st-dynasty labels, with only limited overlap between the repertoires of both phases (§6.7; Table 7). Expression was distinguished according to two compositional modes and four main GO types (Figure 65). GOs placed on groundlines often entail compositional associations forming narrative sequences, in contrast to GOs rendered in the floating mode. Major changes in compositional practice correspond with regnal change, although assessing the extent of innovation, especially within a given reign, is complicated by uneven preservation. The first use of explicit Structuring Elements (SEs) in the form of horizontal register lines is attested from the reign of Narmer. The reign of Den is archaeologically well-attested, in contrast to the preceding³ and subsequent reigns (a solitary label⁴ is datable to the reign of Merneith, and a small fragment⁵ to the subsequent reign of Adjib), with over 61 labels surviving from the area of Tomb Complex T at Abydos and five from contemporary tombs in the 1st-dynasty *mastaba* cemetery and Macramallah's Cemetery at Saqqara (§4.6.1; §4.6.2). During the reign of Den innovations in both format and content occur, including a shift from the horizontal layout to the vertical, while the Plain Format persists. A notable increase in GO frequency per label, as well as density and compositional organisation, can be observed, with a reduction in the narrative imagery that had characterised the horizontal layout, to an increasing tendency for organisation into rectilinear groups in the Vertical Format—a practice that is consistent with the behaviour of later script representing elements of language (see also Allen 2000, 5). The enumerative function of labels for commodities also diminishes during this period. Overall, six main format types and variants can be identified (Figure 95), including the Plain Format, which persists throughout (see Figure 93; Figure 94; also summary in Table 11), with no more than four in use at any one time.

As for spatial distribution across time, label activity is attested exclusively at Abydos until the reign of Aha, when a handful of labels are deposited at Naqada. Not until the

3 New carbon-dating results indicate a lengthy interval between the reigns of Djer and Djety, perhaps indicative of a political hiatus (Dee et al. 2014, 6).

4 ID280/1194_A.

5 ID342/1601_A.

subsequent reign of Djer do members of the northern Memphite community adopt this practice. Toward the end of the 1st Dynasty, when label-making and use appear to be flourishing (based on approximately 65 from Abydos and Saqqara datable to the reign of Qa'a), this generations-old custom abruptly ceases. One of Qa'a's successors, Hetepsekhemwy, is attested in graphical evidence from Qa'a's tomb complex (Dreyer et al. 1996, 71–72, fig. 25, pl. 14a), but labels are not among this material. Perhaps another form of labelling was developed and adopted during Hetepsekhemwy's rule, as part of the shift to the Memphite area for royal burial and mortuary complexes if not also the royal residence and associated administrative institutions (Bárta 2013, 161–162). Further work at Saqqara on high status 2nd dynasty tombs (e.g. Engel 2006; Lacher 2008; Regulski 2009, 222–223) will hopefully shed light on the question of continuities in labelling practices.

Label material selection, shaping and surface preparation prefigured to varying extents GO shape, colour, scale, surface distribution, etc., although graphical intentions probably informed substrate choices to a greater extent for the labels and stelae compared with the wavy-handled jars (given that their primary role of containing things would have dictated material attributes including surface size, shape and porosity). GO categories and types on the labels increase from the NIIIA1 to NIIIC–early D, with a correspondence between the increase in GO quantity per label and greater plaque size during the later phase of use. Explicitly formatted labels are the most heavily and densely inscribed, in contrast to sparsely elaborated examples in the Plain Format.⁶ The analysis directed to Research Question 3 also showed how aspects of the labels are rigidly reproduced over time and space, including rectilinear shape, perforation presence and location, general small size, restricted repertoire, and techniques of expression organised according to certain compositional features. In the Giddensian sense, we can infer social rules governing practice of this particular type of material-graphical resource. At the same time, the analysis also showed that certain combinations of GOs and compositional relationships are more restricted, e.g. the use of numerical signs, bi-partite PIs, narrative scenes, and types of explicit formatting.⁷ For this and other reasons, the labels embody an interesting tension. On the one hand, these objects constituted a cultural form that persisted for more than three centuries, while on the other, they were an arena of change where graphical expression and meaning was challenged and renegotiated over time and from place to place.

11.2 The Physical Act of Labelling

It is often stated unequivocally that the labels were attached to grave goods, yet the archaeological basis for this assertion remains elusive. No label has been found attached, nor in a position that directly or indirectly substantiates this claim (§5.6.1). A clue for

⁶ E.g. ID203/0096_A.

⁷ Bearing in mind the unevenness in spatial distribution and size for a given variable or sets of variables: Abu Rowash, Giza, Naqada and Tura each represented by a single label-yielding tomb.

the function of the label perforation survives in only two⁸ instances in the form of a short segment of twine threaded through the perforation (e.g. Figure 29). The perforation may have been used in other ways, for example threaded with other materials such as wire or used for enabling display on a nail. However, indirect evidence for the mechanical function of the perforation, such as use-wear around the hole, is not apparent on examples examined first-hand.

In thinking about the mechanics of marking, the question of why one method was chosen over another arises. Whereas imagery was applied directly to wavy-handled jars, perhaps the labels were employed when direct marking methods were impractical or undesirable, such as avoiding marking items directly (e.g. textiles). Labels may have also served a summarising function, attached to one object that was representative of a group, such as the one-to-many relationship discussed (see also below). A similar possible use of the perforation is presented by labels in the Tabular Format. ID353/1564a-b_S appears to list goods in the two lower preserved registers divided into six columns. For ID354/1125_S and ID355/4821_H, numerical signs are placed below Clusters relating to goods, which on the former appear to be packaged in containers. Rather than such labels being attached to any one item or package, we might envisage a scenario where the individual overseeing deliveries or storage of items strung labels together as a record or mnemonic device. Any administrative or recording function presumably ceased with the conclusion of the burial rite given that labels were deposited in the cemetery. Alternatively, as Emery (1949, 109; Emery 1954, 107) suggested, perhaps like later offering lists, the intention was that the goods depicted on such labels ‘made present’ these items, bringing them into existence in the service of the deceased in the afterlife. Labels may even have served a dual purpose, both to aid tomb equipping and subsequently having some magical efficacy in the hereafter.

11.3 Label Associations

The next most direct form of archaeological evidence for label function should be found in correspondences between their imagery and archaeologically associated finds. Among a small number of NIIIA1 labels and later examples datable to the reigns of Narmer through to Den, labels bear GOs depicting textiles/garments,⁹ grain(?), an arrow,¹⁰ a gaming piece or model granary(?) (y3), staves, sandals, and selected containers including pots, boxes and bags. ID224/0614_A, incised with a single arrow, was recovered from Abydos Tomb Complex O (Djer) where Petrie (1901a, 22) encountered multiple arrows. Although no clear archaeological association can be established, if GOs functioned pictographically to refer to items to which labels were attached, how would this label:labelled relationship operate in practice? If tied directly to the item depicted, the association could be one-to-one or one-to-many, although this seems redundant

8 ID239/0847_S, ID285/4820_Ab.

9 ID172/0205_A.

10 ID224/0614_A.

unless item visibility was impeded, for example, by wrapping or placement in a bag, box or basket (e.g. Figure 38).

Dreyer (1998, 139–140) raised the possibility of more than one NIIIA1 label being attached to a container, for example, a label giving numerical information (weight, measure or other unit), and another label giving the origin/location.¹¹ Examples of labels referring to multiple objects are more clearly attested for the NIIIC–early D labels, including three labels of the tabular type¹² noted above, albeit attested only from Saqqara and Helwan. In the case of the small Naqada labels, some of which appear to depict strung beads, Tine Bagh (2004, 592) suggests that numbers referred to individual beads on a single string, rather than to the quantity of strands. For example, ID239/0847_S bears $\vartheta/V1(6\times)$ or 100×6 units of some kind. Regardless of how this relates to items depicted in the lower register, including a vessel with $\iota/Z1(2\times)$, a one-to-many relationship seems to be indicated. Fourteen units of some commodity are enumerated on ID262/0989a–b_S, also seeming to set this single label in relation to multiple items perhaps contained in a vessel type depicted thereon. A similar possibility is raised by double strokes on the secondary face of this and other labels.¹³ Traces of $\vartheta/V1(2\times)$ are found on ID304/1253_A and, accepting a numerical interpretation, 100×2 units are indicated. Petrie (1900, 22) reports having found this wooden label coated in resin, perhaps the results of ritual or looting activities where resinous contents of a container(s) were spilled/poured out. Whether the numerical information represents a unit of weight or other measure, numerous containers would have been required, again presenting the question of how the label, like others discussed above, would have been attached or otherwise associated. A long ivory plaque (JE 92679) from the floor of the main hall of an unfinished step pyramid at Saqqara attributed to the 3rd-dynasty ruler Sekhemkhet (Goneim 1957, pl. 65b) may be informative here. This plaque bears a list of textile items with the lowermost section of each column drilled through with a hole. Perhaps such perforations were for threading cord through and attaching objects such as other labels.

Overall, and based on the available archaeological and graphical evidence concerning label:labelled relationships, several types can be posited:

- A one-to-one relationship with an item, such as a pair of sandals¹⁴ or a staff;
- A one-to-collective relationship: several of one item type packaged together, where the label displays the type but not the quantity;
- A one-to-many relationship: e.g. numerical signs on the lower part indicate that the label was associated with multiple items, or lengths or weight.

11 The relationship between seals, seal impressions, sealings and the items sealed is also relevant here. There may be a one-to-one relationship between a given sealing and the item sealed, but the former might receive more than one impression, and sometimes from more than one seal (Köhler 2004b, 13).

12 ID353/1564a–b_S, ID354/1125_S, ID355/4821_H.

13 See also ID210/0241a–b_N. In both cases, the strokes are slightly wider than those on the recto. It is therefore unclear if they are of the same class.

14 John Baines (pers. comm. 27.09.2015) suggested to me that the sandals on the back of ID297/--a–b_A, ID300/1389_A and ID328/--a–b_A could relate to the office of royal sandal-bearer rather than denoting a grave good.

In addition to variability in methods of association (mechanical and indexical), the circumstances of label use were subject to change. Traces of modification of graphical content, including commodity, PI and other details (Piquette 2016, figs. 11c–d; Piquette 2013a; §5.12), indirectly evidence possible pre-cemetery and pre-deposition use. If erasure occurred prior to arrival at the cemetery, this raises the question of whether the label's presumed administrative function had already been concluded; or it could point to intended reuse which for some reason did not occur. Perhaps deposition of some labels in the cemetery was the result of discard. The Saqqara “blanks”¹⁵ from Abydos may point to graphical activity taking place at the graveside.¹⁶ Items employed in a ritual context, whether fully utilised or not, may have required disposal in that space, much as disused ceremonial equipment at Nekhen (Hierakonpolis) was apparently deposited within the temple precinct due to its sacred status (see Quibell 1989 [1900]; Adams 1974a; Adams 1974b). Social rules concerning the discard of ritual objects in sacred contexts might also present an explanation for the presence of ID229/0643_A, an apparently unfinished or ‘waster’ label found in the vicinity of Abydos Tomb Complex O (Djer).

It is perhaps noteworthy that, via the approach taken here, in assessing the NIIIA1 GO repertoire (§6.7; Table 7) only a handful of NIIIA1 GOs were unrecognisable iconically, compared with over 300 of the NIIC–early D GOs. The comparative iconic recognisability (at least by this 21st-century investigator) relates in part to the small quantity of GOs among the NIIIA1 labels and contemporary evidence compared with the later corpus. The evidence the labels provide for past literacy—or literacies—points to graphical marks becoming less accessible through reduced iconicity and narrativity over time, a point that is important not only for thinking through the wider purpose and development of early writing (see Baines 2005) but also the changing purpose and social significance of the labels. Certain graphical practices are restricted to high status members of society such as a posited ‘scribal class’ (now deconstructed and reconsidered in Pinarello 2015, esp. 16–18) or others closely associated with the ruler (Kahl 2001, 111). Yet as their location in more humble burials at Saqqara and Helwan indicates, the use of labels was not always restricted to the highest echelons of society. We might conjecture a scenario where individuals involved in packaging, transport, receipt or possible display of labels and/or associated items possessed variable levels of literacy, thus necessitating the expression of information in pictographic, ideographic as well as logographic forms. It is therefore worth keeping an open mind concerning the extent to which some early graphical culture, especially up to the end of the reign of Den, retained these broader semantic functions; perhaps the intention was to ensure a degree of semantic redundancy to accommodate the wider range of literacies involved in the use-life of a label.

¹⁵ E.g. ID336/--_S.

¹⁶ Stelae ‘blanks’ encountered during the work of the German Archaeological Institute at Abydos (Martin 2011, 1) are also suggestive of graphical production taking place in the cemetery.

11.4 Label Manipulation

Depending on the circumstances of production, mechanical use, and associations with other objects, the labels presented fundamentally different opportunities for embodied engagement. Whether as a rough blank awaiting inscription or a finished object, a label in itself would have been easily manipulated and highly portable. In Chapter 7, I observed a recursive relationship between the rectilinearity of the label substrate, and compositional structuring and CGO/Cluster configuration. While maintained at the internal level of the plaque, depending on how the label was displayed and depending on perforation location and the length and flexibility of the means of attachment (e.g. cord or a thong), the viewing orientations of up, down, right and left may have shifted to an oblique angle, contrasting with this internal rectilinearity. This angled position would have impacted perceptual experience, requiring the viewer to cock her or his head or grasp the label to straighten it for reading/viewing.¹⁷ Depending on size, material, technique, location, and modes of display within the cemetery landscape, opportunities or restrictions for perceptual and performative activities would be presented (cf. Whitehouse 2013). For this reason, I argue for the importance of reconstructing past semantic and other meanings in dialogue with the conditions of past experience; graphical culture like any other aspect of past material worlds is always mediated by and experienced through the body.

A related issue is raised by the more than 50 double-sided labels and how the living user/viewer knew, for example, whether a label bore marks on both sides. No evidence survives for how this was signalled (e.g. the equivalent of “PTO/Please Turn Over”), although turning on the horizontal axis seems to have become the standard (§7.2.2). Tactile engagement would have been more intense for reasons of both scale and image location, creating a particularly intimate experience that would have actively mediated apprehension of symbolic meanings. A related question is that of viewing/reading sequence. The pattern exhibited by the majority of single-sided NIIIC–early D labels establishes priority for the side with the perforation in the upper right corner (Q2).¹⁸ Based on this orientation, the several small early 1st-dynasty labels from Naqada¹⁹ and one from Abydos with one side dedicated to numerical signs suggest that this numerical information was prioritised over the Cluster on the other side, some of which include the PI of Hetepneith. This prompts consideration of the conventionally accepted order of ‘reading’—of right to left and top to bottom—and whether the sequence of reading/looking prioritised numerical information, or simply depended on who was consulting a given label and why.

Modern re-presentation methods in publication or museum mounting²⁰ impose an upright orientation with regard to the iconic imagery, with right and left edges aligned

17 The labels with a tab present an interesting exception, e.g. ID253/0973_A.

18 Exceptions, restricted to the first half of the 1st Dynasty, include ID204/4081_A, ID217/0693_A, ID226/0645_A, ID302/2019_Un, and perhaps ID199/--_A and ID248/--_A, although marks on these last two that might determine primary/secondary sidedness are very faded.



19 E.g. ID192/0243a–b_N.

20 E.g. see images associated with ID163/4393_A in the Label Database.

with the rectilinear edges of the (digital) page or display. The Label Database also follows this convention, but the reader is invited to imagine orientations and positions that might have informed viewing during different manufacture or use scenarios, and contrast these with possible scenarios of past perceptual experience for the jars and stelae.

11.5 Conditions of Access and Visibility

Continuing with the theme of object engagement, the conditions of ocular and tactile perceptual acts involved in label encounters would have been contingent upon when during the label's life history these occurred—whether in the course of manufacture, or of use prior to or in the course of tomb equipping and closure. Like the markings on wavy-handled jars or stelae, the those on the labels, were alternately visible and invisible to different people at different times as objects were approached or moved and manipulated—with perception of the labels presumably being a more personal, immediately tactile and visual experience.

One notable scenario is raised by scenes on ID239/0847_S where four figures in the upper register process toward the /O33+ /G5 motif of Djer, carrying items including a large bird, catfish/k4, and an anthropomorphic entity with a tall ladder-like object surmounted by two feathers(?). Two figures engaging in an activity thought to depict bloodletting or human sacrifice (Morris 2007b, 20), as well as figures in the middle register, may also participate in this event. The left side of the middle registers of the similar Naqada labels ID209/0240a–b_N and ID210/0241a–b_N shows vessels, food and meat items apparently on static display.²¹ Perhaps during the 1st Dynasty some labels played a role in such events, being attached for presentation to family members or officiators, if not displayed together with gifts and offerings brought for the sustenance of the attendees, as well as the deceased in the afterlife.

The possibility that labels were brought to the tomb after primary equipping was completed may be evidenced by some 40 labels found in and around Chambers Q-N5 and Q-N6 of Abydos Tomb Q. These flank the tomb entrance and each was accessible from the exterior of the complex, possibly remaining so for a period. If labels were hung on a pin or peg (Legge 1906, 252) or cord for display near the entrance, or attached to the leading item in a row/stack of items/containers, a more continuously active or extended messaging role²² might be envisaged—again assuming that the dead or divine were not the sole intended audience.

My theoretical approach (§2.4) also emphasised the importance of thinking through the ways in which human perception of object surfaces is filtered by the various *media* in different environmental conditions (Gibson 1979; Piquette 2008, 96–97). Illumination ranges from direct, bright light to dark shadow, and depends on the sources and methods used, from direct or reflected sunlight, to lamp- or candlelight. Whether indoors or

21 This brings to mind the remains of a funerary repast that Emery (1962) encountered next to the burial of a woman in the 2nd-dynasty Saqqara Tomb 3477.

22 Weathering whilst on display, as attested for the stelae (Günter Dreyer, pers. comm. 10.04.2016), is difficult to discern on the labels. As mentioned, wear around the perforation has not been observed.

outdoors, airborne particles such as sand and dust, smoke from cooking fires, incense, etc. would have influenced appearance during image-making or subsequent episodes of display and viewing. In addition to possible symbolic significance of GO colour, media may have also influenced choice of colour in order to ensure sufficient contrast with the material support. The bright white of freshly made incisions on bone and ivory can be difficult to see unless the surface is darkened or incisions are infilled with contrasting colour (§5.8). This was a likely factor in the choice of dark-coloured pastes for infilling subtractive marks on labels. In addition to visual perception, audience accessibility may have been facilitated by other means. Although speculative, labels may have been kept aside to serve as records or *aides-mémoire*, their messages being communicated to others, perhaps recited to funeral attendees when the label referents were not self-evident. Engagement for some may therefore have been an auditory rather than visual experience.

Moreover, in addition to access in physical and perceptual terms, the extent to which cultural knowledge of symbolic conventions was shared, as also touched on above, would have also impacted experience of the labels. Recognisability by sighted individuals was probably greater for narrative scenes and CGOs and Clusters with pictographic elements or key motifs (e.g. 𓏏/O33+𓏏/G5). As the analysis showed, these occur more commonly up until the end of the reign of Den. The reduced narrativity that co-occurs with the introduction of the Vertical Format implies increased abstraction of symbolic meanings, necessitating increased knowledgeability on the part of producers and consumers. While many of the labels exhibit greater material, technological, compositional and symbolic complexity over time, their political and ideological impact appears to become more restricted, especially when compared with, for example, the stelae—which were more accessible by virtue of their materiality, their location in the landscape and the simplicity of their messages, and therefore potentially experienced by more members of the community.

11.6 Marking Relationships Between People and Things

Expression of social status through funerary participation was an important facet of early Egyptian power relationships (cf. Parker Pearson 2001, 83–86). It is in the context of elite funerary practice, often male in nature, that the labels are typically situated (e.g. Trigger 2001 [1983], 58), both by virtue of their archaeological contexts of the cemetery and based on inferences concerning status from tomb size and wealth of equipment (Chapter 4). The elaborate iconography on certain labels from the first half of the 1st Dynasty would seem to point to the role of the labels in elite discourses, presenting views of the world that favour those in dominance, depicting acts of control and demonstrations of power through smiting, hunting, fowling, and so on,²³ and

23 E.g. ID202/4030_A, ID207/0289_A, ID208/0282_A+0209_A, ID239/0847_S, ID293/1246_A, ID300/1389_A.

declarations of access to resources that are enumerated and qualified to suggest control, exclusivity and excess.

However, in order for these objects to perform a role in constructing power or other social relationships among the living, the circumstances of message display and viewing would be pivotal. Yet the small, even miniature, size of the labels, requiring close proximity if not manual manipulation in good light for visual perception, would seem to militate against such an impact—unless visibility or other mechanisms for audiencing were extended, for example during accessible, prolonged display or oral transmission of the messages.

In addition to deposition in richly endowed tombs, I noted that labels are associated with more humble funerary structures. A small number of NIIIA1 exemplars and some 40 NIIIC–early D labels derive from small tombs/graves at Abydos,²⁴ Giza, Saqqara (S2171 h; S59), and Helwan. A simple equation of label presence or semantic content with elite social status is also challenged by the distribution of label types and materials. Three of the most skilfully crafted exemplars, all made of ivory,²⁵ are associated with ‘non-royal’ burials at Helwan and Macramallah’s Cemetery at Saqqara, while some of the most sparsely inscribed and seemingly unskilfully made labels derive from the larger, richly equipped tombs. Likewise, the assumption that labels were the prerogative of male members of society is worth reviewing. Male identities indeed dominate depictive evidence on the labels, but the semantic expression is less clear via the present method. While almost all tomb complex owners at Abydos are presumed to be male, uncertainties surround the gender and identity of the owner of U-j (S4.4.1.2). Abydos Tomb Y is attributed to Merneith, the mother of Den, and the Naqada *Mastaba* (Bagh 2004, 603) may belong to ‘queen’ Hetepneith. Morris (2007a) has raised the possibility that the *mastaba* tombs at Saqqara belonged to royal women. As for labels found in smaller graves at Abydos, and bearing in mind problems of archaeological integrity, a female occupant can be posited for subsidiary Grave 22²⁶ of Tomb Complex O (Djer) at Abydos on the basis of a stela,²⁷ found within the grave, depicting a seated figure understood to depict a female owner (Amélineau 1904, 58, pl. 18.14). Saqqara Grave 59 is exceptional for its virtually undisturbed condition prior to excavation by Rizkallah Macramallah (1940, 36, pl. 19). The skeletal remains found within, in as far as sexing is reliable, were those of an adult male. This small grave contained four labels, one of which is one of the most carefully made exemplars, just noted. These examples question the notion that labels were the sole prerogative of the ruling elite and highlight the pitfalls of assuming simple equations between object presence, materials and semantic content, on the one hand, and wealth, status and gender on the other.

Another social dimension I raised was that, in addition to those of the tomb owner, the relationships and identities expressed as part of label messages may relate to those bringing goods to the tomb, whether for the practical organisation of its equipping or

24 Again, the question of archaeological integrity is fraught. As Günter Dreyer warns (pers. comm. 10.04.2016), Amélineau was inclined to excavate one chamber and deposit the contents in another.

25 ID374/3406_H, ID375/3407_H, ID376/3408_H.

26 ID189/0692a–b_A, ID218/0685_A.

27 No. 225/*_A.

as part of ritual and ceremonial aspects of the funeral, presumably attended by family, friends, officials and other members of the community. Similarly, Köhler (2004b, 36) sees the expression of identity and social relationships on 2nd dynasty stelae as attesting not only to the importance of identifying the deceased, but the depiction of offerings on them also supports the notion that early Egyptians perceived the deceased as requiring care, attention and remembrance, both during the funeral and afterwards. Likewise, graphical content on some labels can be understood as serving pragmatic purposes of identifying, qualifying or enumerating people and things, while at the same time also being motivated by the care, attention and remembrance that the living deemed necessary—perhaps with the intention that some imagery performed a mortuary function, such as sustaining the deceased in the afterlife.

Social identity was also examined through the grounded method for interpreting Clusters set out in §7.3.6. Conventional approaches interpret these as personal and royal names and titles, and equate these with tomb owners or those overseeing tomb equipping/burial. However, labels bearing $\overline{\text{H}}/\text{O33}+\text{A}/\text{G5}$ of Aha attested at Abydos and Naqada, or of Djer at both Saqqara and Abydos, have, as previously mentioned, led Emery (1958, 3) and others to express misgivings about equating names with tomb owners (Morris 2007a). Non-ruler PIs such as $\text{L}/\text{D28}+\text{I}/\text{S42}+\text{I}/\text{I10}+\text{I}/\text{S29}$ occur at Abydos and Saqqara and at the latter site together with $\overline{\text{H}}/\text{O33}+\text{A}/\text{G5}$ of Djet,²⁸ and possibly on partially-erased labels from the former site.²⁹ S3035 yielded labels bearing the PI of Djer as well as two tri-perforated labels bearing $\text{L}/\text{D28}+\text{I}/\text{U1}+\text{I}/\text{V28}$. Conventionally transcribed as “Hemaka”, this PI is also attested on labels associated with Den at Abydos in the context of the bi-partite PI, indicating that Hemaka served as seal bearer to Den. How this individual relates to the deposition of labels bearing this PI at both Abydos and Saqqara is still a puzzle (see Morris 2007a). In the absence of skeletal remains, a tomb stela or other substantiating evidence, confirming what any one PI meant at the time of deposition, or prior to it, is far from straightforward. Various scenarios may be envisaged where different identities may be expressed, from label commissioner/designer/maker, supplier/donor/recipient of attached/associated items or overseer of any of the foregoing or of tomb equipping itself to an officiator at the funeral or subsequent mortuary activities.

More than one identity may have also been practised by the same individual on a private level or as part of a relationship involving kinship, occupation or other social collective or institution, such as “royal estates” set up to serve the needs of the ruler/court in life or death. Detailed consideration of such institutional identities from a grounded perspective extends beyond the scope of the present research, but these identities have received extensive study in the context of early administration by Engel and others (Engel and Moreno García 2013, 24–34; Müller 2012; Regulski 2008). Nevertheless, Lisa Mawdsley’s (2006) exploration of pre-funerary object life histories, namely, potmark-bearing vessels, and of the mechanism by which such vessels made the transition from administrative contexts to the grave offers valuable insight. Mawdsley

28 ID274/0986_S.

29 ID277/4084_A, ID278/4807_A.

suggests that commodities contained within the vessels were previously given in payment to elite and non-elite personnel associated with projects of royal and regional significance, and that the vessels were kept by the recipients and later deposited within the tomb as a prestige grave good (Mawdsley 2006, 47–48; see also Tassie et al. 2008, 222). Mawdsley’s proposal for the social-symbolic value of marked vessels is perhaps more usefully employed for the labels than her later suggestion that labels functioned as a “visual record” or “statement” of ideological or political control (Mawdsley 2011, 53). Their final use context, at least, and materiality point to low visibility. We might therefore venture a pre-funerary phase of label life histories. The elaborate nature of some, carefully incised, with the application of coloured paste or ink, to express increasingly standardised smiting and hunting scenes, processions on land and water journeys to places of importance, would seem to suggest a less mundane and perhaps a commemorative purpose—even if the depiction of events as a method for marking time had an administrative application. Perhaps some labels used in provisioning events celebrating those achievements depicted on them were kept or curated and later deposited in the tomb as commemorative objects that added to the prestige of the occasion and the deceased. Whatever the precise nature of these identities, I think it is clear that labels were bound up in complex networks of relationships between people and things that extended beyond a restricted elite community and beyond a purely practical administrative purpose.

As this research, with its particular focus on the archaeological evidence and material facets of these objects, demonstrates, the empirical evidence leaves open a diversity of possible explanations for the purpose and social significance of NIIIA1 to NIIIC–early D inscribed labels. Whether for accomplishing mundane purposes such as the successful dispatch and delivery of goods to a tomb or for sustaining the deceased in the hereafter as efficacious objects in their own right, the inscribed labels present a rich source of information that deserves an integrated, context-sensitive and theoretically-informed approach.

11.7 Concluding Remarks and Future Directions

The aim of the book has been to move beyond abstracted levels of assumption in the study of early graphical material culture as represented in decontextualising philological and art historical debates. The research combines a methodological principle of synchronic focus as a starting-point for analysis fused with a methodological principle of context-sensitivity as delivered in archaeology. The philosophy that binds this study together is the notion of images as both processes and outcomes of material-based practice (Piquette and Whitehouse 2013) and the importance of placing graphical practice in the context of social time-space. This book therefore constitutes a critique of the traditional ontology of the image, in archaeology generally, and in early Egyptology/Egyptian archaeology specifically, as exemplified in the following words:

[...] however it is codified by its users or reconstructed by us, knowledge about images is anchored inaugurally in a psychological event ‘outside history’, the moment

of taking a mark for something in the world, forever inaccessible to us archaeologically. (Davis 1989a, 186)

In contrast to such perspectives, I hold the view that knowledge is more than pieces of information processed and stored in the brain. Knowledge about images, or any thing for that matter, cannot be separated from the material world. Knowledge and knowing are rather anchored in active participation in social communities (Wenger 2002 [1998], 10) situated in the material world. In perpetuating the Cartesian separation of mind:body or subject:object we run the risk of robbing images of their ‘thingness’, and of the ways in which they were part of lived relationships and experiences. Learning about, creating, identifying or perceiving images; all are processes bound up in embodied perception and material action. The psychological process informs, and is informed by, sensory perception and muscular activity in relation to the material world, including bodies, tools, substances and surfaces via a range of media and in a range of social contexts, times and places. While the immediate cognitive process escapes the probing of the archaeologist’s spade, the *practice* of image-related knowledge can leave material residues that must be integrated into our reconstructions of past society.

While labels are recognisable as a category of object, certain features are expressed differently across time-space. Image materiality and composition, such as location, scale and organisation, etc., structured perceptual and cognitive processes and framed experience in specific ways. The labels constitute material reifications of particular ways of thinking about the world, of classifying, organising and identifying things, people and places. For certain knowledgeable members of early Egyptian society this may have included the mortal and the divine, the living as well as the dead. Participation in the reproduction of label practices over time-space would have signalled membership in particular communities of practice—image-makers who may have identified as ‘scribes’ or ‘artists’, their commissioners, and those otherwise involved in labelling and marking activities—and in so doing simultaneously reproduced and reaffirmed those social relationships. Practice as constituted through participation and reification provides a dynamic way of thinking about graphical action, encompassing processes of perceiving, interpreting, using and reusing. While users and viewers of the labels may not have designed them, they must have had to absorb them into their practices (cf. Wenger 2002 [1998], 60), and we can infer something of these practices from the material properties of the labels. In the same way that agents and social structures are recursively constructed, the labels are objects that embody or reify the processes by which they were produced. They are integrated into subsequent human practices that, in turn, they constrain and enable through their meaning content and materiality. The process of reification and its material outcomes are important constituents of meaning and deserve consideration alongside the traditional focus on linguistic meanings of signs. Rather than materials being treated as incidental to art and writing, social theories of practice see these as recursively informing the communication of meaning.

The account offered in this volume constitutes what I see as necessary remedial work for this dataset; I am acutely aware that this represents the first phase of the wider stated aim of holistic study. An important next step for the research is its critical integration with conventional philological, palaeographical and art historical studies of

early script and image. Previous studies (e.g. Kahl 1994; Kahl 2001; Kaplony 1963; Riley 1985; Regulski 2010a) stand to be augmented through the increased contextualisation that comparative and practice-centred approaches offer. Where a grounded approach has been exhausted for a given interpretive problem, points of departure can then be more clearly identified. The procedure for bundling strands of evidence should aim to provide clear explication of the quality and types of continuities and discontinuities in time, space and material cultural practice. On this basis, proposals for indirectly derived symbolic meanings and functions can be built.

At the conclusion of this phase of research, I believe that the value of the method developed here is the bridge it offers for spanning traditional text/art:archaeology divisions. Moreover, it demonstrates the potential for non-retrospective explanation as a first step toward reflexive assessment and integration with more subjective interpretive methods, as well as highlighting the importance of situating the study of past graphical-material culture firmly within the wider domain of human interaction and experience.

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An Archaeology of Art and Writing offers an in-depth treatment of the image as material culture. Centring on early Egyptian bone, ivory, and wooden labels—one of the earliest inscribed and decorated object groups from burials in the lower Nile Valley—the research is anchored in the image as the site of material action. A key aim of this book is to outline a contextual and reflexive approach to early art and writing as a complement to the traditional focus on iconographic and linguistic meanings. Archaeological and anthropological approaches are integrated with social theories of practice and agency to develop a more holistic perspective that situates early Egyptian imagery in relation to its manufacture, use and final deposition in the funerary context. The dialectical relationships between past embodied practitioners and materials, production techniques, and compositional principles are examined for the insight they provide into changes and continuities in early Egyptian graphical expression across time and space. The electronic version of this book is accompanied by an online database of the inscribed labels, enabling the reader to explore via hyperlinks the fascinating body of evidence that underpins this innovative study.

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