MATERIALITIES IN ANTHROPOLOGY AND ARCHAEOLOGY

BODY MATTERS

MATERIALITIES IN ANTHROPOLOGY AND ARCHAEOLOGY

MATERIALITIES IN ANTHROPOLOGY AND ARCHAEOLOGY

BODY MATTERS

EXPLORING THE MATERIALITY OF THE HUMAN BODY

Edited by

LUCI ATTALA
and LOUISE STEEL

UNIVERSITY OF WALES PRESS
2019

www.uwp.co.uk

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

ISBN 978-1-78683-415-7
eISBN 978-1-78683-416-4

Typeset by Marie Doherty
Printed by CPI Antony Rowe, Melksham

In memory of Mark Pluciennik

CONTENTS

LIST OF FIGURES

ACKNOWLEDGEMENTS

We would like to acknowledge the many people who have helped us bring this volume together. First and foremost, we would like to thank our contributors for their lively and stimulating chapters, which variously address the human body as matter. We are grateful for their enthusiasm and engagement with the ideas informing the theoretical backbone of this volume. Luci would like to recognize her children's part in getting this book to press; you all are an absolute delight, and every distraction is now forgiven. Thank you also to Steve Thomas; as always, a constant source of good humour who also provided an objective view on our writing. We would also like to recognize the role our wonderful students have played in shaping this volume. This book would not be the same without your fabulously challenging questions, conclusions, associations and suggestions.

Particular thanks are due to Tim Ihssen, who greatly aided us in the final stages of bringing the manuscript together, cheerfully undertaking a meticulous copy-edit and also for help in drawing up the index, and to Janet Burton, whose words of wisdom kept us sane throughout. Sarah Lewis commissioned the *Materialities in Anthropology and Archaeology* series for the University of Wales Press – we greatly appreciate her enthusiasm and help in establishing this series and for her patience and guidance through the editing process.

A number of seemingly disparate threads tangled together to form this volume: Louise's work with clay and lime plaster, Luci's work with water and plastics, and working with our students in the Materialities Lab, all of which encouraged deeper, sharper thinking about how people can and do engage with materials. We were not so much concerned with how things get made, but rather posed the question: how do people work with materials? And, of course, the answer came back – they work 'materially'. Clearly, people do not work with materials by thinking alone, they work with them physically through and as bodies. It was this realization that acted as the initial impetus

for this volume: to explore the body as a material in relationship with a wider, expanding and shifting landscape of materials together.

Some of the inspiration for this book can also be attributed to our former colleague Mark Pluciennik and the vibrant discussions in the *Thinking through the Body* workshop held at the University of Wales, Lampeter, in June 1998. We affectionately dedicate this book to his memory.

LIST OF CONTRIBUTORS

Luci Attala is Senior Lecturer in Anthropology at the University of Wales Trinity Saint David. Her research focuses on materialities, with specific attention to coalescing themes of incorporation, ingestion and the becomings of ecological interacting bodies. Luci is currently exploring engagements with water in rural Kenya, Spain and Wales by asking the question 'How does water make us human?' She maps the flows of water through various bodies and looks at plant–human interactions within the body and wider environmental settings. In 2014, Luci's work in Kenya was recognized by the United Nations with the receipt of a Gold Star Award; the following year, she received the Green Gown Award as Sustainability Champion in Higher Education. Together with Louise Steel, Luci is the *Materialities in Anthropology and Archaeology* series editor for the University of Wales Press.

Janet Burton is Professor of Medieval History at the University of Wales Trinity Saint David. She has published widely in the area of medieval monastic history, including (with Julie Kerr), *The Cistercians in the Middle Ages* (Woodbridge: Boydell, 2011, 2016), and *Historia Selebiensis Monasterii: the History of the Monastery of Selby* (Oxford Medieval Texts: OUP, 2013). She is a co-director of the Monastic Wales Project (*www.monasticwales.org*) and co-author and co-editor of *Monastic Wales: New Approaches* (Cardiff; University of Wales Press, 2013) and *Abbeys and Priories of Medieval Wales* (Cardiff: University of Wales Press, 2015). With Karen Stöber, she is a general editor of *The Journal of Medieval Monastic Studies* and the associated book series *Medieval Monastic Studies*, both published by Brepols. She is a former vice-president of the Royal Historical Society and a Fellow of the Learned Society of Wales.

Ros Coard is Senior Lecturer in Archaeology at the University of Wales Trinity Saint David. Having trained at Sheffield University in Archaeology and Prehistory, her research focuses on the study of

Plio-Pleistocene fossil assemblages, faunal analysis and vertebrate taphonomy. More recently, her skills gained in the field when studying fossil assemblages have translated to the world of forensic studies. Her long-standing interest is to understand what agents of destruction and preservation have enabled human or animal bone assemblages to survive, or not, in a particular environment, and to understand what happens to once living creatures as they die and become part of the fossil record. The transition from the body live to the skeleton dead never ceases to fascinate.

Kate Fayers-Kerr is research associate at the Institute of Social and Cultural Anthropology (University of Oxford) and the Laboratoire d'Anthropologie des Mondes Contemporains (Université Libre de Bruxelles). She obtained her anthropology DPhil in 2014 from the University of Oxford. Her research focus is on the medical anthropology of Northeast Africa, with specific interest in the relationship between people and substances, particularly earth. In 2015–16 she was Early Career Research and Teaching Fellow in Medical Anthropology, with her teaching focusing on the anthropology of sensory therapeutics.

Eloise Govier is currently lecturing in social anthropology and archaeology at the University of Wales Trinity Saint David. An artist who has recently been awarded a PhD in social archaeology, she is interested in human/material interactions whilst making and uses contemporary art practices (including her own) to understand the material remains of the past. Eloise teaches theoretical approaches to material culture in both archaeology and cultural anthropology and has specialist knowledge of Anatolian Neolithic creative practices. Eloise's PGCERT tHE research focused on multi-sensory, collaborative and experiential learning, and these learning strategies inform both her teaching and creative practice.

Elizabeth Rahman is an ESRC Global Challenges Research Fund fellow at the Oxford Department for International Development, and a Research Associate of the School of Anthropology Museum Ethnography (SAME). Her doctoral research 'Made by Artful Practice: Reproduction, Health and the Perinatal Period among Xié River

Dwellers of North-Western Brazil' (2014) examined the repertoire of hands-on perinatal techniques used by the Warekena of tropical Brazil (north-western Amazonia) and how these are used to make particular types of mindful and healthy people adept at living in such an environment. Her publications include the co-edited volume, *The Master Plant: Tobacco in Lowland South America* (2015) and her chapter therein; the *Special Issue* of the *Journal of Lowland South America SALSA* on *The Alchemical Person* (2016), and a book chapter in *Reproductive Cultures: Kinship, Social Practice and Inter-Generational Transmission* (eds, S. Pooley and K. Qureshi).

Louise Steel is Reader in Mediterranean Archaeology at the University of Wales Trinity Saint David. She has worked extensively in Cyprus, focusing her research on the consumption of Late Bronze Age pottery, and has directed excavations at al-Moghraqa (Gaza) and Arediou (Cyprus). Louise is the author of *Cyprus Before History: from the Earliest Settlers to the End of the Bronze Age* (Duckworth) and *Materiality and Consumption in the Bronze Age Mediterranean* (Routledge), which explores the interaction of objects in people's social worlds. She recently co-edited *Exploring the Materiality of Food'stuffs'*, including a chapter on the materiality of feasting in Early Bronze Age southern Mesopotamia. Together with Luci Attala, Louise is the *Materialities in Anthropology and Archaeology* series editor for the University of Wales Press.

Carl Walsh is a comparative archaeologist specializing in the eastern Mediterranean, who is currently a postdoctoral fellow at the Joukowsky Institute for Archaeology and the Ancient World, Brown University. His research primarily focuses on archaeological theories of embodiment (particularly in relation to diplomacy and intercultural interactions), palatial architecture and elite body culture and behaviour. In addition, Carl is interested in engaging and promoting the archaeology of the Kerma Culture and Nubia within wider theoretical and archaeological discussions of the eastern Mediterranean during the Bronze and Iron Ages. His additional research interests include the archaeology of gesture, ancient gaming culture, modalities of communication between literate and non-literate societies, and, more generally, comparative studies in the ancient world.

Harriett Webster is currently Lecturer in Medieval History at the University of Wales Trinity Saint David. Prior to this, she was the Post-Doctoral Research Fellow on the AHRC-funded project 'City Witness: Place and Perspective in Medieval Swansea' at the University of Southampton. For this, she produced an electronic edition and translation that is currently being turned into a manuscript for Boydell Medieval Texts. She undertook her doctoral studies in Medieval History at the University of Bristol, graduating in 2015.

PREFACE

This book is one of a series that contributes to what is broadly termed the new material turn in the social sciences. The underpinning intention that coheres the numerous interdisciplinary moves that participate and feed into this flourishing body of literature is to challenge anthropocentricism (Connolly 2013). This series dethrones the human by drawing in materials. Positioned under the broad umbrella heading of the New Materialisms or New Materialities, the series aims to draw in the non-human as agent with a view to both recognize and advocate for the other than human entities that prevail and engage in our lives.

In recognition that these terms are somewhat slippery to grasp we have outlined the following distinctions to put clear water between the terms and demonstrate how we are using them.

Distinctions between materiality and matter

The term 'materiality' describes the quality or character of the material a thing is made out of. Its material-ness, if you like. On the other hand, the term 'matter' is used to describe physical items that occupy space (mass). Traditional theories of materiality explore how the objects (made of matter (different materials)) shape the lives of people. New Materialities attends to the materials (matter) that objects are made out of and how those materials influence human behaviour.

Materiality and material culture studies have tended to focus their attention on *things* or *objects* (cf. Banerjee and Miller 2008; Miller and Woodward 2010), especially the things that people make. Scholarship has been less concerned with how materials behave, tending to focus on looking at how people use materials. Materiality studies, therefore, demonstrate a connection between humanity and the things they make and use. In other words, it explores how items reflect their makers and owners and therefore embody meanings.

The New Materialities turn moves away from objects and attends to the materials that the objects are fashioned out of. Turning attention to the materials allows a new dimension to open up whereby the substance a thing is made out of becomes significant. Bringing materials to the foreground not only shows that materials are instrumental in providing the character and meaning of an item, but also that the materials themselves are determining – even actively responsible – for the final shape and manner by which the finished article can manifest. Thus, how a material behaves predicates how it can be used (see Drazin and Küchler 2015) and, in turn, how we understand it. This perspective, following Latour (1993), gives materials a type of agency both inherently and whilst in relationship with other materials (see Barad's concept of inter-relationality, 2007). Indeed, using this perspective, it is how materials interact or engage that becomes the place of relationship, creativity and attention. Therefore, the New Materialities draws into focus the materials things are made of and, by attending to the behaviours and characteristics of those substances, asks the question 'How do the materials (read: substances) that we make things out of, shape our lives?'

References

Banerjee, M., and Miller, D. 2008. *The Sari: Styles, Patterns, History, Techniques*. London: Berg.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Connolly, W. E. 2013. 'The "New Materialism" and the fragility of things', *Millennium: Journal of International Studies* 41(3), 399–412.

Drazin, A., and Küchler, S. (eds) 2015. *The Social life of Materials: Studies in Materials and Society*. London: Bloomsbury Publishing.

Latour, B. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.

Miller, D., and Woodward, S. (eds) 2010. *Global Denim*. London: Berg.

1 INTRODUCTION

Luci Attala and Louise Steel

Our aim in *Body Matters* is to remind you of your inherent materiality and the inextricable ties you have with the rest of the material world. It seeks to illustrate that it is inaccurate to imagine your existence is distinct and at a distance from the physical world; once this truism is realized, the intellectual rupture that persuades you to imagine that you stand at a distance from the world will be repaired. In short, this book demonstrates how you are a body and that you come into being because of a set of shifting materials acting in relationship with other materials.

The New Materialities

The text of *Body Matters* is theoretically nourished by the ideas of the New Materialisms (cf. Barad 2003, 2007; Bennett 2010; Coole and Frost 2010) and establishes a new material focus for scholarship. A New Materialities approach broadly echoes the primary intentions of most of the moves held under the umbrella label 'Posthumanism': it rejects and challenges human exceptionalism, gives voice to 'others' and recognizes the part non-human others play in the creation of our worlds.[1] It acknowledges that:

> '[w]e' are not outside observers of the world. Nor are we simply located at particular places in the world; rather, we are part of the world in its ongoing intra-activity.
>
> (Barad 2003, 828)

And further, following Barad (2003, 2007) and Drazin and Küchler (2015), it does this by attending to the manners by which materials are able to engage, resist and enable outcomes. Consequently, the book focuses on the material creativity of relationships, and it does so by highlighting how the physical properties or capacities of materials co-productively collide and labour together in relationship. Adopting

this focus demonstrates the role materials play in shaping people's lives, but, perhaps more importantly, also illustrates the persistence (even determined obstinacy) of materials' behaviours in supporting people to become what they are. Thus, it takes Barad's (2003, 2007) notion that any item's existence is predicated on what it is in relationship with, as its articulating theme.

> [m]atter is not a fixed essence; rather, matter is substance in its intra-active becoming – not a thing but a doing, a congealing of agency (Barad 2003, 828)

Broadly speaking, Posthumanist ideas question what it means to be human, and the place humanity has assumed for itself in the hierarchy of its own creation (Haraway 2008; Morton 2010, 2013, 2016). New Materialisms, along with the Animal Turn, Multispecies Move, Transhumanism and third wave Feminism, fall under the banner of Posthumanism. As a consequence of its wide reach and applicability, Posthumanist thought has effectively permeated through discipline boundaries, and, in so doing, has generated fertile intellectual environments where robust cross-pollination of epistemologies has liberated some excitingly creative and diverse responses to consider past, present and future practices. Even with acknowledgement of any tensions and resistances between different theoretical approaches and directives, together they circulate one key point: that being human is a physical or material relationship as much as a social one, and that being human demands constant negotiations between material entities. Indeed, we are reminded that we are not only situated within the physical world, but crucially we are part of it. Even as we consider how we create, transform and consume our environment (Coole and Frost 2010, 3) we also need to recognize how we are equally shaped by the materiality of the world around us. Consequently, as a result of placing attention on the co-generative relationships between people and the material world, there is now a widening body of interdisciplinary literature considering diverse and varied material engagements: wetlands, dust, clay, lava, oceans, forests, snails, wheat and viral epidemics are all considered influential shapers of people's worlds (Whatmore 2002; Boivin 2008; Helmreich 2009; Morton 2010; Dillon et al. 2012; Head et al. 2012; van der Veen 2014; Drazin and Küchler 2015; Marder 2016). We anticipate

that this book, which specifically addresses human bodies as matter, will also be placed amongst this creative and dynamic literature.

Agents and agency

Within Enlightenment-inspired ontologies, agency has overwhelmingly been viewed as the preserve of rational thinking humans. This is underpinned by the assumption that agency – the ability to effect change – is somehow synonymous with intentionality (Gell 1998, 16–17; Bennett 2010, 29–30). To some extent this notion was challenged by Gell (1998), who offered a means of thinking about the agency of the object world – how simply by *being*, things can impact on other things, including humans (see also Latour 1993, 2004; Boivin 2008). The New Materialities allows us to further develop this approach, thinking about matter – the material world – more holistically, and questioning the privileged agential status of the thinking human. Attending to how the materials of the world – matter and substance in all its varied states of being – impact upon and influence other matter, including humanity, offers materials a place in the hierarchy of agents (cf. Latour 1993, 2004). Where objects or things have been brought into focus as actants with agentive powers in a network of distributed influence, materials have rarely been included until recently (see, however, Boivin and Owoc 2004; Bennett 2010; Drazin and Küchler 2015). Thus, giving attention to the role materials and substances play in shaping existence provides a novel perspective that gets right at the core of being. In addition, a move towards materials is posited as politically and ethically potent, and is advertised as one that could help us sustainably re-evaluate practice (Bennett 2010; Coole and Frost 2010). Our focus on materials in this book and the wider Materialities series, therefore, is timely, apposite and undoubtedly helps to dethrone the human from its place of ultimate agential power; however, it also, unfortunately, overlooks one significant detail: that human bodies are always only material too. This book aims to address the lacuna in the literature.

Bodies that matter

Our aim in producing this book is to firmly establish people as a constitutive part of the material world, recognizing that we are both part

of, and equal with, the environment that we have increasingly sought to control, dominate and change. In particular, we are responding to a tendency within the contributing disciplines – archaeology, anthropology and medieval history – to ignore the materiality of the body, possibly due to culturally embedded Cartesian notions that separate cognition from the flesh and thereby privilege the mind over the body (Harris, Robb and Tarlow 2013, 171–2). *Body Matters* attends to this omission by bringing together a lively collection of papers that variously explore the visceral, bony and fleshy matter of the body, 'the blood that flows in veins… the way in which practices transform the muscles, bones and synapses of the body' (Harris and Cipolla 2017, 67).

One could claim that by bringing in people as materials we are somehow straining at the edges of Posthumanism scholarship – quite simply because we are drawing in the human body as if it is an object. This accusation could be levelled at us because we are not attending to the person that is a body as much as we are focusing on the body as *a set of interacting materials in relationship with each other*. In our defence, this is not to dehumanize but to assert our very materiality – or the humanity in materiality (following Viveiros de Castro 1998) – and so to remind readers that people are materials too. Therefore, following the multispecies ethnographies that give other species a voice (Kirksey and Helmreich 2010; Hurn 2012), we are attempting to show both how fleshy materials communicate with other materials to become bodies and also that the boundary, which one assumes acts to contain each person, is more accurately seen as a seeping, shedding, porous affair mobilizing within an influencing matrix of materials, following Strathern's dividual (1998; see Attala, Coard, Govier and Steel this volume). We are attempting to do this by focusing your attention specifically on the physical substances that comprise the human body, with a view to fully realize *how people (are) matter*.

While, on one level, we all realize that bodies are simply flesh, bone and blood, we rarely think of our flesh in the same way as other materials – clay, water, wood, carbon – although in many other cultures clay is commonly viewed as being like flesh (Boivin 2004, 7). Blood, milk, mucus, ejaculate and other substances (or materials) may discharge out of us, but in so doing they are seen as materials, not 'us' (Carsten 2013). Once they have left our physical zone of personhood they alter into stuff. As a result, the book wants to avoid presenting bodies as objects

that then move to being materials in death – as has been done before – but rather wants to demonstrate that bodies are always comprised of a series of shifting materials, throughout their 'life cycle' (for lack of a better phrase) in relationship with the rest of the material world (including air) (see Coard, this volume) – a standpoint that both demonstrates the porosity of people and the inaccuracies of divisions (Attala 2017). What the book proposes, therefore, is to bring into clearer focus the notion of body-as-matter – namely flesh, bone and skin, emphasizing the physical realities of the body as well as how being a body manifests as a series of physical relationships with other materials.

From the 'New Materialisms' to 'New Materialities'

The New Materialities approach is connected to, but also quite distinct from, the move called New Materialisms. New Materialisms is a philosophy that has also been defined as the third wave of feminism following Braidotti (1991, 2013). Since Marx, the term 'material' has held a hue of political economy studies – referencing the movement of items produced for consumption specifically. The term 'materials', when used in this light, is unconcerned with the composition of an item, but is concerned broadly with what the item does to both notions, and lines, of value. It explores how production and exchange methods of items impact on people's lives. Similarly, Material Culture studies looks at things – specifically the things people make – so as to analyse and comment on human cultural life (Miller 2005). Material Culture studies understand that the things people make are reflections of the producers' thoughts and claim that through careful analysis of how an item is used can illuminate cultural influences and ideas. Scholars such as Barad, however, have questioned this emphasis on representation: '[m]atter is not an individual articulated or static entity… passively awaiting signification' (Barad 2003, 821; see also Capra and Luisi 2014).

New Materialisms, on the other hand, emerging from Marxist thought, was originally considered to be a 'neo-materialist' movement, the aim of which was to extend Materialism out to the body (Coole and Frost 2010). New Materialisms attends to the politics of embodiment with a view to challenge the artificial distinctions between sex and gender culturally placed on bodies – hence its subtitle: the third wave of feminism. These New Materialisms, therefore, scrutinize

the dispossession of the body by paying sharp attention to the othering inherent in the representations of dichotomies such as male and female (Bradiotti 1991). This is not simply to assert for a more localized scholarship in rejection of global theories about gender, but rather to shine a light onto how the flesh is both overlooked and lived (in). New Materialities (hereafter NM), however, shifts the lens away from the politics of gender and embodiment to the wider world of substances and their role in the co-generation of bodies both physically and intellectually. Any levelling of a representational playing field here moves away from consideration of people's bodies within a political and cultural system to one where the flesh is the thinking material within a material system; therefore, the body emerges as both the material to think with and through (cf. Lévi-Strauss 1964).

As many of the posthuman moves demonstrate, a rejection of anthropocentrism brings with it a revaluation of the terms culture and nature (cf. Descola 2013). Positioning bodies or flesh as materials contributes even more deeply to that set of debates. We maintain that as the intellectual barriers erected to keep people out of nature dissolve, it becomes clear that in a physical sense people – even when cultural – are also always natural too. Unfortunately, it seems that it is difficult to hold that thought. It appears awkward, slippery and thinking tends to reject any notion of our physical ties to materials and leaps back to separation and a human exceptionalist focus. This book aims to support thinking to connect with materials and offers examples to further and boost that intention.

Is this just a matter of language? And, who is 'the body' anyway?

When we use the phrase '*the body*' we draw people away from their materiality. The bleeding, oozing, suppurating, desiccating, flaking, peeling and smelling event (or shape of cohered materials) that pumps, breathes and mobilizes as if bounded together into a person is sanitized and made invisible. This representation of people creates a distance between the material reality of being a body and how the body is perceived. This distance occurs between the words 'person' and 'body' – presenting them as if they are two different items, when in fact they are one thing. For Stoller, this paradox is summed up in

the final line of a Sufi poem by Rumi:

> 'We are the sweet cold water and the jar that pours it'
> (Rumi, cited by Stoller 1997, prologue)

Consequently, discussions that talk of 'the body' in this way conspire to make its fleshy complexity imperceptible and, immediately, it is forgotten – the various organs, bones in multiple shapes, sinews, muscles, veins, nerves and different fluids and gases formulating and transforming in concert within it disappear from view. Therefore, when we try to talk of ourselves either the person or the body is lost. The body becomes a person-less thing and the person is, equally, bodiless. Barad is confused as to why 'language has been granted… [so] much power' and asks 'How did language become more trustworthy than matter?' (2003, 801). She makes a call to turn back to matter; she wants matter to 'actively matter' (Barad 2003, 809).

Of equal concern is that when we discuss ourselves as 'the body', we present our flesh as an object situated in space with an epidermal perimeter, which designates our physical limit. Contained within the boundary of the skin, the physical entity called body articulates as discrete and individual without you being with it. This perspective is a material fallacy and a device that belies the messy, leaking and percolating material reality of your body – and it is exactly this device that insists the fleshiness of your being-ness is blurred out and away from your experience and consideration. And worryingly, not only does it support the perception of a separation not only of your awareness of yourself as flesh, but it also encourages a distance between you (as body of materials) and the rest of the materials of the world that comprise you. Consequently, as bodies are simply a community of materials shuffling and rearranging to maintain your shape, to continue to ignore the role materials play in shaping both your body and our shared worlds is foolish on a number of counts, which amount to more than simple inaccuracy.

Why is this important?

The world is a physical event becoming itself. Everything – including items typically considered immaterial like light or thought – emerges

physically and energetically as if within a material or substance from another material or substance, and as such cannot be divorced from what is around us. Moreover, as each substance is determined by its properties, every material singularly and in relationship with other materials is limited by its inherent capacities. For this reason, the New Materialisms perspective encourages materials to be brought into discussion, but despite good intentions it too tends to overlook the notion that people are also materials in relationship. New Materialisms recognize organic, inorganic and synthetic substances, how they form into things, are reshaped, disintegrate, digest, transform and in so doing shape people's lives (cf. Drazin and Küchler 2015), but rarely does the perspective recognize that people are bodies-of-materials. Thus, this burgeoning mass of literature explores a range of diverse substances such as oil, carbon, diamonds, water, soil, clay, as well as synthetic materials such as plastics and compound chemical pharmaceuticals – but it still has a tendency to side-step the notion that human flesh is a material and that living bodies are substances agglomerated into people. Perhaps, this is because it is simply so blindingly obvious? Or perhaps it is because some aspects of human exceptionalism are just too stubborn to erase?

The editors of this book feel a sense of urgency pressing down on them. This urgency is prompted by an ecological awareness of the consequences of what is now called the Age of the Anthropocene. Recognizing the problematic anthropocentric focus of the name that still places humanity as the pivot around which all existence circles, we nevertheless also recognize the value of using a label that demands attention to current global shifts. As dark as these days are (Morton 2016), and as depressing as the notion of an Age of the Anthropocene is, it has inspired scholars from diverse disciplines to creatively reconsider current practice and methods. The intentions of this book are melded with that creativity. The various posthuman moves, including the scholarship of the ontological turn, are responsible for the loud strident calls for inclusivity (specifically with regards to recognizing personhood); a levelling of the representational playing fields (Witmore 2014) between human and other-than-human beings (Whatmore 2002; Kohn 2013); a recognition of the co-generative, influential and relational biosocial aspects of being (Barad 2007; Ingold and Palsson 2013); and new ethically grounded analytics

(Bennett 2010; Coole and Frost 2010) to approach these new worlds that seem to be blossoming up before our eyes as we reject a number of past values and methods. The NM move has swooped in on the wing of this creativity and, through an extension of Latour's actants and Actor Network Theory (1993) which recognizes the agency of things other than human, asks for attention to how earthly substances shape lives.

Thinking with and through the body is not to think about it. Thinking about the body puts it at a distance – to be viewed as different, as a product, as another. Thinking through or with the body places the flesh of the body (the very meaty assemblage) as the physical pivot from which all conclusions can emerge. This perspective on the flesh demands realization that your being is predicated on a series of complicated physical properties inherent in the relationships of the materials that compose you. It also reminds you that the properties that support the chemicals of your flesh to cohere and shape themselves together into the form known as you-as-body are also in relationship with the rest of the materials in the world around you. As we inhabit a time in which human activity is considered to be detrimentally impacting on the physical forces driving materiality, it is both timely and apposite to seriously reconsider our methods and the consequences of how we think with the materials that become us.

Body Matters

It is this that *Body Matters* addresses: both the stubborn tendency to see materials as inert as well as the representations that disassociate the living body from the material world. In addition to keenly attending to the materials of the body, we also (following Barad 2007) hope to problematize any divisions that language establishes between materials in favour of a lexicon that elucidates relationships and connections. Therefore, this book takes as its starting point the axiom that bodies are matter – flesh, blood and bone – and inspired by the phenomenology of embodiment that advocates for a 'sensuous scholarship', and in hearing Stoller's cry to avoid 'bloodless language' (Stoller 1997, xv) we offer this series of chapters.

Drawing upon a diverse range of case studies from anthropology, archaeology and medieval studies, the contributors to this volume variously consider – indeed question – the boundaries and

dividuality of the human body, drawing attention to its porosity as it merges, commingles and interacts with other matter (see Attala, Govier, Feyers-Kerr, Rahmen, Steel). Some chapters (Coard, Webster) highlight the very materiality or physicality of the body, focusing the gaze firmly on its fleshy, bony, dusty reality whereas the agency of the physical body, separate from the thinking agency of the mind, is highlighted by Burton and Webster. Feyers-Kerr, Rahmen, Steel and Walsh draw attention to the physical, haptic and sensual engagement of body and substances – variously clay, plaster, water – and how these tactile material engagements shape social worlds. All these chapters demonstrate the virtue of turning our attention towards the matter of the body, demonstrating how it enables us to situate people within the material, physical world and thus to better understand how people forge relationships and come into being, both with each other and with other things – how matter and people co-produce social worlds.

Focusing on burials from Çatalhöyük and influenced by the work of Barad (2003, 2007, 2012) and Bennett (2010), Eloise Govier challenges Cartesian notions of body-mind-thing separations, instead emphasizing the importance of the *relationships* between matter/things and the porosity of the body. Bennett's understanding of vital materiality, that people are made up of many things, substances, 'its' (2010, 113) lies at the heart of Govier's chapter: she contends that we cannot fully understand how bodies *become* if we separate them from the materials that flow through them and act with them.

Luci Attala interrogates the material, bodily consequences of ingesting plants with hallucinogenic properties, specifically challenging notions embedded within anthropological studies of consumption that foodstuffs (in this case specifically phyto-matter or plants) are essentially inert, consumed, experienced and enjoyed by humans but without agentive capacities. Instead Attala uses Barad's (2007) focus on the agency in relationships and Bennett's notion of vitality (2010), to remind us that we are what we eat; through ingesting food – eating and, by extension, drinking, smoking and other forms of consumption – matter commingles and the body *becomes-with* (Haraway 2008) what it consumes (ingests, inhales).

Within the context of the Xié of north-west Amazonia, Elizabeth Rahmen demonstrates the inherent material porosity of flesh and how the body is shaped through its relationships with the other materials.

This chapter specifically attends to the co-creative engagements of water with flesh, but it also illustrates the roles other materials, such as tobacco, play in shaping bodies. Rahmen concentrates on the process by which Xié personhood is encouraged to sediment into flesh. This ethnographic example clearly demonstrates how the boundary between the matter of the body and other environmental materials is blurred and simultaneously co-productive and also illustrates the role the riverine landscape plays in the material creation of healthy, strong and vital individuals.

Louise Steel also explores of the matter of *being* – or personhood – focusing on specific handlings of skulls in funerary ritual in the Neolithic and Bronze Age of the Near East and Aegean. Influenced by Barad's agential realism (2007), Steel views these haptic relationships between the matter of the dead and living bodies as collective events or phenomena, so as to demonstrate that rather than being separate, discrete entities, bodies are porous, seeping into each other as they co-produce personhood. Furthermore, this chapter problematizes the notion that personhood is individualistic by demonstrating its inherent materiality.

Interactions between the body and earthy substances, such as soil and clay, among the Mun of East Africa provide the focus for Kate Fayers-Kerr's chapter. She questions traditional approaches to body painting, which focus on skin as a passive blank canvas upon which cultural ideas are inscribed. Instead, Fayers-Kerr explores how the materiality of the body becomes, interacts and is at one with, the wider environment, emphasizing the fluidity and porosity of engaging matters and illustrates how cultural identities are pointedly co-produced and shaped-with as a result of relationships with surrounding materials.

The materiality of the dead body in medieval Europe is the subject of Harriett Webster's contribution – namely, what physical characteristics of the body needed to be present to demonstrate that the soul had departed the flesh. Webster focuses specifically on how the supernatural became tangible and visible in the very flesh of normal human bodies when these became the location of miracles. Webster also explores how other objects might act as proxies for the human body in the curative process. This chapter therefore demonstrates ironically how the matter of the human body was used in medieval

Europe to corroborate the spiritual and immaterial – this against a backdrop of understandings of the separation of corporeal flesh from the soul, which lie at the root of persistent notions that people are separate from the material world that this volume aims to challenge.

Ros Coard explores the fluidity of the body, by highlighting what occurs when body materials desiccate. Using this theme as a pivot around which her discussion circulates, Coard highlights how bodies are not materially static or bounded entities, but instead are merely materials in flux, in a continual state of becoming. To establish this clear focus, Coard takes an almost microscopic look at the manner by which bits of bodies are regularly discharged when extraneous. This relentless 'shedding' of body matter – hair, skin, nail – produces a scattered layer of body bits across our lives re-merging with bodies through inhalation, balling up in corners and settling on furniture. This diaspora of dried fleshy parts not only scatters us throughout, but also enables us to then intermingle with, and, simultaneously transform into, the surrounding environment. Coard observes that in contrast to other living elements of the human body – our flesh, organs and bones – the materiality of these shed corpora is not attended to or recognized as of value but rather is considered, using Douglas as 'matter out of place' (Douglas 1966).

The lived experience of the body and its haptic interaction with other materials – ceramic drinking cups from Middle Bronze Age Kerma – is the focus of Carl Walsh's chapter. Walsh explores the notion of *body schema* (cf. Malafouris 2008), questioning Cartesian ideas that separate people – the bounded body – from the material world, instead recognizing that the human body comprises a commingling of seemingly disparate matter such as clay. He focuses on bodily actions – handling and drinking from a cup – in which human flesh, matter and object are materially entwined through specific performed – and culturally informed – gestures. Walsh makes the case that these material entanglements and gestural performances combine materials and objects into the *body schema*.

Our final bodily offering looks at the agency of distributed objects – namely medieval relics, in this instance the finger of Saint Germanus of Auxerre. Janet Burton's account of how saints' bodies were manipulated, handled, moved around and encased in costly materials in visually stunning reliquaries, reminds us that the human body is not

immutable, but is subject to transformation – the fleshy matter of the body decays leaving only bone. Throughout this chapter Burton emphasizes the materiality – substance of – medieval relics and the elaborate, costly reliquaries in which they were housed. This chapter also firmly establishes how the body – or in this instance part thereof – continues to have agency in death, analogous to Gell's distributed objects (1998, 221–3).

Conclusion

Body Matters, therefore, specifically notes that the New Materialisms perspective overlooks the materiality of bodies. New Materialisms recognizes materials (cf. Drazin and Küchler 2015), but it has a tendency to side-step bodily substances as materials that comprise us as people. Thus, the body is not presented as a substance or even an assemblage of substances working together but is typically presented as acting on, distinct from (and therefore divorced from) the world of materials. *Body Matters*, therefore, addresses the Cartesian tendency to see materials as inert and the representations that disassociate the living body from the material world.

As with the ontological turn that pushed scholars in anthropology to avoid translating differences into those idea-forms established by the discipline, the ethnographic content of this volume helps us conceive of and sense how materials and our bodies are variously entwined and co-productively engaged together. Fayers-Kerr's chapter illustrates this beautifully with her discussion of how soil becomes bodies and how bodies are blended with the landscape. Furthermore, her chapter demonstrates how soil slips between being organic and inorganic/living and non-living depending on relational situation rather than objective context. A similar point is picked up by both Attala and Govier with regards how bodies become through the ingestion, inhalation and incorporation of different substances. These works not only demonstrate how the line drawn between objects (or, to use Barad's (2003) term, 'phenomena') is blurred, but how it is also dramatically unsuccessful to characterize items as fixed in separation when viewed through the lens of NM.

Moreover, and continuing with this thread that attempts to sew dualities together, the location of agency, typically positioned in

human bodies, emerges seriously troubled using this perspective. Where Cartesian-inspired theory attempted to surmount this problem by producing – (literally) from thin air – the notion of a spirit that was claimed to animate flesh, the NM directly contests that claim by asserting that agency is not placed within any material, let alone flesh, but rather can be regarded as the outcome of relationships. Thus, because reality 'is not composed of things-in-themselves… but things-in-phenomena' (Barad 2003, 817) agency is more accurately understood as 'a matter of intra-acting; it is an enactment, not something that someone or something has' (Barad 2007, 178).

References

Barad, K. 2003. 'Posthumanist performativity: Toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society* 28(3), 801–31.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Barad, K. 2012. 'Matter feels, converses, suffers, desires, yearns and remembers', in *New Materialism: Interviews and Cartographies*, eds R. Dolphijn and I. Tuin. Ann Arbor, MI and London: Michigan Publishing and Open Humanities Press, pp. 48–70.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Beyer, S. V. 2010. *Singing to the Plants: A Guide to Mestizo Shamanism in the Upper Amazon*. Albuquerque, NM: University of New Mexico Press.

Boivin, N. 2004. 'From veneration to exploitation: Human engagement with the mineral world', In *Soils, Stones and Symbols: Cultural Perceptions of the Mineral World*, eds N. Boivin and M. A. Owoc. London: UCL Press, pp. 1–29.

Boivin, N. 2008. *Material Cultures, Material Minds: The Impact of Things on Human Thought, Society, and Evolution*. Cambridge: Cambridge University Press.

Boivin, N., and Owoc, M. A. (eds) 2004. *Soils, Stones and Symbols: Cultural Perceptions of the Mineral World*. London: UCL Press.

Braidotti, R. 1991. *Patterns of Dissonance: An Essay on Women in Contemporary French Philosophy*. Cambridge: Polity Press; Routledge.

Braidotti, R. 2013. *The Posthuman*. Cambridge: Polity Press.

Capra, F., and Luisi, P. L. 2014. *The Systems View of Life: A Unifying Vision*. Cambridge: Cambridge University Press.

Carsten, J. 2013. 'Introduction: The blood will out', *Journal of the Royal Anthropological Institute* (n.s.), S1–S23.

Coole, D., and Frost, S. (eds) 2010. *New Materialisms: Ontology, Agency, and Politics*. Durham, NC and London: Duke University Press.

Descola, P. 2013. *Beyond Nature and Culture*. Chicago, IL: Chicago University Press.

Dillon, P., Gross, P., Irvine, R., Coffin Price, V., and Staddon, C. 2012. 'Thinking like a wetland', *Journal of Arts and Communities* 4(1 and 2) 100–26. *doi: 10.1386/jaac.4.1-2.100_1*.

Douglas, M. 1966. *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. London and New York, NY: Routledge.

Drazin, A., and Küchler, S. (eds) 2015. *The Social Life of Materials: Studies in Materials and Society*. London, New Delhi, New York, NY and Sydney: Bloomsbury.

Gell, A. 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.

Haraway, D. 2008. *When Species Meet*. Minneapolis, MN and London: University of Minnesota Press.

Harris, O. J. T., and Cipolla, C. 2017. *Archaeological Theory in the New Millennium: Introducing Current Perspectives*. London and New York, NY: Routledge.

Harris, O. J. T., Robb, J., and Tarlow, S. 2013. 'The body in the age of knowledge', in *The Body in History: Europe from the Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 164–95.

Head, L., Atchison, J., and Gates, A. 2012. *Ingrained: A Human Biogeography of Wheat.* Burlington: Ashgate.

Helmreich, S. 2009. *Alien Ocean: Anthropological Voyages in Microbial Seas*. Berkeley, CA, Los Angeles, CA and London: University of California Press.

Hurn, S. 2012. *Human and Other Animals: Cross-Cultural Perspectives on Human–Animal Interactions*. London: Pluto Press.

Ingold, T., and Palsson, G. (eds) 2013. *Biosocial Becomings: Integrating Social and Biological Anthropology*. Cambridge University Press: Cambridge.

Kirksey, S. E., and Helmreich, S. 2010. 'The emergence of multispecies ethnography', *Cultural Anthropology Special Issue*: *Multispecies Ethnography* 25(4), 545–76, *doi: 10.1111/j.1548-1360.2010.01069.x*.

Kohn, E. 2013. *How Forests Think: Toward an Anthropology Beyond the Human*. Berkeley, CA, Los Angeles, CA and London: University of California Press.

Latour, B. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.

Latour, B. 2004. *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, MA: Harvard University Press.

Lévi-Strauss, C. 1964. *Totemism*, trans. R. Needham. London: Merlin Press.

Malafouris, L. 2008. 'Is it "me" or is it "mine"? The Mycenaean sword as a body-part', in *Past Bodies: Body-Centred Research in Archaeology*, eds D. Borić and J. Robb. Oxford: Oxbow Books, pp. 115–23.

Marder, M. 2016. *Dust*. London: Bloomsbury Books.

Miller, D. (ed.) 2005. *Materiality*. Durham, NC and London: Duke University Press.

Morton, T. 2010. *The Ecological Thought*. Cambridge, MA and London: Harvard University Press.

Morton, T. 2013. *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis, MN and London: University of Minnesota Press.

Morton, T. 2016. *Dark Ecology: For a Logic of Future Coexistence*. New York, NY: Columbia University Press.

Narby, J. 2003. *The Cosmic Serpent: DNA and the Origins of Knowledge*. London: Orion Books.

Stoller, P. 1997. *Sensuous Scholarship*. Philadelphia, PA: University of Pennsylvania Press.

Strathern, M. 1998. *The Gender of the Gift*. Berkeley, CA, Los Angeles, CA and London: University of California Press.

van der Veen, M. 2014. 'The materiality of plants: Plant–people entanglements', *World Archaeology* 46(5), 799–812.

Viveiros de Castro, E. 1998. 'Cosmological Deixis and Amerindian Perspectivism', *The Journal of the Royal Anthropological Institute* 4(3), 469–88.

Whatmore, S. 2002. *Hybrid Geographies: Natures, Cultures and Spaces*. London: Sage.

Witmore, C. 2014. 'Archaeology and the New Materialisms', *Journal of Contemporary Archaeology* 1, 203–46.

Notes

1. For example, see the work of Haraway (2008), Helmreich (2009) and the *Multispecies Salon* ethnographies (Kirksey and Helmreich 2010; Hurn 2012; Kohn 2013) as illustrative of literature that challenges zoocentrism by bringing in non-human animals.

2 BODIES THAT CO-CREATE

The Residues and Intimacies of Vital Materials

Eloise Govier

Introduction

The contributors to this volume emphasize the blurred and transformative boundary of the human body by disputing the life/matter binary. I too address this predicament by exploring the fluctuating and coalescing relationships that body matter (hair, nails, skin, bacterial agents) and non-body-originating matter (such as carbon or cinnabar) have with and within past and present human bodies. The inherent porosity of the boundary between humans and substances becomes particularly apparent when considering the carbon residues found on the vertebrae and ribs of Neolithic human bodies at Çatalhöyük (Birch 2005, 593; Andrews et al. 2005, 277). When found in such contexts, the carbon residues are linked to smoke inhalation and act as biomarkers – or 'tell-tale' materials – for potential diseases. The presence of these carbon substances demonstrates the permeability of the human body, and, as such, confronts the 'life–matter binary' that pervades our thinking (Bennett 2010, 20). By foregrounding the capacities of these materials during encounters with humans, I contend that vital materials like carbon and cinnabar shaped human bodies. It is only by acknowledging the capacities of these substances that we can enhance our empirical understanding of the quality of unique Neolithic lifeways 9,000 years ago.

The contemporary use of the term 'dirt' in archaeological interpretation is in tension with my presentation of the vitality of carbon. At Çatalhöyük, the structuralist clean–dirty binary has been utilized to interpret social uses of areas inside buildings at the town (see Hodder and Cessford 2004). I challenge this analytical method by reframing the residues currently described as 'dirt' as vital materials with capacities, forces and trajectories of their own (see Bennett

2010, viii). Ethnographic research carried out with performance artist Suze Adams provides a vignette of the 'dispersal of self' and becomes a further opportunity to rethink the 'ontological contours' (Malafouris 2008, 6) of the human body via the artist's co-produced drawings with 'dirt' (body) matter. Thus, the greyness of the body matter category as identified by Bennett (2010; see discussion below) – of what discourse and social mores allow to constitute body matter – destabilizes the demarcation of the 'whole' Cartesian body, which I contend is constructed through socialization processes which typically obscure the potency of materials, such as the culturally contingent concept of 'dirt' (see Douglas 2002). But let us first discuss the connective tissue between past and present bodies: humans, the 'walking minerals' of planet Earth (for more on mineral bones, metal blood and electric neurons see Bennett 2010, 10–11).

Dirt: Human traces and residues/dealing with substances

Whilst fleshy human bodies of prehistoric individuals are transformed by the passing of time and often disappear from archaeological view – here we might recall those enticing words Attala and Steel used in their introduction, such as oozing, suppurating and desiccating – the 'mineral' structure of the body often remains (see Bennett 2010, 11). At Çatalhöyük, carbon substances have been found on human rib bones; thus, it is possible to state that both substances (carbon residues) and things (human remains) have tangible presences in the archaeological record, recalling the argument that 'everything in the world is equally a thing' (see Witmore 2014, 241). The question that then arises is: how do we determine difference in relation to substances and things? Is it a question of scale, complexity or agency that transforms our understanding of the material from substance to thing? The more elaborate and complex the capacities, affordances and agencies of the substance, the more thing-like it appears. In the discourse of Materialisms, and following on from the establishment of 'material agency' (Knappett and Malafouris 2008; cf. Gell 1998), should substances be deemed 'quasi-agents' (Bennett 2010, viii)? Or, are substances the 'ultimate substratum' (Whitehead 2000, 22, cited in Buchli 2016, 34), a metaphysical realm on which we fix our 'contingent sense of the world' (Buchli 2016, 34)? In this chapter, I flux between these two points,

but ultimately it is the 'doings' that anchor my understanding of what constitutes bodies.

When analysing human–material relations ex post facto, the consideration of the capacities of substances facilitates a more nuanced understanding of the potentiality of an event like smoke in the lungs – and it is this type of event that is insinuated from the presence of these carbon residues on the ribs and vertebrae. Carbon substances routinely appear inside the buildings at Çatalhöyük and they are often found embedded between layers of plaster on mudbrick walls (Matthews 1998, 2005a, 2005b; Matthews et al. 2006). The vital materialist perspective reminds us that both plastered wall and fleshy human lung hosted the residues of the smoky activities inside the human-made Neolithic structures. According to microartifactual analysis, the northern areas of the internal spaces tend to be cleaner, in contrast to the dirtier southern areas near the hearth and the rooftop entry point to the building (Cessford 1998; Hodder and Cessford 2004). In a bid to understand the surprising practice at Çatalhöyük of producing undecorated cooking pottery, Hodder extends the clean/dirty binary to the surfaces of pottery which – despite being initially burnished – remain plain (2016, 38). He argues 'This lack of decoration fits into a wider set of practices that distinguish the plain "dirty" southern areas of main rooms from the northern "clean" and ritually marked and decorated areas' (2016, 38). I find the use of the clean/dirty binary problematic in this interpretation. The ethnoarchaeologist Nicole Boivin discusses a plaster sample taken from a wall in a particular building at the settlement (B.5) which evidences cyclical replastering of the wall. She describes the plastering habits of the creative practitioners in the building as 'fastidious' because the wall demonstrates a 'distinctive and conspicuous cyclicity' (2000, 380). Matthews's (1998) analysis of the plaster wall revealed layers of soot covering thin layers of plaster which were punctured by single coats of a noticeably thicker plaster (Boivin 2000, 382). Boivin notes that B.1 did not evidence the same sequence of plastering as B.5 which, she argues, is significant as it suggests that 'different temporal rhythms unfolded in different buildings' (2000, 383). Thus, the idiosyncrasies of the wall plastering practices between different buildings are not accounted for in Hodder's meta-interpretation of undecorated pottery at the settlement.

Invariably, the footfall at the entry point to any building will be more pronounced and, as the hearth is situated under the roof-entry point to allow for the release of smoke, cooking also takes place in the area. It appears that for social reasons there could be more activities around the hearth and, hence, more bodily residues and intimate traces of living (or 'dirt'). There is also the possibility that textiles (woven reed mats) were used in certain areas of the space, which Hodder and Cessford acknowledge would impact on the density of microartifactual remains incorporated into certain areas of the building (2004, 24). Micromorphological analysis can yield rich data sets of information regarding floor deposits, such as the presence of charred cereal grain or bone fragments (Hodder and Cessford 2004, 25); however, it is their translation of these assemblages into 'clean' or 'dirty' that I find problematic. Notably, in their discussion, Hodder and Cessford also describe an assemblage profile as 'low traffic' (2004, 24), which is perhaps a more useful category, one that conveys the 'busyness' rather than 'dirtiness' of activities in the building.

Vitalism

Vital materialists are concerned with what materials 'do' (see Bennett 2010, 60), and this fits neatly within the New Materialities approach adopted by Attala (2017), which takes a radical posthuman approach by offering a more-than-human perspective to materials and how different species co-construct worlds. For Attala, water is the body, and plants have a 'voice' which emerges through active relationships with human partners (Attala 2017, 126, 128). Thus, the affect and capabilities of materials are showcased in a bid to dethrone the human and unmask the phantom boundaries between species (2017, 139).

I use the terms vital materials and vital materialisms to indicate my lineage in the New Materialities discourse. These terms are used by Bennett, who refers, in turn, to Kafka, DeLanda and Vernadsky, who all suggest humans are 'composed of vital materials' (2010, 11). Inspired by Deleuze and Guattari's acknowledgement of a 'material vitalism', Bennett invigorates the usage of the term 'vital' by arguing that it is no longer adequate to frame substances as 'passive, mechanistic or divinely infused' (2010, xiii). Matter is no longer a 'raw material' for human intervention and might; it is human bodies, 'but also,

the bodies of Baltimore litter' (Bennett 2010, xiii). By identifying and focusing on a vitality intrinsic to materiality, a conceptual space opens up for the capacities of things (Bennett 2010, viii) – capacities being the non-constitutive potentialities of materials (see DeLanda 2006, 7, 125).[1] Bennett describes how things, such as edibles and metals, can prevent human intentions, blocking both human 'will and design' (Bennett 2010, viii). She notes how things can act as 'quasi agents or forces with trajectories, propensities, or tendencies of their own' (Bennett 2010, viii). By emphasizing the 'common materiality of all that is', Bennett grounds the body in matter (2010, 122). For the purpose of this chapter, it is her reconfiguring of the body to bodies that particularly resonates with the theoretical underpinning of the volume – a place where 'the messy material reality of the body' is exposed (see Attala and Steel, this volume). On this matter, Bennett explains that there are colonies of other bodies, namely bacteria, inhabiting the crook of the human elbow which help to moisten the skin allowing for the ease of movement; thus, humans are not a single entity but an 'array of bodies' with fluctuating porous boundaries (2010, 112). This notion ties in with my discussion of carbon and cinnabar, and the 'its' that inform the mechanisms of the Neolithic flowing body.

Bennett begins her 'onto-tale' by grounding everything – humans and things – as 'materials' (2010, 112, 117). She argues that 'materiality is a rubric that tends to horizontalize the relations between humans, biota and abiota' (2010, 112). By drawing parallels between human bodies and Baltimore litter, she appears to create a symmetry between humans and things. However, I am inclined to argue that Bennett does not explicitly commit to dissolving the division between humans and things; I, however, commit to the dissipation of the phantom boundary, via the work of Karen Barad (2003, 2007, 2012). Nonetheless, Bennett does offer several examples that suggest a blurred, perhaps permeable boundary between the two, particularly in relation to the agency that emerges from assemblages of human and non-human elements (2010, 25). For example, she discusses the agency that emerges from the North American blackout, which she describes as an assemblage of coal, sweat, electromagnetic fields, and other agents (2010, 25). Rather than think about these interactions as assemblages, I prefer to think about the body and its relationship with smoke as 'in-phenomena' (Barad 2003, 817).

The 'Cartesian cut'

I follow physicist and feminist philosopher Karen Barad (2003, 2007, 2012) and contend that bodies and norms are co-constituted in practice (Marshall and Alberti 2014, 25–6). Barad discusses the 'Cartesian cut' in her presentation of a relational ontology (2003, 815; Marshall and Alberti 2014). The Cartesian cut refers to the work of philosopher René Descartes, who made a clear distinction between the subject and the object and between persons and things (Barad 2003, 815). Barad blurs the line that defines where a human ends and things begin by offering an innovative approach to the body and agency which questions the conceptual validity of the 'thing'. To develop her argument, Barad utilizes the work of physicist Niels Bohr to reject atomistic metaphysics and redefine things as 'relationships' rather than 'distinct entities' (2003, 813). Barad provides a convincing argument for the significance of relationships and not entities; however, this reading is ontologically challenging as it rejects the notion of things as basic entities (2003, 813). For Barad (2003, 815), this argument impacts upon agency, which, she argues, is not applied to something or someone, but is instead 'a matter of intra-acting' ('intra' over 'inter', as the latter postulates the existence of separate entities).

Barad wishes to displace the notion of 'independently existing individuals' by providing 'a new understanding of causality' (2012, 54), and argues that difference is not intrinsic to things (Marshall and Alberti 2014, 27). She uses the example of the electron, and how contemporary research has revealed that the electron can be either a particle or wave, depending on the experiment used to measure it (Barad 2012, 60). This observation goes against classical physics, which states that there are only two types of ontologically distinct entities – particles or waves – and that they do very different things (Barad 2012, 60). Barad notes that the ontology of the entity is dependent on the apparatus used to make the measurement (2012, 60–2); thus, if the apparatus is changed a different entity is produced (Marshall and Alberti 2014, 26). Referring to Bohr, she explains that there are 'no things before the measurement, and the very act of measurement produces determinate boundaries and properties of things' (Barad 2012, 62). Therefore, things are in-phenomena – they emerge from the intra-actions of humans and materials.

Despite shifting the 'localization' of agency from humans to an enactment, Barad is adamant that intra-actions still reveal power imbalances as an array of complex material practices, and different sorts of causality are revealed through the approach (Barad 2012, 54–6). Barad's work has clear repercussions for archaeology, and Marshall and Alberti (2014) have introduced her agential realist relational ontology to the archaeological discourse, focusing on the causal relationship between discourse, practice and matter. They note Barad's agential realism collapses the ontological gap between bodies and social structure – and other norms, such as discourse or regulatory regimes – through her dismissal of an a priori causal link between social structure and human action (Marshall and Alberti 2014, 25–6). Thus, Barad challenges the idea that practices mediate human actions and the pressures of social structures by arguing that bodies and norms are co-constituted in practice (Marshall and Alberti 2014, 25–6). Her argument presents a different causality and way of thinking about the complex relationships between material practices (Barad 2012, 56).

Collaborating with smoke

Therefore, building on the argument that matter is vibrant, and that humans and things are 'in-phenomena', let us consider the vital materials whose potency grows proportionately with their accumulation, such as oil spills, cancerous tumours or, for the particular purpose of this chapter, carbon in the lungs. When Bennett discusses the 'vitality' of things, she spotlights the capacities of material entities (2010, viii). Smoke is a vital material, but not all smoke is equal: from the toxicity of the smoke produced from burnt plastic (Fardell 1993); to the toxic pollutants produced by burning wood (Fitzjohn 2000); to culturally contingent responses to the aesthetics of smoke, such as the appearance of white smoke during conclave; to the physical impairment caused by cigarettes, such as emphysema and chronic bronchitis. Thus, different types of smoke, like the different types of matter subsumed under the umbrella term 'dirt', have different capacities and trajectories, and it is vital that we attend to the 'character' (DeLanda 2006) of the different relationships.

Organic fuels like animal dung or wood can pollute the air, and an analysis of the middens and hearths both inside and outside of

buildings at the Çatalhöyük has established that these were the town's two major fuel sources (Matthews 2010; Bogaard et al. 2014; Hodder 2016, 32). Daily collaborations with smoke inform the day-to-day workings and movement of human bodies who coexist in the same space. Smoke can be damaging for humans, particularly when routinely inhaled in small enclosed buildings. Archaeologist Matthew Fitzjohn (2000) discusses air pollution in mudbrick buildings and provides an in-depth discussion of potential illnesses developed from exposure to air pollution in the home. He offers a 'disease demography' that interweaves cooking at the hearth and the likelihood of disease (Fitzjohn 2000, 10–14). To explain the impact on individuals that burning this type of fuel in domestic buildings can cause, Fitzjohn highlights experimental archaeological research carried out at Lejre, which reconstructed two Iron Age Longhouses (2000, 9). Fitzjohn notes that though the houses were ventilated, they were still very smoky and 'irritated the participants' eyes and their respiratory systems' (2000, 9). Analysis of the air quality inside the building revealed that over the course of one week 'dangerously high levels of various toxic pollutants that were derived from the wood smoke' were recorded (2000, 9). The fact that archaeologists now detect lung damage from the analysis of carbon present on bones indicates how deeply these vital materials penetrated Neolithic human bodies.

In terms of the vital materials in the Neolithic, cinnabar routinely appears in various socio-cultural contexts (for an interesting example of cinnabar use in a Neolithic mass burial in Spain see Martin-Gil et al. 1995). Cinnabar's capacity to mark surfaces with a highly saturated orange-red vermillion colour was known to the people of Çatalhöyük, and the practice of grinding and washing the mineral, adding fluid and applying to plastered surfaces indicates that the creative practitioners were aware of this particular capacity (for an in-depth discussion of pigments at Çatalhöyük, see Çamurcuoğlu 2015). However, the appearance of ground cinnabar in burial contexts raises a further issue. In addition to its luminous redness, cinnabar has the capacity to preserve human bones, as the mercuric content of cinnabar prevents fungi or micro-organisms interacting with the bones (Martin-Gil et al. 1995, 760). Examples of cinnabar use at Çatalhöyük include a female individual with cinnabar painted across her skull in EVI, 20 (Mellaart 1964, 93), a teenage female whose body was covered with

red ochre and whose skull was coated with cinnabar paint (1964, 93), and the burial of an elderly female individual SK19500 (Unit 19295, Çatalhöyük Database), which included a large amount of cinnabar pigment (Doherty 2011, 92). Thus, the presence of cinnabar scattered over bodies or painted on body parts in burial contexts at Çatalhöyük might indicate that the inhabitants of the town collaborated with the mineral because of its preservative effects on the skeleton (see Brenner 2014, 317). Cinnabar also has the capacity to encourage altered states of consciousness in humans (Liu et al. 2008; Emslie et al. 2015). The hypnotic, sedative and potentially hallucinogenic vapours released when the mineral is heated or when the mineral is consumed (Liu et al. 2008; Emslie et al. 2015) may be a further capacity exploited by the peoples of the Neolithic town. The capacities of cinnabar as a potential physico-chemical is worthy of consideration; using Attala's (2017) Edibility Approach, we could state that such materials are 'reactive' and 'formative' agents (cf. Ingold 2010, 3), whose physicality enables them to 'instigate actions and behaviours' (Attala 2017, 130). Thus, humans did not simply 'use' these materials; they may have actively desired (or even craved, see Fahlander 2010) the feelings associated with sedation or altered states of consciousness; this hinged on experiences with vital materials such as cinnabar, which, like phyto-matter, became an active partner when digested or inhaled (see Attala 2017, 130). In terms of edibility, Attala frames the experience as an 'interpenetrative event' that encourages humans not simply to 'know of' but to 'revisit' and attend to these materials (Attala 2017, 139). These examples demonstrate some of the capacities of cinnabar, and indicate the usefulness of considering the potentiality of matter (or adopting a material-centric perspective) when interpreting the residues of material interactions, particularly in archaeological contexts.

Smoke is a difficult substance for humans. It has the capacity to dry human eyes and cause them to water, and when humans inhale it they tend to cough. Smoke inhalation was part of daily life in the Neolithic town, and evidence of the damage caused to humans due to engagement with this vital material has been found in inhabitants' lungs (Birch 2005, 593; Andrews et al. 2005, 277). Andrews et al. (2005, 277) explain that during life smoke accumulates in the lungs, and then as the lungs decay after death the residues deposit on the ribs and vertebrae. The cacophony of coughing as residents entered and

left the building or as they went to sleep at night, and the potential 'shortness of breath', can only be imagined (Birch 2005). Coughing is a reflex action and is directly linked to the residues of smoke in the lungs after a day of inhalation. In response to the smoke the body produces phlegm and lung capacity is reduced which can cause wheezing; there is also an increased risk of 'respiratory infections' (Fitzjohn 2000, 12). Therefore, if the body collaborates with smoke over a period of time, it can become susceptible to (or more accessible for) bacterial agents – depending on whether the perspective is human or bacterial.

The capacities of smoke are important to recognize in a discussion of vital materials inside the building, especially when trying to understand how these agents informed the experience of the space. These proximal agents are taken within, and held intimately in the lungs; these are the 'its' that challenge the onto-foundations of human bodies as unique entities (see Barad 2003, 2007, 2012). For the vital materialists amongst us, the colonies of bacteria that moisten the skin on the inner arm, allowing for ease of movement, are not of incidental import, but make a certain way of moving – a human way of moving – possible. These are essential collaborations; these are bodies that co-create. Next I shall introduce some primary anthropological research I conducted with performance artist Suze Adams in a bid to experiment with these collaborations.

Bodies that co-create

In this section I consider the human and material relationships in flow during Adams's performance piece 'At One Remove', in a bid to address some of the difficulties faced by vital materialists when attempting to frame and understand the role of 'vibrant matter' in human–material intra-actions (Barad 2003; Bennett 2010). For the 2016 Fringe Arts Bath, Adams created a performed residency at the 'Cartesian Cut?' exhibition.[2] Her piece involved the artist occupying the window area at the exhibition and spending the day working and becoming (rather than being) in the space. After one week in the window Adams removed her physical self from the performance space, leaving her work and things on show for the remainder of the exhibition. As the last few days of the exhibition passed cups of orange juice gathered green mould and slowly exuded pungent scent, Adams's

flowers wilted, their petals collapsing onto her beloved desk, whilst the bin in the performance area remained full. Therefore, the window spotlighted a host of organic and social processes, some in full flow, whilst others were stunted by the transition of the space from shop to exhibition, from bin to artwork. Her work table betrayed clues to the cognitive explorations she had conducted during her performance; olive stones and drawings of olive stones, quotes, and crumbled-up pieces of paper containing unwanted or redundant ideas were left on the table. Metonymic devices, such as a dental X-ray, and an envelope with highlighted words, offered the audience access points to the artist's subject of inquiry. What was not left on show were the products of what became the most distinctive moment of the whole performance, an action that Adams would later refer to as the 'dirt moment'.

The 'dirt moment' occurred when Adams got onto her knees and rubbed two pieces of paper on the floor at the end of her occupation, and by doing so created abstract drawings co-created by the artist and collective 'dirt' (Fig. 2.1). Adams describes all of the materials on show at the site of her performance as traces; these are the remnants and residues of her activities (Adams, 2016). She sees the assemblage of things as a 'dispersal of self' and deemed her performance as capturing a 'body in transit' (Adams 2016). Adams describes the objects at her desk as 'appendages', perceiving the chair, pencils, olive stones and books as still attached to her being. Through her interaction with the dirt, Adams had created a further appendage, a portable device that had commodifiable potential: a drawing. The transformation of substance to material reframed the dirt as a thing, and offered insight into a specific material trajectory. The transition brings into focus the notion of an 'appendage' vis-à-vis a 'remnant or residue'. The remnants and residues of Adams's activities in the window were, according to the artist, traces and not appendages, and these traces were an aggregate of collective matter, as not all the substances used in the dirt drawing were her own, but inevitably the residues of other proximal agents (Adams 2016). Adams's use of term 'remnants' to describe the substances indicates both a loss and separation between body and body parts. She describes these substances as excess and refuse, the 'stuff we don't need' (Adams, 2016).

Through interaction with the artist, the substances on the floor were transformed into a drawing, and during the process were

Fig. 2.1 'Dirt Drawings' by artist Suze Adams produced during her performed artist residency 'At One Remove' for the *Cartesian Cut? Exhibition 2016*.
Photo: Eloise Govier

transformed from substance to thing. Through human intervention, the dirt, as a raw material, was used to make art. However, in this interpretation the capacities of the substance are once again subdued and colonized by the narrative of human exceptionalism. By this I mean that the central role of the human in the transformation process sustains an anthropocentric model of material interactions, and reiterates the vitalist stance inverted by Bennett during her discussion of vibrant matter. The New Materialisms discourse demands that we move beyond this narrative; therefore, it is not enough to simply focus on describing the materials or observe the ontological categories of the materials, there is also a reason to examine the 'doings' in this particular event. There are different ways to approach the relationship

between human and substance: two examples are examining such events as an 'assemblage' (DeLanda 2006, 3; Bennett 2010; Harris 2014) and to 'follow the thing' by focusing on the matter (Witmore 2014, 205). The latter could be described as 'thingification' – a term used to describe the objectification of relations into things and unique entities (Barad 2003, 812). As outlined at the beginning of this chapter, I propose a Baradian approach, and frame the co-constitutional relationship as co-creative; I do not attend solely to a final object but also recognize the flux of substances forming and reforming.

Reflecting on Adams's work, it seems reasonable to suggest the window dirt was integral to the artwork due to its central role in the event. Its presence beckoned to the artist and caused action. These drawings could not exist without the coagulations of these sedimentations, their capacities to mark paper and create rhythms with the human hands – all were utilized by the artist. I argue that from the perspective of a vital materialist, in the context of the performance, the dirt could be considered a 'co-creator'. This notion is much easier to accept if we take on Karen Barad's (2003, 2007, 2012) agential realist position which disputes the Cartesian cut, and states that things as unique entities do not exist, as things are always in phenomena. Thus, the artist and collective matter during the performance were in-phenomena; like the smoke in the lungs of the resident at Çatalhöyük, these co-constituting vital materials are bodies that co-create.

The homogenized body

Shedding skin, hair and other matter classed as 'dirt' offers further possible avenues of enquiry regarding the permeable qualities of human bodies (see Coard this volume). Few humans organize these minutiae and thus, these residues are abandoned and shunned through the notion of dirt. Anthropologist Mary Douglas notes that 'reflection on dirt involves reflection on order to disorder, being to non-being, form to formlessness' (2002, 6). In her monograph *Purity and Danger* she indicates that notions of dirt are culturally configured, and notes that communities who have been influenced and shaped by nineteenth-century advancements in bacteriology have an understanding of dirt that is 'dominated by the knowledge of pathogenic organisms' (2002, 44). One important point of consideration is whether the concept of

dirt and the separation between humans and their material traces is part of a socially informed 'organization process' that ensures the body remains carefully 'stratified' (Deleuze and Guattari (2005, 161). On the theme of constructing body identities, Helene Brembeck (2013, 32) discusses 'homogenized body ideals' and how the process of 'individualization' begins with 'an idealized image of what a body should be and express'. I argue that the 'homogenized body' (or 'whole' Cartesian body) is a product of socio-cultural homogenization processes that produce rigid body motifs. Elsewhere, in the archaeological discourse, Lambros Malafouris has discussed how material culture extends the boundaries of the 'body schema' creating permeability between 'neural and cultural plasticity' (2008, 116). In this chapter I have addressed the permeability of body matter by identifying body 'parts' that are detached and rendered void.

Thus, I envisage the whole Cartesian body as a socialization process that continues to inhibit archaeological interpretation of past bodies, and argue that when residues of vital materials like carbon or human hair are framed as 'dirt' and ordered away from the fleshiness of being human, the illusion of distance is placed between co-creative and co-constituting bodies. Socio-cultural processes create homogenized bodies; therefore, narratives centred on the 'body' are culturally contingent positions presented as universal truths. This chapter has, in part, attempted to address the problem, by contrasting a prehistoric and a contemporary intra-action and spotlighting the capacities of the materials involved and their co-creative (and often detrimental) role in the existence of human bodies. I contend that by addressing these substances – by pressing and conjoining forces with the gatherings of matter – the flowing of bodies is revealed.

Conclusion

To conclude, I argue we do not simply host these substances, nor form these substances, these vital materials, but co-create with them. Thus, these proximal, quasi-agents, which exist in polluted air, become key and debilitating agents when nestled in the lungs, and make humans co-creating life matter. In this chapter I have questioned whether the discrete status of human bodily traces is simply a by-product of a social formation process that ensures the body remains 'whole'. The

following quote from Bennett is at the heart of this chapter, '[it is an] oxymoronic truism that the human is not exclusively human, that we are made up of its' (Bennett 2010, 113). How we tackle and take forward the life–matter predicament is a new and exciting realm of study, with great potential for future archaeological interpretation. Separating bodies from their material flows impedes our ability to explore the empirical and sensuous qualities of becoming bodies, both now and in the past. Deeming dirt in terms of a binary is an epistemological move that is no longer sufficient, and deeming smoke an incidental by-product, no longer exact.

References

Adams, S. 2016. *Notes from the Window*. [online] Available at: *www.suzeadams.co.uk/project_cart_link.html*. Accessed 26 November 2017.

Attala, L. 2017. '"The Edibility Approach": Using edibility to explore relationships, plant agency and the porosity of species' boundaries', *Advances in Anthropology* 7, 125–45.

Andrews, P., Molleson, T., and Boz, B. 2005. 'The human burials at Çatalhöyük', in *Inhabiting Çatalhöyük: Reports from the 1995–1999 Seasons*, ed. I. Hodder. Cambridge and London: British Institute of Archaeology at Ankara; McDonald. Institute for Archaeological Research, Cambridge, pp. 261–78.

Appadurai, A. (ed.) 1986. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press.

Barad, K. 2003. 'Posthumanist performativity: Toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society* 28(3), 801–31.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Barad, K. 2012. 'Matter feels, converses, suffers, desires, yearns and remembers', in *New Materialism: Interviews and Cartographies*, eds R. Dolphijn and I. Tuin. Ann Arbor, MI and London: Michigan Publishing and Open Humanities Press, pp. 48–70.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Birch, W. 2005: 'A possible case of shortness of breath at Çatalhöyük – black lungs', in *Inhabiting Çatalhöyük: Reports from the 1995–99*

Seasons, ed. I. Hodder. London and Cambridge: British Institute at Ankara, pp. 593–6.

Bogaard, A., et al. 2014. 'Assessing outdoor activities and their social implications at Çatalhöyük', in *Integrating Çatalhöyük: Themes from the 2000–2008 Seasons*, ed. I. Hodder. Monographs of the Cotsen Institute of Archaeology. London and Los Angeles, CA: British Institute at Ankara and University of California Press, pp. 23–147.

Boivin, N. 2000. 'Life rhythms and floor sequences: Excavating time in rural Rajasthan and Neolithic Çatalhöyük', *World Archaeology* 31(3), 367–88.

Braidotti, R. 2006. 'Posthuman, all too human towards a new process ontology', *Theory, Culture and Society* 23(7–8), 197–208.

Brembeck, H. 2013. 'Body', in *Food Words: Essays in Culinary Cultures*, ed. P. Jackson. London and New York, NY: Bloomsbury, pp. 32–5.

Brenner, E. 2014. 'Human body preservation – old and new techniques', *Journal of Anatomy* 224(4), 316–44.

Buchli, V. (ed.) 2016. *An Archaeology of the Immaterial*. Abingdon and New York, NY: Routledge.

Çamurcuoğlu, D. 2015. 'The technological study of the Çatalhöyük wall paintings (Turkey): materials, technologies and artists' (unpublished Ph.D. thesis, University College London).

DeLanda, M. 2002. *Intensive Science and Virtual Philosophy*. London: Bloomsbury.

DeLanda, M. 2006. *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London and New York, NY: Continuum.

Deleuze, G., and Guattari, F. 2005. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press.

Doherty, C. 2011. 'Clay and landscape studies', *Archive Report on the Çatalhöyük Season 2014*. [online] Available at: *www.catalhoyuk.com*. Accessed 26 May 2017.

Douglas, M. 2002. *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. New York, NY: Routledge.

Düring, B. S. 2001. 'Social dimensions in the architecture of Neolithic Çatalhöyük', *Anatolian Studies* 51, 1–18.

Emslie, S. D., et al. 2015. 'Chronic mercury exposure in Late Neolithic/Chalcolithic populations in Portugal from the cultural use of cinnabar', *Scientific Reports* 5. Article number: 14679. [online] Available at: *www.nature.com/articles/srep14679*. Accessed 27 March 2017.

Fahlander, F. 2010. 'The nose, the eye, the mouth, and the gut: Social dimensions of food-cravings and commensality', in *Making Sense of Things: Archaeologies of Sensory Perception*, eds F. Fahlander and A. Kjellström. Postdoctoral Archaeological Group. Stockholm Studies in Archaeology 53. Stockholm: Department of Archaeology and Classical Studies, Stockholm University, pp. 35–50.

Fardell, P. J. 1993. *Toxicity of Plastics and Rubber in Fire* (Rapra Review Reports). Rapra Technology Ltd.

Fitzjohn, M. 2000. *Building, Dwelling, and Living in the Ancient Greek World*. Cambridge: Cambridge University Press.

Gell, A. 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.

Govier, E. 2016a. *The Cartesian Cut? Exhibition Catalogue*. [online] Available at: *https://issuu.com/eloisegovier/docs/cartesian_cut__exhibition_catalogue*. Accessed 26 November 2017.

Govier, E. 2016b. 'Experiential art and archaeology: Vital material engagements', in *Archaeology with Art*, eds H. Chittock and J. Valdez-Tullett. Oxford: Archaeopress.

Harris, O. J. T. 2014. '(Re)assembling communities', *Journal of Archaeological Method and Theory* 21(1), 76–97.

Hodder, I., and Cessford, C. 2004. 'Daily practice and social memory at Çatalhöyük', *American Antiquity* 69(1), 17–40.

Hodder, I. 2007. 'Çatalhöyük in the context of the Middle East Neolithic', *Annual Review of Anthropology* 36, 105–120.

Hodder, I. 2016. *Studies in Human–Thing Entanglement*. [online] Available at: *www.ian-hodder.com/books/studies-human-thing-entanglement*. Accessed 15 May 2017.

Ingold, T. 2010. *Bringing things back to life: Creative entanglements in a world of materials*. NCRM Working Paper. Realities/Morgan Centre. University of Manchester. [online] Available at: *http://eprints.ncrm.ac.uk/1306/*. Accessed 8 November 2017.

Knappett, C., and Malafouris, L. (eds) 2008. *Material Agency: Towards a Non-Anthropocentric Perspective*. New York, NY: Springer.

Liu, J., Shi, J.-Z., Li-Mei Yu, L. M., Goyer, R. A., and Waalkes, M. P. 2008. 'Mercury in traditional medicines: Is cinnabar toxicologically similar to common mercurials?', *Experimental Biology and Medicine (Maywood)* 233(7), 810–17.

Malafouris, L. 2008. 'Is it "me" or is it "mine"? The Mycenaean sword as a body-part', in *Past Bodies: Body-Centred Research in Archaeology*, eds J. Robb and D. Boric. Oxford: Oxbow Books, pp. 115–23.

Marshall, Y., and Alberti, B. 2014. 'A matter of difference: Karen Barad, ontology, and archaeological bodies', *Cambridge Archaeological Journal* 24(1), 19–36.

Martin-Gil, J., Martin-Gil, F. J., Delibes-de-Castro, G., and Zapatero-Magdaleno, P. 1995. 'The first known use of vermillion', *Cellular and Molecular Life Sciences* 51(8), 759–61.

Matthews, W. 1998. 'Report on sampling strategies, microstratigraphy and micromorphology of depositional sequences, and associated ethnoarchaeology at Çatalhöyük'. *Çatalhöyük Archive Report*. [online] Available at: *www.catalhoyuk.com/archive_reports/1998/ar98_06.html*. Accessed 29 October 2017.

Matthews, W. 2005a. 'Life-cycle and life-course of buildings', in *Çatalhöyük Perspectives: Themes from the 1995–1999 Seasons*, ed. I. Hodder. Cambridge: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 125–49.

Matthews, W. 2005b. 'Micromorphological and microstratigraphic traces of uses and concepts of space', in *Inhabiting Çatalhöyük: Reports from the 1995–1999 Seasons*, ed. I. Hodder. Cambridge: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 355–98.

Matthews, W. 2010. 'Geoarchaeology and taphonomy of plant remains and microarchaeological residues in early urban environments in the ancient Near East', *Quaternary International* 214(1–2), 98–113.

Matthews, W., Wiles, J., and Almond, M. 2006. 'Micromorphology and microanalysis of architectural surface materials and residues: Investigation of Source materials and the life-cycle of buildings', *Çatalhöyük Archive Report*, pp. 285–94.

Mellaart, J. 1964. 'Excavations at Çatal Hüyük, third preliminary report, 1963', *Anatolian Studies* 14, 39–119.

Twiss, K. C., et al. 2008. 'Arson or accident? The burning of a Neolithic house at Çatalhöyük', *Journal of Field Archaeology* 33(1), 41–57.

Whitehead, A. N. 2000. *Concept of Nature*. Cambridge: Cambridge University Press.

Witmore, C. 2014. 'Archaeology and the New Materialisms', *Journal of Contemporary Archaeology* 1(2), 203–46.

Notes

1. The word 'capacity' is used by Deleuze and Guattari (2005) and unpacked by DeLanda in his analysis of their work (2006). DeLanda distinguishes between the properties and capacities of matter; he notes that capacities indicate what social entities are capable of in interactions and whilst these capacities are not always exercised they can still be framed as possibilities (2006, 7, 125). Capacities are not fixed, they can develop and grow through the acquirement of new skills or through new interactions (2006, 50) and could be imagined as an 'open list' rather than countable like properties (2006, 10, 50). Thus, capacities are not 'a constitutive property' (2006, 10).
2. 'The Cartesian Cut?' exhibition was curated by Eloise Govier in association with Fringe Arts Bath (27 May 2016–12 June 2016). Exhibition artists: Suze Adams, Nikki Allford, Lou Baker, Rowan Evans and Maisie Newman, Eloise Govier, Ellie Harrison, John de Mearns, Laura Waite, Daniel Witnicki.

3 'I AM APPLE'

Relationships of the flesh. Exploring the corporeal entanglements of eating plants in the Amazon

Luci Attala

> Eating is … the act of incorporation itself: bread and wine become the flesh and blood.
>
> (Derrida et al. 2009)

Introduction

This chapter uses a New Materialities (hereafter NM) approach to interrogate the corporeal consequences of eating plants. The aim is to encourage the reader to recognize the many active and formative material entanglements that articulate our lives. Typically positioned as an activity that is primarily self-interested and instinctual, eating is redefined here as a mutually influential co-productive relationship that is, in part, driven and shaped by the capacities of the engaging materials as they meld together through digestion.

The title of this chapter playfully pokes at the paper 'I eat an apple' by Mol (2008) which focused its attentions on the 'I' (or the human view) of eating. This is done with a view to draw discussions away from attending exclusively to the eater in a bid to remind ourselves that eating is a process of *becoming-with* what is eaten. Therefore, using digestion as the process and the stomach as the location where edible substances blend, this approach recognizes not only the fundamental materiality of the body but also that the bodies of eaters materially bind with the bodies they ingest. Any notion that you are anything other than what you incorporate as flesh should fall away.

Adopting this perspective attends to the accuracy of representation and is therefore a political move. The global North – due to the Enlightenment foundation of its knowledge base – tends to imagine

the world as something comprised of discrete bounded entities. This chapter challenges an epistemology of separation to demonstrate the world is one of blending and networks (Capra and Luisi 2014).

The chapter could use any edible item to illustrate our material/bodily dependencies, but it chooses to focus on one plant in particular to make its point. The plant is the liana *Banisteriopsis caapi* which is endemic in the Amazon Basin. The plant has hallucinogenic properties when prepared into a decoction and is regularly used medicinally and ritualistically by numerous Amerindian groups. In keeping with a materialities perspective, I reinterpret the ability of the plant to produce hallucinations from coincidentally abnormal or altered neurochemistry to one of plant capabilities and an influential productive outcome of a material engagement. This is achieved not by looking at how the hallucinations are interpreted but rather by considering the consequences of being something that creates hallucinations through ingestion. Using this analytic, it is possible to establish that plants (as a collective noun) benefit in particular ways from the relationships that they forge with the bodies they end up in, and that the material communion of eating is a method of engaging with the environment consciously. *B. caapi* illustrates how eating plants forms a relationship that is materially enacted *within* people's bodies because of the extraordinary hallucinations it produces and the conclusions people have reached about them.

In discussions about eating there is a tendency to focus on ingredients, tastes, methods, costs and the nutritional value of the food a person eats rather than the brute materiality of the engagement. Typically, any attention to the physiological effects of ingested plant matter tends to concentrate on either how (or if) the fruit or vegetable might influence a person's physical health, or the sensuous physicality of the experience of the moment of eating (Mol 2008). Using a New Materialities framework, however, the material processes of eating cannot successfully remain exclusively interested in the human consequences; that is, how eating affects the ingester only. From an NM perspective, eating is not an activity achieved by the individual alone, but rather emerges as a relationship where the brute materiality of engaging parties – the eater and the eaten – blend together in concert as flesh-becoming (cf. Ingold 2011). This is because the NM perspective recognizes the essential materiality of relationships by attending

to how substances participate together and thus, using the Edibility Approach (Attala 2017), it recognizes that eating – biting, chewing, swallowing, assimilating and excreting – are methods by which bodies of different species fundamentally and profoundly *engage with each other*.

Not every substance is considered edible. When a material is deemed edible, it is considered fit for human consumption and digestible, rather than being nutritionally beneficial for the body. Thus, soil, for example, is inedible. While it is possible to swallow, it is not digested or assimilated by the body because it fails to contain significant amounts of organic matter. Consequently, while some components of soil might be digestible, soil itself is not considered edible. As each ingested substance offers and produces different physical or material results from assimilation, the significance of a substance being edible requires attention – not simply because it can be digested, but because the transformations it enables after assimilation are determined by how bodies can actively ingest it. Consequently, when using an NM and Edibility Approach (Attala 2017), the edibility of a substance is determined not as a resource for use, but rather as a material propensity that through relations can produce a co-generative ingestive liaison. Eating, therefore, is not simply about the eater's whims or needs. It also concerns rather dramatic, transformative material processes to be enacted through which materials seemingly shapeshift together.

The ability to incorporate another entity into one's own fleshy body is singularly mundane in its conspicuousness. Everything eats something and bodies can only exist materially because they regularly and constantly blend with other bodies through the chemistry of ingestion. As a result of this, and the human exceptionalist ontology that articulates thinking in the global North, it is easy to overlook the relational significance of this material event. Overlooking the part plants play in co-creating human bodies, however, is only peculiar to certain cultures. Many small-scale cultures acknowledge plant agency and the role they play in shaping human worlds (Harvey 2005). It may seem self-evident that plants exist without reference to humanity – notwithstanding the human reliance on them – but this chapter questions that assumption by noting correspondences between ethnographic material concerning plants' abilities to communicate with

their human friends and the idea that plants chemically communicate as a result of being digested by people.

Kendrick (2013) calls eating a discursive event. Acknowledging the consequences of ingestion exposes the act of being consumed as a mutualistic strategy symbiotically developed by organisms for their evolutionary benefit (cf. van der Veen 2014). Thus, ingestion is a process that synthesizes bodies rather than causes destruction. In association with the ideas of more-than-human geographies that see life as a melding happening of influences (see Whatmore 2002; Ingold 2011) alongside Hird's claim that life is more accurately conceived of as a colony of 'micro-ontologies' (2009, cited in Kendrick 2013), digestion, as in both eating and being eaten, is repositioned as constitutive chemical discourse between involved parties.

Talking plants?

The idea that plants communicate is gaining attention. However, despite numerous contemporary botanical studies that reveal plants communicate comprehensively (see Karban et al. 2004; Witzany 2006; Dudley and File 2007; Baluška and Mancuso 2008; Heil and Karban 2010; Bhatt et al. 2011; Karban et al. 2011; Gagliano 2012a and b; Gagliano et al. 2012), it is considered unreasonable to suggest that plants are aware of humans – let alone communicate with them. The studies cited above are just a small selection from a growing body of work that states plants use chemicals to send messages and create outcomes both interorganismically and metaorganismically – that is: across species boundaries. Nevertheless, the notion that the messages plants send out could be directed to humans remains largely ignored. Empirical evidence contradicts any suggestion that plants can be interested in, or even aware of, humans with any metaorganismic communication demonstrated thought to be linked specifically to 'herbivores' (Witzany 2006).

Alongside the conclusions of botanical studies, there are assorted ethnographic examples where plants are regularly and unapologetically presented as *subjects*, for example, as relatives to people or as able to talk to humans (see Abram 1997; Harvey 1997, 2005; Bird-David 1999; Hall 2011; Ingold 2011). In a manner reminiscent of traditional anthropological approaches to topics such as totemism and non-human

personhood, the academic community has tended to approach beliefs that plants can talk as fictional, symbolic and simply structural events in the human mind. This is positioned in stark contrast to the views of those who claim they speak with plants and understand this as an unproblematic reality.

By all accounts *B. caapi* is particularly communicative. Indigenous ontologies see the plant as a knowledgeable person with descriptions claiming conversation and relationships are made possible by accessing the plant-person via the vivid hallucinations created after ingestion of the plant (Harner 1972; Reichel Dolmatoff 1990; Narby 2003; Pinchbeck 2003; Wilcox 2003; McKenna 2005; Razam 2009; Beyer 2010). To date academic investigation has concentrated on the experience as either socio-cultural or botanico-pharmaceutical. Conclusions have therefore been focused through those lenses: as fascinating pseudo-mystical experience that acts somewhat like a community psychotherapy session or as ethno-medicinal practice that uses purgatory force and tannin content to increase health by decreasing parasitic load (Luziatelli et al. 2010). Both avenues of investigation and their conclusions focus on corollaries for humans and place the human as pivotal to engagement thereby side-stepping consideration of the plant as agent, or the worth of this capability for the plant.

Using various accounts of relationships with *B. caapi* I suggest here that this plant benefits from being hallucinogenic. The ability to produce hallucinations after ingestion can be placed as part of a wider evolutionary strategy that encourages cultivation relationships and thus protection from the human animals that deem this ability meaningful (Attala 2017). Thus, using an NM approach it is apparent that only as a result of the relational properties of ingestion and assimilation that meaning can materially emerge. This relational perspective repositions the locus of agency in cultivation. Now, cultivation, rather than consisting of anthropogenic-domination of resource, is characterized as one type of plant survival device that engenders protection by means of an influence exerted through the chemical bio-fusion (cf. Barad 2007) of being eaten (Attala 2017). In the light of work that shows plant communication mechanisms rely on chemical signals, producing hallucinations is reinterpreted as one feature of the chemical messaging repertoire available between plants and their consumers – an action that enables certain plants to be noticed above others.

Introduction to *Banisteriopsis caapi*

> [*Banisteriopsis caapi*]… is grown from cuttings and is thus thought to be one continuous vine which stretches back to the beginning of time… [It] is compared to an umbilical cord that links human beings… to the mythical past.
>
> (Hugh-Jones, 1988 quoted in Schultes and Raffauf 1992, 24)

B. caapi is endemic to the Amazon basin (Highpine 2012, 29). This may be because it is suited to the ecological conditions, but equally its Pan-Amazonian success might also be attributable to the enduring relationship it has with the people who also live in this region. The plant's social, spiritual and medicinal significance is recognized because of the rather sensational hallucinations that follow its ingestion. In contrast, *B. caapi*'s nutritional value has not been documented. Instead, botanical research, preoccupied with medico-religious or psychopharmacological motivations, has focused almost exclusively on the pharmacological composition of the plant (for examples, see Chen and Chen 1939; Pinkley 1969; Rivier and Lindgren 1972; McKenna 1998). However, despite extensive botanical and ethnographic coverage (e.g. Harner 1972; Reichel Dolmatoff 1990; Narby 2003; Pinchbeck 2003; Wilcox 2003; McKenna 2005; Beyer 2010; Razam 2009), there is little work that explores *the materiality of the relationship* and the role of ingestion as the locus of material communication.

B. caapi is reputed to have an appallingly bitter taste (Narby 2003) and, along with its hardwood bark and waxy leaves, it is not an obvious candidate for consumption. So, what could a plant that tastes terrible do to attract humans? What may have originally alerted *B. caapi* to humans is the material form it assumes (or the body shape it produces) after it has reached a certain size. As a malpighiaceous vine or liana it requires a partner to grow up; height facilitating a wider spread of seeds. Mature plants spiral up the trees adopting a form reminiscent of a twisted encased serpent (Attala 2016). The Doctrine of Signatures (Pearce 2008), an ancient philosophy still used by many contemporary herbalists, maintains that the shape of plants signifies their medicinal purpose. In this case, the people who live alongside this plant have interpreted this form-signature as both disguise and indicator of properties, claiming the plant's body advertises its abilities (Narby 2003).

In *B. caapi*'s case, indigenous explanations of snakes in cosmological stories may account in some part for the forging of this plant/human relationship – dovetailed by the unique human cognitive abilities to recognize and attribute meaning to patterns with the form the plant adopts. Pattern recognition is vitally important to survival; in a rainforest, spotting snakes would undoubtedly be a significant skill. A plant that mimics abundant and deadly inhabitants of a location could be assumed to have certain or similar powers to the creatures it mimics. So, if this is how the plant introduced itself, how could it go on to encourage an ongoing committed relationship with the humans it is in conversation with?

Cross-species learning is frequently presented in ethnographic literature to account for the origins of the consumption of various plants (Hurn 2012). This appears to be the case with this plant too. According to Don Jose Campos (2011), knowledge of *B. caapi* came from observing animal reactions to consumption. He cites watching jaguars in trance states after eating the leaves as the original inspiration. Consequently, despite its nauseatingly bitter taste, *B. caapi* is now the main ingredient of an increasingly popular, alarmingly potent hallucinogenic brew called *Ayahuasca*. Documentation claims its use by Amerindian *curanderos* or *ayahuasceros* (local terms for shamanic practitioners) dates back for thousands of years (Beyer 2010). The common aim of consuming *Ayahuasca* is health promotion – both personal and community – achieved by interacting with the generated visions (Beyer 2010, 37; Narby 2003, 22).

Having a relationship with a plant: Human understandings and consequences of communion with *Banisteriopsis caapi*

> For them the vine is, in truth, a living guide, a friend.
> (Weiskopf 2005, 104)

> Knowledge is a matter of ties between plants and persons keeping in touch.
> (Lenaerts 2006, 9)

One has to eat *B. caapi* to become its friend. *Plantas maestras* claim plants take time to trust humans and that this trust is achieved primarily through ingestion and incorporation (Heaven and Charing 2006;

Beyer 2010). To become friends with a plant involves certain carefully executed dietary procedures, including 'regular and sustained' consumption of the plant (Heaven and Charing 2006, 57; and see Beyer 2010, chapter 5). The result is one becoming more 'plant-like' (Johnson 2003; Heaven and Charing 2006; Beyer 2010, 52–3), including, eventually, the ability to communicate with the plant by simply touching it (Highpine 2012). According to Beyer (2010), consuming the plant should be understood as having an intimate relationship with it and it is through regular consumption of the plant that the *Ayahuascaros* learn how to communicate with them and learn from them. The friendship is one in which the plant is protected and attended to via cultivation and the human is enabled to negotiate with the plant person in return through digestion. *Ayahuascaros* claim the hallucinations are conversations with the plants made visible (Reichel-Dolmatoff 1990; Beyer 2010, 52). Thus, by digesting *Ayahuasca* one is enabled to enter in conversation with the plant thereby providing the ingester with knowledge of cures and correct practice. Consequently, knowledge is received corporeally and becomes one's flesh as the result of having a personal ingestive relationship with what is conceived of as a teacher plant (*plantas maestras*).

The hallucinations *Ayahuasca* produces are regularly described as an accurate, or true, vision enabling what is actually there to be seen (Beyer 2010). According to Shanon, *Ayahuasca* can produce extraordinary personally tangible, seemingly genuine 'open-eye visualizations' (2002, 69) that talk directly to the individual consumer and offer instructions for health in the widest sense. This information exchange is described as the plant teaching humans how *to be* (McKenna 1992; Shanon 2002; Narby 2003). Indeed, the *Ayahuasca* experience is publicized as the 'acquisition of knowledge' (Narby 2003, 31); that is, knowledge of all types of healing, protection from evils and also explanations of life mysteries (Schultes et al. 2001; Beyer 2010; Highpine 2012). Thus, the information received is thought of as genuine knowledge given by the plant to the ingester while they are in a digestive relationship (Harner 1972; Burroughs and Ginsberg 1978; Reichel Dolmatoff 1990; Narby 2003; Pinchbeck 2003; Wilcox 2003; McKenna 2005; Razam 2009).

Being in this kind of intense relationship with the plant brings benefits, but is also cautioned against. The benefits of having a

relationship – or becoming-with plants – are many. However, plants are not exclusively wise, benign and giving. Moreover, plants are not passive or inert and therefore must be afforded deference too. *Ayahuascaros* claim, as in the biblical story of Adam and Eve, ingesting a part of a plant may allow you know too much. This can create problems. Thus, shamans warn of the plant's ability to occupy your body may bring harm and even kill you, if the plant is not comfortable with you (Heaven and Charing 2006; Beyer 2010). Furthermore, the plant's influence is pervasive. Shanon explains how it has utterly altered his idea of reality because, as he sees it: 'Ayahuasca modifies the way people attribute meaning' (2002, 70) as the visions have clear 'semantic content' (Shanon 2002, 70; see also Narby 2003; Wilcox 2003; Hancock 2005; Razam 2009). The enduring consequences of the chemical marriage ingestion creates means that once assimilated into one's body, one is in relationship with *Ayahuasca* – one has been touched and changed by the plant.

In association with the plant-drink's popularity, the 'indigenous specialists' (Narby 2003, 31) and their activities are increasingly being investigated by academics and scientists for their intriguing understanding of what they say the plants can do or be used for (Lenaerts 2006). Researchers wonder how the shamans generate knowledge and are curious to see how useful their prescriptions are in practice. By all accounts the practitioners' knowledge is surprisingly and invariably beneficial and therefore valuable (Lenaerts 2006). Shamans state their knowledge of the plants is effective because it comes from the plants themselves, because – clearly – the plants should know what they are useful for. The plants are individual beings with their own characters that can share knowledge of the world via the lucid hallucinations ingestion permits. Knowledge only comes after repeated respectful assimilation and builds in influence over time (Beyer 2010). By this logic, knowledge is not only produced relationally but also is generated corporeally through the fleshy consumption and incorporation of this plant into human bodies.

B. caapi's ability to produce seemingly intelligent hallucinations can be understood as a continuation of the conversation it begins with humans through its form. Hallucinations, coupled with the belief that extensive ingestion and digestion is necessary for a deeper association, are the factors that have prompted humans to grow and tend this

plant above others. It is this that has constructed a mutually beneficial relationship between these plants and people because humans protect and encourage the plants they value. Gardening is a consuming occupation and to devote time and energy to cultivating plants that are not nutritionally valuable signifies their deep socio-cultural meaning (Cavender and Alban 2009). It is simply speculation, of course, but the liana's prevalence across the Amazon could, in concert with the above, be attributed to the ancient relationship it has had with the humans who have lived with it in the forest for many thousands of years. Power (2005, 39) suggests gardens should be conceived of as 'hybrid achievements' so that the particulars that the various parties involved bring to the relationship are noted as affiliated in formation. *B. caapi* offers the reward of hallucinations to the bodies that consume it. In return the bodies protect the plant through the cultivation of it.

B. caapi is a hungry feeder. It needs soil rich in compost to survive past immaturity (Worldseedsupply.com 2014). Despite the extraordinary biodiversity of the Amazon, Amazonian soils are axiomatically poor. Generally having only a couple of inches of top soil and a wide range of organisms to share it with means a hungry feeder like *B. caapi* needs to find fertile ground to thrive. The plant can thrive in repeatedly fertilized moist ground offered to it by humanity when engaged in a cultivation relationship, or it can simply grow where groups of animals (e.g. domesticated livestock) fertilize the soil. *B. caapi*, therefore, would thrive around human animal and non-human animal settlements. However, as humans clear away plants for which they have no immediate use, *B. caapi* would need to be useful to maintain its position near people. Looked at in this light, being a hallucinogen presents an advantage for the plant through its ability to be in relationship with the people that ingest it.

The significance of hallucinating

Even though hallucinations are not fully understood, the cultural and historical consequence of hallucinating has undoubtedly been socially and individually significant. To understand this further, let us first define terms. To hallucinate describes the ability to see things that are not there. Hallucinations occur variously: they can occur regularly, intermittently, spontaneously or after particular events, such

as following the ingestion and assimilation of plant matter. Despite acknowledgement that hallucinations happen, there are a variety of differing explanations as to their cause and there is divergence concerning the purpose or function of hallucinating (Sacks 2012). Accordingly, hallucinations can be: indications of a disorder, simple illusions, meaningful, actual and are sometimes both – illusionary yet meaningful. Thus, orthodox psychology argues they are delusional because they accompany psychosis, but as such are also useful indicators of physiological and psychological maladies and brain processes (Kelleher et al. 2010; Sacks 2012). Neuro-chemists, on the other hand, easily explain hallucinations as simple malfunctioning or misfiring neurochemistry (Perry et al. 2002). While, in contrast, shamanic and religious traditions choose to understand hallucinations as significant, noteworthy divine communication (Bowie and Davies 1990; Dobkin de Rios 1990; McKenna 1992; Shanon 2002; Wilcox 2004) and *Ayahuascaros* say that hallucinating is a conversation that plants are having with you through your flesh (Beyer 2010).

As the above shows, despite definitional differences, humans are able to see things that otherwise may be described as not there. Visions are possible and *can be* the product of the assimilation of certain materials into the body and, as it turns out, these materials are very often plants. Interestingly, types of hallucination vary depending not only on amount but also on substance consumed (visions induced with *Iboga* differ from those from *Ayahuasca* for example), but irrespectively follow particular recognisable sequential patterns of appearance – starting with bright lights, moving to geometric shapes and then finally to extraordinary, fantastical, often therianthropic, creatures in seemingly very real situations if the substance really takes hold (Pinchbeck 2003; Lewis-Williams 2004; Hancock 2006). Not unreasonably, therefore, hallucinating is commonly accredited with the mysterious and numinous, in part due to the sense of a vivid extra-ordinary altered reality that one can find oneself in. Indeed, for some, so potent are these experiences, previous agnostic worldviews are rejected claiming what was seen was enough teleological evidence (Shanon 2002).

Neither coincidentally colliding chemistry nor the divine seem wholly satisfactory explanations of this consequence of plant/animal interaction produced by *Ayahuasca*, which suggests there might be

another purpose attributable. To date, studies have focused on the human experience, drawing from evidence and information about the methods of dealing with the experiences these plants facilitate. The experience is established as a human one and of human relevance alone as a result. The plant's properties are thought almost incidentally causative – as an influencing object that receives no benefit from this ability and the relationship such ability leads to. However, the significance of being able to make humans hallucinate is open to further consideration in the light of plants' chemical vocabulary and because this ability appears to have benefited the plant's existence. In other words, *being a hallucinogen* like *B. caapi* functions to generate ingestive relationships with people's bodies, which infers that hallucinating can be repositioned as a form of inter-species communication (McKenna 1992).

The potency of hallucinogens in human history

Hallucinogens have a surprising place in human history. Evidence suggests that the recurring human interest concerns a fascination with regards experiencing altered states and transformed realities (Shanon 2002; Narby 2003; Lewis-Williams 2004; Hancock 2006). It goes without saying that conceiving of, and believing in, something external to the material world and what is empirically available will act to shape practice and experience. The notion of external forces in spiritual realms is ubiquitous in human societies with cosmological accounts invariably referring to external paranormal forces or beings to account for existence. This is interesting in itself, but from an NM perspective what is most enchanting is that ingestive relationships people maintain with certain plants appear to be instrumental in the development, or creation, of spiritual thought. Therefore, the role of ingestion and the material blending of bodies in the formation of hallucinations must be considered partly responsible.

There are numerous cosmological stories, myths and religious texts that deem plants or plant products spiritually or symbolically significant. Numerous animistic belief systems describe plants as active beings with many presented as part of the original family that prompted human life as it is today (Harvey 2005). Famously, Hallowell (1960) demonstrated that the Ojibwe recognize other-than-human beings (including plants) as conscious and communicative, as does

Turnbull when describing Mbuti relationships with their parent forest (1962). Other examples illustrate the cultural significance of the material impact plants have on the human body. The Kogi, Colombia, for example, consume coca to ensure the balance of the material world is maintained (Ereira 1992), whilst grapes (as wine), wheat (as bread) and the apple are essential to the message of the Christian story, combining human corporeality and existential truths with plant products. Alongside those there are numerous other plants that simultaneously heal and are believed to permit access into other realms through ingestion (for example: *Datura*, *Iboga*, *Cannabis*, *Soma*, *Ayahuasca*. See Schultes et al. 2001).

Shanon notes the place of plants in the Christian story (2002, 2008). He maintains that some of the miraculous stories in the Bible can be attributed to the consumption of hallucinogens (for example, he cites Moses and the burning bush story), because they are exceedingly evocative of the accounts contemporary consumers of hallucinogens recount of their experiences (Shanon 2002, 2008). To substantiate his claim, he has found that plants with similar active ingredients to known hallucinogens grow in the Middle East today and that the biblical vocabulary used can be alternatively translated as those hallucinogenic plants' names (2002, 2008).

Other scholars have explored the link between plants and spirituality. For example, Lewis-Williams (2004) offered a compelling account of the place altered states of consciousness have played in prompting advances in communication methods. As an archaeologist his concern was with the depictions early humans drew in caves or cut into rock faces. He suggested there was a clear resemblance between the puzzling illustrations we see today and the entoptic symbols and therianthropic imagery frequently perceived during intoxication by hallucinogens (Schultes et al. 2001, 131; Lewis-Williams 2004; Hancock 2006). This, he concluded, indicates ancient humans were probably using hallucinogens and in so doing were propelled to communicate their experiences in this way. As hallucinations only speak to the experiencer, imagery and language allow inner experiences to be shared ones (Lewis-Williams 2004).

For Lewis-Williams (2004), the existence of depictions indicates their value. In other words, if these pictures are illustrations of visions, the visions were significant to the people involved. This type of

behaviour, previously lacking in the archaeological record (Klein and Edgar 2002), suggests a cognitive shift concerning what was important to the human species. For Lewis-Williams (2004), this shift is attributable, in part, to the ingestion of hallucinogenic substances. In association, these visions may have opened up the possibility of other realms to those consumers possibly formalizing notions of the sacred into human awareness (Schultes et al. 2001; Lewis-Williams 2010). If this hypothesis is accurate, the awe and mystery stimulated by ingesting plants contributed considerably to this momentous shift in human cognition (McKenna 1992; Shanon 2002, 2008; Lewis-Williams 2010).

McKenna believes that the changes were not only socially significant but also affected biology on a profound level. He proposes that:

> mutation-causing psychoactive chemical compounds in the early human diet directly influenced the rapid reorganization of the brain's information-processing capacities. Alkaloids in plants, specifically the hallucinogenic… could be the chemical factors in the protohuman diets that catalysed the emergence of human self-reflection.
>
> (1992, 24)

Eating: Chemical communion, addiction and plant agency

The word communion describes a sense of unity arrived at through coming together. It also refers to exchange, sharing and the act of consumption as a process of unification. The use of the term also refers to eating.

> We call those circumstances in which we come to depend on another species domestication. In truth… this is simply a new form of mutualism.
>
> (Dunn 2011, 124)

> The unity of life is no less remarkable than its diversity.
>
> (Dobzhansky 1973, 125)

> Things are their relations.
>
> (Ingold 2011, 70)

Chemical ecological studies state that '99% of all species' (including plants) communicate by chemical means (Dunn and Crutchfield 2008, 6). Plants' use of chemicals to communicate opens up questions about the chemistry used in the process of being eaten and becoming the bodies that have ingested them. The chemical interchange associated with digestion suggests the process is akin to a molecular dialogue using a chemical language 'spoken' between the concerned parties. Through the lens of NM all life-aspects are thought of as a complex totality of interactive relationships that constantly cohere and separate to form life events; digestion too can be conceived of using this framework (Attala 2017). This philosophy of materiality is underpinned by the notion that the movements or activities of being in existence are impelled, provoked or triggered whilst in, and because of, the associative ecological relationships being material creates. The actions of life are like a webbed matrix, where all aspects (wind, animals, plants, rocks and so on) are formative, constitutive players in concert with each other, rather than as simply instinctual, reactive or unconcerned incidental bits of matter lying prone or inert (cf. Whatmore 2002; Bennett 2010; Ingold 2011). It follows then that influence, or the ability to influence, is afforded to all parts by the simple fact of existence within this random patterning of becoming (Ingold 2011). Using this philosophy, humans and plants are automatically relationally co-creative and undeniably interpenetrative as a result of digestion.

Ingold is clear that a Cartesian separation of things is only a paradigmatic habit of Enlightenment thinking, the supremacy of which needs questioning and reconsideration because ethnographic evidence indicates the world is seen in a variety of ways (Ingold 2011; see also Vivieros de Castro 1998). Ingold refutes the claim that the world is populated with things placed on the Earth's surface. He asserts it is accurate to say things *are* the world – not on it (Ingold 2011, 71). To agree recognizes that things are embedded and entangled co-productively and collectively become the world together. For both Ingold (2011) and Barad (2007), things manifest only in relationships, without which they could not exist. Thus, the relationships are as much as part of the things being formed as the processes that form them.

Using the above ideas, the seemingly superficial statement 'you are what you eat' becomes a rather profound point concerning people's flesh and plant bodies. Kendrick (2013) maintains that the process of

turning one into another needs to be thought of as an encounter that exceeds the human rather than as discrete autopoiesis. Using this sense of dynamic interplay in conjunction with the ability to prompt hallucinations means that the assimilation of plant matter changes from being biological alone to a material relational event that is enacted across species.

Wanting to eat plants appears unquestioningly instinctual. However, at the other extreme the inability to arrest or temper consumption is thought problematic. Addictions are useful illustrations of the unmistakable power plants have over human bodies. The ability to be addicted is not fully understood, but is clearly a physiological propensity of being flesh (Zyga 2008) and, interestingly, the only naturally occurring substances that prove addictive to humans are phyto-materials. In association with this propensity, significant amounts of human time and activity are concerned with cultivating and consuming the plants humans crave (tea, coffee, sugar, alcoholic drinks and even wheat products; cf. Head et al. 2012). Establishing a protective cultivation relationship with the craved plant demonstrates not only the material significance of the plant for the body tending it but is also indicative of the benefit the plant receives from being addictive.

Hallucinogens are not, strictly speaking, addictive, but a plant that creates visions sets itself apart from others. The consequence of being able to make humans hallucinate affords the plant similar benefits to those that are addictive. According to McKenna (1992), all digestive assimilation needs to be understood as messages being received; some messages are more obvious than others. For McKenna (1992), hallucinations are simply an obvious example of plant messages because they offer an immediate perceptible appreciation of plant subjectivity. This sense of agency and subjectivity opens up avenues for consideration of how plants instigate and forge relationships with the human bodies that ingest them (see Rival 1998; Cloke and Jones 2002; Hitchings 2003; Lorimer 2005; Power 2005).

Conclusion

Using a philosophy of materiality, the chapter has explored how plant bodies are enmeshed with the bodies that eat them. The hallucinations

experienced by humans whilst being in ingestive relationship with *B. caapi* are a vivid illustration of the material associations that ingestion creates. Using a relational ontology, the consequences of ingestion emerge as part of a relationship whereby humans and plants associate through their materials merging within the gut.

Being a hallucinogen affords plants impact over human bodies greater than just nutrition. Because of their particular material influence, people return and revisit certain plants regularly. While hallucinogens are not strictly thought of as addictive, the understanding that plants can hook humans to unbearably crave for them was considered because the chemistry of desire exposes plants as players in their relationships with humans. In association, looking at human history confirms hallucinogens' interactive spheres of influence. Previously conceived of as coincidental, this is repositioned alongside recent experimental findings that show plant subjects' use of chemical mechanisms as communication techniques to explain how plants forge consumption and cultivation relationships with humans to suit their purpose. In other words, humans look after and care for plants that are meaningful to them because the plants make them want to.

In animated worlds the taxonomic distinction between human animal, non-human animal and plant as categorized by industrialized nations is comfortably blurred, allowing species' boundaries to be conceived of as fluid and permeable without appearing to be contradictory. Thus, the belief that plants are persons is common knowledge for many and so is not in any way contentious or novel. Using ethnographic beliefs associated with plant intentionality reported by consumers of *Ayahuasca*, being a hallucinogen is repositioned as an adaptive metabolic strategy that benefits the plant by enabling it to be noticed by its consumers. From this perspective chemical composition and particular synthesis outcomes of ingestion and metabolism safeguards plant reproduction and survival, and as such could be understood as one method plants use to materially communicate with humanity through a blending and assimilating of fleshes.

References

Abram, D. 1997. *The Spell of the Sensuous: Perception and Language in a More-than-human World*. New York, NY: Random House; Vintage Books.

Attala, L. 2016. 'Digesting "cryptid" snakes: A phenomenological approach to the mythic and cosmogenetic properties of serpent hallucinations', in *Cryptozoology: Cross-cultural Engagements With Mysterious Creatures*, ed. S. Hurn. London: Ashgate, pp. 218–37.

Attala, L. 2017. 'The Edibility Approach: Using edibility to explore relationships, plant agency and the porosity of species' boundaries', *Advances in Anthropology* 7, 125–45.

Baluška, F., and Mancuso, S. 2008. 'Plant neurobiology: From sensory biology, via plant communication, to social plant behavior', *Cognitive Process* 10 (Suppl 1), S3–S7.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Bennett, J. 2010. *Vibrant Matter: The Political Ecology of Things*. Durham, NC and London: Duke University Press.

Beyer, S. V. 2010. *Singing to the Plants: A Guide to Mestizo Shamanism in the Upper Amazon*. Albuquerque, NM: University of New Mexico Press.

Bhatt, M. V., Khandelwai, A., and Dudley, S. A. 2011. 'Kin recognition, not competitive interactions, predicts root allocation in young cakile edentula seedling pairs', *New Phytology* 189(4), 1135–42.

Bird-David, N. 1999. 'Animism revisited, personhood, environment and relational epistemology', *Current Anthropology* 40, S67–S91.

Bowie, F., and Davies, O. 1990. *Hildegard of Bingen: An Anthology*. Great Britain: SPCK.

Burroughs, W., and Ginsberg, A. 1978. *The Yage Letters*. San Francisco, CA: City Lights Books.

Campos, D. J. 2011. *The Shaman and Ayahuasca: Journeys to Sacred Realms*. Studio City, CA: Divine Arts Media.

Capra, F., and Luisi, P. L. 2014. *The Systems View of Life: A Unifying Vision*. Cambridge: Cambridge University Press.

Cavender, A. P., and Alban, M. 2009. 'The use of magical plants by Curanderos in the Ecuador Highlands', *Journal of Ethnobiology and Ethnomedicine* 5(3). [online] Available at *https://doi.org/10.1186/1746-4269-5-3*. Accessed November 2017.

Chen, A. L., and Chen, K. K. 1939. 'Harmine: The alkaloid of caapi', *Quarterly Journal of Pharmalogical Pharmacology* 12, 30–8.

Cloke, P., and Jones, O. 2002. *Tree Cultures: The Place of Trees and Trees in Their Place*. Oxford: Berg.

Derrida, J., Birnbaum, D., and Olsen, A. 2009. 'An interview with Jacques Derrida on the limits of digestion', *E-Flux Journal* #02. [online] Available at *https://www.e-flux.com/journal/02/68495/an-interview-with-jacques-derrida-on-the-limits-of-digestion/*. Accessed November 2018.

Dobkin de Rios, M. 1990. *Hallucinogens: Cross-Cultural Perspectives*. New York, NY: Prism.

Dobzhansky, T. 1973. 'Nothing in biology make sense except in the light of evolution', *The American Biology Teacher* 35, 125–9.

Dudley, S. A., and File, A. M. 2007. 'Kin recognition in an annual plant', *Biology Letters*, 3(4), 435–8.

Dunn, R. 2011. *The Wild Life of Our Bodies: Predators, Parasites and Partners That Shape Who We Are Today*. New York, NY: Harper Collins.

Dunn, D., and Crutchfield. J. P. 2008. *Insects, Trees and Climate: The Bioacoustics Ecology of Deforestation and Entomogenic Climate Change*. Santa Fe Institute Working Paper [online]. Available at: *http://arxiv.org/pdf/q-bio.PE/0612019.pdf*. Accessed January 2013.

Ereira, A. 1992. *From the Heart of the World*. London: Jonathan Cape Ltd.

Gagliano, M. 2012a. *Plants Can Talk Say Researchers*. [online] Available at: *www.abc.net.au/pm/content/2012/s3470348.htm*. Accessed October, 2012.

Gagliano, M. 2012b. *Talking Plants*. Available at: *www.news.uwa.edu.au/201204034491/research/talking-plants*. Accessed October 2012.

Gagliano, M., Mancusco, A., and Robert, D. 2012. 'Towards understanding plant bioacoustics', *Trends in Plant Science* 17(6), 323–5.

Hall, M. 2011. *Plants as Persons: A Philosophical Botany*. Albany, NY: SUNY Press.

Hallowell, A. I. 1960. 'Ojibwa ontology, behavior, and world view', in *Culture in History: Essays in Honor of Paul Radin*, ed. S. Diamond. New York, NY: Columbia University Press, pp. 19–52.

Hancock, G. 2006. *Supernatural*. London: Arrow Books.

Harner, J. M. 1972. *The Jivaro: People of the Sacred Waterfalls*. Berkeley and Los Angeles, CA: University of California Press.

Harvey, G. 1997. *Listening People, Speaking Earth: Contemporary Paganism*. London: Hurst and Company.

Harvey, G. 2005. *Animism: Respecting the Living World*. London: Hurst and Company.

Head, L., Atchison, J., and Gates, A. 2012. *Ingrained: A Human Biogeography of Wheat*. Burlington: Ashgate.

Heaven, R., and Charing, H. G. 2006. *Plant Spirit Shamanism: Traditional Techniques for Healing the Soul*. Rochester, VT: Destiny Books.

Heil, M., and Karban, R. 2010. 'Explaining evolution of plant communication by airborne signals', *Trends in Ecology and Evolution* 25(3), 137–44.

Highpine, G. 2012. *Unraveling the Mystery of the Origin of Ayahuasca*. [online] Available at: *www.neip.info/html/objects/_downloadblob.php?cod_blob=1184*. Accessed November 2012.

Hitchings, R. 2003. 'People, plants and performance: On Actor Network Theory and the material pleasures of the private garden', *Social and Cultural Geography* 4, 99–112.

Hird, M. 2009. *The Origins of Sociable Life: Evolution After Science Studies*. London: Palgrave Macmillan, cited in Kendrick, R. 2013. 'Metabolism as strategy: Agency, evolution and biological hinterlands', in *Why We Eat, How We Eat: Contemporary Encounters Between Food and Bodies*, eds E.-J. Abbots and A. Lavis. Farnham: Ashgate, pp. 237–55.

Hugh-Jones, S. 1988. *The Palm and the Pleiades: Initiation and Cosmology in Northwest Amazonia*. Cambridge: Cambridge University Press, cited in R. E Schultes and R. F. Raffauf, 1992. *Vine of the Soul: Medicine Men, Their Plants and Rituals in the Colombian Amazon*. Oracle, AZ: Synergistic Press.

Hurn, S. (ed.) 2012. *Human and Other Animals: Cross-Cultural Perspectives on Human–Animal Interactions*. London: Pluto Press.

Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. Abingdon and New York, NY: Routledge.

Johnson, A. 2003. *Families of the Forest: The Matsigenka Indians of the Peruvian Amazon*. London: University of California Press.

Karban, R., Huntzinger, M., and McCall, A. C. 2004. 'The specificity of eavesdropping on sagebrush by other plants', *Ecology* 85, 1846–52.

Karban, R., Shiojiri, K., and Ishizaki, S. 2011. 'Plant communication – why should plants emit volatile cues?', *Journal of Plant Interactions* 6(2–3), 81–4.

Kelleher, I., Jenner, J. A., and Cannon, M. 2010. 'Psychotic symptoms in general population: An evolutionary perspective', *The British Journal of Psychiatry* 197, 167–9.

Kendrick, R. 2013. 'Metabolism as strategy: Agency, evolution and biological hinterlands', in *Why We Eat, How We Eat: Contemporary Encounters Between Food and Bodies*, eds E.-J. Abbots and A. Lavis. Surrey: Ashgate, pp. 237–55.

Klein, G. R., and Edgar, B. 2002. *The Dawn of Human Culture*. New York, NY: John Wiley and Sons.

Lenaerts, M. 2006. 'Substances, relationships and the omnipresence of the body: An overview of Ashéninka ethnomedicine (Western Amazonia)', *Journal of Ethnobiology and Ethnomedicine* 2, 49.

Lewis-Williams, D. 2004. *The Mind in the Cave: Consciousness and the Origins of Art*. London: Thames and Hudson.

Lewis-Williams, D. 2010. *Conceiving God: The Cognitive Origin and Evolution of Religion*. London: Thames and Hudson.

Lorimer, H. 2005. 'Cultural geography: The busyness of being "more-than-representational"', *Progress in Human Geography* 29, 1.

Luziatelli, G., Sørensen, M. Theilade, I., and Mølgaard, P. 2010. 'Ashaninka medicinal plants: A case study from the native community of Bajo Quimiriki, Junín, Peru', *Journal of Ethnobiology and Ethnomedicine* 6, 21.

McKenna, D. J. 1998. *Ayahuasca: An Ethnopharmacologic History*. [online] Available at: *www.scribd.com/doc/3927919/Ayahuasca-An-Ethnopharmacologic-History*. Accessed October 2012.

McKenna, D. J. 2005. 'Ayahuasca and human destiny', *Journal of Psychoactive Drugs* 37(2), 231–4.

McKenna, T. 1992. *Food of the Gods: A Radical History of Plants, Drugs and Human Evolution*. London: Rider Books.

Mol, A. 2008. 'I eat an apple: On theorizing subjectivities', *Subjectivity* 22(1), 28–37.

Narby, J. 2003. *The Cosmic Serpent: DNA and the Origins of Knowledge*. London: Orion Books.

Pearce, J. M. S. 2008. 'The doctrine of signatures', *European Neurology* 60, 51–2.

Perry, E., Ashton, H., and Young, A. 2002 *Neurochemistry of Consciousness: Neurotransmitters of Mind*. Amsterdam: John Benjamins Publishing

Pinchbeck, D. 2003. *Breaking Open the Head: A Psychedelic Journey into the Heart of Contemporary Shamanism*. New York, NY: Broadway Books.

Pinkley, H. V. 1939. 'Plant admixtures to ayahuasca, the South American hallucinogenic drink', *Lloydia* 32, 305.

Power, E. R. 2005. 'Human–nature relations in suburban gardens', *Australian Geographer* 36(1), 39–53.

Razam, R. 2009. *Aya: A Shamanic Odyssey*. s.l: Icaro Publishing.

Reichel-Dolmatoff, G. 1990. *The Forest Within: Worldview of the Tukano Amazonian Indians*. London: Themis Books.

Rival, L. M. 1998. *The Social Life of Trees: Anthropological Perspectives on Tree Symbolism*. Oxford: Berg.

Rivier, L., and Lindgren, J. 1972. 'Ayahuasca the South American hallucinogenic drink: An ethnobotanical and chemical investigation', *Economic Botany* 26(2), 101–29.

Sacks, O. 2012. *Hallucinations*. London: Picador.

Schultes, R. E., Hoffman, A., and Ratsch, C. 2001. *Plant of the Gods: Their Sacred, Healing and Hallucinogenic Powers* (2nd edn). Rochester, VT: Healing Arts Press.

Shanon, B. 2002. *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience*. Oxford: Oxford University Press.

Shanon, B. 2008. 'Biblical entheogens: A speculative hypothesis', *Time and Mind: The Journal of Archaeology Consciousness and Culture* 1, 51–74.

Turnbull, C. M. 1962. *The Forest People: A Study of the Pygmies of the Congo*. New York, NY: Simon & Schuster.

van der Veen, M. 2014. 'The materiality of plants: Plant–people entanglements', *World Archaeology* 46, 799–812.

Vivieros de Castros, E. 1998. 'Cosmological deixis and Amerindian perspectivism', *The Journal of the Royal Anthropological Institute* 4(3), 469–88.

Weiskopf, J. 2005. *Yajé: The New Purgatory*. Bogota: Villegas Editores S.A.

Whatmore, S. 2002. *Hybrid Geographies: Natures, Cultures and Spaces*. London: Sage.

Wilcox, J. P. 2003. *Ayahuasca: The Visionary and Healing Powers of the Vine of the Soul*. Rochester, VT: Park Street Press.

Witzany, G. 2006. 'Plant communication from biosemantic perspective: Difference in abiotic and biotic signal perception determine content arrangement of response behaviour', *Plant Signalling and Behaviour* 1(4), 169–78.

Worldseedsupply.com, 'How to Germinate Banisteriopsis Caapi Seeds', 2014. *How to Germinate Banisteriopsis Caapi*. [online] Available at: *https://www.worldseedsupply.com/blog-1/?tag=banisteriopsis-caapi-seeds*. Accessed November 2018.

Zyga, L. 2008. 'Researchers stumped by drug addiction paradox', *PhysOrg.com*. [online] Available at: *http://phys.org/news127559887.html*. Accessed October 2012.

4 COOLED, CURED AND SEDIMENTED

Reforming and Edifying the Hydrocentric Infants of North-western Amazonia

Elizabeth Rahman

> The key difference between a solid, a liquid and a gas lies not in the types of atoms, but in their arrangement… consciousness can be understood as yet another state of matter. Just as there are many types of liquids, there are many types of consciousness.
>
> (Tegmark 2015, 3)

Introduction

In this chapter I explore how a small group of Amerindians, the Warekena, produce the conditions that allow consciousness to settle in and bind the mind-body mass, creating ethically astute bodies. The focus is on the nurturing of infants in the north-western Amazonian ecological niche of the Xié River and the specific techniques of care that enable the proper bonding of tangible materials (river water, bodily flesh, muscles, bones and viscera) with the intangible and invisible aspects of a person (their soul stuffs). This task of making people is one in which the Warekena consider themselves particularly adept and it is the making of mindful and capable people that interests them. I suggest that a consideration of the minutiae practices of infant care reveals a subtle ontoepistemology that requires matter (in this case, human bodily mass) to be manipulated and activated in order for both the proper human form and proper consciousness to settle and sediment (cf. Barad 2007, 181). To tentatively transduce a concept of the post-materialist physicist Max Tegmark (2015), perhaps the aim of these body bricoleurs is to help shape the 'perceptronium' of awareness, in this case, the mindful state, manifest. Certainly, for the Warekena, a relative firmness of the human body is evidence of a healthy working relationship between the constituent parts that make up and sediment persons.

Focusing on infant bathing, I articulate the Warekena's idiom and vital ability of 'knowing how to sit' as a sedentary, or sedimented, skill. A sedimented skill is a skill-in-means (Sharma 1990), at once a material firmness and an immaterial quality that affords the type of agency proper to real (or proper) people, who the Warekena consider themselves to be. It enables a general worldly engagement in synchrony with environmental rubrics, rather than solely task-apt skills. I describe how this skill-in-means, or mindfulness, is the cornerstone of affective, volitionally robust personal agency and the baseline of Xié dweller's personhood.

The enfolded morality of Amerindian persons

Among Xié river dwellers, infants are the subject of intense nurturing care. Their bodies (G.[1] *pira miri*), unformed, leaky, loose, floppy – akin to slippery fish-bodies (G. *pirá miri*) – and their bawling selves, have the budding potential to become fully human; but rely heavily on proper care to make them so. Frequent (river) bathing, hammocking, (breast)feeding, weaning into an increasing range of proper foods, good handling and the elicitation of kin responsiveness – as well as periodic tobacco blessings – all involve the careful manipulation of substances and specific, emplaced actions to help infants become richly vital human kin. But infants are already subjective agents in their own right (see Toren 2001, 156, 158) and, along the Xié river, they are known to cry out for the provision of the preconditions that will allow them to 'live well' (G. *kue katu*). Because 'they want to grow' – and become firm and hard (P. *duro*, G. *kirimba*) – as one mother explained it to me, infants solicit specific caring techniques that will allow them to transform their fish-like body (*pira miri*) into 'our body' (G. *yane pira*);[2] that is, a body that is relatively manifestly homogenous to the bodies of other kin in terms of strength, posture and attentiveness. This shared and mindful 'our body' (*yane pira*) is the desirable product of construction and is one that permits effective engagement in productive relationships, in horticulture and community building, as well as in the ongoing work of making other people themselves.

Like other Amerindian groups, the Warekena dedicate a significant amount of time and energy to working with the physical mass of the body. Amerindians are well-known body bricoleurs, and regional

ethnography is rife with examples of the hands-on care and manipulative procedures necessary to fabricate the types of 'mindful and relational' (Vilaça 2005, 447) people made in Amerindia. Such processes are especially intensive during infancy: the tweaking of babies' ears, noses and eyes, full corporeal massage, medicinal baths, bodily moulding (Lagrou 2000, 160) and even surgical incisions (Belaunde 2001, 51) are all procedures conducted to secure a morally appraised bodily aesthetic. Where substances are involved, these are often subject to moral scrutiny. The Yanesha of eastern Peru, for instance, morally evaluate the substances which they cultivate, collect and eat, categorizing plant life as either grotesque or sublime (Santos-Granero 2011). For the Colombian Muiane, consuming and otherwise engaging with morally upright substances is necessary to secure the bodily form and behaviour that will reflect a properly inculcated embodied ethic (Londoño Sulkin 2013) Substances, but as I go on to show in this chapter, also the techniques involved in engaging with them, penetrate the porous surface of the skin, tonifying tendons and muscles and cultivating viscera to make people at once physically and morally firm and upright.

Amerindian attention to processes of people-making radically juxtaposes to ontoepistemologies centred on notions of a pre-made bodily fabric and automated developmental processes (Conklin and Morgan 1996). Rather, Amerindia's 'artefactual anatomies', 'subjectivized materialities' and 'materialized subjectivities' (Santos-Granero 2009) unfold in the key of so-called 'animist', or more precisely 'perspectivist', ontoepistemologies in which the forms and shapes of others (species) is a key indication of their abilities and affects (Viveiros de Castro 1998).

In Amerindian ontoepistemologies, where shape-shifting is the prerogative modality of life-in-transformation, the physical form that beings assume is a significant preoccupation (Rivière 1994). Predatory agents disguise themselves as people to prey on the vulnerable, and babies are their special subjects (see Rival 1998; Vilaça 2002). These beings may cause babies to shape-shift, that is, to lose their bodily form, by provoking excessive corporeal limpness and leakiness. This causes them to relinquish their budding potential to become full human beings and they succumb to material death.[3] In these contexts it is necessary to secure the human form; and hand-crafting babies

is a key means to achieve this. The bodily techniques that surround infant care work to secure the infusion of intangible substances (soul stuffs) into bodily matter in order to potentialize both; making people affective, effective and mindfully agentive.

The sedimented self

As I was told, and as most Warekena agree, from the moment of birth babies have G. *anga*. The *anga* is akin to what Rivière (1999, 85) describes as 'the person within the person'; it is invisible per se but present from birth and essential for life. The human *aga*, or soul substance,[4] as it has been often translated in the Amerindian literature, is vulnerable to predatory agents due to its very weak connection to the infant self when compared to the more stable *anga* (soul stuff) of adults (Vilaça 2002, 360; Rosengren 2006, 85; Fausto 2007). However, Xié dwellers do not speak of, and, when asked, do not like to speak of the *anga* when one is well and healthy. To do so would provoke illness and misfortune.

When Xié dwellers are well, they are strong and steadfast, have stamina and are involved in directed, attentive action; they are, in this sense, 'full-bodied' (Abram 2010). They are able to effectively carry out their special repertoire of productive tasks (be it the felling of timber to make canoes or the reaping of manioc roots from the earth) in a tireless or animated manner and he or she is described as G. *kirimba* (which may be translated briefly as 'potently strong'). When one is *kirimba* (and this is also referred to as 'having strength', *ter força* in Portuguese; also see Belaunde 2000; 2001) they are available to be and to work with others in the sense described by Ewart's (2013, 176–81) elucidation of the Paraná idiom '*suakiin*'. When in such vigorous states of being, *anga*-talk, for the Warekena, is irrelevant. It is only when the *anga* aspect is improperly integrated or distant, the body is limp and flaccid, one's animated state is poor like a weak-powered outboard motor that has no fizz, that a person (or the motor) may be described as G. *pitua* (weak, flaccid). They are not useless as such, but they are not particularly effective in doing the job and don't inspire much enthusiasm (see also Ewart 2013, 176–81 on the Panará idiom, '*suangka*'). This apathetic state may be the consequence of sadness, but unchecked and not curtailed, it may also cause G. *sasiara* (sadness/sickness) and provoke the onset of serious illness.

This is true especially in the case of infants. While infants similarly display vital signs, evinced by their fat and firm bodies and their reactivity, their limp and flaccid bodies signal a more serious and perhaps irreversible loss of vitality. Unlike in other parts of the world, and indeed among other Amazonian but mainly Andean communities, where so-called soul loss or *susto* is an affliction of both children and adults (e.g. Thomas et al. 2009; Ferrié 2015), the distancing of the *anga* (soul stuff) from the body among the Warekena is a child-specific affliction. Soul distancing is caused by *susto* or fright (e.g. G. *nerangaxa*, fright of the bird-cry) which, in provoking the *anga's* estrangement, may then lead it to be captivated by the ancestral animal spirits (G. *maiwa*) who seduce and capture it, luring and/or inviting it to live with them (also see Butt Colson 1975, 300; cf. Fausto 2007).

For the Warekena, the estrangement of the *anga* (the soul substance) is a process that begins with one instance of 'fright', that is one shockingly inappropriate act or occurrence, that dislodges the soul. Repeated frights, and a failure to perform remediative tobacco blessings, index a lack of ongoing mindful nourishing care and has the consequence of causing the *anga* to become overly distanced. This process is initially evinced by crying, which in itself attracts the *maiwa*. It is then increasingly manifest corporeally by listlessness, limpness, refusal to feed and excessive leakiness of the orifices (a runny or bleeding nose, or bloody diarrhoea and/or vomiting), all ailments from which an infant-child may die. Fright requires early interventions, by way of tobacco smoke blessings, which prevent this much-feared 'death from crying'. It is in these contexts that the *anga* is identified and needs to be re-seated, or sedimented, in the infant's body.

In adulthood, individuals may also enter infirm states, suffering bodily symptoms such as weakness, fatigue, vomiting and diarrhoea and, in the most severe cases, sorcery-induced haemorrhaging, especially during childbirth. During these times they relinquish their bodily firmness and their capacity to be strong (*kirimba*). Their infirmness indicates weak personal integrity and it is often said that their spiritual body, or G. *mira* (body-image-soul), but not their *anga*, has gone to live with some animal ancestor or in a white person's city. Infants, who are categorically limp and loose, are much more vulnerable and it is as if a lack of firmness and the possibility of 'liquefaction' (Rival 1998, 623) indexes a loose *anga* attachment well before the *mira* has been

established. This issue of the *mira* I return to in the second half of the chapter. Here I argue that caring practices reveal something about the need to the infuse the *anga* into the tangible matter of the body, to make it more substantive. This gradual infusion appears parallel to the process of firming up the body and may be understood as the alchemic process of sedimentation.

The notion of 'sedimentary practices' has been used by Heckenberger (2002, 199) to explain the longue durée of the 'cultural schemas' of Arawakan sociality and it is an idiom that elegantly conveys the heavily sedimented blackwater rivers of the region, to which the life of many Amerindian groups is intimately entwined. In the context of this chapter, it also describes how Xié river dwellers come to consubstantially take on parts of the landscape thanks to the open dialectic of the reciprocal gaze, as developed by Merleau-Ponty's (1962) similarly diachronic and intersubjective notion of 'sedimentation'. This defines a dynamic, mutually affecting encounter. Thus here, rather than solely elucidating the acquisition of bodily substance, or the formation and perpetuation of bodily techniques and practices (Mauss 1934; Bourdieu 1977), I argue that sedimentation is also a useful way of reflecting on the substantive process of alchemic 'ensoulment' (Santos-Granero 2009). In the case of infants, this process is facilitated by the baby-bathing technique of splash-washing which, according to Warekena Xié dwellers who insisted I use the same technique with my own infant daughter, secures the relative (bodily) firmness of the infant. Firmness indicates health, and I suggest that an infant's loose body is the mirror of its loose relationship to the soul (*anga*), with sedimentation through splash-washing describing a 'processual-relational' (Conklin and Morgan 1996) 'constructivist' ensoulment. Caring practice then reveals something both tangible and intangible about Amerindian persons and comments on the process of embodiment (Csordas 1994) or conversely, ensoulment; or perhaps both.

Bodily knowledge

Perhaps the clearest explanation of the healthful relationship between the soul and body comes via the notion of bodily knowledge (among the Cashinahua, see Kensinger (1995) and McCallum (1996)). McCallum distinguishes three soul types (the true soul, the dream

soul and the body soul(s)) and describes how their interaction dictates physical health. She explains that for the Cashinahua, knowledge acquired via the journeys of true and dream souls becomes incorporated into the body soul, which acts as a repository for knowledge. The correct balance – or 'working relationship' – of this dynamic bolsters the *body-soul* and creates healthy persons (McCallum 1996, 362). Conversely, an imbalance exposes it to sickness, as it inhibits a person's ability to 'know' and to be mindful of one's person. Memory, which forms part of this accumulated knowledge, 'does not appear to have a separable existence outside the body, but rather is an intimate part of each developing body' (McCallum 1996, 355). The careful monitoring of knowledge appropriation creates mindful knowledge-able persons, lauded as '*conscious*', healthy people (McCallum 1996, 362, emphasis in the original).

Taking a cue from McCallum's (2001, 17, and Crocker's 1985) notion that 'other worldly power is an aspect of vital substances at play, not an addition to them', skills in sitting evince the sedimented quality of the soul–body dialectic. This may be heuristically expounded as the ability for mindful action, as 'a global visceral awareness' (Farb et al. 2007, 319), but in this case by qualifying and particularizing the clinical definition of mindfulness – 'the process of regulating attention in order to bring a quality of awareness to current experience' (Bishop et al. 2004, 234) – as bodily acquired knowledge intrinsically linked to both substances and practice. This reveals mindful action as both an end and a means: at once the agent and catalyst that binds together body and mind and equally the medium through which full-body knowledge – or persons – are formed. Mindfulness is understood as a neurophysiological accomplishment known to cultivate and actively structure the body-mind (Baime 2011), remoulding the nervous system and restructuring the brain in such a way as promote health and enhance well-being. This chapter's alchemical approach to persons, however, does not distinguish between psychological, physical, chemical, social or spiritual states, but rather emphasizes the deft interconnected movement of matter and meaning to create healthy persons at particular moments in time and space. It also stresses the need to instil,[5] or cohere substances, through acts of proper care.[6] This is indeed how the infant child is said to become strong, firm and hard; where bodily firmness is evidence of a healthy working relationship

between a human being's different constituent parts (Rivière 1999, 78).

Hydrocentric infants and their sedimentation

The river defines the lived world of Xié dwellers, and in the context of elaborate mythscapes that narrate the river's landmarks, twists and turns, 'hydrocentric' is the term used to define the lifestyles of many regional Arawakan groups (Hill 2002). Indeed, hydrocentricity is a key way of understanding the attention given to the river in all its brimming vitality. The river is home to numerous *maiwa*, the animal ancestors, who figure in their petrified form by way of prominent rocks, boulders and eddies obscured during the winter rainy season and mostly exposed in the summer; such that they periodically puncture the landscape. Fluctuating river levels, seasonal fish migration and abundance, rapid and shifting currents and the still wintertime flooded forest lakes make waters cooler in winter when the river is deeper, and barely refreshing in the summer. The waters carry with them suspended humic substances (organic matter), including podzol soils and clay, as well as more sedimented quartz and gold. Water is thus a curious substance (Needman 2008; also see Rahman 2015, 136, 147).

Hot and sticky from the intense productive labour that defines the summer months, Xié river dwellers frequently take to its waters to cool off and cleanse themselves. Reinvigoration is a key aspect of river bathing and men with young families can be seen swimming against river currents to wash away any lingering flaccidities from work and to ensure they are strong enough (G. *kirimba*) to then pace themselves for an intense game of football, in the midday heat. Among young children, signs of waning when helping around the house, when collecting water from the river for instance, prompt mothers to instruct children to bathe. For those youngsters who have chosen not to do so, one can find therein the source of their unquiet malaise.

Pregnant women, full-stomached and hot due to the growing accumulation of blood in the womb, bathe early morning when the river is at its coolest. Bathing cools and bolsters them, ensuring they are able to undertake their daily tasks with steadfast industriousness and without *pitua* (weakness, as opposed to *kirimba*, strength) – a known possible state encountered when pregnant, but ultimately

unproductive for a good labour and a healthful birth. To ensure the baby does not get stuck, jammed or cramped in a foot-first or breach position, bathing mitigates improper pregnant posture that could cause this by ensuring vitality. The river's waters also penetrate the abdomen, making amniotic fluids abundant in the womb and thereby preventing a 'dry birth'. As one midwife explained to me, a lack of sufficient lubrication (via river bathing) could provoke complications during labour. Keeping it well-watered, the infant is just like a little fish, as one young mother told me, also citing images seen in her school textbook of the foetus in a state of suspension in the womb. It is thanks to their mother's good bathing practice that mothers secure an easy birth and healthful neonate.

Having bathed throughout their pregnancy, so accustomed are babies to bathing-in-the-womb that when they are born they 'ask' for more of the same 'as they are used to it'. The first pressing calls post-birth are for bath water: just after the neonate and the placenta have emerged from the womb and the umbilical cord has been cut, the tiny infant is sat slumped over the arm of the mother-in-law's/grandmother's lap waiting to be bathed. River water is promptly fetched by a relative in preparation for bathing. A properly qualified blesser (*benzedor*) insufflates the water with the drying and hardening properties of tobacco smoke. His blessing 'closes the eyes' of the water spirits (*maiwa*). The baby is then bathed at length using a specific technique that involves neither reclining nor submerging– for this would 'frighten' the baby (i.e. potentially cause 'fright' and *anga* distancing). Rather, the neonate is sat on the grandmother's foot, its buttocks submerged in the basin full of river water, and water is then cupped by the hand and splashed onto the infant's back in rhythmic succession. The washer accompanies the splashing with a trumpeting sound produced by the forceful expulsion of air through her pursed lips. When he cries, the baby is consoled by back-patting, but the practice then continues for some ten to fifteen minutes or so, as does the trumpeting sound.

After a week of home washing, the baby is bathed using the same technique in the river itself. Cool waters are most apt for this type of bathing and bathers seek the cool company of their petrified ancestors that counterbalance their heated vitality (see Fig. 4.1). By now the baby is used to his routine and displays serenity in spite of the sensorially replete commotion of splash-washing. This kind of splash-washing is

Fig. 4.1 Splash-washing in the river, beside the petrified ancestor rock.
Photo: Elizabeth Rahmen

carried out with notable frequency throughout the infant's early life: four to six times a day and two to three times in the night, the baby is bathed because he 'wants to grow', crying out for his bath before he is fed on his mother's breast and put to sleep in his hammock. Carers observe how the baby, due to splash-washing, cries less, has developed neck firmness, is alert and, eventually, has begun to sit. It is when their skills in sitting have been firmly established that the practice of splash-washing ceases.

When I enquired into infant bathing, one mother enigmatically signalled her son to me, claiming, 'look at my son, how firm [*kirimba*, P. *duro*] he is. Well, that is because he was bathed [and later bathed himself] frequently in the river.' The very interaction of bodily flesh

and water, and the specific techniques of engagement, ensures a person becomes and remains healthy and strong.

For the Warekena, tobacco and water aid the drying out, firming up and closing off and cooling down of babies who are said to be leaky (they can't control their orifices), limp (they can't sit or stand properly) and hot (suffer more from the heat than adults do, they also get angrier quicker). These qualities are part of the heated vitalities of infants. In order for them to grow properly, they must be carefully regulated, and tobacco smoke and splashed water are two materially engaged techniques that allow carers to 'cure' babies. They manage levels of humidity, stopping the baby become overly dry (P. *seco*), brittle (G. *otipáua*, without fluids) or thin (P. *magro*) or, conversely, overly loose, leaky and limp (P. *molhe*). Babies are marvelled at when they are full, firm and fat (P. *gordo* and *duro*, G. *kirimba*) and it is the job of the mother, father, grandparents and other family/community members to nurture this state of being.

Discussion

After birth, infants are hand-crafted in order to make them into seated subjects and water is a co-opted substance that, thanks to the splash-washing technique, can be said to sediment the infant. In this way the qualities of cool river water are instilled into the infant. Speaking of the landscape, Ingold (2000, 345) describes it as the 'crystallisation of activity within a relational field, [with] its regularities of form embodying the regularities of movements that gave rise to it'. Infants themselves may be said to be the 'condensation or crystallizations of activity…' (Ingold 2011, 45), ensouled and imbued with elemental forces due to the craftsmanship of their mindful carers. This caring practice lends them more stable bodily boundaries and a less permeable surface (skin).

Merleau-Ponty (1962, 248) described the importance of place when he spoke of 'the flesh of the world': 'that means that my body is made of the same flesh as the world (it is perceived), and moreover that this flesh of my body is shared by the world, the world reflects it, encroaches upon it and it encroaches upon the world'. These are the embodied resonances that Ingold (2000, 200) describes as being 'historically incorporated into the enduring features of the landscape

but also developmentally incorporated into our very constitution as human beings'. Whilst body and place may be said to become 'attuned' to one another; they also facilitate the acquisition of a particular type of corporeality, a corporeality that is intrinsically emplaced, intersubjective and co-opts substances. This is a special kind of 'knowledge bred of familiarity [which] does not give us a position in objective space' (Merleau-Ponty 1962, 144), but is rather a context-specific and relational understanding of the self.

This embedded understanding of personhood that led Xié dwellers to comment that if I left the Xié, my daughter Sofia, who was born and bathed there, would be required to 'exchange her flesh' (P. *vai ter que trocar a carne dela*) or 'change her flesh' (P. *vai mudar a carne* – G. *pirera-dela*). The changing of the flesh, and the affects and dispositions that it contains, is a gradual process, as gradual as are the processes that allow for the accumulation of emplaced flesh. This makes the mutually receptive encounter of perception, in Aristotelian idiom, 'a movement of the soul through the medium of the body': it has qualitative affects. Among Xié dwellers, this movement is radically dynamic.

The contrast between the Xié river world and more distant milieus led some people to voice concern that, if we left, my daughter would 'not get used to the change [não acostuma mais]' and become ill. In short, she would suffer a 'displacement' – the feeling that one is 'disconnected from one's physical and social environment' (Guerts 2005, 7), a state that for Xié dwellers can provoke ill-health. The special and capacitating flesh of a child should not then be caused to radically alter or change context. Rather, proper growth and good health (ensoulment) rely on processes such as splash-washing and hammocking in order to sediment a sense of self in mindful relation to one's surroundings; and to the status-conscious society in which they live.

In these contexts, 'sedimentation' describes how people come to incorporate their history and society and the riverine mythscape speaks of this practice as linked to their contemporary more sedentary existence of living on the banks of the Xié River (Fig. 4.2)[7]. The sedimentation of water in the body must then also be understood as a defining feature of the Warekena's particular riverine status that sets them apart from, what they consider to be, local and inferior interfluvial forest-dwelling Makú groups. In this way, splash-washing and

Fig. 4.2 The image depicts one of two locales named as 'the infant's waterfall'. According to the narration, culture-hero Napiruli, arrived at this spot to find a woman bathing her baby, and he named it as such.
Photo: Elizabeth Rahmen

being attuned to one's surrounds facilitates the inculcation of their riverine standing and Xié river dwellers come to literally embody their hierarchical status (cf. Toren 1999). It may well be that this status has been more recently acquired when compared to other, perhaps longer-standing, regional river-dwelling groups (Aikhenvald 1998; Ñanez 2005). Nonetheless, their place in the regional hierarchy appears timeless against the backdrop of the riverine mythscape.

Growth, transformation and grafted agency

The *mira* is a further aspect of persons. For babies, the *mira* is like the flesh of the baby's body (*pira miri*): it is in the process of rapid development, undergoing a parallel, yet invisible process of firming up. However, unlike the *pira miri* – the baby's body – which is a source of constant wonder – the *mira* is not hardly even spoken of in the contexts of infancy. Conversely, adults' bodies – *yane pira* – are very rarely mentioned, whereas their *mira* (body-image-soul) is. For adults, the *mira* appears as a direct reflection of the already firm relationship between the body and the *anga* with the *mira* the watery reflection of this firm relationship. It would appear, then, that the mindfully sedimented agency that is acquired through hardening, which allows babies to develop into persons and become strong (*kirimba*) river dwellers, is with time, that which also establishes the *mira*.

The *mira* appears to capacitate a secondary form of agency, which is not essentially corporal, but which is nonetheless important for all adult persons and also has a more quotidian aspect important for the reproduction of social life. This is true because the word *mira* is also used to talk about, and I use the word tentatively, the embodiment of a person's sib identity (siblingship), namely their agnatic line or clan identity. In this latter context, *mira* may mean human persons (da Cruz 2011, 36), or persons with a properly human bodily form, within which their *mirasa* (sib or clan) describes categories of people with regard to affinal relation and rank. The *mira* then has a function for daily sociality. But it is more than this.

Mira, for the Warekena, is akin to the elucidation of *wakan* provided by Taylor (1993, 206) among the Achuar: a 'shadow', doppelgänger, 'double', 'image' (P. *imagem*) and watery reflection of a person and also their 'dream consciousness'. Among the Warekena, *mira* is used to talk about how the image or spirit of a being (its *mira*) becomes grafted onto a tree, thereby affecting its being and making it into a potent and highly agentive subject. Or indeed how a tree spirit is grafted onto another being to enhance particular aspects of its agency. When this is involuntarily, such as is described by the predatory aetiology of sickness, it can also impede human actions (albeit whilst developing – unwanted – non-human capacities). Sometimes the invisible 'image' of a human or non-human being (their *mira*) can negatively affect a person who has unwittingly failed to take the proper precautions (such as prior bathing) when coming into its/their presence. Mindful of the *maiwa*, bathing is a sensible precaution to avoid their sickening gaze when venturing into the forest, or out into the river. Sometimes provoked by a malignant sorcerer, such body-images (*mira*) can also be sent in dreams to afflict disease and illness onto their victim.[8] This kind of grafting is unlike examples elsewhere that describe the transfer of one substance onto another as the result of a tactile connection (e.g. Rival 1993).[9] Rather, they describe spirit or *mira* (body-image-soul) grating, which is relatively invisible but nonetheless affects the being of others.

The *mira* is then the outward form, that is, how one might appear to another person or how they may be subtly perceived – or not – when they are otherwise invisible. Not infrequently, the *mira* is other than one's quotidian bodily form (body-image). Malignant sorcerers, who

in their daily attire already take on a subhuman decrepit appearance, purposefully transform their bodies to those of bats, river dolphins or jaguars, so as to remain inconspicuous during their planned attacks. Rather than the *anga* (soul stuff) per se, for the Warekena it is the *mira* (body-image-soul) that allows beings, including humans, to transform in this way. Shamans and sorcerers alike, and to a lesser extent any Tom, Dick and Harry, can also project images of themselves in order to converse and dialogue with other beings and thereby mobilize animals to move and act on their behalf.

Babies become easily frightened by 'images' (*mira* (body-image-souls)) in their dreams, including their own, and this is especially true as they cannot yet distinguish between dreaming (*kiri*) and waking (*paka*). As such, incidents in dreams are potentially more dangerous for infants than for adults, for whom the fright in a dream could prove lethal. This is unparalleled for adults. I suspect this is partly because a baby's own body-image is comparatively underdeveloped. Adults too can suffer serious consequences from their dreams, as falling prey to the seductive attempts of *maiwa*, who manifest as body-image-souls in dreaming and waking life. They may appear as attractive women in dreams – can lead to sickness, but rarely to death. In waking life, deceptive bodies are apparent when working in the forest extraction, and the piassava palm especially shifts its shape, transforming into the G. *kurupira*, powerful forest keepers, to take unsuspecting children deep into the forest, never to be found again.

Adults, however, are able to effectively mobilize their *mira* (body-image-soul) in dreams and, as such, are able to better resist the *maiwa*'s seductive attempts. But the onus is on adults to restrain themselves in dreams, so as to not suffer potentially negative consequences in waking life. Children, who lack the rudiments of sedimentation, do not have the abilities to exercise such caution.

Certain children have a more complex relationship with their own and the *mira* of others. Pregnant women, who eat inappropriately 'hot' foods, can be negatively affected by the *mira* of the animals or large fish they consume. These animal aspects are thus transferred onto the developing infant itself and the child is born with mental and physical incapacities. Such children are called *machíra* by siblings and other children – a play on the word for malignant sorcerers (*machí*). This is because, like sorcerers themselves, their bodily forms

are decrepit compared to their peers and their thoughts are the cause of suspicion.

On other occasions, *mira* may visit a woman in her dreams or in waking life (be river dolphins) appearing as men. When a woman falls prey to *maiwa* and elopes with them, she can fall pregnant with the 'child of the *maiwa*'. It is through their *mira* (the body-image-soul) that these beings interact with her. The children born of such relations are in many ways similar to those described as *machíra*; however other than disobedience, there is no overt manifestation of their being children of the *maiwa*. Perhaps it is the children of unions such as these that have historically or in other Amerindian contexts, become child sorcerers (cf. Santos-Granero 2004). It is possible that such children are imagined to have a potent *mira* that is not a reflection of themselves, but rather of the 'other' that helped conceived them. The Warekena, I believe, see *mira* as the acquired ability for projective imagination. Developed through contemplative states on the cusp of dreaming and waking, this lucid dream consciousness gives rise to an agency that displaces a seated intentionality of *mira*, projecting it outside the body and in the mind's eye. This active disembodiment (Viveiros de Castro 1992, 195) may also depend on nurturing substances in the same way in which the body requires on-going nourishing care. However, the substances that feed it are those of potent agents, such as that acquired through consuming large game animals and large fish with spores, or for men, through smoking tobacco. Consuming these substances define adult personhood. Shamans, on the other hand, use both greater quantities of tobacco (see Barbira Freedman 2015) and the psychoactive snuff, W. *pariká*, to augment their projective agency.[10] Shape-shifting is their prerogative and it is precisely because their *mira* is so malleable that they drive a fine line between the benevolent and dangerous. They are seated outside the community, often both logistically and metaphorically, as marginal figures that do not quite conform to everyday states of living well and being strong. Even so, their potential for radical transmutation may rely on prior sedimentation; and the subsequent mobilizing of the agency of the body-soul itself, thanks to this later, grafted agency. Thus, the *mira* may allow for more radical shape-shifting potentialities in later life.

Bodily transformation, or shape-shifting, are often ethnographically described in typically deceptive forest-encounters (Rivière 1994);

in male experiences of warfare (Rival 2005); in shamanism, sorcery and in sickness (Wright 2013, 7–8, 328). Classically, the analytical schema that allows for such shape-shifting is reliant on *anga* detachability: the body shifts its shape, voluntarily in the former instances but involuntary in the case of sickness, because the *anga* aspect is loose and/or is seduced and living with other beings and the body is chronically instable. But these theses necessarily require a degree of scepticism as to the actual phenomenon of bodily transformation (can people really turn into jaguars?) and through ontological abstraction, tell us little about the actual phenomenon of transforming (see Shepard 2013). I have suggested that the *mira* is that which potentializes the capacity to shape shift, but that such a capacity is reliant on prior *anga* sedimentation.

Conclusions for Amerindian persons

Sedimentation describes a constructivist (Santos-Granero 2012) approach to otherwise ethereal notions of the soul. Thoroughly infused into the matter of the body, remarkable personal and bodily transformations may occur, in women as much as in men, and include those key to the processes of growth and reproduction evinced during the perinatal period: seated men make highly-prized baskets with intricate designs and seated women, those that 'know how to sit', enable healthful births. The seated stance is a highly contextualized personal style, developed through training that 'is as much moral, intellectual, and spiritual as it is technical, for sitting still and making things are forms of meditation' (Hugh-Jones 2009, 49). In adulthood, seated skills such as those required of pottery and basketry, are the 'hallmarks of a particular civilization' (Hugh-Jones 2009, 48). Ultimately, then, sitting is self-domestication made manifest and demonstrates both rank and riverine status.

Seeking an equilibrium between oneself, others, animist or otherwise, and hence also the wider environment is a delicate operation. In practice, the balance to live well is so delicate that it is akin to a minute alchemical process that occurs inside, outside and between people and places, intertwining matter with meaning. Thus whilst 'mindful and relational bodies' have been well described in Amazonia, mindfulness as a concept is a useful heuristic device to expound how indigenous

socio-physio (Seeger et al. 1979) and cosmic (Vivieros de Castro 1998) logics affect health and personal development.

Mindfulness as defined in the biomedical literature (Kabat-Zinn 1990, 2003; Bishop et al. 2004, 234) is in anthropology perhaps most akin to Ingold's (2001) notion of 'attentional act', which describes how people become enskilled in their taskscape. However, attentional acts such as splash-washing also inculcate capacities which are not readily identifiable as 'skills'. Rather, the carers' attentional washing must be understood as both the means and the ends of a wider project of instilment; that is, the development of a skill-in-means, the mindful capacity embodied and the most flexible and transferable 'skill' or demeanour. In defining this general and flexible mode of apprehending and responding to situations of a general sort, clarification can again be sought in the work of Merleau-Ponty (1962, 142):

> … the learning process is systematic; the subject does not weld together individual moments and individual stimuli but acquires the general power to respond with a certain type of solution to situations of certain form.

The Warekena idiom of knowing how to sit perhaps best translates this capacity as the means through which to fulfil the self, and processes of sedimentation and instilment have helped to explore how relationships between body (*pira miri* or *pira yane*), mind, *mira* (body-image-soul) and *anga* (soul stuff) promote health and affect agency. Mindfulness, I have used as a concept to more precisely expound how, in the words of Stephen Hugh-Jones (2009, 49), 'mastery of a technique is mastery of self'.

Developing such a mindful stance unfolds and co-opts a range of humorally evaluated substances and cultivates synchrony between environmental rubrics within and between the body-person and the surrounding social, political and physical environment by virtue of the practice of specific techniques. But the success of these applied techniques, or skills, depends on the mode, manner or quality of these interactions – their mindfulness or otherwise – and it is this that I suggest is the binding principle that makes persons both affective and volitional.

Acknowledgements

A version of this chapter appeared as an article in a Special Issue 'The Alchemical Person', edited together with Juan Alvaro Echeverri: E. Rahman (2015) 'Hydrocentric Infants and their Alchemic Sedimentation: Artfully Binding the Bodily Soul among Xié River Dwellers of Northwestern Amazonia', *Tipití: Journal of the Society for the Anthropology of Lowland South America*: 13(2), 44–60. Available at: *http://digitalcommons.trinity.edu/tipiti/vol13/iss2/4*. It also draws on the chapter 'Tobacco and water: everyday blessings', in *The Master Plant: Tobacco in Lowland South America*, eds A. Russell and E. Rahman. London: Bloomsbury Press, pp. 135–52. I would like to thank the RAI's Olivia Harris Fund, Funds for Women Graduates, Oxford University, and specifically Linacre College and the School of Anthropology and Museum Ethnography, for support in producing the fieldwork material and writing-up analysis that forms the basis of this chapter. The ESRC GCRF fellowship, held at Oxford Department for International Development, has allowed me time to work on this publication.

References

Abram, D. 2010. *Becoming Animal*. New York, NY: Vintage Books.

Aikhenvald, A. 1998. Warekena. In *Handbook of Amazonian Languages*, Volume IV, eds C Desmond and G. Pullum. Berlin and New York, NY: Mouton de Gruyter, pp. 225–439.

Baime, M. 2011. 'This is your brain on mindfulness', *Shambhala Sun* July, 44–84. [online] Available at: *www.nmr.mgh.harvard.edu/~britta/SUN_July11_Baime.pdf*. Accessed September 2017.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Barbira Freeman, F. 2015. 'Tobacco and shamanic agency in the Upper Amazon: Historical and contemporary perspectives', in *The Master Plant: Tobacco in Lowland South America*, eds A. Russell and E. Rahman. London: Bloomsbury, pp. 63–86.

Belaunde, L. E. 2000. 'Strength: Unassisted birth among the Piro of Amazonian Peru', *Journal of the Anthropological Society of Oxford* 31(1), 31–43.

Belaunde, L. E. 2001. *Viviendo bien: género y fertilidad entre los Airo-Pai de la Amazonía peruana*. Lima: Centro Amazónico de Antropología y Aplicación Práctica.

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Andersen, N.D., and Carmody, J. 2004. 'Mindfulness: A proposed operational definition', *Clinical Psychology: Science and Practice* 11, 230–41.

Bourdieu, P. 1977. *Outline of a Theory of Practice*, trans. R. Nice. Cambridge: Cambridge University Press.

Butt Colson, A. 1975. 'Birth customs of the Akawaio', in *Studies in Social Anthropology: Essays in Memory of E. E. Evans-Pritchard by his Former Oxford Colleagues*, eds J. Beattie and G. Lienhardt. Oxford: Clarendon, pp. 285–309.

Conklin, B. A., and Morgan, L. M. 1996. 'Babies, bodies, and the production of personhood in North America and a native Amazonian society', *Ethos* 24(4), 657–94.

Crocker, J. 1985. *Vital Souls: Bororo Cosmology, Natural Symbolism, and Shamanism*. Tucson, AZ: University of Arizona Press.

Csordas, T. 1994. *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.

da Cruz, A. 2011. 'Fonologia e Gramática do Nheengatú: A língua geral falada pelos povos Baré, Warekena e Baniwa' (unpublished Ph.D., Utrecht University, LOT Dissertation Series).

Davidson, R. 2004. 'Well-being and affective style: Neural substrates and biobehavioural correlates', *Philosophical Transactions of the Royal Society London* 359, 1395–411.

Ewart, E. 2013. *Space and Society in Central Brazil: A Panará Ethnography*. London: Bloomsbury.

Erikson, P. 2009. 'Obedient things: Reflections on the Matis theory of materiality', in *The Occult Life of Things: Native Amazonian Theories of Materiality and Personhood*, ed. F. Santos-Granero. Tucson, AZ: University of Arizona Press, pp. 173–91.

Farb, N. A. S., et al. 2007. 'Attending to the present: Mindfulness meditation reveals distinct neural modes of self-reference', *Social Cognitive and Affective Neuroscience* 2, 313–22.

Fausto, C. 2007. 'Feasting on people: Eating animals and humans in Amazonia', *Current Anthropology* 48(4), 497–530.

Ferrié, F. 2015. 'La perte d'une part de soi: Réflexions andines sur les voies de communication entre humains et non humains à partir d'une cure thérapeutique du susto sur le piémont bolivien d'Apolo', *INDIANA No. 32. Ibero-Amerikanisches Institut, Stiftung Preußischer Kulturbesitz*.

Guerts, K. 2005. 'Consciousness as "feeling in the body": A West African theory of embodiment, emotion and the making of mind', in *Empire of the Senses: The Sensual Culture Reader*, ed. D. Howes. Oxford: Berg, pp. 164–78.

Gow, P. 2001. *Of Mixed Blood: Kinship and History in Peruvian Amazonia*. Oxford: Clarendon Press.

Heckenberger, M. 2002. 'Rethinking the Arawakan diaspora: Hierarchy, regionality, and the Amazonian formative', in *Comparative Arawakan Histories: Rethinking Language Family and Culture Area in Amazonia*, eds J. Hill and F. Santos-Granero. Urbana, IL: University of Illinois Press, pp. 99–122.

Hugh-Jones, S. 1979. *The Palm and the Pleiades*. Cambridge: Cambridge University Press.

Hugh-Jones, S. 2009. 'The fabricated body: Objects and ancestors in Northwest Amazonia', in *The Occult Life of Things: Native Amazonian Theories of Materiality and Personhood*, ed. F. Santos-Granero. Tucson, AZ: University of Arizona Press, pp. 33–59.

Hill, J. 2002. 'Shamanism, colonialism, and the wild woman', in *Comparative Arawakan Histories: Rethinking Language Family and Culture Area in Amazonia*, eds J. Hill and F. Santos-Granero. Urbana, IL: University of Illinois Press, pp. 223–47.

Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Ingold, T. 2001. 'From the transmission of representations to the education of attention', in *The Debated Mind: Evolutionary Psychology Versus Ethnography*, ed. H. Whitehouse. Oxford: Berg, pp. 113–53.

Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. London, Routledge.

Kabat-Zinn, J. 1990. *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. New York, NY: Dell.

Kabat-Zinn, J. 2003. 'Mindfulness-based interventions in context: Past, present, and future', *Clinical Psychology: Science and Practice* 10(2), 144–56.

Kensinger, K. 1995. *How Real People Ought to Live: The Cashinahua of Eastern Peru*. Prospect Heights, IL: Waveland Press.

Lagrou, E. 2000. 'Homesickness and the Cashinahua self: A reflection on the embodied condition of relatedness', in *The Anthropology of*

Love and Anger: The Aesthetics of Conviviality in Native Amazonia, eds J. Overing and A. Passes. London: Routledge, pp. 152–60.

Londoño Sulkin, C. D. 2013. 'Believing in the gift: A case of successful relationships of exchange in the Colombian Amazon', *Tipití: Journal of the Society for the Anthropology of Lowland South America* 11(2), 1–12.

Mauss, M. 1934. 'Les techniques du corps', in *Les classiques des sciences sociales*, ed. J. M. Tremblay, Cégep de Chicoutimi. [online] Available at: *http://www.uqac.uquebec.ca/zone30/Classiques_des_sciences_sociales/index.html*. Accessed September 2017.

Merleau-Ponty, M. 1962. *The Phenomenology of Perception*, trans. Colin Smith. London: Routledge.

McCallum, C. 1996. 'The body that knows: From Cashinahua epistemology to a medical anthropology of lowland South America', *Medical Anthropology Quarterly* 10(3), 347–72.

McCallum, C. 2001. *Gender and Sociality in Amazonia: How Real People Are Made*. Oxford: Berg.

Ñanez, O. 2005. 'Lenguas y nombres usados para designar a los pueblos maipure Arawakos de la region del Alto Río Negro, Suramérica', *Boletin de lingüística enero-junio* 23, 106–16.

Needman, P. 2008. 'Is water a mixture? Bridging the distinction between physical and chemical properties', *Studies in Historical Philosophy of Science* 39, 66–77.

Overing, J. 1989. 'Personal autonomy and the domestication of self in Piaroa society', in *Acquiring Culture: Cross-Cultural Studies in Child Development*, eds G. Jahoda and I. M. Lewis. London: Croom Helm, pp. 169–92.

Pedersen, M. A., and Willerslev, R. 2012. 'The soul of the soul is the body: Rethinking the concept of soul through North Asian ethnography', *Common Knowledge* 18(3), 464–86.

Rahman, E. 2014. 'Made by Artful Practice: Health, Reproduction and the Perinatal Period among Xié Dwellers of North-western Amazonia' (unpublished DPhil. thesis, University of Oxford).

Rahman, E. 2015. 'Tobacco and water: Everyday blessings', in *Master Plant: Tobacco in Lowland South America*, eds A. Russell and E. Rahman. London: Bloomsbury, pp. 135–52.

Rivière, P. 1994. 'WYSINWYG in Amazonia', *Journal of the Anthropological Society of Oxford* 5(3), 255–62.

Rivière, P. 1999. 'Shamanism and the unconfined soul', in *From Soul to Self*, ed. M. J. C. Crabbe. London: Routledge, pp. 70–88.

Rival, L. 1993. 'The growth of family trees: Understanding Huaorani perceptions of the Forest', *Man* 28(4), 635–52.

Rival, L. 1998. 'Androgynous parents and guest children: The Huaorani couvade', *The Journal of the Royal Anthropological Institute* 4(4), 619–42.

Rival, L. 2005. 'The attachment of the soul to the body among the Huaorani of Amazonian Ecuador', *Ethnos* 70(3), 285–310.

Rosengren, D. 2006. 'Matsigenka corporeality, a nonbiological reality: On notions of consciousness and the constitution of identity', *Tipití: Journal of the Society for the Anthropology of Lowland South America* 4(1–2), 81–102.

Santos-Granero, F. 2004. 'The enemy within: Child sorcery, revolution and the evils of modernization in eastern Peru', in *In Darkness and Secrecy: The Anthropology of Assault Sorcery and Witchcraft*, eds N. L. Whitehead and R. M. Wright. Chapel Hill, NC: Duke University Press, pp. 273–305.

Santos-Granero, F. 2006. 'Sensual vitalities: Noncorporeal modes of sensing and knowing in native Amazonia', *Tipití: Journal of the Society for the Anthropology of Lowland South America*, 4 (1–2), 57–80.

Santos-Granero, F. (ed.) 2009. *The Occult Life of Things: Native Amazonian Theories of Materiality and Personhood*. Tucson, AZ: University of Arizona Press.

Santos-Granero, F. 2011. 'The virtuous manioc and the horny barbasco: Sublime and grotesque modes of transformation in the origin of Yanesha plant life', *Journal of Ethnobiology* 31(1), 44–71.

Santos-Granero, F. 2012. 'Beinghood and people-making in native Amazonia: A constructional approach with a perspectival coda', *HAU: Journal of Ethnographic Theory* 2(1), 181–211.

Seeger, A., Da Matta, R., and Viveiros de Castro, E. 1979. 'A construção da pessoa nas sociedades indígenas brasileiras', in *Sociedades indígenas e indigenismo no Brasil*, eds J. Pacheco and O. Filho. São Paulo: EdUFRJ/Marco Zero, pp. 1–23.

Sharma, A. 1990. '"Skill in Means" in early Buddhism and Christianity', *Buddhist–Christian Studies* 10, 23–33.

Shepard, G. 2014. 'Old and in the way: Jaguar transformation in Matisgenka'. Paper presented at IX Sesquiannual Conference of the

Society for the Anthropology of Lowland South America (SALSA) Gothenburg, Sweden, 26–9 June.
Stang, C. 2009. A *Walk to River in Amazonia: Ordinary Reality for the Mehinaku Indians*. London: Berghahn Press.
Taylor, A. C. 1993. 'Remembering to forget: Identity, mourning and memory among the Jivaro', *Man* 28(4), 653–78.
Tegmark, M. 2015. 'Consciousness as a state of matter', *Chaos, Solitons and Fractals* 76: 238–70. *DOI: 10.1016/j.chaos.2015.03.014*.
Thomas, E., Vandebroek, I., Van Damme, P., Semo, L., and Noza, Z. 2009. 'Susto etiology and treatment according to Bolivian Trinitario People: A "Masters of the Animal Species" phenomenon', *Medical Anthropology Quarterly* 23(3), 298–318.
Toren, C. 1999. *Mind, Materiality and History: Explorations in Fijian Ethnography*. London: Routledge.
Toren, C. 2001. 'The child in mind', in *The Debated Mind: Evolutionary Psychology Versus Ethnography*, ed. H. Whitehouse. Oxford: Berg, pp. 155–79.
Vilaça, A. 2002. 'Making kin out of others in Amazonia', *The Journal of the Royal Anthropological Institute* 8(2), 347–65.
Vilaça, A. 2005. 'Chronically unstable bodies: Reflections on Amazonian corporalities', *Journal of the Royal Anthropological Institute* 11(3), 445–64.
Vilaça, A. 2009. 'Bodies in perspective: A critique of the embodiment paradigm from the point of view of Amazonian ethnography', in *Social Bodies*, eds H. Lambert and M. McDonald. London: Berghahn, pp. 129–47.
Viveiros de Castro, E. 1992. *From the Enemy's Point of View: Humanity and Divinity in an Amazonian Society*. Chicago, IL: University of Chicago Press.
Viveiros de Castro, E. 1998. 'Cosmological deixis and Amerindian perspectivism', *The Journal of the Royal Anthropological Institute* 4(3), 469–88.
Walker, H. 2009. 'Baby hammocks and stone bowls: Urarina technologies of companionship and subjection', in *The Occult Life of Things: Native Amazonian Theories of Materiality and Personhood*, ed. F. Santos-Granero. Tucson, AZ: University of Arizona Press, pp. 81–102.
Wright, R. 2013. *Mysteries of the Jaguar Shaman of the Northwest Amazon*. Lincoln, NE: University of Nebraska Press.

Notes

1. At their first mention, all words in Géral are prefixed with 'G.' (according to the phonology of da Cruz 2011); words in Portuguese are prefixed with 'P.' and follow standard Portuguese phonology rather than actual normative speech which, due to close bordering with both Colombia and Venezuela, is often a mix of Spanish and Portuguese. Words in the Arawakan language, Warekena, are prefixed with 'W.'
2. When I enquired further, it was described simply as the P. *corpo humano*.
3. This speaks to Barad's (2007, 153) discussion of materialization of human bodies: 'Theories that focus exclusively on the materialization of human bodies miss the crucial point that the very practices by which the differential boundaries of the human and the nonhuman are drawn are already implication in particular manifestations.'
4. Stang's (2009, 48) reflection on Mehinaku's reality of spirits provides a succinct summary of Amerindianst scholarship to date: 'although all is substance, this substance is not the abject matter-substrate of the Western physicalists, nor is it the raw stuff that simply and objectively makes up the world in the "common sense" Western worldview.'
5. In the Oxford dictionary, there are two definitions of the verb to instil. The first is to 'Gradually but firmly establish an idea or attitude in a person's mind'. In this sense it is often related to the gradual acquisition of a certain morality, and as such something that a parent may do to child, as in the example: 'the standards her parents had instilled into her'. The second use is to do with fluid substances, i.e. to 'Put (a substance) into something in the form of liquid drops'. The verb here is frequently used with reference to therapeutic techniques, such as instilling medication into the eye, or the instilling of medicinal fluids through an intravenous infusion. Taken together, they blur the boundaries between material and immaterial substances and convey the notion of a process that is slow, persistent and perhaps formative, and at the least salutary, in the broadest sense.
6. It is something of an artifice then to speak concurrently about the *pira miri* (the baby's fishbody), the *yane pira* (a productive adult body), the *mira* (the soul-image or the body-image) and the *anga* (the soul), not least because I doubt how much these aspects of persons are held in any given Warekena's mind contiguously; that is, as an interrelated frame of reference. I didn't notice people talking about them

contemporaneously in the context of any single conversation, and when initiating discussion to try to form a coherent picture of the relationship between them, the conversation invariably led to a moral discourse of how to promote or bolster strength. These latter patterns are detectable in infancy and form the focus of this chapter.

7. In the state school of Campinas, the Tukanoan supply teacher brought together a group of adolescent students from the Xié River communities of Vila Nova, Tunu and Campinas. The group also included some of Campinas' adult population. Each student produced different pages of material that were then bound together in a single booklet, entitled 'Map of the Warekena's evolution'. Built around the story of their culture-hero's (Napiruli) upriver journey in pursuit of the great snake, they comprised a portrait narrative of the Xié's sacred landscape.
8. This was the case with a menstruating woman who, because of a spell sent by a distant Baníwa relative who coveted her husband, was forced monthly to experience a jaguar pouncing and biting her in her dreams.
9. Rival's (1993, 645) work among the Ecuadorian Huaorani discusses connections between manioc and balsa, noting: 'When bundles of stalks are ready to be planted, they are beaten with large balsa leaves, a process aimed at vitalizing the stalks by transferring to them the balsa's fast-growth energy.' This transfer of substances to human persons is also evinced by the use of a hard, slowly grown wood used to pierce the earlobes of male adolescents, which Rival (1993, 640) suggests symbolizes the inculcation of the qualities of acceptance and conformity.
10. For more on *pariká* and the jaguar shamans of the neighbouring Baníwa, see Wright (2013).

5 EMBODIED ENCOUNTERS WITH THE ANCESTORS

Louise Steel

Introduction

In 2006 a Late Bronze Age tomb was excavated at Arediou, Cyprus. It had been used over several generations between the 16th and 14th centuries BCE, during which time the burials were repeatedly disturbed and the post-cranial bones of the deceased had been mixed together with the grave goods and pushed up against the north-eastern wall of the tomb (Steel and Thomas 2008, 241–3). Intriguingly, despite the evidence for these multiple burials, not a single skull was recovered from the tomb. This unusual patterning of the physical remains of the deceased suggests post-mortem interactions at least once, if not on several occasions, with the bones of the dead. Similar bony engagements are repeated not only on Bronze Age Cyprus but across the wider Near East and northern Europe throughout the Neolithic and Bronze Age. This chapter examines embodied practices in which human burials were deliberately manipulated and handled as an integral element of the funerary ritual, exploring the physical entanglement of matter – living flesh and dead bone – ostensibly actions performed to mediate communication between ancient communities and their ancestors. In so doing, it questions notions of personhood rooted in Enlightenment-inspired ontologies, in particular, the idea that the 'individual' disappears along with the flesh, skin and hair of their body to merge with the (bony) collective of the ancestors (cf. Hamilakis 2013, 145–8).

Who are the ancestors?

Bloch (1996, 43) describes the ancestors as our forebears who are remembered. The ancestors are the elect of the dead revered by later generations, the elders who are attributed with mythical powers and

authority and who continue to play a significant role in the daily life of the community (Kopytoff 1971, 129; Keswani 2005, 360), intervening in the social relations of successive generations (Kopytoff 1971, 138–9). There is rich ethnographic evidence for the ancestors and textual evidence likewise suggests the significance of the ancestors within the patriarchal societies of the ancient Near East (Porter 2002, 4–5). This chapter questions whether we can materially situate the ancestors (or at least their bodily remains) within the landscapes of the Neolithic and Bronze Age in the East Mediterranean.

The post-mortem handling of human bones has frequently been used by archaeologists as evidence for an 'ancestor cult' (e.g. Barrett 1994, 51; Murphy 1998, 2011; Porter 2002; Keswani 2004, 2005), particularly in the context of Neolithic and Bronze Age societies where the practice is interpreted as a means by which kinship-based agricultural groups can bolster and legitimize their territorial claims (Morris 1991; Keswani 2005, 349). These approaches make specific reference to ethnographic analogy, such as the Merina of Madagascar (cf. Bloch 1985; Keswani 2004, 13) to make the case that a bounded burial ground provided a physical link to the ancestors, who had also been buried there. Barrett (1994, 51) has argued that the practice of rituals at the graveside served to reiterate social relations with the living, allowing the ancestors to intervene in their affairs. Indeed, while 'the deposition of the dead may serve to produce ancestral remains… ancestor rituals are fundamentally concerned with invoking the presence of the dead in order to structure, and provide sanction for, activities amongst the living' (Thomas 2000, 655).

Whitley (2002) has interrogated the extent to which archaeologists have 'unquestioningly' attributed significance to the ancestors in their interpretation of funerary remains (see also Barrett and Fewster 1998, 848); however, in response Pitts (2003) defends the ancestors as an important area of enquiry. Pitts highlights that ancestor cult is widespread across cultural boundaries, more so than Whitley suggests, and makes a case for the development of complex mortuary ritual as a means of demonstrating rights of lineage ancestors. As Barrett comments '[t]he physical remains of the corpse now becomes a medium through which different… strategies might have operated' (1994, 51). This chapter proposes another perspective on people's embodied interactions with the physical remains of the dead, to explore ideas of

personhood and how this is materially created (see also Rahmen, this volume). It draws specifically upon Neolithic plastered skull cults in the Levant and the handling of skulls in Bronze Age Crete and Cyprus.

New Materialities, dead bodies and the ancestors

Despite the extensive archaeological literature on the ancestors and the manipulation of bones in secondary funerary ritual, the material and sensory implications of such practices have tended to be overlooked (see, however, Hamilakis 2013, 131–2). This chapter offers a New Materialities perspective to explore the relationships between dead, decomposing and disarticulated human bodies (at various stages from whole and fleshy, through putrefying and decaying, to the bare bones) and living human bodies. Specifically, it applies Barad's agential realism (2003, 2007) to this entanglement of matter within a framework informed by sensory archaeology (cf. Hamilakis 2013). This approach aims to break down the boundaries between ostensibly inert matter and rational human actors – the latter who are deemed within western ontologies to be distinct from, and dominating, the natural material world. As Barad notes (2003, 821): '[m]atter is not an individual articulated or static entity… passively awaiting signification'. Instead, the New Materialities approach questions the notion that agency is the exclusive prerogative of thinking humans (Bennett 2010, 29–30; Coole and Frost 2010, 6–10, 15–16, 20), noting that humans 'are neither pure cause nor pure effect but [are] part of the world in its open-ended becoming' (Barad 2003, 821). In this chapter (see also Attala, Burton, Coard and Webster, this volume), I argue that the corporeal matter of the body itself has agential capacities, that it is vital matter (Bennett 2010) with the ability to effect change.

Handling the decaying body

Death should not be considered a single event – the transition of the living body into a dead corpse (Swazey 2013; see also Webster this volume). Instead, death is an ongoing material and social process, one that is negotiated and experienced in myriad ways in diverse cultural settings, as the living flesh transforms into other material compositions. One way in which we might explore social experiences of the

materiality of death is through the culturally constituted treatment of the matter of the dead body. Certainly, Hertz (1960, 82–3) recognized that the physical transformation of the body from fleshy corpse to bare bones somehow effected a social transformation by which an individual – the deceased – moved from a mortal plane, perhaps entering the ranks of the ancestors:

> The gradual destruction of the earthly body… [and] the reduction of the corpse to bones, which are more or less unchangeable and upon which death will have no further hold, seems to be the condition and sign of the final deliverance. Now that the body is similar to those of its ancestors, there seems to be no longer any obstacle to… entering their community.

Furthermore, he argued that this process needed to be mediated through the physical movement of the bones, allowing these to tangibly become mixed with the bones of earlier ancestral burials:

> The material on which the collective activity will act after death, and which will be the object of the rites, is naturally the very body of the deceased. The integration of the deceased into [the society of ancestors]… will not be effected unless his material remains are reunited with those of his forefathers.
>
> (Hertz 1960, 83)

Although Hertz acknowledged that human bones were integral to interactions with the ancestors, he viewed the bones as passive and inert recipients of the actions of the living. He also ignored the haptic and other bodily sensations invoked by mixing with and handling the dead. Instead, in this chapter I will explore the inevitable entanglement of matter – living bodies and the bones of the dead – and how these practices variously developed in response to the capacities of dead and disarticulated bodies and were sensually experienced.

The material transformation (or flow of matter) of living, fleshy body into bone, through a process of putrefaction and decay, inevitably involves strong odours and possibly also the gooey sensation of handling flesh as it passes through morbid corruption. Thus, the physical manipulation, handling and modification to parts of a human body

would certainly have resulted in intense bombardment of the senses – visual, tactile and olfactory – possibly emphasized physically by performing such practices in cramped, dark funerary spaces, perhaps only lit by the flickering flames of a lamp. In traditional, rather sanitized archaeological accounts, this powerful sensory engagement has tended to be overlooked; more recently, however, this has been addressed by Hamilakis (2013, 131–2), who notes:

> … the physical presence of the person, long after stopping breathing and talking, continues to act upon others, in a haptic, olfactory, multi-sensory, and inevitably affective manner, its flesh transformed into something else.

A materialities-focused approach allows us to explore these material interactions between bodies and how they might have been experienced, with the aim of disentangling different understandings of personhood.

Plastered skulls of the Neolithic

Specialized treatment of the dead body characterizes the Pre-Pottery Neolithic[1] (PPNA and PPNB) in the Near East. In particular, the focus on the skull has given rise in the academic literature to the notion of a skull cult in the PPNB, surviving into the Pottery Neolithic in central Anatolia (see discussion in Bonogofsky 2003, 2004; Croucher 2012, 97–8). The origins of the so-called skull cult lie in funerary practices of the PPNA, which included the post-mortem removal of the cranium. Osteological evidence – including the absence of cut marks, as well as the presence of the hyoid bones and mandibles in the grave with post-cranial skeleton – indicates that this was done to the disarticulated bones once the flesh had decomposed and rotted away, suggesting that the living interacted physically with the burials of the deceased long after the body was placed in the ground. Specialized treatment of human skulls has recently been identified at the ritual site of Göbekli Tepe in eastern Anatolia, comprising fragments of three human skulls, each marked by deep grooves carved along the sagittal axis; in one case the skull had been drilled (Gresky et al. 2017, fig. 3). Some scholars also suggest that the skulls were removed from the body and eventually

placed in caches 'as a means of recognizing a collective shared past and identity' (Kuijt 1996, 322). Certainly, revisiting the grave, handling the bones and removing them highlights the entanglements binding the living and the dead (cf. Bennett 2010, for more detailed discussion of how matter, including people and objects, is entangled). For the living, we might argue that the ancestors were materialized through people's haptic engagement with the matter of the bones.

Interactions with the skulls were transformed in the PPNB, with increased handling and modification of the cranial bone and a combination of substances being used to recreate the missing flesh and eyes of the living body. The facial features were modelled in lime plaster, marl and animal collagen (Fig. 5.1). The bone might be rubbed with an abrasive such as sand to help the plaster adhere and the facial features were enhanced by the use of paint, a coloured wash of reds and browns. There was particular emphasis on the eyes, with details added in charcoal and use of cowrie shells replacing the missing eyes (Bonogofsky 2003, 1–2; Croucher 2012, 94–7). Initial studies suggested that the teeth were deliberately removed to age the individual, making it more suited for veneration as the aged face of an ancestor in which age and experience is inscribed onto the bodily remains, but this has been contradicted by recent osteological analyses (Bonogofsky 2003, 5–6; 2004, 117; Croucher 2012, 112). We should also note that these practices involved only a small percentage of the overall burial population, suggesting careful selection of skulls of specific individuals, perhaps because of their specific social roles in life (Kuijt 2008).

The plastered skulls were found in caches, grouped together beneath the floors of abandoned houses or associated with plastered surfaces. Wear on the surface of the plastered skulls suggests these were reburied after a period during which they were handled and displayed within the world of the living (Croucher 2012, 94). Typically, the skulls were found with a range of other materials: animal bones, horn cores, statuary fragments, ceramics, clay balls, stone, obsidian, bone tools, beads and possibly even copper (Bonogofsky 2004). The primary sensory impact of the skulls was undoubtedly visual, as is emphasized by the use of colour – white lime plaster, red and brown paints and black charcoal – as well as the staring cowrie-shell eyes. This assemblage of materials, especially the interactions with plaster, merits some discussion.

Fig. 5.1 Plastered skull from Jericho.

Lime plaster comprises a material substance with intriguing capacities (colour, malleability, porosity and antisepsis). It is produced in a volatile chemical transformation of earthy matter made possible through the materiality of fire and water (Goren et al. 1993, 120). This substance was increasingly embedded in the material world of the Neolithic (cf. Clarke 2012), within the built environment – where its white colour provided a blank canvas for the application of painted

decoration – and for the production of plastered statues and heads (Goren et al. 1993; Grissom 2000). Much as Fayers-Kerr (this volume) observes, in relation to the socialization of earthy substances in East Africa, lime plaster was embedded within daily haptic experience and people were at ease with its handling and manipulation. The choice of plaster for crafting images of people (also with shell eyes) as well as for modelling the facial flesh of the disembodied skulls is intriguing, suggesting it was considered akin to human flesh. The volatile nature of lime during its transformation probably animated this substance and made it appear alive to the Neolithic communities engaging with it. Indeed, Boivin (2004, 4–5) identifies this liveliness and vitality as a property commonly attributed to earthy substances, which in numerous ethnographies is described as alive, with creative powers and moreover is frequently linked to human flesh (Boivin 2004, 7). Perhaps the act of recreating the flesh of the disembodied skulls and replacing their eyes with shells was bringing the skull back to life, reanimating it with vital matter. We will return to this co-production of matter and the implications for personhood below.

As noted above, the skulls' primary sensory impact would probably have been visual: the staring eyes and the whiteness of the plaster, a colour we might take for granted in the modern world, but which occurs sparsely in nature, and was thus restricted in the Neolithic (cf. Govier 2017). These skulls demanded attention as they gazed back at the viewer, as indeed they still do today. This visual experience was undoubtedly intensified by the display of the skull inside a darkened house, lit by the flickering flames of the household fire, exaggerating the apparent animation of the plastered face.

We should also consider the tactile sensations involved in handling the plaster, shells and paint when these objects were created. This process of creation undoubtedly created a relationship and an intimacy between the crafter and the plastered skull, something that I observed in a very different environment, in an experiential workshop with students, exploring the body (Fig. 5.2). In this workshop we attempted to recreate as much of the experience of plastering human skulls as was ethically possible. Our substitute skull was a realistic plastic ornament for an aquarium. The students modelled some of the facial features and musculature in clay before applying lime mortar over the entire surface of the skull. Cowrie shells were added as eyes to keep the replica

Fig. 5.2 Making a plastered skull.
Photo: Louise Steel

faithful to the original. The lime mortar was mixed professionally and because of the substance's volatility the students wore plastic gloves, thereby depriving them of some possible tactile observations through the creation of a boundary between body and material. Modelling the skull began as an interesting intellectual exercise – there was lively discussion throughout about the problems involved in forming the face. However, as the face emerged so did a personality. From an inanimate object an individual emerged (intriguingly a gendered person), a relationship grew between the plastered skull and *his* makers/creators and this became an emotional process for the students involved. The discussion at the end of this task focused on this transformation – how a person might be (re-)created from an anonymous skull through the flow, entanglement and agency of matter – and this, in turn, shaped our understanding of some of the practices and ideas associated with the Neolithic originals.

Bronze Age manipulations of skulls: Crete and Cyprus

The emphasis on the skull is evident in other examples of embodied interactions with the bones of the dead, including the tholos tombs of Early Minoan Crete.[2] In most of the Mesara tholos tombs very few skulls were found, in relation to the projected number of burials, suggesting these had been removed deliberately (Branigan 1993, 124). In

many other cases, the majority of bones recovered comprised disarticulated skulls and long bones (Murphy 1998, 35). Notably, Xanthoudides (1924, 7, 92) commented on skulls stacked together on one side of the tholos at both Koumasa tholos B and Platanos tholos B. Occasionally, skulls were brought back into the space of the living, as at Myrtou *Fournou Korifi* (Driessen 2010). A similar focus on the skull was also evident in the house tombs at Gournia; here they were deliberately removed from the post-cranial skeleton and frequently a small conical cup was placed by their side. This emphasis on the skull suggests that, as for the Neolithic communities of the Levant, the head of the deceased continued to be a vehicle for communion and maintaining or even forging relationships (see discussion below).

The skull was likewise the focus of post-mortem manipulation of the bones in Bronze Age Cyprus.[3] As highlighted in the introduction, no skulls were found in the tomb excavated at Arediou (Fig. 5.3; Steel and Thomas 2008, 243). I would suggest that these had been removed in the Late Bronze Age as part of what Keswani (2004, 13–21) describes as secondary funerary ritual. How and where the skulls were used and where they were eventually placed remains unsolved, but I

Fig. 5.3 Disarticulated bones from Arediou Tomb 1.
Photo: Steve Thomas

would argue that these were involved in some form of ritual performance within the space of the living before being collected together, perhaps with skulls from other burials. Similar practices are attested at other sites in the north-west of the island, this time through the accumulation of large numbers of skulls in tomb groups. For example, an unusually large number of skulls in relation to the post-cranial bones were found in Tomb 6 at Morfou *Toumba tou Skourou* (Vermeule and Wolsky 1990, 309). More formalized treatment of the skulls is apparent at Politiko *Ayios Irakleidios*, where, in the upper level, seven skulls were placed together on the east side of the tomb and, in the lower level, there was a heap of twelve skulls (Karageorghis 1965, 11–14). These practices seemingly had an ancient pedigree in Cyprus, stretching back to the Early-Middle Cypriot period; certainly, in many tombs at Vounous *Bellapais* there were only skulls, while in other tombs the skulls had been deliberately collected together away from the rest of the skeleton (Keswani 2004, 42–3). In all these cases the skulls had clearly been removed from their burials and collected together in some form of ritualized performance once the flesh had decomposed, but how they were physically handled and what was done with, or to, these skulls remains hidden from the archaeologist's gaze.

As highlighted above, we should consider the sensory implications of the practices attested on both Cyprus and Crete. Certainly, the smell of dead and decaying bodies would have been experienced by the living as a matter of course during the rituals performed at the tombs. In the Early Minoan tholos tombs, the bodies of the dead were not buried, but instead were kept above ground; moreover, on both Cyprus and Crete there were regular tactile interactions between the living and the dead, during which skulls and long bones were moved around, presumably in various states of decomposition and possibly with rotting flesh, skin and hair still adhering. Hamilakis (2013, 138) suggests that localized patterns of burning evident in many of the tholos tombs was not performed to fumigate the structures of the smells of putrefying flesh but rather to aid the defleshing of specific bodies; whatever the intentions, the smoke, fire and smells of burning flesh further added to the sensory experiences of the living. Similar burning (fumigation or defleshing) practices are evident on Cyprus (Keswani 2004, 94). Certainly, the substantial evidence for post-mortem manipulation of the disarticulated bones, including the removal of residual flesh and

hair using obsidian blades (Murphy 1998, 34), would have bombarded not only the olfactory senses, but also the haptic experiences of the individuals engaged in these practices.

Hamilakis (2013, 134–6) situates these practices at the tombs within wider sensory experiences, including the application of sticky, scented perfumes and unguents to the body of the (recently?) deceased, the tastes and smells of food and drink, including alcohol with its mind-altering properties, and possibly even the consumption of psychoactive substances such as opium. A similar range of embodied practices can likewise be posited for Late Bronze Age Cyprus. Small perfume vases and unguent containers were typically placed in Late Bronze Age tombs (Steel 1998, 295–6) and were plausibly used for anointing the body (flesh at first and later the bones) and clothing or shrouds of the deceased, perhaps in part to disguise the smells of putrefaction. Consumption of alcohol and feasting have both been demonstrated to be a regular element of funerary practices throughout the Bronze Age (cf. Herscher 1997; Steel 2004a) and Collard (2017) makes a convincing case for the ingestion of opium in Late Bronze Age Cyprus. The mind-altering properties of these substances undoubtedly affected the experiences of the living participant as they were ingested and incorporated within their bodies (see Attala this volume for an in-depth discussion of how ingested substances and human bodies interact and co-produce).

There is material evidence, on the surface at least, for very similar sensorial experiences at the graveside, albeit within very different cultural settings. The Early Minoan tholos tombs were imposing stone-built circular structures (single or in pairs), sometimes with additional square stone annexes. These were separate from the space of the living and associated with small non-urban communities (cf. Branigan 1993; Murphy 1998). The Early-Middle Bronze Age Cypriot communities also chose to bury their dead outside the settlement; however, these communities were much larger and the extra-mural cemeteries accordingly were bigger and comprised numerous sizeable chambers cut into the bedrock, typically re-used many times (Keswani 2004, 39–41, 55–62). Late Bronze Age burials on Cyprus, however, were more typically located inside the settlement, placed within chamber tombs positioned beneath the streets or the courts of houses (Keswani 2004, 87–8). The very different location of burial and proximity or

otherwise to the space of the living, therefore, would indicate very different physical engagements between the living and the dead. Moreover, despite the apparent similarities, the underlying social processes should not be essentialized into a single experience of death (cf. Swazey 2013). As highlighted by Csordas (1994, 5), the embodied experiences of the living, fleshy bodies and bony remains of the dead were situated within culturally specific networks of relations and should be understood within their own social contexts. Nonetheless, current understanding in both cases is that the manipulation of the bones was as a means of mediating with the ancestors (e.g. Murphy 1998; Keswani 2004, 151–2; 2005, 342, 350, 360–1). Here I want to develop an alternative approach that emphasizes material engagements as a means of constructing and negotiating personhood.

Agential realisms and the ancestors: challenging notions of bounded personhood

What, then, is happening in these many different intermingling relationships between living and dead bodies? Within the New Materialities perspective we might view the combinations of matter within these diverse manipulations of human physical remains in the Neolithic and Bronze Age as phenomena, following Barad (2003, 2007). Rather than considering the skulls, the bodies of the living and other materials as discrete or separate entities, this instead encourages us to think about *relationships* between matter as it entangles, works together and co-produces, or 'intra-acts' (Barad 2003, 814–15; 2007, 139–41). Living flesh and skin (namely the hands of the people performing the ritual), the bony remains of the dead (in particular, the skulls and long bones), the fire and obsidian blades used to 'clean' the bones, lime mortar applied to Neolithic skulls, and cowrie shells embedded in the eye sockets, as well as the various substances anointing the flesh of the recently dead or ingested and absorbed by the flesh of the living (cf. Attala this volume) are none of them 'independent objects with inherent boundaries and properties' (Barad 2003, 815), but instead are agents within an entanglement, 'intra-acting', mingling together and co-producing the ancestors. These objects, the distinct matter we identify in the archaeological record as well as the seemingly invisible living human actors, emerge through these

intra-actions, namely the performance of the ancestral funerary rites, and the co-production of matter produces meaning through its materiality: the material world is 'composed not of things-in-themselves… but of things-in-phenomena' (Barad 2007, 140).

Thinking about how matters come together requires a reconsideration of the individual and draws us closer to seeing matters as collective events. This suggests a blurring of boundaries between things, including human bodies (Barad 2003, 815; see also Attala, Fayers-Kerr and Govier, this volume), and thus allows us to question ontologies of separation and dualities, which are embedded in archaeological interpretations of the *living individual* joining the *collective of the ancestors* in death. No doubt, this derives in part from Hertz's (1960, 82–3) description of the deceased becoming one with the collective of ancestors by the disintegration of their flesh, but it is comfortably unchallenged by 'notion[s] of being an individual… [which] is at the heart of who we consider ourselves to be' (Harris and Cipolla 2017, 61). Ethnographies, however, provide numerous examples of ways of being and human experiences far removed from perspectives of the bounded individual (cf. Fowler 2004). The Melanesian notion of personhood emerging from composite relationships between different people is a particularly pertinent example for the porosity of human bodies and the intermingling and co-production or intra-action of matter. Strathern (1988, 13, 207–19) highlights, for example, exchanges of bodily substances such as semen or breast milk. Another example of *dividual* personhood is the so-called 'net of maya' of northern India; this is 'formed through the everyday activities of sharing food, touching, sleeping in the same bed, having sexual relations, exchanging words…' (Lamb 2000, 28) as much as through material possessions and a sense of belonging in the village landscape (Lamb 2000, 30; see also Rahmen, this volume, for how the body and healthy personhood are rooted in the riverine landscape of the Amazon through interactions with the river water). In these two geographically disparate examples, then, personhood is not housed individually within a bounded human body; instead people are interlinked within complex networks of social ties, they are porous and become socialized through flows of substances – material and immaterial – they are '"composite" and hence "dividual" or divisible in nature' (Lamb 2000, 31). Fowler (2004, 19) notes a distinction between the partible dividual of Melanesia and the more

permeable notion of personhood in India, as illustrated, for example, by the exchange or flow of bodily substances between people, reminding us that the dividual is not a single category of personhood that we can apply unthinkingly to the archaeological record. Nonetheless, there is some consensus (cf. Lamb 2000, 37–41) that the concept of bounded, separate persons, or individuals, is in fact 'a rather peculiar idea within the context of world cultures' (Geertz 1984, 59, cited in Lamb 2000, 37), which allows us to consider the many ways in which personhood was experienced and performed within myriad material entanglements.

People and bodies, therefore, should not be viewed as inevitably 'independent objects with inherent boundaries and properties but rather [as] phenomena' (Barad 2003, 815). Thus, we do not need to posit a transformation from the bounded individual to the collective ancestors, once the flesh rots away and the bones of the body become disarticulated. Instead, we might think of the embodied practices in which living and dead bodies, and other matter, work together as a means of negotiating social bonds and creating ever more elaborate networks of relations. This is characterized by Hamilakis (2013, 154), with specific relation to the tholos tombs of the Mesara, as 'a fluid corporeal landscape', in which living and dead bodies, disarticulated body parts and material objects comingled and co-produced each other.

Conclusions

Thinking about human bodies through the lens of the New Materialities enables us to develop new understandings of ancient funerary practices and differing notions of personhood, moving us beyond the limits of a western mindset embedded in notions of duality, separation and boundaries. In particular, the application of Barad's agential realist approach to the archaeological record is potentially of immense archaeological value, allowing us to think about the fluidity, entanglement and agency of matter. The widespread post-mortem handling of skeletal remains throughout the Near East and Aegean need not simply be relegated to an essentialist narrative of the ancestors who were enacted through the agency of the living. Bones – in the examples discussed here the skulls of *some* of the dead – were not simply inert matter waiting to be acted upon. Certainly, the skulls were transformed, not only

through the natural processes of decay but also as a result of human intra-actions and relationships with other matter; nonetheless, within the meshwork of relationships between materials, the skulls had their own agential capacities and played an important role in shaping the social, material and sensual worlds of the living. Significantly, the New Materialities perspective allows us to question notions of discrete, separate, bounded individuals and bodies, instead exploring personhood as something fluid and intermingling, created through multiple material engagements and sensually experienced. It reveals how the physical body continues, even in death, to be vital matter with the ability to effect change. If we examine the entanglement of matter as phenomena we can engage in new ways with the materials we excavate. Indeed, exploring relationships between these (archaeological) materials as intra-actions demonstrates how 'things-in-phenomena' are more meaningful than the sum of their parts (cf. Govier 2017).

Acknowledgements

Many thanks as always to Steve Thomas for reading early versions of this chapter and permission to reproduce the photo of bones from Arediou. Thank you also to Luci Attala for being a helpful sounding board for discussions of agential realism and personhood. I have enjoyed long and detailed discussions with Eloise Govier about the application of phenomena to the archaeological record, which has informed some of this discussion. I am grateful to UCL Kenyon Archives for permission to reproduce the Jericho skull photo.

References

Barad, K. 2003. 'Posthumanist performativity: Toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society* 28(3), 801–31.

Barad, K. 2007. *Meeting the Universe Halfway*: *Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Barrett, J. C. 1994. *Fragments from Antiquity*. Oxford: Blackwell.

Barrett, J. C., and Fewster, K. J. 1998. 'Stonehenge: Is the medium the message?', *Antiquity* 72, 847–52.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Bloch, M. 1985. 'Almost eating the ancestors', *Man* (n.s.)20, 631–46.
Bloch, M. 1996. 'Ancestors', in *Encyclopaedia of Social and Cultural Anthropology*, eds A. Barnard and A. Spencer. London: Routledge, p. 43.
Boivin, N. 2004. 'From veneration to exploitation: Human engagement with the mineral world', in *Soils, Stone and Symbols: Cultural Perceptions of the Mineral World*, eds N. Boivin and M. A. Owoc. London: UCL Press, pp. 1–29.
Bonogofsky, M. 2003. 'Neolithic plastered skulls and railroading epistemologies', *Bulletin of the American Schools of Oriental Research* 331, 1–10.
Bonogofsky, M. 2004. 'Including women and children: Neolithic modeled skulls from Jordan, Israel, Syria and Turkey', *Near Eastern Archaeology* 67(2), 118–19.
Branigan, K. 1993. *Dancing with Death: Life and Death in Southern Crete c. 3000–2000 BC*. Amsterdam: Adolf M. Hakkert.
Clarke, J. 2012. 'Decorating the Neolithic: An evaluation of the use of plaster in the enhancement of daily life in the Middle Pre-pottery Neolithic B of the Southern Levant', *Cambridge Archaeological Journal* 22(2), 177–86.
Collard, D. 2017. 'The materiality of ecstatic ritual: Altered states of consciousness and ritual in Late Bronze Age Cyprus', in *Exploring the Materiality of Food 'Stuffs': Transformations, Symbolic Consumption and Embodiments*, eds L. Steel and K. Zinn. Abingdon and New York, NY: Routledge, pp. 226–47.
Coole, D., and Frost, S. 2010. 'Introducing the New Materialisms', in *New Materialisms. Ontology, Agency and Politics*, eds D. Coole and S. Frost. Durham, NC and London: Duke University Press, pp. 1–43.
Croucher, K. 2012. *Death and Dying in the Neolithic Near East*. Oxford: Oxford University Press.
Csordas, T. J. 1994. *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.
Driessen, J. 2010. 'The goddess and the skull: Some observations on group identity in Prepalatial Crete', in *Cretan Offerings: Studies in Honour of Peter Warren*, *British School at Athens Studies* 18, 107–17.
Fowler, C. 2004. *The Archaeology of Personhood: An Anthropological Approach*. London and New York, NY: Routledge.
Geertz, C. 1983. '"From the natives' point of view": On the nature of anthropological understanding', in *Culture Theory*, eds R. A Schweder

and R. A. Levine. Cambridge: Cambridge University Press, pp. 123–36, cited in S. Lamb 2000.

Goren, Y., Segal, I., and Bar-Yosef, O. 1993. 'Plaster artefacts and the interpretation of the Nahal Hemar cave', *Journal of the Israel Prehistoric Society* 25, 120–31.

Govier, E. 2017. 'Creative practice: How community was made at Çatalhöyük' (unpublished Ph.D. thesis, University of Wales Trinity Saint David).

Gresky, J., Haelm, J., and Clare, L. 2017. 'Modified human crania from Göbekli Tepe provide evidence for a new form of Neolithic skull cult', *Science Advances* 3(6). Available at: *http://advances.sciencemag.org/content/3/6/e1700564.full*. Accessed May 2018.

Grissom, C. A. 2000. 'Neolithic statues from 'Ain Ghazal: Construction and form', *American Journal of Archaeology* 104(1), 25–45.

Hamilakis, Y. 2013. *Archaeology and the Senses: Human Experience, Memory, and Affect*. New York, NY: Cambridge University Press.

Harris, O. J. T., and Cipolla, C. 2017. *Archaeological Theory in the New Millennium: Introducing Current Perspectives*. London and New York, NY: Routledge.

Herscher, E. 1997. 'Representational relief on Early and Middle Cypriot pottery', in *Four Thousand Years of Images on Cypriote Pottery: Proceedings of the Third International Conference of Cypriote Studies*, eds V. Karageorghis, R. Laffineur and F. Vandenabeele. Nicosia and Brussels: Leventis Foundation, pp. 25–36.

Hertz, R. 1960. *Death and the Right Hand*, trans. R. and C. Needham. New York, NY: Free Press.

Karageorghis, V. 1965. 'A Late Cypriot tomb at Tamassos', *Reports of the Department of Antiquities Cyprus*, 11–29.

Keswani, P. S. 2004. *Mortuary Ritual and Society in Bronze Age Cyprus*. Monographs in Mediterranean Archaeology 9. London: Equinox.

Keswani, P. S. 2005. 'Death, prestige, and copper in Bronze Age Cyprus', *American Journal of Archaeology* 109(3), 341–401.

Kopytoff, I. 1971. 'Ancestors as elders in Africa', *Africa: Journal of the International African Institute* 41, 129–42.

Kuijt, I. 1996. 'Negotiating equality through ritual: A consideration of Late Natufian and Prepottery Neolithic A Period mortuary practices', *Journal of Anthropological Archaeology* 15, 313–36.

Kuijt, I. 2008. 'The regeneration of life: Neolithic structures of symbolic remembering and forgetting', *Current Anthropology* 49(2), 171–97.

Lamb, S. 2000. *White Saris and Sweet Mangoes: Aging, Gender, and the Body in North India*. Berkeley, CA, Los Angeles, CA and London: University of California Press.

Morris, I. 1991. 'The archaeology of ancestors: The Saxe/Goldstein hypothesis revisited', *Cambridge Archaeological Journal* 1(2), 147–69.

Murphy, J. M. 1998. 'Ideology, rites and rituals: A view of Prepalatial Minoan tholoi', in *Cemetery and Society in the Aegean Bronze Age*, ed. K. Branigan. Sheffield: Sheffield Academic Press, pp. 27–40.

Murphy, J. M. 2011. 'Individual, household, and community after death in Prepalatial and Protopalatial south-central Crete', in *ΣΤΕΓΑ: The Archaeology of Houses and Households in Ancient Crete*, eds K. T. Glowacki and N. Vogeikoff-Brogan, Hesperia Supplement 44. Princeton, NJ: American School of Classical Studies at Athens, pp. 51–8.

Pitts, M. 2003. 'Don't knock the ancestors', *Antiquity* 77, 172–8.

Porter, A. 2002. 'The dynamics of death: Ancestors, pastoralism, and the origins of a third-millennium city in Syria', *Bulletin of the American Schools of Oriental Research* 325, 1–36.

Steel, L. 1998. 'The social impact of Mycenaean imported pottery in Cyprus', *Annual of the British School at Athens* 93, 285–96.

Steel, L. 2004a. 'A goodly feast… a cup of mellow wine: Feasting in Bronze Age Cyprus', in *The Mycenaean Feast*, ed. J. C. Wright. Princeton, NJ: American School of Classical Studies at Athens, pp. 161–80.

Steel, L. 2004b. *Cyprus Before History: From the Earliest Settlers to the End of the Bronze Age*. London: Duckworth.

Steel, L., and Thomas, S. 2008. 'Excavations at Arediou-*Vouppes* (*Lithosouros*), Cyprus. An interim report on excavations 2005–2006', *Reports of the Department of Antiquities Cyprus*, 227–49.

Strathern, M. 1988. *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*. Berkeley, CA, Los Angeles, CA and London: University of California Press.

Swazey, K. 2013. *Life that doesn't end with death. TED Talk*. [online] Available at: *www.ted.com/talks/kelli_swazey_life_that_doesn_t_end_with_death*. Accessed 9 November 2017.

Thomas, J. 2000. 'Death, identity and the body in Neolithic Britain', *The Journal of the Royal Anthropological Institute* 6(4), 653–68.

Tomkins, P., and Schoep, I. 2012. 'Crete', in *The Oxford Handbook of the Ancient Aegean*, ed. E. Cline. Oxford: Oxford University Press, pp. 66–82.

Vermeule, E. T., and Wolsky, F. Z. 1990. *Toumba tou Skourou: A Bronze Age Potter's Quarter on Mourphou Bay in Cyprus*. Cambridge, MA: Harvard University Press.

Watkins, T. 2013. 'The Neolithic in transition – how to complete a paradigm shift', *Levant* 45(2), 149–58.

Whitley, J. 2002. 'Too many ancestors', *Antiquity* 76, 119–26.

Xanthoudides, S. 1924. *The Tombs of the Mesara*. London: Hodder & Stoughton.

Notes

1. The Pre-Pottery Neolithic is subdivided into two main phases: the Pre-Pottery Neolithic A (PPNA), associated with the initial domestication of plants, and the Pre-Pottery Neolithic B (PPNB), associated with the domestication of animals. See discussion in Watkins (2013).
2. For an overview of the Early Minoan (or Early Bronze Age) on Crete, essentially the third millennium BC, see Tomkins and Schoep (2012). The Mesara tholos tombs have been extensively studied, most notably by Branigan (1993) and Murphy (1998, 2011).
3. Keswani (2004) provides excellent contextualization and detailed discussion of Bronze Age burials from Cyprus. See also Steel (2004b, chapters 5 and 6) for an overview of the Cypriot Bronze Age.

6 BECOMING A COMMUNITY OF SUBSTANCE

The Mun, the Mud and the Therapeutic Art of Body Painting

Kate Nialla Fayers-Kerr

'They roll around in the mud!' So said an educated Hamar agro-pastoralist from the Omo Valley of south-western Ethiopia. He was commenting on his Mun neighbours, and implying that they apply earth and clay, or 'body paint', carelessly and seemingly without investing any artistry, resulting in a shoddy job. Yet this belies the fact that the Mun (more commonly referred to as the Mursi) place greater value on the selection and application of specific and sufficient earths, ash and clays onto their skin –'eating it', as they say – than on the aesthetics of its subsequent appearance. The main reason for this is that clays rid people of serious afflictions. As a man called Lawari Tula explained to me in 2010, 'When one eats clay, your affliction (*muttan*) will end, for it is afraid of clay.' When I asked him why afflictions are afraid of clay, he explained, 'It is its custom. It dislikes clay.' When one consumes clay, affliction will say in irritation, 'Hey! Why have you eaten clay? I am tired', and go to 'its place below the ground'. I asked Lawari if affliction lives *deep* in the ground, and he replied 'Who knows!'

The Mun's apparent artlessness in the application of body paints also seems anomalous when compared to the exploration of bodily aesthetics and wellness among photographic and anthropological works. For example, in the only East African ethnography devoted to body art, *Nuba Personal Art*, James Faris (1972) stresses the aesthetic and decorative centrality of body painting, which celebrates and displays a healthy body. Likewise, in other contemporary and equally masterful analyses of body decoration, such as Andrew and Marilyn Strathern's (1971) examination of the Mount Hagen people of Papua New Guinea, they reveal self-decoration as the artistic expression to display beauty and health. Among the Mun too, is it common to find elder boys and young men who are particularly keen on displaying the aesthetic effect

of a painted body, growing increasingly self-conscious and seeking to impress girls and their age-mates; they take prestigious care to wash regularly and apply clays, earths or pinky ash from burnt cattle dung to their face and often to their entire body. However, in general the aesthetic impact is neither paramount for the majority of Mun, nor does it generally celebrate a healthy body. Rather, they paint pragmatically in order to remain healthy or to return to good health, explicitly comparing the earthy substances to 'medicine' (*zibu*). In other words, it is the application process and the substances themselves that are paramount, rather than the display or aesthetic effect.

The importance of the materials, rather than the aesthetics, symbolism or meaning of the 'end product', is a crucial starting point in the analysis of the local healing qualities of Mun body painting. As I discuss below, the Mun are sometimes playfully and sometimes painstakingly aware of the emergent qualities of earthy substances, qualities that can simultaneously prevent and cure afflictions but, if handled incorrectly, can themselves bring a host of afflictions. Through the handling of these substances, people gain insight into the dynamics of their own physiology as well as the substances themselves. As a result of these dynamics, they strive to cultivate relationships with various earthy substances over generations, confident that intimacy with certain substances will serve them as an anchor or provide safe passage as they live in and traverse different localities from season to season. However, in order to explore these issues comprehensively, it is helpful to begin by framing this discussion of the traverse web that emerges between a body that is not simply human in its sociality and earthy materials that are far from being inert.

Firstly, looking beyond the healthful aesthetics and sociality of body painting requires broadening our considerations of 'the body'. As Michael O'Hanlon (2007, 4) pointed out, 'Until relatively recently the topic of "the body" in anthropology could be *defined* largely in terms of body arts'. Among early studies of body arts, this 'body' was often theoretically treated as 'a passive lump of clay or *tabula rasa*' (Csordas 1999, 178–9), generating a focus on body decoration as a cross-cultural method of producing a *social skin*, where 'the surface of the body… becomes the symbolic stage upon which the drama of socialization is enacted' (Turner 1980, 112). Body art was seen as a microcosm of society, in which the body surface was key to transformations (van Gennep

1960), waiting for the imprint of culture (Lévi-Strauss 1963), waiting to be inscribed (Schildkrout 2004). However, scholars such as Faris have subsequently argued against an overemphasis on socialization theory by exploring the ways in which 'the body is paramount' in body art, without any 'deeper symbolic meaning' (Faris 1972, 49). Likewise, many Amazonianists have critiqued the model of socializing a raw biological substrate, pointing out that 'the body' is never asocial to begin with (Viveiros de Castro 1998; Vilaça 2005; Ewart 2007).

Thus, while there remains much that is sociable about body painting, with its capacity for 'border skirmishing' between oneself and others, within and between social groups (Fleming 2001, 111), there needs to be an approach which takes us beyond the sensory socialization and embodied morality implicit in the concept of a *social skin*. Consequently, we need to find ways of exploring corporeality that takes into account intimate sociality that extends beyond the realm of the purely human. This chapter, taking its lead from the Mun, proposes just such an approach by revealing that at the heart of their local art of body painting is a 'bodyscape' (Porteous 1986) that is never separated from our wider environment; body painting is a bridge between human sociality and the plethora of other forms of sociality. Seen in this way, body painting is the art of negotiating untold interactions between the body and the wider environment. Body painting takes into account the ways in which,

> Our existence depends from one moment to the next on myriad micro-organisms and diverse higher species, on our own hazily understood bodily and cellular reactions and on pitiless cosmic motions, on the material artefacts and natural stuff that populate our environment, as well as on socioeconomic structures that produce and reproduce the conditions of our everyday lives.
>
> (Coole and Frost 2010, 1)

Therefore, to account for a medicinal body painting tradition, I have turned to theories of the body that frame just such a dynamic ecology of social life. This involves expanding upon the three pervasive medical anthropological approaches to 'the body'– the *social body*, the *body politic*, or the more phenomenologically informed *individual body* (Scheper-Hughes and Lock 1987). Unlike these three bodies, which

focus on contemporary socio-political processes, I have found much resonance with the work of another medical anthropologist, whose notion of the *body ecologic* approaches the body as something always informed by a plethora of ecological interactions (Hsu 1999, 2007, 2009). Furthermore, historical and local insights gained through living in dialogue with certain environments often translate into medical reasoning; as Elisabeth Hsu (2007, 92) explains, 'In many medicines, humans are considered co-substantial with the natural environment, and accordingly, as is argued here, many key terms, such as hot and cold or wind and fire, convey culture-specific knowledge about ecological processes.' While I take issue with limiting the analysis of the *body ecologic* to a 'natural' environment, we can readily accept that our bodies are never anything but 'environmentally situated' (Ingold 2000, 170).

The second point I would like to highlight is how such a *body ecologic*, with the accompanying therapeutic insights, becomes apparent among the Mun when we focus our analytical gaze on the earthy substances themselves. The lack of academic attention given to this local expertise in soils and clays is partly due to its being overshadowed by their well-deserved reputation as a fervently cattle- focused community – likewise for their Nilo-Saharan, Omotic and Cushitic agro-pastoral neighbours. As Brady (1990, 3) suggests, in *The Nature and Properties of Soils*, 'Knowledge about soil comes from two basic sources: farmer experience based on centuries of trial and error and scientific investigation of soils and their management.' While the Mun do rely heavily on cultivated crops, they are neither famed as farmer nor scientist, and yet they have a rich and intimate knowledge of local soils and clay pits. This interest stems largely from a justifiable anxiety concerning health and well-being. Although they are brief in their exegesis of body painting – common explanations including 'it is our custom', 'it is good', 'clay is potent', 'disease is afraid of clay' – this pronounced reticence in engaging in abstract discussions is contrasted by a curiosity whenever they come across an unfamiliar nugget of ochre, clay or soil.[1] People would taste the texture of a clay with the tip of their tongue, rub it between their fingers, use spittle to moisten it and then rub some on their skin to evaluate the hue and intensity of the colour. Such 'sensuous technology', as historian Lissa Roberts (2005, 506) suggests, 'enables us to

consider the way natural investigators used their bodies as part of this dynamically interactive network'.

In emphasizing local insights into the qualities of certain earthy substances, I seek to avoid the emphasis of form imposed on matter, or a 'materiality' approach, and rather advocate something more akin to a 'materials' approach, which allows for things being 'continually generated and dissolved within the fluxes of materials across the interface between substances and the medium that surrounds them' (Ingold 2007, 1). When discussing the substances of body painting in this way it makes little sense to divide this material world, as Chris Gosden (1999, 152) does for heuristic purposes, into landscape and artefacts, since the earths and clays in body painting encompasses both. Rather than form being moulded out of substance, it is the dialogue that occurs where the two reach a certain compatibility (Ingold 2012, 433, discussing Simondon 2005, 41–2). Phillipe Descola (2010, xiii) eloquently describes such a possible confluence taking place between soil and body:

> as with the wind that cools us or makes us shudder, as with the sun that scorches us or barely warms us, the soil is like an outer envelope of our body and an expansion of our muscles and senses. It is not within ourselves, obviously, but it is not entirely separate from us either; it is the accomplice of our body and that which anchors it to the world.

This is in keeping with the Mun's discerning use of earthy substances in body painting as a way to manipulate the outcome of interactions with potentially dangerous aspects of their surroundings; clays and earths become a site of confluence as well as conflict between corporeality and things lurking at the watering hole or among one's relatives and neighbours. As Coole and Frost (2010, 13) suggest, such moments of merging or anchoring will not always be easy: 'It is evident from new materialist writing that forces, energies, and intensities (rather than substances) and complex, even random, processes (rather than simple, predictable states) have become the new currency.' Likewise for the Mun, earthy substances are far from passive, since they can 'hit' people, 'recognise' people and certain clays even have their own 'customs', as we will discuss below.

In what follows, I explore three emergent qualities in the local use of earthy materials: (1) how daily uses of earth continuously make manifest the generativity of earthy materials; (2) how this generativity provides a window into underlying principles which govern the physics of physiology and transformations in the material world; and (3) how this ties into ongoing efforts to become consubstantial with certain ecosystems by virtue of cultivating a confederacy between communities and the earthy substances of place. Not only can a place be tasted, as the literature on *goût du terroir* explores (Trubek 2008), but it is by so doing that one becomes autochthonous or consubstantial with the 'stuff' of a place, perhaps moving in the direction of microbiopolitics (Paxson 2008). While kinship studies have advocated the importance of an exchange of substances between people in the process of becoming related (Carsten 1995, 2000), here we explore the process of becoming a community of substance by revealing local insight that 'forces at work in the materialization of bodies are not only social, and the bodies produced are not all human' (Barad 2007, 33–4).

The generativity of materials

Like our Hamar interlocutor, who joked that his neighbours rolled in the mud instead of 'properly' decorating, local body painting initially appeared to me to be 'dirt': a smudge on the forehead or arm, a smearing of clay on the chest, or just a very dusty body. However, a particular event made it clear to me how great a conceptual jump was needed to comprehend the beneficial and vitality-enhancing properties of earth. It was when a three-year-old boy asked me to escort him beyond the village so that he could defecate. From behind a bush, he called my name many times, afraid I would leave him behind, but while waiting I began to wonder what he would do to clean himself; usually adults, eventually myself included, used a soft leaf or a smooth rock. As he jumped out onto the path, pleased to see me still there, I turned to walk back to the village. 'Wait!' he exclaimed; he had remembered something. He sat on the dusty path, legs horizontal in front of him, and then dragged his bare bottom across the earth. This was how he cleaned himself. Subsequently, I observed many mothers doing the same thing with babies who were old enough to sit upright, often adding a decorative flourish (see Fig. 6.1) to the cleaning process. The

Fig. 6.1 After a parent has playfully smeared a toddler with dung, Bulu, October 2010.
Photo: Kate Fayers-Kerr

earth and the immediate surroundings, including semi-dried dung, were immensely malleable to those who knew how to make use of them. By focusing on such daily relationships with earths it became clear that these substances are being engaged with everywhere: in childhood play, daily cleansing of the body, in agricultural processes, and in a ritual context. Daily intimacy and ease of interaction with all

forms of earthy substances provides valuable insight into the pervasive and persistent role earth has, including ritual contexts, and it also reveals how curiosity and playfulness are as important as more didactic instructions in the local appreciation of these substances.

Evans-Pritchard (1940, 38) was amongst the earliest to describe the use of earthy substances among agro-pastoral children: 'The kraal is their playground and they are generally smeared with dung in which they roll and tumble', while older children build mini-camps of mud that they fill with mud-models of cattle. Likewise, over fifty years later, Sharon Hutchinson (1996) noticed Nuer children modelling guns from mud; similarly, in addition to bull and oxen heads and miniature villages, I found Mun children near the northern road modelling toy cars and roads from an amalgam of mud and dung. More often, however, children who had wandered off to the waterside would seize on any ochre, chalk or clay along the way to decorate one another, older children frequently joyfully embellishing their younger relatives. Such creativity reminds us that child's play can adhere to tradition, but may also reveal something unknown and potent.[2]

Along with the playful, cleansing and practical potential of earthy substances – such as to prevent scratches from the undergrowth or from sun-stroke – older adolescence and young adults seek to impress the girls as well as one another with their increasingly aesthetic concerns (see Fig. 6.2). However, it is more than playful, cleansing and aesthetic, since the regular practice of body painting is also felt to cultivate a renewed or revitalized body. Here the expression *sudê rrê* – to 'shed' or 'renew' the body – is illuminating; it was described as 'looking after oneself', 'to go to war', 'to run fast', 'to decorate one's body' and 'to beg for nice things from friends'. I came across the expression as justification from a group of young men who were rubbing moist mud over their bodies, from face to ankles; as they said, this 'renews the body'. Earthy substances are used as part of a daily cultivation of a healthy self, as *care of the self* (Foucault 1986). In the pursuit of this self-care, older boys and men develop a compulsion to sample earths as they come across them, rarely passing an outcrop of pigmented soil without stopping to rub some on their face, head and/or body. Indeed, throughout the landscape there are places where earthy materials seem to beckon them to stop and enter into a relationship. When I visit a place of beauty or religious significance it may inspire a reflection or

Fig. 6.2 An older boy being painted with yellow clay while out with the cattle, Chollo, September 2010.
Photo Kate Fayers-Kerr.

prayer, or perhaps I simply take a photograph; however, among the Mun, men of a certain age need to get their hands into the substance of a place itself, blurring the boundary between themselves and the land.[3]

Given this sociality with earthy substances that emerges from childhood, it is little wonder that earths are a fundamental mediator between communities and kin. The role of body painting at critical transitions has been well documented and the Mun are no exception. As Harriet Ngubane (1977, 78–9) found among the Zulu, developmental rites are held at vulnerable moments such as birth, during lactation and menstruation, following sexual intercourse, conflict or death; at such moments, body painting provides resistance or protection from dangers or afflictions, allowing a degree of continued social

participation. Likewise, among the Mun, after a long journey or period of absence, relatives use ash to greet one another; a kinsperson takes ash from the hearth (or earth from the ground if no ash is at hand), and drags their ashy fingertips down their forehead and then down their relative's forehead, then sprinkling some ash left and right, particularly around doorways. This practice of greeting with ash is as common as the western practice of kissing or hugging a loved one. The reason given is that the ash sends 'ancestor spirits' (*mênênga*) away, and stops them from striking one's kin. Such spirits are said to follow their kin on a long journey to assist them with any dangers they might meet on the road, offering them protection or guardianship. However, these spirits can also bring affliction and are an ambiguous force that must be mitigated or mediated through the contact with ash. As Evans-Pritchard (1956, 262) noted among the Nuer, 'When ashes are ritually rubbed on persons the meaning which fits the action best is unity, solidarity, or identification, the expression of the idea of "I am with you"' Yet what I also find interesting, and which holds ethnographic parallels in the region, is that the danger to kin appears after an absence. Here, Godfrey Lienhardt's (1961, 149) work among the Dinka is revealing: 'A man who has lived for a time in a place very foreign to him may think that that place (we should say, its "influence") follows him (*bwoth cok*), as divinities are said to "follow" those with whom they have formed a relationship.' The idea is that with new places come new threats that alter or 'influence' a person, and among the Mun the care taken upon re-contact suggests that they strive to avoid overwhelming those unexposed to similar influences.

It is through such daily and ritual involvements with a multitude of earthy materials that a community of substance emerges, where the value attributed to earths and clays 'materializes' through a dialectics in which substances themselves play a lively part. As Coole and Frost (2010, 26) remind us, knowledge is not acquired merely through the mirror of nature, since the materials with which social actors interact hold a generative quality. The use of earthy substances as lubricants in social life cannot be separated from the awareness of this generative quality of substances, one that a community such as the Mun know well, and which they try to harness, albeit not without knowledge that these substances can also cause harm. As Ginn, Beisel and Barua (2014, 115) point out in their discussion of animals that are

tiny, disgusting, dangerous or alien, togetherness is made up not only of love, care and attention, but also 'friction, conflict, and misrecognition', as well as 'alien-ness, disconnection, detachment, or withdrawal'; in fact, relationships with awkward others is best understood through the respectful position of vulnerability.

The logic of the substantial world

Material causality is something that crops up in discussions about matter, where post-humanist orientations resonate with natural science, particularly concerning the vibrancy and dynamism of matter (Barad 2007; Coole and Frost 2010). Scholars of this approach critique the material implications of the seventeenth-century Cartesian separation of intelligibility and materiality, knowing subject and the physical world, and its contemporary classical or Newtonian physics in which observation reveals 'preexisting properties of an observation-independent reality' (Barad 2007, 97). Instead, Barad seeks to clarify the nature of the causal relationship between discursive practices and material phenomena. For new materialists, such approaches request a rethink concerning causation, resonating with physics in particular, in order to understand dynamic physical systems, but also has implications in the treatment of biological organisms and their relationship to other aspects of their material environment (Coole and Frost 2010, 15).

Meanwhile, causality of illness has long been pivotal in medical anthropology and, drawing on the work of its frequent bedfellows – the anthropology of magic and religion, it has striven to diversify from purely biomedical reasoning. Therefore, when Christopher Davis (2000, 245) avoids asking, 'What do they mean by that?' and instead, 'What would the world have to be in order for this to be so?' she opens up many possibilities:

> illness, like the life of which it is a part, is a whole, though multifaceted, experience consisting of several distinct but tightly interwoven levels or domains: the physiological, the social and the metaphysical. Significant disturbance in one means a corresponding disturbance in another; and inversely, restoring the balance in one can mean restoration in all.
>
> (Davis 2000, 34)

I find Davis's work among the Congolese Tabwa resonates with that of New Materialists, and I have found it particularly helpful when seeking to better understand the causative connections between people, places and the emergent qualities of materials. She illustrates how an investigation into materials can lead us deeply into local understandings of the literal capacities of the world. Influenced by medical terminology surrounding the undissected body, Davis (2000, 246) identifies a certain kind of unity between 'the material' and 'the meaningful' at the level of substance itself; she calls this the 'logic of the substantial world'. This refers to the relationship between certain people, places and materials united by shared underlying principles which govern the physics of physiology and transformations in the material world, principles 'emerging from associative detail' or points or places where hidden meanings or processes have been temporarily revealed (2000, 58). As a result, things of the substantial world are used together in rituals and can become embedded in medical terminology.

The need to utilize and manipulate principles governing physiology and materials, wherever they are recognized, evidently rests as much on local knowledge of the materials as it does physiological states. For example, the Mun know that earth, certain soils and even cattle dung, particularly when moist or watery, can be dangerous to certain people at certain times. A case in point is the young woman I knew who came to me heavily pregnant to ask for my only cooking pot. She explained, rather convincingly, that she could not make herself a new little stewing pot, because 'you don't mould *dirr*', a certain clay, while pregnant; after handing this soil if you go near water, even while mixing water with the mud, something in the water called *kidho* will say '*Ai!*' and you will die. Persisting, I asked if her mother could make her a pot, but she explained patiently that her mother doesn't mould clay either, because she is a healer (*ngerrê*); should a healer mould clay, she cannot then treat patients without the risk that they too will be 'hit' by *kidho*. Similarly, those with open wounds, including after giving birth, avoid places and people associated with moist earth. Despite the pressing need following a machete accident to the leg, a man would not return to his flood-retreat cultivation site, concerned that *kidho* might strike at a time of year where a healer could not treat him, since they too were all cultivating their fields and therefore unable to handle patients.

In fact, healers *do* treat patients while cultivating their fields, but they first needed to apply dung along a patient's forehead and up along the crest of their head, down the centre of the face, and down the chest between the breast plates; dung 'cleanses' the hands of the healer, and deters *kidho* from hitting a patient. Smell here is particularly relevant, since *kidho* is known to be attracted or deterred by certain smells. Therefore, anyone with an open wound who cannot avoid watery sites and substances must take precautions to hide or remove the smell. For instance, after giving birth the vulva of a cow is smeared with cold ash from the fire. Likewise, after eating meat – purported to smell similar to an open wound – and before visiting the water, people first cleanse with dung and ash, coating the mouth, chin and often the shoulders with dung topped with ash. Soap is known to work in much the same way, but the Mun save what little soap they have for washing cloth.

However, in healing rites the main substance used is clay, with several types and sources of different potency and relevance to different communities. On such occasions, clays and the techniques of application are used to gather or collect the body (*mugê rrê*), drawing on the verb *muga*, 'to collect together' (Turton et al. 2008, 132). As I was told by a priest at a communal healing ceremony, 'With clay the body is collected'; but how is the body collected and what hidden meanings or processes are temporarily revealed to justify the communal applications of clay? A helpful construal rests in the very permeability of the body interface, where the fluid boundary leaves people vulnerable to being 'hit' by affliction or to things entering the body – as earth and wood – through ill-wishers, but which also allows people to chase away affliction when earthy substances such as clays are 'eaten' by direct application to the skin. Herein lies the centrality of disequilibrium and indeterminacy, both at the level of the individual body and at the community level of humans and non-humans, in which 'marginality in biosocial becomings' produces changes and differences in almost imperceptible ways (Mangiameli 2013, 148–9).

Such a space for controlled disequilibrium and ambiguity is created at a ceremony called 'rounding up the cattle' (*bio lama*), which ultimately seeks to collect and strengthen people and cattle and send affliction back into the ground. During the first three days everyone zealously approached the priest, who applied 'grey' clay to their face, arms and chest each, morning and evening, and on the fourth day

'white' clay was applied to 'wash' the body so that affliction would be 'finished' (Fig. 6.3). Affliction is said to be afraid of clay, and yet in order to further understand the use of grey clay, it is necessary to appreciate the association between grey and black with dirt and indeterminacy, something that remains ethnographically very consistent from many corners of the world: understood in this way, 'eating' grey clay for three days, morning and evening, is a matter of displacement, where disease flees the inhospitable conditions. In a somewhat similar vein, Wendy James (1988, 8) describes Uduk rituals in Sudan close to the border with Ethiopia, in which the 'hair of the dog' principle is central, so that the patient is treated with the very substance that made her sick, on the assumption that what is 'required' is controlled protective acclimatization; she likens this 'homeopathic' approach to the modern principle of vaccination, which likewise provides protective acclimatization. Similarly, in several of the collective healing ceremonies in which I participated, the use of clays left me with the impression of a mass inoculation (Fayers-Kerr 2012, 252). Those who live together in the same local group (*buran*), or along the same

Fig. 6.3 Children and other participants 'washed' with white clay on the final day of the bio lama, Ulumholi, July 2010.
Photo: Kate Fayers-Kerr

stretch of the Omo River, must 'eat' clay together, with the aim that the community continually and gradually relate through and with the properties of the substances around them.

In these mundane and ritual contexts, the colloquy between people, afflictions and the emergent qualities of materials provides a window into underlying workings, whose nature might be human, non-human, biotic or abiotic, but into which a Spinoza-esque encounter-prone conative body (see Bennett 2010, 21) seeks to integrate in order to live healthily. Although the Mun are keenly aware that the outcome of this endeavour is not assured, they strive to engage in this logic of the substantial world, they strive towards 'becoming consubstantial'.

Becoming consubstantial

Beyond humans and non-humans, Whitehead (1926) held that agency and creativeness are characterized by ensembles of interlaced entities and potentially more complex or adaptive systems; as the New Materialists put it, in the dynamics of material becomings there are 'bodies composing their natural environment in ways that are corporeally meaningful for them' (Coole and Frost 2010, 10). From the perspective of medical anthropology, too, Hsu's (1999, 2007, 2009) notion of the *body ecologic* explores the concerns people carry in their interaction with the environment, and how such intimacies between the body and the environment stem from a potential consubstantiality between them, and which become prevalent in many 'medicines' and body concepts.

This is seen in local ways of discussing body painting, revealing an awareness for the fluidity between 'eating', 'living', 'body painting' and 'dwelling'. For instance, people often discuss the act of applying clay to another or to oneself, as 'eating' clay, and the same word is used to describe 'eating' (*bhaga*/*ama*) clays and 'eating' food, albeit one through the skin and one through ingestion. The word *bhaga* can be unpacked even further when used to ask the question 'Where do you eat?', which more literally means 'Where do you live?'; if one lives in a place called Elisay, the answer might be, 'I eat Elisay' – not 'I live in Elisay' – just as one might say 'I eat meat'. 'To eat', in this way, alludes to a wider awareness of the potential for fluency between persons,

substances and place. This sense of blurring of experiences of 'eating clay' and 'eating where one lives' initially inspired my investigation into the processes of becoming consubstantial with the material of a place, which is an integral part of becoming a community of substance. However, the absorption and transference of energy captured by the idea of consumption is also compatible with local concepts of bodiliness and personhood, which are inseparable from the notion of permeability between other people, places and experiences of the environment. Take the very word 'body' or *rrê* (Turton et al. 2008, 153), which also summons the notions of the self; as Lienhardt (1985, 78) found this among the Dinka, 'I body' and 'I myself' or 'yourself' and 'your body' can be used interchangeably. Eczet (2013) elaborates upon this in his exploration of the verb *reg'e*, derived from 'body', which he translates as 'appropriating' and 'incorporating' in order to express the existential condition of 'being' through the things, people and experiences a person encounters during their life. Persons are understood as the sum of their sensory and material engagements with their social and environmental contexts.

The potential for consubstantiality also emerges from the association between *e'wu*, best defined as the custodians, owners or autochthons of a place, and a history of having survived the threats associated with living there. Here, the politics of belonging cannot be understood without an appreciation for the local insight into the complex network of interrelationships between persons, substances, place and well-being. As we have encountered already, certain places or journeys can leave a trace on a person and on a community based on the inescapable necessity to interact intimately with one's surroundings. The trace left by a place can hark back to an ancestral settler, who was able to survive the dangers of arriving in a new and unfamiliar place. In such cases, their decedents are often still recognised as custodians of that place, in possession of a certain authority or ability to enter into dialogue with the powers associated with that place. Such places, often referred to as 'shrines' in the anthropology of Africa, are frequently seen as sites where hidden meanings or processes have been temporarily revealed, to recall the work of Davis (2000, 58). Put another way, these have become 'hot-spots' in the landscape, as Murray Last (2010, 2011) discusses in relation to the Hausa of Nigeria, where spirits and sicknesses lurk dynamically in damp forested places,

which can either serve the locals or strike outsiders who are not habituated to living amongst its challenges, taking on an aggressive quality that keep people away for fear of illness. So too among the Mun, for non-custodians certain hot-spots can 'hit' and even kill you, while simultaneously holding a potency which custodians can tap into. Places where life has been known to triumph frequently become such hot-spots, shrines or sacred places. Likewise, among the Ghanaian Kasena, while any tree has the potential to become sacred, a sacred tree is one that has thrived in a hostile environment; as Gaetano Mangiameli (2013, 156) explains:

> Behind the sacralization of trees there is neither a merely biological understanding of species, in essentialist terms, nor any kind of superorganic cultural project superimposed upon material reality, but a process that involves both form and substance.

So too for the Mun, sacred groves (*baddi*) are places at which old trees, dating back to the time of the ancestral crossing of the Omo River, have flourished; they now serve as portals at which various custodians hold ceremonies known as 'attuning the land' take place. Only those families who have a history of flourishing in an area – namely the *e'wu* of these places – are able to conduct 'attuning' ceremonies at these trees and are therefore held ritually responsible for the well-being of all the others who live nearby. For custodians, these ancestral places become tightly interwoven with one's bodily fabric. This is implicit in various local expressions; for example, just as one 'eats' the place where one lives, so too whenever someone sneezes, a by-stander calls out the name of one's ancestral place, much as we might say 'bless you'.

In fact, among the Mun it is known that the substances of certain 'hot-spots', such as ancestral clay-pits, come to recognise custodians. However, even custodians have to renew their affinity with these places, because if one does not regularly commune with the ancestral clays at these sites, they may fail to recognise you. Here, remaining an elite subcommunity of substance is an ongoing process for *e'wu* families, where affinity with materials of place needs to be renewed regularly. This became apparent when a young man took me to visit his ancestral clays. In his eagerness to show me how well prepared he was for our adventure, he touched a small pouch hanging from his

cloth and told me that inside was some black clay he (or one of his relatives) had collected on a previous year's visit. He explained that he had brought it with him just in case the clay in the river bed did not 'recognise' him as a custodian and therefore 'hit' him with affliction. Fully aware of the potential for a turbulent encounter with this potent place, which he had not visited for some time, he also realised that 'partners do not precede their relating', as Haraway (2008, 17) nicely sums up, inspired by Barad's notion of intra-actions. Even though he was from a family with a long relationship with the substance of this place, he had prepared himself in order to enhance the felicity of his visit by seeking an alliance with the substance of place, striving to cultivate a positive responsiveness.

Initially, I thought that such efforts to manipulate the relating between people and the earthy substances of place, and the associated political narrative of *e'wu* or 'autochthons', would resonate with recent anthropological discussions of autochthony in Africa. However, this literature approaches the frequent stories of having 'sprung from the earth' or emerging from the places they now inhabit, as metaphorical and misleading, since they seem to contradict a history of dynamic population movement (Dove and Carpenter 2008; Geschiere 2009; Lentz 2013). Despite the numerous local allusions to communities of the earth collected from across Africa, the literature has not produced much discourse about the potential of soil or earth as a vital material in human–non-human dynamics. Instead of acknowledging that the locus of political responsibility need not start from humans, as Jane Bennett (2010) has suggested in *Vibrant Matter: a Political Ecology of Things*, autochthony in Africa has largely been explored as the uniquely human politics of belonging, ethnicity and power over resources. How can we rather avoid privileging 'human efforts even when acknowledging the presence of other kinds of conative bodies' (Bennett 2010, 102)?

Becoming a community of substance

In this inquiry into the Mun pursuit to enhance their health through the process of 'becoming with' (Haraway 2008) by body painting with earthy and clays at certain places and times, I have found the anthropology of microbes more revealing than the anthropology of

autochthony. Starting with the field of medical geology, for example, which shares in the Mun appreciation for the huge therapeutic potential of clays, this fledgling scientific research into bactericidal mechanisms demonstrated by natural clays reveals just how complex the dialogue is between microbes and the materials themselves. Even apparently similar clays can have different therapeutic outcomes (cf. Williams et al. 2011; Londono and Williams 2016), lending further empirical weight to motivation behind the Mun going out of their way to gather some clays over others. Mun techniques for the preparation and use of clays also impacts the confederacy against lurking afflictions, for it is only when certain clays are hydrated at temperatures in the range of body temperature that they become antibacterial, with texture also being more impacting the use of clays as a physical bactericide (Haydel et al. 2008; Williams et al. 2009). The Mun would certainly not be surprised to hear of these findings, although their respect for antibiotic medication would likely make it a revelation to learn that medical geology sees mineral-based antibacterial agents as an alternative to traditional antibiotics in the face of growing antibiotic resistance (Morrison et al. 2014).

Throughout this chapter I have stressed how this community of substance is continually provoked into existence by the inescapable confluence between people and the substance of place. Likewise, examinations of communities of microbes reveal just how interlaced the human microbial community is with a localized environmental microbiota, with transient as well as permanent bacterial members of this community hinting at the dynamic interactions with specific environments (Von Hertzen et al. 2011). There are not only microbial similarities among human families, but also different microbiological heritage between people from different geographical locations (Benezra et al. 2012, 6378), opening up the potential for what Heather Paxson (2008) refers to the 'microbiopolitics' that can emerge around the ambiguous potential of microbes to harm some people as well as enhancing others. In much the same way, the Mun acknowledge that certain clays will overpower one person and aid another. Just as the process of becoming a community of microbes involves a diverse flux of only partially understood ways of relating, becoming a community of substance is an ongoing process of congregating potentially confederate encounter-prone materials.

References

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC and London: Duke University Press.

Bender, B. 1993. 'Introduction: Landscape – meaning and action', in *Landscape: Politics and Perspectives*, ed. B. Bender. Oxford: Berg, pp. 1–17.

Bender, B. 2001. 'Introduction', in *Contested Landscapes: Movement, Exile and Place*, eds B. Bender and M. Winer. Oxford: Berg, pp. 1–18.

Benezra, A., DeStefano, J., and Gordon, J.I. 2012. 'Anthropology of microbes', *Proceedings of the National Academy of Sciences of the United States of America* 109(17), 6378–81.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Brady, N. C. 1990. *The Nature and Properties of Soils* (10th edn). New York, NY: Macmillan.

Carsten, J. 1995. 'The substance of kinship and the heat of the hearth: Feeding, personhood, and relatedness among Malays in Pulau Langkawi', *American Ethnologist* 22(2), 223–41.

Carsten, J. (ed.) 2000. *Cultures of Relatedness: New Approaches to the Study of Kinship*. Cambridge: Cambridge University Press.

Coole, D., and Frost, S. 2010. 'Introducing the New Materialisms', in *New Materialisms: Ontology, Agency, and Politics*, eds D. Coole and S. Frost. Durham, NC and London: Duke University Press, pp. 1–43.

Csordas, T. J. 1999. 'The body's career in anthropology', in *Anthropological Theory Today*, ed. H. L. Moore. Cambridge: Polity Press, pp. 172–205.

Davis, C. O. 2000. *Death in Abeyance: Illness and Therapy Among the Tabwa of Central Africa*. Edinburgh: Edinburgh University Press.

Descola, P. 2010. Preface, in *Soil and Culture*, eds C. Feller and E. Landa. Dordrecht and London: Springer, pp. xiii–xv.

Dove, M. R., and Carpenter, C. 2008. *Environmental Anthropology: A Historical Reader*. Oxford: Blackwell Publishing.

Eczet, J.-B. 2013. 'Humains et bovins en pays Mursi (Ethiopie): registres sensibles et processus de socialité' (unpublished Ph.D. École doctorale de l'École pratique des hautes études, Paris).

Empson, R. 2011. *Harnessing Fortune: Personhood, Memory and Place in Northeast Mongolia*. Oxford: Oxford University Press.

Evans-Pritchard, E. E. 1940. *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*. Oxford: Clarendon Press.

Evans-Pritchard, E. E. 1956. *Nuer Religion*. Oxford: Oxford University Press.

Ewart, E. 2007. 'Black paint, red paint and a wristwatch: The aesthetics of modernity among the Panará in Central Brazil', in *Body Arts and Modernity*, eds E. Ewart and M. O'Hanlon. Wantage: Sean Kingston, pp. 36–52.

Faris, J. 1972. *Nuba Personal Art*. London: Duckworth.

Fayers-Kerr, K. N. 2012. 'The "Miranda" and the "Cultural Archive": From Mun (Mursi) lip-plates, to body painting and back again', *Paideuma* 58, 245–59.

Fleming, J. 2001. *Graffiti and the Writing Arts of Early Modern England*. Philadelphia, PA: University of Pennsylvania Press.

Foucault, M. 1986. *The History of Sexuality* 3: *The Care of the Self*. New York, NY: Pantheon Books.

Geschiere, P. 2009. *The Perils of Belonging: Autochthony, Citizenship, and Exclusion in Africa and Europe*. Chicago, IL: University of Chicago Press.

Ginn, F., Beisel, U., and Barua, M. 2014. 'Flourishing with awkward creatures: Togetherness, vulnerability, killing', *Environmental Humanities* 4, 113–23.

Gosden, C. 1999. *Anthropology and Archaeology: A Changing Relationship*. London and New York, NY: Routledge.

Griaule, M. 1938. *Jeux Dogons*. Paris: Institut d'Ethnologie.

Haraway, D. J. 2008. *When Species Meet*. Minneapolis, MN: University of Minnesota Press.

Haydel, S. E., Remenih, C. M., and Williams, L. B. 2008. 'Broad-spectrum in vitro antibacterial activities of clay minerals against antibiotic-susceptible and antibiotic-resistant Bacterial Pathogens', *Journal of Antimicrobial Chemotherapy*, 61(2), 353–61.

Hirsch, E. 1995. 'Introduction: Landscape. Between place and space', in *The Anthropology Of Landscape*, eds E. Hisch and M. O'Hanlon. Oxford: Clarendon Press, pp. 1–23.

Hsu, E. 1999. *The Transmission of Chinese Medicine*. Cambridge: Cambridge University Press.

Hsu, E. 2007. 'The biological in the culture: The five agents and the body ecologic in Chinese medicine', in *Holistic Anthropology:*

Emergence and Convergence, eds D. Parkin and S. Ulijaszek. New York, NY and Oxford: Berghahn, pp. 91–126.

Hsu, E. 2008. 'Medical landscapes', *International Encyclopedia of Public Health* 4, 316–21.

Hsu, E. 2009. 'Experiences of personhood, health and disease in China: Some reflections', *Cambridge Anthropology* 29, 69–84.

Humphrey, C. 1995. 'Chiefly and shamanistic landscapes in Mongolia', in *The Anthropology of Landscape*, eds E. Hirsch and M. O'Hanlon. Oxford: Clarendon Press, pp. 135–62.

Hutchinson, S. E. 1996. *Nuer Dilemmas: Coping with Money, War, and the State*. Berkeley, CA and London: University of California Press.

Ingold, T. 2000. *The Perceptions of the Environment: Essays in Livelihood, Dwelling and Skill*. Oxford: Routledge.

Ingold, T. 2007. 'Materials against materiality', *Archaeological Dialogues* 14, 1–16.

Ingold, T. 2012. 'Toward an ecology of materials', *Annual Review of Anthropology* 41, 427–42.

James, W. 1988. *The Listening Ebony: Moral Knowledge, Religion, and Power among the Uduk of Sudan*. New York, NY: Oxford University Press.

Last, M. 2010. 'Ancient labels and categories: Exploring the "onomastics" of Kano', in *Being and Becoming Hausa*, eds A. Haour and B. Rossi. Leiden: Brill, pp. 59–84.

Last, M. 2011. 'Another geography: Risks to health as perceived in a deep-rural environment in Hausaland', *Anthropology and Medicine* 18, 217–29

Leach, J. 2004. *Creative Land: Place and Procreation on the Rai Coast of Papua New Guinea*. New York, NY and Oxford: Berghahn Books.

Lentz, C. 2013. *Land, Mobility, and Belonging in West Africa*. Bloomington, IN: Indiana University Press.

Lévi-Strauss, C. 1963. *Structural Anthropology*, trans. C. Jacobson and B. Grundfest Schoepf. New York, NY: Doubleday Anchor Books.

Lienhardt, G. 1961. *Divinity and Experience: The Religion of the Dinka*. Oxford: Clarendon Press.

Lienhardt, G. 1985. 'Self: Public, private. Some African representations', in *The Category of the Person: Anthropology, Philosophy, History*, eds M. Carrithers, R. O. Collins and S. Lukes. Cambridge: Cambridge University Press, pp. 141–55.

Londono, S. C., and Williams, L. B. 2016. 'Unraveling the antibacterial mode of action of a clay from the Colombian Amazon', *Environmental Geochemistry and Health* 38(2), 363–79.

Mangiameli, G. 2013. 'The habits of water: Marginality and the sacralization of non-humans in North-Eastern Ghana', in *Biosocial Becomings: Integrating Social and Biological Anthropology*, eds T. Ingold and G. Palsson. Cambridge: Cambridge University Press, pp. 145–61.

Morrison, K. D., Underwood, J., Metge, D., Eberl, D., and Williams, L. 2014. 'Mineralogical variables that control the antibacterial effectiveness of a natural clay deposit', *Environmental Geochemistry and Health* 36(4), 613–31.

Ngubane, H. 1977. *Body and Mind in Zulu Medicine: An Ethnography of Health and Disease in Nyuswa-Zulu Thought and Practice*. London: Academic Press.

O'Hanlon, M. 1992. 'Unstable images and second skins: Artefacts, exegesis and assessments in the New Guinea highlands', *Man* 27, 587–608.

O'Hanlon, M. 2007. 'Body arts and modernity: An introduction', in *Body Arts and Modernity*, eds E. Ewart and M. O'Hanlon. Wantage: Sean Kingston, pp. 1–17.

Paxson, H. 2008. 'Post-pasteurian cultures: The microbiopolitics of raw-milk cheese in the United States', *Cultural Anthropology* 23(1), 15–47.

Porteous, J. D. 1986. 'Bodyscape: The body–landscape metaphor', *Canadian Geographer/Le Géographe Canadien* 30, 2–12.

Roberts, L. 2005. 'The death of the sensuous chemist: The 'New' Chemistry and the transformation of the sensuous technology', in *Empire of the Senses: The Sensual Culture Reader*, ed. D. Howes. Oxford: Berg, pp. 106–27.

Scheper-Hughes, N., and Lock, M. 1987. 'The mindful body: A prolegomenon to future work in medical anthropology', *Medical Anthropology Quarterly* 1, 6–41.

Schildkrout, E. 2004. 'Inscribing the body', *Annual Review of Anthropology* 33, 319–44.

Strathern, A., and Strathern, M. 1971. *Self-Decoration in Mount Hagen*. London: Duckworth.

Tilley, C. 1994. *A Phenomenology of Landscape: Places, Paths and Monuments*. Oxford: Berg.

Trubek, A. B. 2008. *The Taste of Place: A Cultural Journey into Terroir*. London: University of California Press.

Turner, T. 1980. 'The social skin', in *Not Work Alone: A Cross-Cultural View of Activities Superfluous to Survival*, eds J. Cherfas and R. Lewin. London: Temple Smith, pp. 112–40.

Turton, D., Yigezu, M., and Olibui, O. 2008. *Mursi–English–Amharic Dictionary*. Addis Ababa: Culture and Arts Society of Ethiopia (Case) and Ermias Advertising.

Vilaça, A. 2005. 'Chronically unstable bodies: Reflections on Amazonian corporalities', *Journal of the Royal Anthropological Institute* 11, 445–64.

Viveiros de Castro, E. B. 1998. 'Cosmological deixis and Amerindian perspectivism', *Journal of the Royal Anthropological Institute* 4, 469–88.

van Gennep, A. 1960. *The Rites of Passage*. London: Routledge & Kegan Paul.

Von Hertzen, L., Hanski, I., and Haahtela, T. 2011. 'Natural immunity: Biodiversity loss and inflammatory diseases are two global megatrends that might be related', *EMBO Reports* 12(11), 1089–93.

Williams, L. B., Haydel, S. E., and Ferrell, R. E. 2009. 'Bentonite, bandaids, and borborygmi', *Elements* 5, 99–104.

Williams, L. B., et al. 2011. 'What makes a natural clay antibacterial?', *Environmental Science and Technology* 45, 3768–73.

Whitehead, A. N. 1926. *Science and the Modern World*. New York, NY: Free Press.

Notes

1. Scholars of Melanesian art have similarly noted the misfit between the 'richness and evident significance of the art' and the poverty of 'indigenous exegesis' (O'Hanlon 1992, 587). Reflecting on body decoration among the Wahgi of Papua New Guinea, O'Hanlon (1992, 590) emphasizes that indigenous exegesis must also include 'assessment' which is informed by the practice and the materials.
2. Likewise Marcel Griaule (1938, 2) comments: 'A revolution can destroy cathedrals, but one cannot see how it will deter children from playing with marbles', an observation that reminds Ramon Sarró (2008, 191) that even such marginal pursuits as child's play can generate and transmit potent religious notions or practices.

3. Many anthropologists have observed the persistence with which the notion of 'landscape' retains aspects of its original usage as a genre of European painting, designating something viewed from a distance (Bender 1993; Tilley 1994; Hirsch 1995; Humphrey 1995; Bender 2001; Leach 2004; Hsu 2008; Empson 2011). However, as Tilley (1994) and Bender (2001) have stressed, actions create places, which are always in a process of construction; Humphrey (1995, 135, in Empson 2011, 239) has also emphasized that it is not contemplation but interaction with the land that 'energizes' people, giving rise to many references to 'spirits' of the land.

7 THE RESUSCITATION OF THE TWICE-HANGED MAN

Miracles and the Body in Medieval Swansea

Harriett Webster

Introduction

> The medieval body is 'simultaneously foregrounded and made invisible; the gaze slides off it rapidly on to whatever signification it carries'.
>
> (Harris and Robb 2013, 132)

In this chapter I argue that bodies mattered a great deal in the world of medieval miracles. Indeed, it was the very matter, or materiality (cf. Boivin 2008, 26), of the body itself in which the vast majority of medieval miracles actually took place (Vauchez 2005, 466) and where measurements for miraculous behaviour were established. Elsewhere in this volume, the connection between the body of a saint and miracles is explored by Janet Burton, but this chapter is primarily concerned with ordinary human bodies as the site of miracle cures and how the fleshy nature of form presented a material stage for the supernatural to be both visible and enacted. It will also examine the phenomenon of objects acting as proxies for the human body in the curative process. In both cases it was believed that the matter of the body or proxy could not have agency (or become vital, cf. Bennett 2010) until it was endowed with 'form'; achieved either through the presence of the soul or by fashioning matter (e.g. wax) into a physical shape, a concept which will be discussed in greater depth below. In doing so, this chapter demonstrates how the world of materials, particularly the human body, was used to validate the immaterial, focusing specifically on notions of the separation of human flesh from the soul, which underpins deeply rooted ideas that separate people as matter from the material world.

Saintly matters

> Saintly bodies bridge the gap between normal people and Christ, and could therefore act as intermediaries with a kind of delegated power to work miracles. The power of God worked through the saint because the saint's soul (and by implication, body) was pure. (Robb and Harris, 2013, 134)

From the thirteenth century onwards in western Christendom, direct contact with a saint's 'matter', be it relic, shrine or tomb, became less important in the working of miracles: it was no longer necessary for suppliants to physically engage with the corpse to request a cure. For example, at the tomb of St Menulphus in the parish church of Saint-Menoux, France individuals were expected to insert their heads into specially made holes in the side of tombs to request a cerebral cure (Crook 2011, 220–6, 239). Throughout the thirteenth and fourteenth centuries, miracles increasingly occurred at a distance from shines; rather than a speculative act intended to attract the attention of a saint in the hope of a miraculous intervention, the recipient visited the tomb *after* a miracle in order to give thanks (Vauchez 2005, 446). The particular miracle at the centre of this chapter's discussion is a resurrection miracle said to have occurred in the body of one William Cragh and attributed to Thomas Cantilupe. Resurrection miracles had been relatively rare up until the thirteenth century, since transporting a corpse to the tomb or shrine of the chosen intercessor would have been precarious, dangerous and slow. However, as the shift towards 'distance' miracles increased in the later thirteenth and fourteenth centuries, the number of recorded cases of resurrections increased, until they comprised around 10 per cent of all miracles in the fourteenth century (Vauchez, 2005, 467).

Scholars have traditionally looked to surviving documentary evidence related to saints and their cults as its 'thick description' (Geertz 1973) allows for an examination of medieval medical knowledge and insights into the lesser heard voices and 'popular' attitudes of the day (Goodich 2006, 6; Smoller 2011, 774). Although the thirteenth century marked the beginning of an increasingly literate and documentary-based society (Clanchy 2012), this phenomenon did not extend to all echelons of society and the voice of the ordinary person can be

obscured. However, miracle collections and hagiographical texts frequently contain the reports of ordinary people and these are often used as in entry into the social and cultural norms of communities and 'lesser folk' in particular (Yarrow 2006; Goodich 2007, 4). From the beginning of the thirteenth century, the papacy had been increasingly involved in selecting and officially recognizing saints,[1] which gave rise to a further set of documents through which we can glimpse 'ordinary lives': the trial transcripts produced by the papal inquisition.

There are two important extant works relating to the medieval saint Thomas Cantilupe (bishop of Hereford 1275–82): a miracle collection maintained at the site of his tomb in Hereford Cathedral (Oxford, Exeter College MS 158, folios 18v–19r), and an almost complete dossier produced in stages by the inquisition as part of his canonization proceedings.[2] Scholars have already begun using these to investigate socio-cultural concerns such as family relations, parental neglect, and the distance between official canonization and the popularist creation of a saint's cult (Finucane 2006; Goodich 2006; Ridyard and Ashby 2015). What they have not yet explored is the materiality of the bodies in which miracle cures were said to have happened, specifically the properties of the matter of the body (cf. Boivin 2008, 26; Ingold 2013, 27). Focusing on the physical changes evident in a body at death allows us to further explore the tensions and concerns involved in proving such miracles had indeed occurred, as well as the differences in elite and popular beliefs on the subject. Furthermore, miracles are also key to exploring medieval beliefs in the materiality and agency of the objects (cf. Bennett 2010) that acted as proxies for the bodies in which the miracles occurred. This chapter addresses these material aspects of medieval belief.

The miracle of William the 'Scabby'

One such miracle is that attested materially through the body of William Cragh, or William the 'Scabby', a well-known figure in medieval Swansea: to some a hero of the ongoing Welsh rebellions again Edward I; to others a criminal, guilty of contributing to the deaths of thirteen men during his participation in an attack on the nearby Oystermouth Castle. He was captured by the Anglo-Norman lord of the region, William de Briouze, and sentenced to be hanged for his

crimes. On the day of the hanging itself, William was led to the gallows and hanged alongside one of his partners in crime Trahaearn ap Hywel: the crossbeam snapped, and both men had to be hanged for a second time to ensure that they were 'truly' dead. After William was cut down from the gibbet, he was taken to the house of a local burgess, Thomas Mathews, where he was laid out, apparently dead. Accounts of what happened next vary between the surviving witness testimonies, but in essence within a couple of days William had returned to life, claiming that Thomas Cantilupe had been the cause of his miraculous recovery. Almost two decades later, nine witnesses were questioned in London and Hereford by representatives of the papal inquisition about what they remembered about the miracle: Mary de Briouze, wife of the lord of Gower; William de Broase Jr, her stepson; William of Codineston, their family chaplain; William Cragh, the hanged man himself; Thomas Marshall, a local priest; John of Baggeham, seneschal of Swansea Castle; and Henry Skinner, Adam of Loughor, and John ap Hywel, all local men.

Before examining their depositions in detail, a comment must be made concerning the trial records in which the memories of nine witnesses are recorded. A formalized system for investigating the so-called miracles of a putative saint had been created as part of the papacy's control of the creation of new saints, which was carried out by a group of papally-assigned commissioners of the inquisition. Thomas Cantilupe's proceedings are amongst the earliest and most complete records of this type that survive from the Middle Ages: we have both the interrogatory questions and the responses from each of the witnesses to Cragh's miracle. Although it may at first seem that we are hearing the voices of the ordinary folk of Swansea, what the rigorous structuring of the interrogatory does not allow for is a naturalized account from the witnesses themselves, many of whom would be considered subaltern, owing to the interference of the questioners (Bartlett 2004). Despite this, the interrogatory itself is invaluable as a resource demonstrating an elite perspective of what constitutes a miracle, and what had to have happened to and in the body of William Cragh for his resuscitation to be considered truly miraculous, as it was the learned of society who both compiled and asked the questions. In the Middle Ages it is difficult to define exactly what we mean by 'elite', however, as there are a number of intersecting belief systems with tensions between them. First, there is the scholastic theological

understanding emerging from the schools and nascent universities, embodied in the work of individuals such as Aquinas (Bartlett 2008, 8–9) the 'archetypal thirteenth century theologian' (Finucane 1995, 51), representing a mixture of contemporary medical and philosophical knowledge (cf. Harris and Robb 2013, 138–40). To this we must also add a traditional clerical understanding based upon biblical and hagiographical precedents (Goodich 2007, 85).

In particular, the interrogatories reflect a number of characteristics of elite culture and belief systems surrounding miracles from the second half of the thirteenth century. The universities, especially Paris, with its particular focus on theology, were driving towards improving definitions and explanations of theological matters. The phenomenon of the miracle was high on the agenda, with scholars such as Aquinas beginning to amend traditional Augustinian definitions, the effects of which can be seen in the wording of the questions given above. The concept of miracles being 'above' or 'against' nature reflects the threefold definition coming out of the universities. In a movement away from the Augustinian concept of the miracle as being the acceleration of nature, Aquinas viewed miracles as a suspension of nature's normal processes (Goodich 2007, 21): miracles could be *supra* (above), *contra* (against) or *praetor* (apart from) nature. There were commonly known biblical examples of each form of miracle: the transfiguration and resurrection were *supra naturam*; the Virgin conception and the parting of the Red Sea were *contra naturam*; and turning water into wine was *praeter naturam* (Vauchez 2005, 497).[3] The use of such a lexicon to categorize the miraculous in trial settings indicates a wider dissemination of these ideas, and the possible future adoption of these concepts by the subaltern, as well as the elite.

The work of Aquinas (who was himself canonized in 1323) did not stop at definitions of miracles, but also included treatises on the body and nature of humanity that are of fundamental importance for understanding medieval notions of what a body actually was as a material being. He reasoned that the body could not be 'human' without the presence of the soul because the soul is the 'form' which turns the 'matter' of the body into a human being (Aquinas, *De principiis naturae*; cf. Harris and Robb 2013, 136–7). This is because human beings were believed to be 'composed substances', made from a balancing of matter and form – the physical body and the soul. A body cannot be fully

human without the presence of the soul because 'matter alone is not the substance of the real thing' (Aquinas, *De ente et essentia*, 14, 15). Form, in this case the soul, is the actuality of matter, and through form, 'matter becomes something actual and something individual' (Aquinas, *De ente et essentia*, 18) – that is, an individual human being. 'Since humanity is not some third form in addition to soul and body, but is composed of both, we see clearly that, if the same body is restored and if the same soul remains, the humanity will be numerically the same' (Aquinas, *Compendium*, ch. 154) – as must have occurred in Cragh's miracle, for he was the same man once he was restored to life, albeit as a reformed character. 'The form is an act, and matter is only in potentiality' (Aquinas, *Summa Theologica*, Q. 76, Art. 1): in the context of miracles, matter itself has no agency until it is given form.

Testing miracles and the materiality of death

To return to resuscitation miracles and the body of William Cragh, to the medieval mind death occurred the moment the soul left the body (Daniell 2005, 1); the human ceases to be – it is dead in respect of the 'natural order' of things because the form/soul has left the matter of the body. Following this, 'since all the senses and all the members of man corrupt in death, a dead man cannot be brought back to life except by divine action': that is, a miracle (Aquinas, *Compendium*, ch. 154). According to Aquinas, living things are referred to as animate – that is, endowed with a soul.[4] What separated animals from humans was the additional quality of divinely bestowed rational thought. Together, these qualities of the human soul provided the two proofs that the matter of a human body was living – movement and knowledge, dualistic notions that in later Cartesian schools of thought separate the rational mind from the matter of the body (Harris, Robb and Tarlow 2013, 171–2). As we come to a knowledge of the world through our senses – a notion reflected in modern theories of phenomenology (Csordas 1994) – Aquinas argued (following Plato), that sensing, 'just as understanding, belongs to the soul' (Aquinas, *Summa Theologica*, Q. 75, Art. 3). Therefore, when the soul departed the matter of the body, the latter was left motionless and senseless, a state from which only God could 'cure those who are incurable from the standpoint of natural causality' (Aquinas, *Compendium*, ch. 136).

By the early fourteenth century, the theory behind miracles and the tests needed to ensure that their veracity had been established. The commissioners appointed by Rome to investigate miracles were trained theologians and lawyers, coming out of the university system, and therefore had some understanding of the scholastic interpretation of miracles and methods of testing them (Goodich 2007, 26). In Thomas Cantilupe's case, all three commissioners were university-trained and known personally to the pope: William Durand II was a distinguished canonist, and had been rector of the University of Toulouse before succeeding his uncle as bishop of Mende in southern France (he later went on to lead the investigation into the Knights Templar);[5] William de Testa was archdeacon of Aran and papal nuncio to England, tasked with several duties in addition to the canonization inquiry; and Ralph Baldock, Bishop of London was also Chancellor to Edward I (Bartlett 2004, 16–21). Similarly, the notaries knew how to present a miracle in written form and hagiographers of the later Middle Ages even began using dossiers like Cantilupe's to create their *Vitae* or saint's lives (Goodich, 2007, 26).

The questions put to the Swansea witnesses pertaining to the nature of the miracle itself reflect these developments, and are found under the third of four 'articles' in the interrogatory, and are as follows:

> Third, if said miracles occurred above [*supra*] or against [*contra*] nature.
>
> Fourth, what words were used by those who sought to have said miracles performed, and how they invoked God and said Lord Thomas [Cantilupe].
>
> Fifth, if in accomplishing said miracles, herbs, stones, and any other natural or medicinal materials were used; and if incantations or trickery [*superstitiones*] or forms of deceit [*fraudes*] were involved in the operation of said miracles.
>
> Sixth, if after said miracles had been accomplished, due to these miracles, faith or devotion had grown among those persons at whose invocation or petition said miracles had occurred; or among others to whom it became known; and they had glorified God.
>
> Seventh, who were the persons in whom the miracle had occurred, their age and social condition; where they were from and who were their parents.

> Eighth, whether before the miracle had occurred those witnesses had been acquainted with those persons who had allegedly experienced said miracles; if so then for how long had they seen them healthy.
>
> Ninth, for how long and from what ailment had they suffered before the miracle took place, and for how many days before [the miracle] had they seen them suffering from such an ailment…
>
> Thirteenth whether there was public knowledge of said miracle; if so then for how long and from what time in the places in which the said miracle were said to have occurred and in other places.
>
> (trans. Goodich 2007, 87–8)

In the case of William Cragh, the witnesses seemed to understand the implication of many of these questions, even if the full theological distinction was not interrogated. Those witnesses who saw William's body describe a number of features from which they surmised that it was impossible for him to still be alive, and therefore that there was no 'natural' way in which he could have been revived. First, there were the signs of death which appeared while he was being hanged. Mary de Briouze describes how:

> signs of death had appeared in [him] (which are customary to appear in hanged men when they were dead, evident because they naturally defecate through both lower parts)
>
> (Webster 2014, folio 8r)

John of Baggeham, who was standing at the foot of the gallows at the time, also recalls how Cragh 'had released through both lower passages the natural waste that is emitted by hanged men when they die after being hanged' (Webster 2014, folio 224r), while Henry Skinner says that he saw William whilst hanging from the gallows:

> emit through the lower passages of his body the natural wastes, which he had heard was a sign of death in hanged men
>
> (Webster 2014, folio 225v)

Second, when the body had been taken down and laid out in the house of Thomas Marshall, other witnesses described further signs of death

in Cragh's body. William de Briouze emphasizes the stillness and impossibility of Cragh being able to use several of his senses:

> remaining still as only a dead man can, and the witness himself and everyone else who saw William himself thought that William Cragh himself was dead… he had a totally black face, and with bloodied or blood encrusted parts, and the eyes of William himself had popped out of their place, hanging down outside the eyelids of the said eyes, and the hollows of the eyes themselves were filled with blood. Moreover, the mouth of the said William Cragh and [his] neck and throat and all other parts situated around about, and even [his] nostrils were full of blood… [I]t was impossible that the said William Cragh would have been able to breathe in or breathe out air through his said nostrils or though his mouth, or through his throat, or through his neck according to the way of nature, because it was inflamed and swollen and misshapen on account of the aforesaid hanging. Foremost he said he believed that (according to the way of nature) he was not able to breathe in and breathe out air through the mouth, and through his throat, and also through the neck, or the neck veins, because the tongue of the said William was hanging outside of his mouth further than if it was the length of the middle finger of a man's hand; and the said tongue was black and inflamed with his own blood, and as swollen as if an ordinary man was holding two fists together at the same time; that therefore if he had been alive the said William would not have been able to withdraw his said tongue naturally for it was so swollen and inflamed, nor would he have been able to breathe in or even breathe out air through his mouth.
>
> (Webster 2014, folio 11r)

Thomas Marshall, John of Baggeham, Adam of Loughor and John ap Hywel all described Cragh's appearance in similar terms, with John adding that 'there was as much life in him as in a stone' (Webster 2014, folio 224v). '[A]ll who saw and touched him said and reported that he was dead' (Webster 2014, folio 224v). To avoid there being any further doubt on the matter, the chaplain William Condineston confirmed that 'without a miracle it was not possible at that time to avoid death' (Webster 2014, folio 14r). The categorization of the cold,

dead body of William Cragh shows us how the matter of human flesh was considered to be distinct from that of other substances, but as it is transformed by death the warm flesh was seen to become other matter, eliding with the cold, hard and non-responsive matter of stone.

Body matters and the materiality of the miracle

Although they do not fully articulate it, the insistence that there was no movement or 'breath of life' in the body and that those brave enough to touch it claimed it was cold, were reinforcing the belief that a body was dead when its soul had departed, and signs that the soul had indeed vacated the body were typified by a lack of movement and warmth. The commonly used terms were: *corporis et membrorum immobilitas* – immobile body and limbs; *inflexibilitas iuncturarum* – inflexible joints (probably rigor mortis); *frigiditas in omni tempore* coldness in all situations; *carencia usus sensuum* the absence of experiencing feeling (Finucane 2006, 128). For instance, witnesses claim there was no 'breath of life' in the body of a boy who was run over by a cart in Winterborne (Goodich 2007, 89); the mother of a boy who fell into Conway moat even stuck her tongue in her son's mouth to check for signs, but had to withdraw it quickly because of the cold (Finucane 2006, 139). There were a number of ways in which other testimonies reveal how bodies were tested for their loss of feeling. In Cragh's case, the uncomfortable way in which he was transported to the house of the burgess is also described as being beyond a human's physical capacity for pain:

> [the] manner in which he was carried to the said chapel on the said wooden wheel was so painful, that any healthy person who was carried from the said gallows to the said chapel as the said William was carried (it was generally said) would be almost dead.
>
> (Webster 2015, folio 8r)

In other cases, bodies were pricked with needles, doused with hot water, or even tested with fire (Goodich 2007, 82), or else had cold water splashed in their faces and were shaken (Goodich 2007, 89).

The question of how and with what words the saint was invoked also demonstrates a concern held by the elites. A true miracle had to be

from God, but also to have been requested by a human (Bartlett 2008, 20). In early fourteenth-century England, it was also important for the individual invoking the saint to have some legitimate reason for doing so, such as an existing 'special devotion' (Vauchez 2005, 453; Watkins 2007, 121). Again, it would seem that the witnesses understood this as both Mary (Webster 2014, folio 9r) and William Cragh testify to having a pre-existing devotion to the putative saint. William even claims to have visited the tomb of Thomas Cantilupe on a previous occasion: 'because before that time he had made a pilgrimage to the tomb of the said St Thomas in Hereford Cathedral' (Webster 2015, folio 221r). The right words and assurance that no magical or other natural preventatives had been taken sought to distance miracles in the eyes of an increasingly sceptical populace from any claims of magical workings or natural remedies being used (Bartlett 2008, 23). The point of this of course was that the body had to have died naturally and fully in order for the resultant 'recovery' to be deemed a true miracle.

The ninth, tenth and eleventh questions concern the medieval understanding of miraculous resuscitation in the human body. William Cragh's resuscitation is not the only case in the canon of miracles attributed to Thomas Cantilupe. There are a number of other instances concerning children who are revived after falls, drowning, and even being run over by a cart. There is even a similar case of one Cristina Cragh (it is unknown if the two Craghs were related) who was also hanged as a criminal, in Hereford, for stealing and selling a pig. She too was brought back to life by Thomas Cantilupe, then sent to the colonies – in this case Ireland – in exile. In each of these cases, for there to be sufficient evidence to prove the miracle, the death of the subject has to be assured, and the recovery fast, so that it could not be seen as the body simply recovering naturally from a trauma (Goodich 2007, 85).

The questions concerning the growth of devotion and spread of news of and belief in the miracle relate to a different type of body which was also central to miracles and saint-making in the Middle Ages: the community that constituted the cult of the putative or actual saint. Again, there are many existing studies on the subject of how saints and miracles helped form and shape the development of communities or bodies of people at this time (Yarrow 2006; Goodich 2007, 12–13), but from the time of Albert the Great, one of the commonly

used tests of a miracle was the strengthening of the faith among the body of the faithful (Vauchez 2005, 496; Smoller 2011, 796). A similar thought process lay behind the thirteenth question concerning the public knowledge of the miracle – this was because miracles needed to be public to increase their 'efficacy' (Goodich 2007, 9). This emphasis served a further purpose; from a legal point of view in the Middle Ages it was enough to testify to what you had heard as a witness (Finucane 2006, 130), and so *fama publica* a general rumour and public consensus that Cragh was dead would have been enough 'proof' that the miracle had indeed been genuine.[6]

The agency of proxy bodies

It is the physicality and how alive flesh behaves and transforms that produces and legitimates the very notion of a miracle. Without an understanding of what is natural somatic behaviour, what is un- or supernatural cannot be conceived of and/or sought for. Thus, it is the manner by which matter behaves when as a body that presents theologians with the framework from which one can imagine the miraculous. It is not just that bodies can think up miracles, and are the site of miracles, but also that bodies are the measure of them too. From Cragh's example, the consideration of what bodies are materially capable of is pivotal to the establishment of medieval Christian thinking regarding miracles. Thus, despite the flesh being considered little more than brute matter when without a soul, the entity was used to validate claims for religiosity and the divine.

The human body was central to the working of miracles in other ways that are illuminated by the case of William Cragh; namely, the fabrication of objects associated with the suppliant that act as proxies for, or representations of, the physical matter in need of a cure. The first of these is the English custom of 'measuring' to attract the attention of a saintly intercessor. The idea was that the injured part of the body was 'measured' by stretching a thread across its length and breadth – in Cragh's case, his whole body. This thread was then used to make the wick for a wax candle that could be sent to the shrine of the saint being called upon. This was a common practice, as the measuring was intended to transfer the illness or affliction from the body into the string, which could then be consumed by fire once the

candle was lit (Merrifield 1987, 90–1; Finucane 1995, 95–6; Goodich 2007, 95),[7] illustrating an interesting meshwork of entangled materials through which these miracles were invoked (cf. Bennett 2010; Ingold 2011). Put another way, it represented the transfer of materiality from the body part (flesh) to another material (wax), which was then in turn given 'form' (the shape of a candle). None of the Swansea witnesses go as far as expressing this purpose behind the measuring, stating simply that it was at Mary's behest, and intended to honour Thomas Cantilupe. Whether the measuring was intended as a means of extracting the affliction from the body and disposing of it, or simply a 'spontaneous' procedure (Finucane 1995, 95) to focus attention on the afflicted or deceased, the physical body itself was central to the ritual – either in whole or part depending on the nature of the affliction.

The dimensions of the body were not so fundamental to a second practice, but its proximity equally important for the procedure's efficacy. A number of the witnesses recall a penny being bent to the saint over the body, and then stashed or placed upon the suppliant's person. William Cragh says he bent a penny in prison, and then stowed it in his belt so that it would be with him during the hanging (Webster 2015, folio 221r); William de Briouze said that a penny was bent over the supine figure of Cragh and placed on his forehead (Webster 2015, folio and folio 11r). Again, this is not an isolated example. In the case of the boy who fell into Conway Castle's moat, a penny was bent and hung around the neck of the apparently dead toddler (Finucane, 2006 134; Ridyard and Ashbee 2015, 322). Edward I apparently bent pennies annually to ensure the continued good health of his hawks (Watkins 2007, 123). Again, it would seem that an object closely associated or in contact with the body of one afflicted, or in danger of being so, represented the transfer of the flesh's materiality and given its own agency as a means of attracting the attention of an intercessor in the hope of a cure or protection.

There was one final act which the body had to undergo after the miracle had been worked – a pilgrimage to the tomb in order to give thanks. Cragh may not have had to go to the tomb to receive the miracle, but vows had been made by himself, and on his behalf, that he would visit his intercessor and offer thanks. Vauchez (2005, 455–6) attributes the increase in distance miracles as being due in part to the changes being made to the tone and content of this vow. One such

example includes a penny being bent at the same time as the missive was made to the saint (Vauchez 2005, 456), which may explain William Cragh's description of the scene in the dungeon before his hanging. Indeed, Cragh himself seems to exemplify this change in the nature of the vow, as he essentially offers himself in return for the miracle, a vow which – in much the same was as a pilgrim or crusader vow – entailed a special devotion from that point onwards, spreading the word of the saint's abilities and indeed visiting his or her shrine or tomb. This illustrates how the immaterial was enabled, enacted and reinforced through the agency of the material (cf. Buchli 2016, ix). Matter (the human body and proxy bodies) is used to determine and demonstrate the spiritual, the divine is evidenced by the material and can be brought into being.

Pilgrimages in themselves were spiritual undertakings, but the rewards of that pilgrimage could be enhanced by the physical discomforts that the body went through along the way (Finucane 1995, 40–6). Thus, we are told that William Cragh walked for three days from Swansea to Hereford so that he could physically go to the tomb to give thanks (Webster, 2015, folios 9v; 11r–v; 14r; 221v; 225r; 227v). He not only walked, but did so barefoot (Webster, 2015, folio 11v), to increase the penitential value of the performance. As a further symbolic act, he wore the heavy rope noose with which he had been hanged around his neck for the whole journey (Webster 2015, folio 224r), which cannot have been comfortable. The combination of being on foot, with no shoes, and a noose around the neck was a means of putting the body through a physically gruelling, cathartic performance, partly in recognition of the pain removed by the saint, and partly to make the body in receipt of the miracle aware of the restoration of their health (Sumption 2002, 102, 114). This illustrates how notions of the physical mortification of the flesh were embedded in medieval penitence, reflecting an understanding of the corruptible body as something separate from the soul but inextricably combined as the one fleshy material.

Once at the tomb, William offered a replicative gift (Finucane, 1995, 97) in the form of an effigy of a body being hanged on the gallows as a gift to St Thomas. He left it there, among many other wax gifts: feet, heads, eyes, each representing the part of the body in which a miracle had happened, or otherwise where a miracle cure was hoped

for. Offerings of wax body parts donated at tombs were common in the Middle Ages (Vauchez 2005, 456–7). In 1943, a hoard of votive offerings was found in Exeter Cathedral, including wax arms, legs and one instance of a whole body (Orme 1986, 58) and they have even been depicted in stained glass, such as at York Minster Cathedral. From the time Richard Swinefield began spreading word of Thomas' miracles, the donations at Thomas' tomb in the years following were such that the immense value of the wax became a recurrent source of argument among the chapter and clergy of Hereford Cathedral. When the commissioners arrived in Hereford to begin the second round of their inquiries into the miracles of Thomas Cantilupe, they documented the vast number of wax offerings, including 1,424 representations of wax bodies or human limbs (Vauchez 2005 457/PC TC fol.74). These items, intimately associated with and even representative of specific parts of the body, present a distributed network of agency that aims to act on the living flesh (Boivin 2008; Bennett 2010; Latour 1993). The specific malleable properties and capacities (Bennett 2010) of the wax, which allowed it to be shaped into realistic, almost life-like copies of the human form albeit non-responsive and cold formed into the shape of a body on a gibbet, or the taper made from the measurements of the afflicted area of the body to which the agency of the miracle is transferred.

Interrogating miracles

During their investigation the papal commissioners examined William Cragh's body for lasting material evidence of the hanging and miracle. There they found scarring around his neck and a misshapen tongue that corroborated what the witnesses had said about his having clamped his teeth shut on his tongue (Webster 2015, folios 11v and 224v). Even after two decades, the physicality of the body still mattered when seeking proof that a miracle had taken place. After the miracles of Thomas Cantilupe were reviewed on two further occasions (Webster 2015), the final papal bull was published, officially marking Thomas as a saint, despite being called such since his first miracle had been worked. Ten of Thomas' miracles were recorded as part of the bull, including a woman's hump that had disappeared miraculously. William Cragh's resuscitation, however, did not make it to the final

selection; a note in the margins of a manuscript forming part of the notes on the progress of the canonization process reveals why. By this time, returning to life after having been hanged – though accepted as a genuine miracle – was simply too common an event to be noteworthy.

The type of questions asked and the responses gained under cross-examination in the case of William Cragh's miracle became the model for future resuscitation miracles (Goodich 2007, 98). In the same way that the earlier medieval miracle collections had become little more than *topoi* in their recounting of each marvellous event, the formulaic questioning of the canonization process gave rise to a new formalized description of a miracle and the necessary components. Goodich (2007, 5) goes further stating that the 'sameness and stereotypical quality' of events was in fact a form of proof of their reliability. This repetition of the concerns displayed in the case of William Cragh and Thomas Cantilupe's canonization becomes a social norm for the remainder, and is therefore representative in what it reveals about the period's understanding of miracles, the body and death.

Although this form of evidence is often treated by scholars as an entry point into understanding the beliefs and customs of the subaltern, what we actually see is a much more far-reaching set of beliefs and understandings over the nature of the supernatural and miracles in particular, and their impact on and in the human body. Vauchez (2005, 498) cites the anonymous editor of the intermediary notes made on Thomas's canonization dossier as evidence of this, but one could go further. By showing that the transference of the names, and biographical details of the witnesses provided in the raw oral testimony, together with the repeated assurance that these views were commonly and publicly held, we can see a continuation of the old form of saint confirmation – by public agreement (Webster 2015) and the significant role of the flesh in validating Christian ideas in the Middle Ages. The trial transcripts allow us to see that many societal groups in Middle Ages were in agreement that matter only gained agency after it had been given form: in the case of the body, this was described as the soul; in the case of the wax image, this was the fashioning of it into a recognisable and symbolic shape – the (twice-)hanged man. The string, the wax from which the model was made, these 'matters' had the ability to affect human life, but only once they had been given 'form' by their association with the human body.

Concluding remarks

A final bodily twist in the tale resides in the matter of Thomas Cantilupe himself. Unlike many other medieval saints, his body was not one of those exciting, incorruptible, saintly bodies later subjected to relic theft (see Burton, this volume); instead his body was subjected to other forms of material transformation. Thomas Cantilupe died in Italy on his return from seeking an audience with the pope, in an attempt to overturn the excommunication placed upon him by his arch-rival, the Archbishop of Canterbury (Finucane 1982). As already mentioned, travel was slow in the Middle Ages, and so there was no way in which the corpse could be returned to England whole for burial. The decision was therefore made to boil and dismember the body at a nearby monastery. Although this was a common practice for bodies of dignitaries who died far from 'home', the deliberate removal the corruptible mortal flesh and transformation of the matter of the physical body into clean bones had an added benefit – ease of transport (Korpiola and Lahtinen 2015, 19–21). Only the bones and heart were taken back to England and buried in the Lady Chapel of Hereford Cathedral (Crook 2011, 235), where his cult was promoted by his successor as bishop of Hereford, Richard Swinefield. Such 'dispersed burials', which included the heart's transport were intended to indicate patronage (Korpiola 2015, 20–1), in this case, Thomas Cantilupe's eternal association with the seat of his bishopric in life, Hereford Cathedral. Why saints such as Thomas became popular as intercessors in the Middle Ages is unclear, but it would seem that some of their power comes from their status as having once been of this world, that their souls had once inhabited a physical living body, which made them more relatable and more human to the suppliant.

The matter of medieval bodies was clearly of prime importance; bodies had agency and could effect change (see also Burton, this volume). This chapter attends in part to the materiality of death and the physical transformations evident in the matter of the human body. Also explored here is the materiality of miracles and how the material body was used to demonstrate the immaterial and the spiritual. As such, this chapter throws light on some of the origins of ideas that intellectually separate the body from the mind/soul and thus disconnects the body as matter from wider matter in the world.

References

Bartlett, R. 2004. *The Hanged Man: A Story of Miracle, Memory, and Colonialism in the Middle Ages*. Princeton, NJ: Princeton University Press.

Bartlett, R. 2008. *The Natural and the Supernatural in the Middle Ages*. Cambridge: Cambridge University Press.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC: Duke University Press.

Boivin, N. 2008. *Material Cultures, Material Minds: The Impact of Things on Human Thought, Society and Evolution*. Cambridge: Cambridge University Press.

Bornstein, D. 1997. 'Dominican friar, lay saint: The case of Marcolino of Forli', *Church History* 66, 252–67.

Buchli, V. (ed.) 2016. *An Archaeology of the Immaterial*. Abingdon; New York, NY: Routledge.

Clanchy, M. T. 2012. *From Memory to Written Record England 1066–1307*. Chichester: Wiley-Blackwell.

Craster, H. E. (ed.) 1952. 'The miracles of St Cuthbert on Farne', *Analecta Bollandiana* 70, 5–19.

Crook, J. 2011. *English Medieval Shrines*. Woodbridge: Boydell and Brewer.

Csordas, T. J. 1994. *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.

Daly, P. H. 1982. 'The process of canonization in the thirteenth and early fourteenth centuries', in *St Thomas Cantilupe Bishop of Hereford: Essays in His Honour*, ed. M. Jancey. Hereford: Friends of Hereford Cathedral Publications Committee for the Dean and Chapter, pp. 125–35.

Daniell, C. 2005. *Death and Burial in Medieval England, 1066–1550*. London: Routledge.

Darlington, R. R. (ed.) 1928. *The* Vita Wulfstani *of William of Malmesbury to which are added the extant abridgments of this work and the miracles and translation of Wulfstan*. Camden 3rd Series. London: Offices of the Society.

DeMaitre, L. 2013. *Medieval Medicine: The Art of Healing, from Head to Toe*. Santa Barbara, CA: Praeger.

Fasolt, C. 2002. *Council and Hierarchy: The Political Thought of William Durant the Younger*. Cambridge: Cambridge University Press.

Finucane, R. C. 1982. 'The Cantilupe–Pecham controversy', in *St Thomas Cantilupe Bishop of Hereford: Essays in His Honour*, ed. M. Jancey Hereford: Friends of Hereford Cathedral Publications Committee for the Dean and Chapter, pp. 103–24.

Finucane, R. C. 1995. *Miracles and Pilgrims: Popular Beliefs in Medieval England*. Basingstoke: Palgrave.

Finucane, R. C. 2006. 'The toddler in the ditch: A case of parental neglect?', in *Voices from the Bench: The Narratives of Lesser Folk in Medieval Trials*, ed. M. E. Goodich. Basingstoke: Palgrave, pp. 128–48.

Geertz, C. 1973. *The Interpretation of Cultures*. New York, NY: Fontana Press.

Goodich, M. E. 2004. *Lives and Miracles of the Saints: Studies in Medieval Latin Hagiography*. Farnham: Ashgate.

Goodich, M. E. 2006. 'The multiple miseries of Dulcia of St Chartier (1266) and Christina of Wellington (1294)', in *Voices from the Bench: The Narratives of Lesser Folk in Medieval Trials*. ed. M. E. Goodich. Basingstoke: Palgrave, pp. 99–125.

Goodich, M. E. 2007. *Miracles and Wonders: The Development of the Concept of Miracle, 1150–1350*. London: Routledge.

Harris, O. J. T., and Robb, J. 2013. 'The body and God', in *The Body in History: Europe from the Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 129–63.

Harris, O. J. T., Robb, J., and Tarlow, S. 2013. 'The body in the age of knowledge', in *The Body in History: Europe from the Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 164–95.

Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. London; New York, NY: Routledge.

Ingold, T. 2013. *Making: Anthropology, Archaeology, Art and Architecture*. London; New York, NY: Routledge.

Koopmans, R. 2011. *Wonderful to Relate: Miracle Stories and Miracle Collecting in High Medieval England*. Philadelphia, PA: University of Pennsylvania Press.

Korpiola M., and Lahtinen, A. 2015. 'Cultures of death and dying in medieval and early modern Europe: An introduction', in *Cultures of Death and Dying in Medieval and Early Modern Europe*, eds M. Korpiola and A. Lahtinen. Helsinki: Helsinki Collegium for Advanced Studies, pp. 1–32.

Latour, B. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.

Merrifield, R. 1987. *The Archaeology of Ritual and Magic*. New Yorkm NY: New Amsterdam Books.

Orme, N. 1986. *Exeter Cathedral: As It Was 1050–1550*. Exeter: Devon Books.

Ridyard, S. J., and Ashbee, J. A. 2015. 'The resuscitation of Roger of Conwy: A Cantilupe miracle and the society of Edwardian North Wales', *Journal of Medieval History* 41, 309–24.

Smith, J. M. H. 1990. 'Oral and written: Saints, miracles and relics in Brittany, c. 850–1250', *Speculum* 65, 309–43.

Smoller, L. A. 2011. 'From authentic miracles to a rhetoric of authenticity: Examples from the canonisation and cult of St Vincent Ferrer', *Church History* 80, 773–97.

Sumption, J. 2002. *Pilgrimage*. London: Faber & Faber.

Stevenson, J. (ed.) 1847. 'Reginald of Durham', *Libellus de Vita et Miraculis S. Godrici, Hermitage de Finchale Auctore Reginaldo Monacho Dunelmensi*, Surtees Society. London: J. B. Nichols and Son.

Vauchez, A. 2005. *Sainthood in the Later Middle Ages*. Cambridge: Cambridge University Press.

Walker-Bynum, C. 1987. *Holy Feast and Holy Fast: The Religious Significance of Food to Medieval Women*. Berkeley, CA: University of California Press.

Wallis, F. 2010. *Medieval Medicine: A Reader*. Toronto: University of Toronto Press.

Ward, B. 1987. *Miracles and the Medieval Mind: Theory, Record, and Event, 1000–1215*. Philadelphia, PA: University of Pennsylvania Press.

Watkins, C. S. 2007. *History and the Supernatural in Medieval England*. Cambridge: Cambridge University Press.

Webster, H. R. 2014. 'The Story. City Witness'. [online] Available at: *http://www.medievalswansea.ac.uk/en/the-story/*. Accessed September 2017.

Webster, H. R. 2015. 'Mediating memory: Recalling and recording the miracles of St Thomas Cantilupe', *Journal of Medieval History* 41, 292–308.

Yarrow, S. 2006. *Saints and Their Communities: Miracle Stories in Twelfth-Century England*. Oxford: Clarendon Press.

Zeigler, J. 2001. 'Medicine and immortality in terrestrial paradise', in *Religion and Medicine in the Middle Ages*, ed. P. Biller. Woodbridge: Boydell and Brewer, pp. 201–42.

Notes

1. The involvement of the papacy led to a significant decrease in the number of official saints at this time. Between the terms of Innocent III and John XXII (1200–1334), there were only twenty-six papal bulls issued officially recognising saints. For further details of the increasing papal involvement in the canonization process (see Goodich 2007, 71).
2. This dossier comprises Rome, Vatican MS Lat. 4015; Rome, Vatican MS Lat. 4016; Rome, Vatican MS Ott. Lat. 2516; and Paris, Bibliothèque Nationale de France, MS Lat. 5373.
3. For more on the significance of miracles surrounding the Eucharist and transubstantiation especially, see Ward (1987, 13–16). For the theology of Miracles more generally, see Chapter xvii 'Christian Theology of Miracle' in Goodich (2004).
4. This runs counter to contemporary notions of animation that lean away from using the idea of a soul as the animating force (see Harvey 2005).
5. William Durant the Younger's career is well-documented. See Fasolt (2002) for a full examination of his work and influence.
6. See Webster (2015) for further discussion of the continued importance of the original oral testimony in canonization proceedings.
7. There are many other examples of 'measuring' to a saint, including 'The Miracles of St Cuthbert' (Craster 1952, 17); William of Malemsbury's *Vita Wulfstani* (Darlington 1928, 125–6, 138, 179); and Reginald of Durham, *Libellus Godrici* (Stevenson 1847, 411, 434–5 and 455).

8 DEAD AND DUSTED

Exploring the Mutable Boundaries of the Body

Ros Coard

Introduction

This chapter explores the boundaries of the body and questions representations that present it as an autonomous bounded entity that exists in distinction from the environment. In association with the purposes and intentions of the New Materialities perspective, this chapter reminds the reader of both their material composition and their existential connection and contribution to the swirling materials that comprise reality. In addition, it represents people as materially co-constitutive players in the construction of the landscape, and thereby supports Ingold's suggestion that people are better understood as embedded in the landscape than walking on it (2000, see Ingold's notion of 'dwelling'). By paying particular attention to epidermal processes, this section of *Body Matters* explores how, other than being simply porous, one's skin is in a state of persistently distributing itself through numerous physiological activities that culminate in bits of membrane being discarded, deposited, sloughed off and regularly shed in minute, even microscopic portions – which, if visible, might form a cloud of swirling accretions.

This chapter also indirectly explores how bodies are in a constant state of becoming. The notion of becoming is one used regularly in an attempt to describe the multiple processes that constitute the relational complexities of being alive (Ingold 2000; Haraway 2008; Ingold and Palsson 2013). However, to state that being is a process of becoming suggests, in the first instance, a course of growth or even accumulation. This chapter to some extent upends this idea and problematizes it through demonstrating that the process of becoming demands significant disintegration and is not one of accumulation at all. Therefore, the notion of bodies-becoming does not refer to a process of growth but rather is one of recurring transformation

that deposits bits of bodies randomly in the air and on the ground. Consequently, if we are to accept the notion that bodies *become*, we must also recognise that they simultaneously engage in a relentless shedding and discarding of bodily 'bits', such as skin, nail, and hair to do so. Once detached, one's skin, nails and hair lie uncomfortably between being you and the rest of the world – in one sense separated but still physically present and cohabiting in their seemingly unconnected state. Consequently, the material reality of our lives is one where we constantly live with discarded parts of ourselves, our shed-selves – that transform into shed-others on release. By adopting a New Materialities approach (cf. Bennett 2010; Coole and Frost 2010) to flesh, this chapter explores how bodies extend their influence materially into spaces – rooms, homes and the landscape – and offers a method by which to understand how materiality is shared. To suggest that people are the landscape is not a linguistic device, but is an important material reality that is often overlooked in scholarship. To bring people and the world together in the way that is done in this chapter enables one to realize that what the materiality of the world does affects what humans become. This is no more significant than in the Age of the Anthropocene, a time in global history when the treatment of the material world is causing potentially detrimental shifts in planetary forces.

Sheddings

The bits of shed-selves, once released from an obvious material connection to our bodies, continue to echo their past identity as they journey. However, before long, the shed-self is redefined, and having detached from the broader assemblage of a body becomes simultaneously held as you and part of a diverse melding body of swirling and settling detritus. The material separation between bits of bodies activates a new system of order that determines how one understands one's body 'bits' (Douglas 1966).

Douglas (1966) considers the social urge to order what sheds from us in her exploration of what constitutes 'dirt'. She demonstrates the social significance of some matter being determined as out of place. The transition from 'attached' fingernail to detached part – shed-self – moves that bit of your body from an integral, valued aspect of who

you are to a distasteful item in need of tidying up and cleaning away. As we become aware of our shed parts, we observe and attempt to move them (relentlessly and rather ineffectually) from where we accumulate environmentally into a receptacle, a bin, to the outdoors, or to another surface or corner. When unsuccessful in this endeavour the particles of us continue to float effortlessly around our milieu once more.

Our bodies are not static in life. They are not bound by being 'us', but are our vestiges of us being constantly redistributed by us throughout our lifetimes. This shed material forms an atlas of detritus alongside other fibres of human and non-human animal origin found within the environment. Clothing fibres, insect remains, soil and sediment particles, pollen spores and plant macros, food particles, along with trace elements of non-toxic and toxic varieties, such as lead (Chang Ho et al. 2006), all mingle as the discarded flotsam and jetsam components of house dust. Unless looked at under a microscope the constituents of others become indistinguishable from the elements that are us.

As an archaeological resource, dust does not cause great academic excitement in current archaeological literature. To the keepers and cleaners of our historic buildings and to conservators, house wardens, curators, or those with public access, dust causes a great deal of concern. Here identification, classification, distribution and percentage coverage on surfaces triggering cleaning regimes balanced against the cost of cleaning, issues relating to long-term conservation of vulnerable fabrics and public aesthetics, are of greatest importance (Lithgow et al. 2005; Lloyd et al. 2011). The discernible pattern is that human skin constitutes a larger percentage of house dust where most human activity takes place, with bedrooms, bathrooms and entrance ways emerging as the prime locations (Lloyd et al. 2011). My personal experience is that any location in a household seems to constitute a 'prime' location from the dust's point of view! Regardless of how effective we are at dealing with it, our ever-present shed skin can form a large percentage of house dust, as it is mixes with other fabrics.

Household dust is by no means only just made up of human skin cells, but until it is disposed of, bathed, swept or dusted away it is there, and ever-present in our environment, even when we have engaged with cleaning regimes. While it is interesting to think about what percentage of household dust one makes up, more interesting is

what percentage of each person creates dust over a lifetime. In some cases – particularly if one weighs somewhere between 47 and 52 kilos (around 105–114 lbs or 7.4–8.1 stones) – the answer could be '100'. In terms of body weight, this could be a whole 'me' or 'you' that has become part of the environment. Each of us has shed all (or almost all) of another 'us' in our lifetimes. A whole shed 'us' is in the environment, a sort of pseudo-doppelgänger, except that it does not actually look like us. These are a past us, a dead and shed us that we habitually coexist with and have always done, wherever we have lived, but which we do not recognise as part of our bodily selves.

Human biology tells us that the epidermis, the outer layer of skin, forms a boundary, a tough bacteria-resisting, waterproof layer forming an impenetrable boundary between us and our environment. The outermost layer of the epidermis keeps us in, and attempts to keep the harmful elements of the environment out, with the cornified layer or *stratum corneum* being the boundary between the two. Unsupported directly by the life-giving blood vessels, this frontier of cornified epidermal tissue is dead, forming the vanguard of the defensive movement. Dead cells are constantly worn away and shed in a continuous cycle of skin sloughing within a process uninhibited by individual intentions, activity or actions. This relentless and exhaustless process of dermis, death and discard moves the live body to the realm of dead body parts without the demise of the protagonist.

Dust and dirt

The constituents of house dust and dirt was brought home to me most effectively when I undertook a 'deep' clean of a now-old rug procured many years ago, and on which my family has grown up. The clean consisted of turning the priceless rug over and vacuuming it from underneath, on a recommendation from an authority on the preservation of priceless Afghan rugs. Out came piles, literally piles of detritus from our past lives (personal humiliation does not permit the publication of its quantification in weight), skin, food particles, sand from Pakistan and Afghanistan – the rug's origins – sands from local beaches, fragments of degraded materials, the detritus of our lives, all mixed. Adults, children, dogs, as well as visitors to the house all immingled and suddenly ever-present in our lives again. This action

had brought me face to face with our past selves. The rug was, and remains, a biography of our lives, or rather *its* life would be more precise (cf. Kopytoff 1986). And in this the rug presents us with a dilemma: does one clean the rug, to preserve and conserve its life; or does one conserve the grit and debris that damages it, rather than destroy our combined historicity and its life expectancy? Either way the rug retains a biography; now I am more conscious of actively writing and influencing it. The rug contained parts of the past individuals who existed with it and, in cleaning it, I cleaned out a part of us and our lives. Our shed-selves were deeply embedded in plie and then lay in piles (equally deep) on the floor for all to see and experience again.

Marder (2016, 6) describes this 'encounter with myself through dust' experience, as 'a face to face… meeting with myself, with parts of me that, though dead, lead to an uncanny afterlife in combination with other fragmentary and whole entities…' But is this an afterlife experience? The dust I see that includes me is here, in piles, in the here and now, and is still in the rug it seems no matter how many times I clean it. I interact with the rug every day and it with me. I stand, sit or kneel on it every day, multiple times in a day. As I sink into the rug it becomes less clear where I stop and the rug begins. I am bounded by the dermis, but it is the dermis that blurs the boundaries in this instance. The rug is full of me, the rug fibres stick to me forming a seamless boundary with no interface. I become less me as I sink into the rug and the rug less *it* as it sticks to me. As I sink deeper into it we become part of a mixed each other, not as an afterlife as Marder suggests above, but in present life as the ever-present me interacts with the ever-present rug, both its fragmentary fibres and as a whole entity. The transition from the live dermis to the dead cornified dermis now mingle with the rug fibres on me; particles of it and particles of me are indiscernible, on a border that has no clear boundary.

The transition from me to rug could be presented as an archaeological typology sequence, or seriation dating where one ubiquitous form declines gradually and another appears and increases, gradually becoming the dominant form. It is never easy in such typological sequences to see the transition point – nor the boundaries between the forms. As one material form diminishes, another appears and grows. The point of sequential typology is that it represents a transition of trends over time; it is longitudinal, not flat, surface to surface,

a skin–surface to rug– surface transition. This day-to-day, surface-to-surface interaction is immediate, in the here and now, direct and instant – but there is a longitudinal dimension as well.

The concept of shedding skin slowly over a lifetime, gradually building up a record of where we have been, a trail of us that is left in the landscape every time we move, contains both a temporal and a spatial mode and tempo. The pattern is not haphazard. Accepting that the skin falls and rests in random, haphazard ways, floating down to whatever surface or corners it collects in or on, one must also accept that it represents the sum of the daily activity in a given space and also accumulatively represents the sum of that activity over a lifetime. Rather than the cohered body, this shed-self emerges as a dried representation of our life stories, our life histories and demonstrates our immediate material connection to a wider story of engaging bits. These are our personal trails, our footfall in the environment over time that with interrogation are not so haphazard but did have purpose and did have intent. Although not necessarily obvious at the time, in living our lives we had purpose to them, how we live, where we live, as our lives had a trajectory, but not so the shed-self. Its trajectory is just to fall and then rest as a testament to our life histories, but it is not ascribed a history. It becomes a trail, left behind, but a marker to our presence, like footprints left in sand. Barad (2003) questions the degree to which the matter of bodies has its own historicity; the answer is that currently the shed-self is not recognised as bodily matter.

Dust as 'thing'

That there is such a phenomenon as an equivalent to a shed body moving through time and space independent of its progenitor sits oddly with the human osteologist, pathologist or archaeologist, especially in England, Wales and Northern Ireland, and particularly since the introduction of the Human Tissue Act (2014). This act, designed to regulate the removal, storage, use and disposal of human bodies, organs and tissues, does not seem to have reached the shed tissue that once formed and bounded our bodies. Meanwhile, our shed-selves float, fall and accumulate freely around us, flagrantly disrespectful of the law and definitions therein. Not only do they seem to defy the niceties of the law, but they also seem evasive in other definitional domains. In the

archaeological literature, such remains are little considered, outside the curatorial and cleaning interests of the historic houses and buildings. Our shed tissues are not recognised as materiality. Human bones of past people are recognised, as are human bodies, but not the shed parts of them or us. Language also ignores shed human skin, which limits discourse. The shed skin cells and tissues have not been 'thingified', a process that at least allows language to accurately, or otherwise, represent a referent (Barad 2003). How can we heed Hodder's (2014) call for the social sciences and humanities to 'return to things' if the object of study is not recognised as a thing?

Moreover, the term 'remains' is the linguistic expression given over to the referent of the physical dead body under study. This in itself is widely used within osteoarchaeology or zooarchaeology, with the word being used for anything from disarticulated skeletal remains, isolated skeletal elements, fleshed body parts, through to fully articulated and complete skeletons or fleshed bodies of either humans or animals. These are literally the remains of what was once a whole individual alive and living, but do not equate with the remainders, the remnants or the residues of that life. The object of scientific or social study is the leftovers from that life, represented by the hard, bony parts, but actually represent a once-living being, which has been given meaning beyond the physicality of such remains. The shed body during life has no such neologisms and, to take up Barad's point, language has not afforded a platform for discourse for this matter, as it is not seen to matter.

Archaeological bodies

As an archaeologist I am disciplined in the narratives pertaining to both the past living and past dead people and, as outlined by Sofaer (2006), am trained to approach the division of the study of human remains with distinct acts and practices supported by a series of underlying theoretical viewpoints and pedagogies. Such divisions are not restricted to archaeology, as Sofaer's work echoes the 'two bodies' division into the social and cultural and that of the biological and physical. Within anthropology, this is outlined by Douglas (1973); however, here she asserts 'that there can be no natural way of considering the body that does not involve at the same time a social dimension' (Douglas

1973, 98). Sofaer (2006) documents the treatment of the body and the archaeological conventions governing the division into the largely atheoretical, empirically-embedded, technical treatment of the skeletal remains through osteological analysis vs. the exploration of the past lifeways through the dead in the more theoretical informed interpretative archaeology. Sofaer (2006, 32, emphasis in original) develops the idea that there is a 'clear and implicit distinction between understandings of the *dead* body and the *living* body which also frequently corresponds to a dichotomy between *unfleshed* and *fleshed*'. Sofaer's Cartesian division between the unfleshed, atheoretical, dead, inside views and the fleshed, theoretical, living, outside view, however, leaves no place for a discussion of the shed dead flesh, falling neither in the category of bone and the inside because it sits outside and is flesh but also dead. Thus, this fabric sits outside discussions of the dead body within nature discourse nor does it sit within those pertaining to theoretical interpretation.

Even if it remains an undertheorized area of study (Sofaer 2006), osteoarchaeologists and archaeologists alike accept that the archaeological dead body is represented by the skeleton, the hard, bony parts that survive the depositional and recovery process and form the data set for analysis. The reality is that we seldom deal with soft tissues as archaeologists; it is uncommon in the realm of the human osteology or archaeozoology to deal with body tissues beyond the oseto-dontokeratic (bone-teeth-horn) and into the dermis domain. The skeletal remains of human or non-human animals more typically constitute our data sets and they are instantly recognised as such by practitioners. Of dead bodies or bones thereof, Sofaer (2006, 1) is clear on the point that 'We instinctively recognise their bodies as we recognise our own; they are essentially us'; whilst not disagreeing with this statement, our shed-selves are actually 'us', but we do not recognise them as such. Our shed-selves have no perceptive visibility, they are in the present but have no presence – a point that the New Materialities move is impressing upon us for reconsideration.

Materiality of shed-selves in life and death

We do not engage in the *emotive materiality* of these shed human remains, not recognising them as having an *affective presence* in

the same way human bone may be recognised as such (Krmpotich, Fontein and Harries 2010, 371). This prompts a series of thoughts and questions regarding the very nature of human remains that are transformed from having a recognisable and therefore affective presence to an unrecognisable one – but arguably a more pervasive presence. In Ingold's questioning of what materiality may mean conceptually, and the desire for materiality studies to be grounded in the materials and their properties, the inability to recognise some transformed human bodies as having an effective presence has become 'a real obstacle to sensible enquiry into materials, their transformations and affordances' (Ingold 2007, 3), particularly when applied to these shed-self materials. We may notice and recognise the dust as dirt and detritus to remove from our spaces – and attempt, fruitlessly, to deal with it as it accumulates around us silently settling across the furniture, balling up in corners, being breathed back in again (see Govier this volume for carbon residues on bones) or re-ingested (see Attala 2017, and this volume) and reincorporated in a cyclic becoming or recycling of materiality. We may recognise it as matter very much in a place, but we are blind to its essential materiality.

Archaeological past bodies can and do transcend being just the sum of their body parts. It is clear that they do transform in meaning from being just a past body or a bone in a past body to be manipulated as social and material statements, to become part of discussions within material culture studies. Archaeologists know well how animal bones transcend their meaning from being an identifiable part of an animal carcass to be inscribed, shaped and manipulated into a myriad of both useful objects that have function, to those that have no obvious function, but through social construction are deemed to have served a purpose, ritual or otherwise. Carved, inscribed and imbued with now lost meaning, such artefacts stretch back to the Palaeolithic within a European context. One such example from the Palaeolithic site of Robin Hood Cave, at Creswell Crags in Derbyshire is a carved animal bone rib. Depicted by Garrod (1926, fig. 31) along with other bone and antler artefacts, it shows an identifiable horse head clearly inscribed which has then been stained with ochre. With whatever meaning the clearly carved and embellished bone is imbued, its biological history remains because it is still identifiable as an animal rib bone. One could equally point to just about any period to any place to

find similar examples of inscribed, but identifiable animal remains. For human remains, the phenomenon is less well documented with notable examples coming from the East Asia. In Tibet, as early as 1904 documented cases of human skulls and tibias being transformed into musical instruments, specifically drums and *Kan-lin* (Kangling) or leg trumpet (Wright 1904), for which some can be highly decorated and incised. For all discussions may centre on the cultural meaning and significance of such objects as cultural objects, they are a broad cultural phenomenon, they are still recognisable as belonging to the biological and natural world in terms of their core fabric. That human bones are less frequently occurring as inscribed objects and transformed carved objects possibly indicates that past peoples instantly recognised them as their pasts personified in the same way. Sofaer (2006) suggests this to be the case, but see Steel (this volume) pertaining to manipulation of human skulls within ancestor cults.

Human bone can also be transformed into objects with an accompanying transformed meaning and, as such, are more emotive and more likely to become controversial. The use of human remains as objects of material culture can and does cause concern, raise issues of politics, control, ownership, and raise emotions from distaste to disgust, depending on the use and context.[1] The transforming of bone, either human or animal, is not an issue for this chapter; the point is that the bones are recognised and identified as belonging to either a human or an animal. They do remain both part of the biological taxonomic classification as well as their many transformed meanings, regardless of whether we can read their messages. On the other hand, those shed-selves lost within the winds of time are assumed to hold little tangible value, and are literally swept away. Unrecognised as having value, the transformed meaning of the shed-self becomes dirt, dust, just so much environmental detritus.

However, some human body parts are actively and deliberately transformed beyond our living corporeal boundaries to become more integrated and bound up in our material worlds and in the wider environment. This is particularly evident in the post-mortem treatment of human remains: cremation transforms the flesh and bones of the body in dusty ash which might be scattered to the winds in a place that is meaningful to the deceased and their loved ones or might otherwise be further altered into other matter People's ashes can be transformed

into diamonds (Heart in Diamond n.d.) or mixed with vinyl to be made into records (Mihala 2017), or might be encased in glass in memorial paperweights and jewellery (Ashes into Glass n.d.; Bath*aqua*Glass n.d.). An afterlife as a memorial reef ball, a concrete admix of human cremated bone and pH balanced fabrics forming part of a 'natural' habitat for fish and other marine life is another such example. Here cremated remains become an intrinsic component of a construction designed to both support marine life and offer a 'green' and, therefore, natural alternative burial. Here think of multifaceted globes with holes not unlike a very large golf ball (see Eternal Reefs n.d.). Not only do such constructions serve to offer sanctuary to marine life and appeal within the more holistic and natural burial trends, they also serve against erosion of vulnerable coastlines and habitats. That such constructions do offer such protection is evidenced where, as part of a built environment, they serve the purpose of protecting and even regenerating the natural environment (see Black 2001). Humans can become a permanent part of this marine environment, becoming indistinguishable from the environment.

That bodies are reused within the environment is a material fact. That bodies can be reused within the environment is marketed in the green burial context as being both environmentally friendly and fully sustainable, but stops shy of purporting the attitude of nothing should go to waste and therefore draws a distinction between the post-mortem treatment of animals compared to humans. Our body parts, like animal body parts, could be increasingly used within an environment, albeit not as in a wide variety of ways like animals, but still used. The point here is that we become the environment. Once we are dead our body parts can merge seamlessly with other fabrics that constitute the environment – and that even more what is depicted as the finality of death, we are shedding ourselves as we journey through our lives. We become both alive and dead at the same time. People, when dead, no longer just inhabit the world of taxonomic classification, although in a reef ball's case they do retain a role in the natural world. Bodies are no longer exclusively biological, but are considered to be cultural and this is fine except that they (the cremated remains within a reef ball, vinyl records and glass objects, or the shed-self) are no longer recognisable as being human. To suture this rupture, we must see bodies or people as materials. If Ingold is right, human bodies as reef

balls, or shed human skin, are active not because they have agency *per se* but because they are caught up in the currents of our life and death worlds (Ingold 2007).

Dead and dusted

Our relationship with the dust and dirt containing our past lives, including modern interactions with our cremated selves, does not have such academic recognition and is viewed differently within disciplines. In terms of transformation in meaning, the human–dust relationship has changed historically, according to Amato (2000). Here technological change and atmospheric dust abundances produced through industrialization, led to an ever-increasing disquiet about dust. Technological change, through the introduction of microscopes and other instruments of scientific enquiry, allowed a new view of dust to be created in the post-industrialized years. Now the ability to see the constituents of the microscopic has exposed society to a new 'emotional fear of the smallest' (Amato 2000, 13), and that such new discoveries opened us up to new, and, by implication, irrational, fears. In earlier historical periods, Amato argues, we coexisted in a more near-harmonious state of being; dust being one of the smallest things we could see, was every-day and common, and, prior to that, lighting was so poor it lay in darkened corners where it could not be seen. The dermis became waste that, along with animal and human bodily functions, would have been swept on to the land as manure, to be reinterred into the environment. Again, a Cartesian duality of light and knowledge vs. dust, darkness and ignorance become metaphors.

Prior to industrialization and the ideas of the Enlightenment, the worldview of order and chaos and our relationship with the animals and earthly elements is expressed, forged and governed within the Judeo-Christian context though the *Scala Naturae*, the great chain of being. Within this hierarchical ordering with perfection at the top, minerals were of the lowest order due to their inability to reproduce and to grow, and because they lacked mental capacity. They languish at the bottom of the great chain with precious metals at the top of their sub-scale and the minute particles, found in dust and dirt, such as sands and soils, at the very bottom. Recognising the dust and dirt's role at the bottom of this chain, we are acutely aware that we come from

the earth, the very dust that makes the earth and that we will return to it: ashes to ashes, dust to dust. Within this context, dust equates with dirt and is to be trodden on and washed from one's feet in the ultimate act of cleanliness. Dust may be lowly, humbled and imbued with no specific power in itself within this order, but it is a starting point, an origin, a source of life and/or improvement. That one returns to the dirt, not only is an end point in life with one's death itself, but is a process that is ongoing and ever-present. Every day our shed dead selves become part of the leftovers of life to become dirt and dust to be swept, washed and cleansed away and to be relocated back into the environment, back to where it began and back to start its future.

That dust can be contextualized and explored within this socio-political or religious framework does not sit well within all disciplines. Mary Douglas (1966, 2) declares that 'There is no such thing as absolute dirt, it is in the eye of the beholder', and equates our need to clean and remove dirt not at the mercy of our irrational fears of it, but at our desire to order our environment.

> Dirt offends against order. Eliminating it is not a negative movement, but a positive effort to organise the environment.
>
> (Douglas 1966, 2)

It is not dread or fear of disease that dictates our response to dust in this context, but a desire to keep our house in order. These seemingly polarized views, of intellectual and technological manipulation over our fear of the minute and the desire to shape and maintain one's environment, both have the elements of control at their heart. Whether it is to control the dark dusty areas with light and knowledge, or to control and order our environment in our daily lives, it is something of a losing battle. We may control it one minute, but dirt and dust go back to the environment, to be swept right back in by wind, rain, atmospheric pressure or just by capriciousness, or so it feels. Is it this lack of control over this dermis-detritus domain that lies at the heart of us simply not acknowledging it or placing value on it as we do other body parts within discussions of material remains? Dust may be in there with dirt at the bottom of the chain of being, it may well have been classified there due to its lack of mental capacity, but that does not keep it there in reality. It certainly appears to have a will of its own.

Conclusions

Why is human shed skin not recognised? It is not just because it is our shed-selves, sitting outside definition or descriptive language, and because it forms dust and dirt, with dust itself being under-recognised as being minute and associated with smallness (Amato 2000). But size cannot be the only reason; academia can certainly deal with the small and particulate by now. By extending into and becoming part of the environment, dust's co-mingling and immingling with other environmental debris certainly blurs the boundaries. Therein, there is neither a margin to be recognised nor an allegiance to be had with this matter. In this respect there is 'entanglement' with materials in the material world, but in the sense of Hodder (2014) there is no symmetry, no equality, no equal partners or partnerships to be had.

Does the lack of recognition stem from us simply not knowing if we are or are not aware of where our bodies end and start, where our live bodies start and finish, where the boundary is between life and death? There is certainly ambiguity in the treatment of our dusty shed-selves: do we leave it in the environment to collect, or lose it to the environment by throwing it away? This ambiguity of treatment of either tolerate it or toss it is matched by an equal inability of how to deal with our shed-selves in the academic sphere because of the uncertainty of where and how body boundaries lie. Within dust the shed human particles have no academic seat or root as a point of discussion. Equally inadequate are the lack of words to describe the shed bodily self. They are the remains and detritus of human bodies, but are not human remains.

By approaching the body through the New Materialities perspective this chapter has been able to illustrate how current conceptions that construct a distinction between what is materially human and what is not are inaccurate and therefore problematic. In association with the many calls that encourage a reconsideration of materiality and human exceptionalist ideas, this chapter offers insight into how people as bodies slide into and come out of the material fields around them. This supports a new framework for understanding existence that embraces how people might engage with the materiality that they inextricably become-with (Haraway 2008).

References

Amato, J. A. 2000. *Dust: A History of the Small and Invisible*. Berkeley, CA: University of California Press.

Ashes into Glass, n.d. [online] Available at: *https://ashesintoglass.co.uk/*. Accessed November 2017.

Attala, L. 2017. '"The Edibility Approach": Using edibility to explore relationships, plant agency and the porosity of species' boundaries', *Advances in Anthropology* 7, 125–45.

Barad, K. 2003. 'Posthumanist performativity: Toward an understanding of how matter comes to matter', *Signs: Journal of Women in Culture and Society* 28(3), 801–31.

Bath*aqua*Glass, n.d. [online] Available at: *www.bathaquaglass.com/all-cremation-ashes-glass-products/ashes-glass-paperweight.html*. Accessed November 2017.

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Black, K. 2001. 'Artificial surfing reefs for erosion control and amenity: Theory and application', *Journal of Coastal Research* 34, 1–14.

Chang Ho, Y., Lih-Ming, Y., and Lioy, P. J. 2006. 'The bioaccessibility of lead (Pb) from vacuumed house dust on carpets in urban residences', *Risk Analysis: An International Journal* 26(1), 125–34.

Coole, D., and Frost, S. 2010. 'Introducing the New Materialisms', in *New Materialisms. Ontology, Agency and Politics*, eds D. Coole and S. Frost. Durham, NC and London: Duke University Press, pp. 1–43.

Douglas, M. 1966. *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. London and New York, NY: Routledge.

Douglas, M. 1973. *Natural Symbols: Explorations in Cosmology*. London: Pelican Books.

Eternal Reefs, n.d. [online] Available at: *www.eternalreefs.com/*. Accessed November 2017.

Garrod, D. A. E. 1926. *The Upper Palaeolithic Age in Britain*. Oxford: Clarendon Press.

Hansen, P. H. 1996. 'The dancing lamas of Everest: Cinema, orientalism, and Anglo-Tibetan relations in the 1920s', *The American Historical Review* 101(3), 712–47.

Haraway, D. 2008 *When Species Meet*. Minneapolis, MN: University of Minnesota Press.

Heart in Diamond. n.d. [online] Available at: *http://www.heart-in-diamond.co.uk/*. Accessed November 2017.

Hodder, I. 2014. 'The entanglements of humans and things: A long-term view', *New Literary History* 45(1), 19–36.

Ingold, T. 2007. 'Materials against materiality', *Archaeological Dialogues* 14(1), 1–16.

Ingold, T. 2000. *Being Alive*. London and Oxford: Routledge.

Ingold, T., and Palsson, G. 2013. *Biosocial Becomings: Integrating Social and Biological Anthropology*. Cambridge: Cambridge University Press.

Kopytoff, I. 1986. 'The cultural biography of things: Commoditization as process', in *The Social Life of Things: Commodities in Cultural Perspective*, ed. A. Appadurai. Cambridge: Cambridge University Press, pp. 64–91.

Krmpotich, C., Fontein, J., and Harries, J. 2010. 'The substance of bones: The emotive materiality and affective presence of human remains', *Journal of Material Culture* 15(4), 371–84.

Lithgow, K., Lloyd, H., Brimblecombe, P., Yoon, Y. H., and Thickett, D. 2005. 'Managing dust in historic houses: The visitor/conservatory interface', in *ICOM Committee for Conservation, 14th Triannual Meeting, The Hague, 12–16 September 2005, Committee for Conservation: Preprints*, ed. I. Verger. London: James and James/Earthscan, pp. 662–9.

Lloyd, H., Grossi, C. M., and Brimblecombe, P. 2011. 'Low-technology dust monitoring for historic collections', *Journal of the Institute of Conservation* 34(1), 106–11.

Marder, M. 2016. *Dust*. London: Bloomsbury.

Mihala, L. 2017. 'Turning the dead into vinyl records', *BBC News Business*. [online] Available at: *www.bbc.co.uk/news/business-40492466*. Accessed November 2017.

Sofaer, J. 2006. *The Body as Material Culture: A Theoretical Osteoarchaeology*. Cambridge: Cambridge University Press.

Wright A. R. 1904. 'Tibetan drum and trumpet', *Folklore* 15(3), 333–4.

Notes

1. For such an account see Hansen's 1996 discussion relating to the cultural context and impact of the 'Dancing Lamas of Everest' accompanying the 1925 showing of Noel's ground-breaking silent film, *Epic of Everest*, in Britain, where Dancing Lamas reputedly used human femurs as drumsticks as an accompanying attraction.

9 A CUP FOR ANY OCCASION?

The Materiality of Drinking Experiences at Kerma

Carl Walsh

Introduction

Theories of New Materialities provide engaging avenues to conceptualize the interactions between material culture and the body and how scholars might go about examining these interactions in the archaeological record. Such approaches highlight the agency of materials in the design, making and use of objects, moving away from purely object-focused analysis (Knappett 2005; Ingold 2007, 2012; Knappett and Malafouris 2008; Drazin 2015a, 2015b). They can, however, be somewhat lacking in considering how the body itself is also a shifting collection of materials (flesh, liquids, hair, bones etc.) that affects the experiential and sensory aspect of body/material interactions. Though some key work has been done touching on this aspect (Robb and Harris 2013, 17; Harris et al. 2013, 196–212), anthropological and archaeological theories of embodiment and phenomenology provide complementary theoretical perspectives that allow us to place the agency and materiality of objects into the context of the lived experience of the body (Hamilakis 2002, 2013; Csordas 1994; Malafouris 2008a).

Such an approach is particularly useful and relevant when examining societies whose textual and iconographic records are limited and which instead require a material culture-based theoretical framework. This limitation can be due to a number of factors, such as preservation patterns of written and artistic sources, the materials used for writing and art and the degrees of importance of writing and art in the communicative practices of societies. This chapter focuses on one such society, the Middle Bronze Age (MBA, 2000–1550 BCE) Kerma state in Nubia (modern Sudan), whose sphere of influence has currently been demonstrated to have reached, at a minimum, from the second to fourth Nile cataracts (Emberling et al. 2014). The interesting absence

of written records and very limited figural iconographic evidence indicate that other communicative modalities, such as orality and material culture, may have had a higher degree of importance. In examining Kerma society scholars must rely almost entirely on material culture and architecture as the key sources and windows into how this society was organized and operated. As such, a material and embodied approach presents some interesting opportunities to engage with Kerma material in non-traditional ways that have proven to be quite exciting and illuminating. In this chapter I examine how such a material and embodied approach can provide new insights and observations in interpreting the role of drinking and pouring forms of black topped red polished ware (BTRPW) ceramics in Kerma society. I argue that these vessels have certain material qualities which facilitate different types of drinking experiences in the upper tiers of Kerma society and which were key in expressing social hierarchy and identity.

Materiality and the body

The approach I take in examining the Kerma BTRPW ceramics combines aspects of New Materialities theory, relating specifically to the consideration of the material of objects with anthropological and archaeological theories of embodiment and phenomenology, which deal with the human body. In the author's opinion, the material aspects of objects and bodies are a key component in the way in which humans experience body/material interactions in the phenomenologically-driven experience of the body in the world (Csordas 1994, 6). This experiential element of materials in bodily and social practices is in itself an essential aspect in designing object typologies as well as how they are used in societies. Due to these two properties, they play important roles in social and cultural identity.

I will start from the question: how can objects become part of the cognitive system of the body, blurring distinctions between boundaries of the body and material culture (Malafouris (2008b)? This idea of incorporating objects into the *body schema* (Malafouris 2008b), the cognitive perception and experience of the body, enables objects to become intimately tied to a person's conception of the bodily self and identity. Malafouris' particular example looked at the emergence of swords in the Mycenaean shaft graves as part of an emerging

incorporation of these objects into elite warrior identities. The swords were not simply 'prestige' items, but had an agency in being integrated into the human body and cognition, in essence becoming part of the matter of the body. As such, the swords facilitated new body/material interactions and relationships that formed core aspects of these new emerging identities. Malafouris' concept of *body schema* fits into this chapter's approach by recognizing that the body is an amalgamation of materials, which can incorporate a variety of other materials such as ceramic, metal and stone. The resulting melding of materials facilitates the body and object gaining new forms, qualities and functions. This confluence of materials is directly tied in the human cognitive system, which recognizes these other materials as 'part' of the body and of the 'self'.

This porosity between the body and material culture can be built on further by considering how specific forms of bodily action have interdependent relationships with materials and objects. Drinking from a vessel, eating with cutlery, sitting with furniture, or walking with footwear are all examples of bodily actions or gesture that are intimately intertwined with body/material/object interactions. These gestures form part of the habitus of different social and cultural groups, building the basic body techniques of everyday life (Mauss 1934; Bourdieu 1977). The material and physical qualities of objects such as vessels or cutlery are designed and manufactured in order to interact with the human form, constructing and facilitating the performance of specific forms of gesture. These gestural vocabularies are in turn part of a wider spatial and sensory environment, incorporating architecture and the physical environment (Ingold 2012) in which they are defined, constructed and performed. In this regard, the incorporation of materials and objects into the *body schema* also involves the actions of the body and objects through gesture.

These specific attributes, qualities and relationships between materials, objects and bodies – the wider social and physical context of which they are a part – resonate particularly with the concept of affordances put forward by James Gibson (1979, 119–36). His conception of 'affordances' refers to the potential relationships formed between objects and people, based largely on the physical properties of objects and what they afford humans by interacting with them. These qualities of objects include texture, colour, size, shape, mass

and elasticity amongst others, but they all facilitate potential forms of interaction with humans (Gibson 1979, 125). This outlook allows objects to have myriad affordances and interactions depending on how humans perceive them. I particularly envision this concept contributing to my approach by focusing on how the material qualities of the object facilitate different ways for the body to interact with it, facilitating different gestural forms.

To summarize my approach, I intend to examine the affordances of the BTRPW Kerma vessels, observing how the material qualities of the vessels facilitate different forms of gesture and experience that can be used to construct different drinking practices. Further, it is suggested that these affordances, as well as the embodied and experiential aspects of the vessels, may have been an integral aspect of the *body schema* of new elite identities within the Kerma state during the MBA in Nubia.

Rethinking Kerma ceramics through materiality

Black Topped Red Polished ware is a very distinctive corpus of Kerman ceramics that is identified through its distinctive colouration and surface treatment (Gratien 1978, 226–7). The vessels feature a bright red/orange on the body, black rims and shoulders and often a distinctive white/grey band between the black and red portions (Fig. 9.1). In addition to this vibrant colouration they are often highly burnished, giving them a noticeable sheen (Gratien 1978, 35). The ware is entirely handmade and as such there is a great deal of variation in the exact shapes and sizes of the vessels (Nordström 2004, 251). This ware finds particular prominence and technical refinement in the mid to later part of the MBA in Nubia, in the phase termed Classic Kerma (1700–1500 BCE; Gratien 1978, 35; Nordström 2004, 251). During this period there is a notable increase in fine BTRPW shapes and forms of bowls, beakers and pouring vessels, which are found at Kerma cemeteries and settlement sites (Gratien 1978, 230). While the ware is often admired for its high quality and craftsmanship, there has been little detailed technical study of the ceramics outside of Reisner's original excavation report and Gratien's prominent classificatory study of Kerma material culture (Reisner 1923; Gratien 1978). At this time, little is known regarding the role and function of these vessels in Kerma society.

Fig. 9.1 BTRPW drinking vessels: (a) Beaker EA554423; (b) Beaker EA55415; (c) rilled beaker EA65579.
Photo: Carl Walsh, taken courtesy of the Trustees of the British Museum

These ceramics were classified as finewares and assumed to be 'elite' (Reisner 1923, 325–6). Little consideration was given to *how* exactly they are classified as being elite, which the author suspects as being largely based on modern perceptions of aesthetics. Nearly any publication on Kerma material culture will include some discussion of BTRPW vessels, particularly the distinctive 'tulip bell beakers', noting their vivid colours and elegant shapes (Figs. 9.1–9.2; Kendall 1997, 83; Knoblauch and Lacovara 2012, 204). They certainly do appear in large quantities in royal, courtly and elite contexts, particularly in the royal cemetery at Kerma, indicating that they are indeed important to the upper tiers of society. However, the idea put forward by Reisner that they are exclusively elite, alongside the fixation on the visual rather than the tactile, overlooks that they are found across all social levels in Kerma sites and can be quite variable in quality (Gratien 1978, 226). These BTRPW vessels appear to have been important cultural and social markers of Kerman identity across society (Knoblauch and Lacovara 2012, 204). To understand why these vessels were particularly important to the royal court and elite, an examination needs to move beyond a simple visual analysis and modern sense of aesthetics and instead provide a focused discussion of their materials, affordances and functions.

The idea that pottery played important and primary roles in royal, courtly or elite identity construction is something not widely recognized in many aspects of elite scholarship. Scholars usually associate metal and stone vessels with the conspicuous consumption of the top tiers of society (Sherratt and Sherratt 1991, 358–62; Bevan 2007, 136–7), in contrast to ceramics, which are usually associated with the utilitarian and domestic. These material assumptions have been examined by Knappett, who noted 'everyday' objects, particularly unpainted pottery, have often been overlooked in Bronze Age object studies as being purely functional and with real little meaning or value, particularly to the elite (Knappett 2005, 135–9). However, in his examination of Minoan conical cups, he found that the boundaries between meaningful and functional are often vague, and that there are movements and shifts in these values. Even mass-produced, unpainted or treated ceramic vessels can be very meaningful and valuable when used in specific contexts, such as ceremonial feasting and banquets. MBA Cretan carinated cups also exhibit a huge variety in quality, with some being crudely constructed whilst others are very finely made, with a variety of intermediate forms (Knappett 2005, 143).

This is also true of the Kerma BTRPW, making it often difficult to place them in specific categories and directly correlate them to specific social groups in society. These considerations raise interesting questions on how ceramics are viewed as objects of meaning and value in past societies and if there is a need to reassess their roles. In the case of the Kerma, the widespread use of this type of ware – particularly its proliferation and expansion of forms in royal, courtly and elite contexts during the Kerma Classic period – could be seen as a similar situation to the emergence of conical and carinated cups in Early and Middle Minoan Crete. It is important that scholars move beyond modern assumptions of the value, and therefore social contexts, of objects made of specific materials, and instead think of how these materials and the objects can have value and meaning across social levels. In the case of this chapter, it is significant that the material and physical properties of ceramics are being examined in regards to how they were valued and have important functions in royal, courtly and elite practices.

Building on Ingold's comments about how materiality studies can be quite removed from examining actual materials (Ingold 2007,

2–3; Knappett 2007, 20–3), it is important to actually physically interact with the ceramics, to try to understand how their materials and affordances could be important in elite contexts. Potentially, could physically handling the vessels and directly experiencing their affordances might result in a better understanding of the possible functions of the vessels and the experiential aspects of Kerman elite drinking practices? Additionally, could direct handling illuminate how the vessel's physical attributes might facilitate different ways of holding, pouring and drinking? To this end, a selected sample of BTRPW vessels from the Egypt and Sudan Department at the British Museum were examined and handled over a period of three days. The vessel types focused on relate specifically to drinking forms, or forms that would likely be for drinking. These consisted of two beakers (Fig. 9.1a–9.1b; Museum No. EA554423, EA55415; Reisner 1923, 330–52), a rilled beaker (Fig. 9.1c; Museum No. EA65579; Reisner 1923, 374–8) and a spouted vessel often referred to as a 'teapot' (Fig. 9.2; Museum No. EA65577; Reisner 1923, 364; Gratien 1978, 213). All vessels came from the royal eastern cemetery at Kerma, with the teapot and two beakers presumed from the main burial of a disturbed small tumulus KIV, but found in a nearby chapel (Reisner 1923, 477–9) and the rilled beaker from the main burial of a disturbed small tumulus KB21 (Reisner 1923, 512–13).

The selection of these vessels and these forms was subjective on my part, influenced by personal and scholarly opinions on which forms were likely to be used for drinking practices (Reisner 1923, 326). This does not exclude the possibility that other BTRPW vessels, particularly bowls and flasks, might also be used for drinking. It is highly likely that BTRPW vessels had multiple roles according to context, such as anointing, libations or eating. Other Kerma ceramic wares and forms such as red polish ware spouted zoomorphic jugs or black polish ware rilled beakers may have also been used in drinking practices (Reisner 1923, 376–8, 406). Minor has recently also convincingly argued that large ceramic beer jars and giraffe hair straws were used for elite communal drinking practices (Minor 2018). However, given these BTRPW vessel's physical properties – such as being an open form, capable of containing variable volumes of liquids and, in the case of the teapot, spouted for the pouring of liquids – it is perfectly reasonable that drinking would be one of the primary functions of the vessels.

Fig. 9.2 BTRPW spouted vessel often referred as a 'teapot' EA65577.
Photo: Carl Walsh, taken courtesy of the Trustees of the British Museum

On examining the vessels, I focused on how the physical affordances of the vessels influenced how I handled and experienced them. Naturally, some experiential elements were difficult to fully immerse myself in, as I could not actually fill the vessels with liquid or have direct skin to material interaction. For future research, I would be quite interested in working with a ceramicist to make replicas of the vessels, which could then be experimented with to get a better idea of these sensory and material aspects. Nevertheless, the result of this study was a lot of notes and thoughts on the handling experience which I have organized under different affordance types: material and surface treatment, size, mass, decoration, shapes and handling techniques. Within each of these sections I discuss and compare the four vessels, building a discussion on how I think they could have been used.

Materials and surface treatment

All of the vessels are made from a dark Nile clay (Gratien 1978, 210), but exhibit variation in material processing time and effort. The two beakers and teapot are made from a fine clay and were likely worked free of any course material beforehand. This has allowed the shaping of very thin vessel walls with a high degree of uniformity, indicating the potter was very careful and skilled in shaping the vessels. In contrast, the rilled beaker has a rougher form, with thin, uneven walls and crudely modelled rills on the side (Fig. 9.1c). The material clearly was not as extensively worked beforehand and was roughly shaped by the potter. This difference in processing and material selection suggests that there was a high degree of planning of the desired material properties and shaping process of the vessels beforehand.

The fine clay of the beakers and the teapot, along with the clay components of the slip, allowed the beakers and teapot to be highly polished. This was probably achieved through burnishing, rubbing a stone against the finished surface (Reisner 1923, 329). This treatment provides the surface of the vessel with a reflective and almost metallic appearance, which distinctively catches the light. The burnishing also makes the surface of the vessel extremely smooth and pleasing to the touch, even through a glove. This highly tactile element to the surface highlighted how touching and holding the vessel were highly sensual experiences. Also of interest was the high degree of variability between vessels in this surface treatment, with beaker EA554423 and the teapot having the smoothest texture. The other beaker, EA55415, was still smooth, but not to the same degree, particularly in the interior. The rilled beaker has no burnishing whatsoever, providing a very different sensation when holding, with the coarser surface being slightly discomforting in comparison. These differences in surface treatment and texture would also be felt by the mouth when drinking. These affordances provided by the surface treatment indicate that beakers had distinct tactile differences from one another, providing quite different experiences depending on the fineness of the clay and the level of surface burnishing.

The material and surface treatment also provided an auditory aspect to the vessels. Knappett (2007, 2) has noted how tactile and auditory aspects of ceramics can be important and reflected on how

the choice of material and its shaping influence aspects of texture and sound. Accordingly, I experimented with lightly tapping the vessels to see what sound they made, resulting in a light ringing sound that could be felt through the material when holding. This would have been accentuated with having liquid contents and raises questions on the sensory aspect of toasting gestures, where beakers might have been struck against each other and produced sounds that would have been heard and felt by participants.

A final observation is that the extremely thin walls and metallic surface might indicate these vessels are skeuomorphs imitating the physical properties of metals and metal vessels. There are a few examples of metal vessels from the royal tumuli at Kerma, notably the copper beakers found in grave K 334 at Kerma (Reisner 1923, 203–4), along with a copper bowl with a gold band on the rim in K. 5611:1. I was able to recently handle one of the copper beakers, which is now held in the Museum of Fine Arts in Boston. The copper beaker had thinner walls, which was achieved through hammering (signs of this could be seen on the base of the vessel), and was highly polished, with a vibrant brass colour. It did appear to be related to the BTRPW in design, with similar haptic experiences in the finishing of the material. However, the ceramic beakers were also very different, notably in their weight, thicker walls, auditory qualities, colouration and decoration. As such, it is more appropriate to consider the ceramic material affordances, rather than as these being purely 'imitations' of metal vessel affordances.

Sizes and volume capacity

The beaker forms had some variation in height, with EA55415 being 14.3cm tall, beaker EA55423 being 11.7cm high and the rilled beaker being 16.7cm tall. This might not initially sound like much, but the result was noticeably different. This height ranges are even more noticeable turning to Reisner's examination of the BTRPW vessels, where a variety of sizes are noted from roughly 6cm to 20cm in height (Reisner 1923, 331–42). The decision to produce these vessels in a variety of sizes suggests that there was not a set prescribed way of handling and using the beaker forms; instead sizes could dictate different functions and relationships to the body. Different sizes certainly indicate different holding, pouring and drinking techniques between

vessels, which is an interesting area to pursue in handling a wider selection of vessel sizes.

Sizes also dictate the volume and possible contents of beaker forms and teapots, with the variations in shape also leading to variations in volume capacity (Gratien 1978, 226). I was particularly struck by the fact the teapot has an obviously smaller volume capacity than the large beakers, making it unlikely it was intended to be used in conjunction with these large vessels. The smaller beakers or even bowls might have been more appropriate, further suggested by the teapot's thin and delicate spouts (diameter of 1cm), which would only allow a small amount of liquid to be poured. This could indicate that a valuable and/or heated liquid was poured from the teapots, perhaps some kind of refined oil or alcohol. Meanwhile, the larger beakers might have been used in conjunction with a larger pouring form, perhaps animal-headed red polished jugs or even rilled beakers, whose larger volume capacity and possibly handling techniques could facilitate pouring. The larger volume of these vessels might indicate that water or beer was drunk from these vessels, or some kind of beverage which was produced in large quantities. In any case, the variation in size and volume capacity certainly indicate that these vessels facilitate quite complex sets of drinking practices in which participants could have very different experiences.

Decoration

The vivid coloration of the BTRPW vessels makes them very visually distinctive and was clearly intended to be conspicuous. The bright red/orange, black and white colourations, however, are in no way restricted to ceramics (Reisner 1923, 290–4). Similar colour schemes appear in surviving wall paintings in the funerary chapels in the royal cemetery at Kerma and are reflected in colours of Kerman body cosmetics found in burials (Geus 2004, 274–7). This use of colour seems to be part of a wider colour vocabulary in Kerma society and culture that was used in other mediums such as architecture, body painting and leatherwork/textiles. Red ochre, in particular, was a prominently used colour pigment, with the distinctive red colour appearing in all aspects of material culture. The decoration of these vessels therefore ties into wider bodies of communicative knowledge and cultural identity. I would suggest that far from being purely aesthetic, the colour palette

of these vessels incorporate them into wider cognitive and cultural communicative systems. Holding, pouring and drinking with these distinctively coloured vessels would incorporate the colours into the human body as a type of affordance. This could be further enforced through the use of similar colour vocabularies in personal adornment and dress, which could also be used to express status and identity. In this manner, the vessel colourings were affordances that facilitated the embodied inclusion of participants into certain social, cultural and cognitive identities and landscapes within Kerma society. This materiality of colour in Kerma society is the focus of future research.

Also of note was how each of the BTRPW vessels has its own unique white band patterning. This plays into the variation in affordances of material, surface treatment and size, which recalled the conception of how vessels might have personal ownership and relationships with individuals/groups. Such a view could facilitate concepts of personal or communal vessels that can only be used by specific individuals or groups. While difficult to prove, it raises some interesting questions around how the properties of the decoration might have more meaning than currently realized.

A final observation was that in the case of two beakers and the teapot, there seemed to be an incised band around the rim that created a distinct border and termination. This reminded me of a metal rim fixture. A comparable example of metal fixtures along vessel rims can be seen in a bronze bowl with a gold-plated rim which was found in one of the burials in the Royal Cemetery at Kerma (Resiner 1923, 284). However, the copper beaker examined in the Museum of Fine Arts in Boston did not have any metal fixtures, being hammered from a single piece of metal. It is possible, therefore, that these bands might be mimicking metal fixtures in some form; however, it seems more likely that these are distinct decorations for BTRPW ceramics. In this case, these incised rim decorations might be a particular decorative and sensorial aspects of the BTRPW vessels, especially on the beakers, were the band would have been felt on the lips when drinking.

Shapes and holding techniques

The striking aspect of this seemingly coherent group of pottery vessels are the potential variety of ways they could be held. The teapot, with

its spherical shape and flat base, was well suited to being held in one or two hands and could also be easily placed on a flat surface (Fig. 9.2). It was not difficult to use as a pouring vessel, being able to comfortably sit in one or two hands and be put through a pouring motion. The unusually thin and elongated spout was intriguing, being highly elaborate for simply pouring the contents of the vessel. The shape of the spout seems to place particular emphasis and exaggeration into the pouring motion, fully drawing the movement of the user into the pouring action. This suggested that they were meant to be experiential and display-orientated, placing a ritualized and ceremonial gesture around the act of pouring. The gesture of pouring would therefore become a performance, providing the actor with the embodied experience that could express and communicate their inclusion and status to participants in drinking events.

The beakers and the rilled beaker in comparison were very unstable due to their shapes, even with flat bases, and would have been even more so when filled with liquids. This indicates that their primary function involved being held with the hands rather than being placed on surfaces. Similar observations have been made regarding polished round bottomed ceramic vessels in neighbouring Mediterranean regions such as Cyprus (Steel 2016, 80). Stands for beakers are not common and it seems likely that when stored the vessels were placed upside down on the rim. In this regard the vessels were clearly designed for being held by the hands.

In experimenting with ways of holding the two beakers, I was struck by how the smooth surface made it actually quite tricky to get a firm grip. With a full beaker this would certainly has provided some additional difficulties in holding the vessel, making it not entirely straightforward to handle. The experience of holding the beakers demonstrated many different ways in which the vessel could be held using one or two hands. Using one hand felt for the most part unstable and difficult. The circumference of the beakers is quite large, which makes it difficult to comfortably hold the vessel from the side. The best method was holding the base of the vessel in the palm, which allowed greater control, though this made it difficult to transfer into a drinking motion to the mouth. Using the two-handed technique made it easier to maintain a comfortable grip on the vessels and greatly increased the stability (Fig. 9.3), either through two hands on either side of the vessel or one hand at its top and the other hand resting it on the palm.

Fig. 9.3 Author showcasing the two-handed holding technique with beaker EA554423.

Photo: Carl Walsh, taken courtesy of the Trustees of the British Museum.

In handling the rilled beaker, I wanted to critically consider the common assumptions or allusions that these vessels were largely non-functional. Rilled beakers have often been suggested to be specifically funerary items made to mimic stacked beakers, with the rills being the 'rims'. These ideas imply that rilled beakers were purely display objects for conspicuous consumption in funerary contexts (Reisner 1923, 376; Gratien 1978, 214). Therefore, to challenge these assumptions, I explored how they could actually be used as novel and engaging drinking vessels.

The rilled beaker was heavier and taller than the beakers, making it more suited to being held with two hands. The rills along the side

of the vessel make for an interesting hold, providing space for a finger in between each. The result was a much more stable grip and holding technique than with the beakers, even though they were quite crude and thick. In finer examples of rilled beakers these are usually less pronounced and would afford a slightly less stable grip, but would probably still be more stable than those of the beakers. The height of these vessels, being taller than even the largest beaker, would logically make the rilling a means of acquiring a firmer grip on the vessel. The greater volume capacity and firmer grip might also indicate that these vessels could have been used for pouring, or for communal drinking, either with the vessel being passed around between participants or perhaps involving straws for simultaneous drinking (Stockhammer 2012, 22–6). Again, the aforementioned study by Minor on communal drinking and uses of straws might indicate this, though the current straw remains are rather large to be used with beakers (Minor 2018). In any case, it provided for an interesting and divergent way of holding and interacting with the vessel, as well as quite different drinking or pouring technique to the teapot or beakers. In this manner, the rilling is not only mimicking stacked vessels, but also providing a different experience for drinking. This function as an unusual drinking or pouring form might also suggest why the vessel forms appear in other ceramic wares, such as black polished ware (Reisner 1923, 376–8).

Analysis summary

The analysis of the different affordances of the vessels has highlighted that the materiality of the BTRPW had important implications on the way these objects interacted with the body and how they were experienced. The material, size and volume, decoration and body techniques of these vessels were affordances specific to these ceramic vessels. These also facilitated distinct sensorial experiences through the interacting materials of ceramic and the body. This is a particularly vital aspect in considering ceramic as a valued material through its material properties. In the case of the BTRPW vessels, this is essential in considering relationships to metal vessels and issues of skeuomorphism. While the copper beaker and the BTRPW beakers had some overlap in affordances, particularly regarding the visual and haptic aspects of surface finishing, they were also distinctly different. The ceramics

had vivid colouration, unique decoration, and a wider variety of sizes, weights and volumes. As such, it is limiting to consider the ceramic BTRPW vessels as skeuomorphs, as this inherently places ceramics at a lower value and social role. Considering the ceramic vessel affordances and body interactions provides a different perspective on the social lives of these vessels and how they were valued for their sensory experiences. This facilitates a better understanding of the affordances of both ceramic and metal vessels, and their different and overlapping roles in Kerma society.

Constructing drinking experiences and elite identity at Kerma

The variety of affordances of these ceramic BTRPW vessels highlights that they are not simply passive objects made of inert materials with purely functional roles of allowing the body to ingest liquids. Instead, the materials, colours, sizes, decorations and shapes of the vessels facilitate a multitude of body/material interactions and different gestural performances involving holding, passing, pouring and drinking. The incorporation of these different body/material interactions and gestural forms in drinking practices would allow participants to have very different sensual experiences in drinking activities and events.

These variations in experiencing drinking practices would have provided opportunities for expressing social status and identity at drinking events. These could involve decisions to include and exclude individuals/groups from these events and to further delineate status and identity through the allocation of vessels with different affordances and gestural techniques. For example, the allocation of vessels with different materials, sizes, shapes, burnishing or decoration would have impacted directly on what participants drank, how they held vessels, how they passed and shared them and how they could pour from and into vessels. In the case of the BTRPW vessels, the variety of affordances strongly indicates a complex array of drinking experiences that would have been tightly controlled and manipulated.

These decisions to construct and manage experiences could also be highly formalized through the construction of forms of etiquette, ritualized and codified forms of behaviour within certain social contexts (Walsh 2013). These would facilitate access to, and management

of, these material/body interactions, gestural performances and lived experiences. These forms of etiquette are particularly important ways of expressing status and courtly identities in Bronze Age court societies (Walsh 2013). Courtly drinking practices using these BTRPW vessels likely would have utilized forms of etiquette in order to express social hierarchy and identity amongst the upper tiers of Kerma society.

Returning to Malafouris' concept of *body schema*, there are a number of factors to consider how these BTRPW vessels could be incorporated into embodied courtly and elite identities. Malafouris' examination of the emergence of Mycenaean swords and their incorporation into the *body schema* and elite identities in the Shaft Grave period in Greece particularly resonates with the proliferation of the elaborate BTRPW drinking vessel forms in the Classic Kerma period in Nubia. During the Classic Kerma period there is a development of new local elite object typologies and adoption of Egyptian courtly objects and architecture, which strongly indicates the construction of new types of identity, behaviour and practices amongst the royal court and elite based at Kerma (Minor 2012; Walsh 2016). In this light, the diversification and refinement of BTRPW vessels with their affordances and potential etiquettes indicates that this is intimately tied to the construction of new forms of identity, in which the vessels played a very important part. As objects with long cultural histories in Nubia, they bring elements of traditional practices, but elaborate them further in innovative ways in order to create a new set of practices to be used in identity construction. As mobile objects with intimate relationships to body, they certainly have the potential to be incorporated into the human cognitive system and concept of bodily 'self'.

The contexts for these vessels also support the idea of their incorporation into the *body schema* by the Kerman royal court and elite. BTRPW vessels are found in large quantities in royal and elite burials, where they are placed around the body, alongside many other of these new or adapted elite grave good typologies such as cosmetic vessels, furniture and weapons (Reisner 1923; Gratien 1978; O'Connor 1993, 52; Kendall 1997, 55–62; Hafsaas-Tsakos 2013; Minor 2018). The quantities and physical proximity to the deceased suggests direct personal relationships between materials, objects and the body. Together they can be viewed as intimate parts of the deceased themselves, bringing together the notion of the body as a collection of different materials as

well as bodily actions. In the case of the BTRPW vessels, they directly intertwine the gestures and practices of drinking with the body and identity of the deceased. This direct bodily association is further suggested by the fact that the act of drinking also involved the interaction, flow, transformation and incorporation of materials between the vessel and the body (Hamilakis 2017, 177–80). This further demonstrates the permeability and entangled nature of these vessels with the human body and identity, which is clearly expressed in their spatial positioning to the body in Kerman burials.

This particular view potentially helps us to understand the changing forms and emphasis of elite objects in Kerman burial practice during the Classic Kerma period, which seems to be tied with issues of expressing identity and social status. It should also be noted that at this time the practice of interring possible human sacrifices alongside the deceased expands enormously, with hundreds of individuals buried together in Kerma royal tumuli (Reisner 1923, 65–73; Haynes 1992, 42; O'Connor 1993, 54–5; Kendall 1997, 60–6; Buzon and Judd 2008; Minor 2018). This change in practice might also be tied to new forms of royal, courtly and elite identity and are related to the new elite object typologies.

This incorporation of the BTRPW vessels into the *body schema* of the Kerman court and elite is also indicated by the fact they were likely used in funerary rituals and commensality events. During the preceding Middle Kerma phase, it is common to find the southern perimeter of elite tumuli surrounded by cattle bucrania and upturned vessels (Geus 2004, 279), including earlier forms of BTRPW vessels (Gratien 1978, 236). The remains of cattle and drinking/eating vessels has led to the suggestion that ceremonial feasting and banqueting events were important aspects of Kerman burial practice, particularly in elite and royal contexts (Manzo 2017, 126–7; Minor 2018). Although this practice becomes less common in the Classic Kerma tumuli (Geus 2004, 279), the proliferation of the BTRPW drinking forms in the royal tumuli and subsidiary burials does seem to suggest that feasting and banqueting activities were important aspects in the internment of the deceased and completion of the funerary rituals.

A key question is the role of these BTRPW vessels in daily life. To be part of the *body schema*, it would be expected that they must play integral and important roles in the daily life of the court and elite,

even within specific or limited contexts. Lacovara has noted that the vessels in the royal tumuli seem to have limited signs of wear, particularly when compared to a deposit of BTRPW beakers with signs of wear and repair found in the monumental *deffufa* religious building at Kerma (Lacovara 2003). This deposit at least demonstrates that these vessels have important functions in some ceremonial drinking or ritual activities in the royal and court monumental buildings at Kerma itself. Again, Minor's study of the provisioning and placement of elaborate drinking equipment in Kerma burials suggests that ceremonial feasting and drinking was an integral part of court life and the expression of power at Kerma (Minor 2018). As outlined above, the affordances of the vessels indicate that they could be used in a variety of ways to express and experience status and identity. This analysis presents some considerations on how these vessels could have been used and how they could have formed important aspects of drinking events and activities in the homes and palatial buildings at Kerma itself (Bonnet 2014).

I believe that the widespread occurrence of BTRPW vessels across social levels and regions in the Kerma state indicates a shared conception and tradition of drinking practices, which worked to create a sense of commonality in Kerman cultural identity. However, there also seems to be internal social stratifications in terms of access to drinking experiences, structured around the affordances of BTRPW vessels. These internal social stratifications to drinking experiences suggests an incorporation of these vessels and their materials into the *body schema* of new emergent courtly and elite identities in the Classic Kerma period.

Conclusions: Moving towards a materials and body-centred approach

The approach I have taken in analysing and discussing these vessels has highlighted that theoretical models of materiality, embodiment and phenomenology have a great deal to offer scholars in approaching the relationships and roles of material culture and the human body. By focusing on these body/material relationships, there is a wider scope in reassessing traditional assumptions on the role and value of materials and material culture in past societies. I believe this

is particularly relevant in moving beyond mere modern concepts of aesthetics and material value in characterizing and identifying 'elite' object typologies, which often overlook complex and intricate relationships between the body, materials and objects. In particular, ceramics often seem to fall into a conception of being of low value and utilitarian. The examination of the BTRPW at Kerma seems to suggest that this assumption and stereotype needs to be reassessed. Considering how the physical properties of ceramic vessels can have sensual and experiential aspects allows us to understand alternative trajectories of value and significance in royal and elite practices.

This study has also highlighted how such approaches can be particularly useful in examining the role of material culture in societies that may not use texts and art in traditional ways. In addition, it can provide a different approach in illuminating what material culture can tell us about social and bodily practices without the direction of texts and art, which have limitations in what they can tell us of actual lived experience. Regarding my particular example of the role of these BTRPW ceramics, I believe this study will validate and encourage new ways of approaching Kerman ceramics and hopefully lead to some further experimental and technical studies of this widely recognized, but little studied body of material.

References

Bevan, A. 2007. *Stone Vessels and Values in the Bronze Age Mediterranean*. Cambridge: Cambridge University Press.

Bonnet, C. 2014. *La Ville de Kerma. Une Capital Nubienne au Sud de l'Egypte*. Paris: Favre.

Bourdieu, P. 1977. *Outline of a Theory of Practice*, trans. R. Nice. Cambridge: Cambridge University Press.

Buzon, M., and Judd, M. 2008. 'Investigating health at Kerma: Sacrificial versus nonsacrificial individuals', *American Journal of Physical Anthropology* 136, 93–9.

Csordas, T. 1994. 'Introduction', in *Embodiment and Experience: The Existential Ground of Culture and Self*, ed. T. Csordas. Cambridge: Cambridge University Press, pp. 1–26.

Drazin, A. 2015a. 'Preface', in *The Social Life of Materials, Studies in Materials and Society*, eds A. Drazin and S. Küchler. London: Bloomsbury Academic, pp. xvi–xxviii.

Drazin, A. 2015b. 'To live in a materials world', in *The Social Life of Materials, Studies in Materials and Society*, eds A. Drazin and S. Küchler. London: Bloomsbury Academic, pp. 3–28.

Emberling, G., Williams, B., Ingvoldstad, M., and Thomas, J. 2014. 'Peripheral vision: Identity at the margins of the Early Kingdom of Kush', in *The Fourth Cataract and Beyond, Proceedings of the 12th International Conference for Nubian Studies*, eds J. Anderson and D. Welsby. Paris: Peeters, pp. 329–36.

Geus, F. 2004. 'Funerary culture', in *Sudan: Ancient Treasures: An Exhibition of Recent Discoveries from the Sudan National Museum*, eds D. Welsby and J. Anderson. London: British Museum Press, pp. 274–82.

Gibson, J. 1979. *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.

Gratien, B. 1978. *Les Cultures Kerma: Essai de Classification*. Paris: Centre National de la Recherche Scientifique et avec la collaboration de la Direction Générale des Relations Culturelles, Scientifiques et Techniques.

Hafsaas-Tsakos, H. 2013. 'Edges of bronze and expressions of masculinity: The emergence of a warrior class at Kerma', *Antiquity* 87, 79–91.

Hamilakis, Y. 2002. 'Experience and corporeality: Introduction', in *Thinking through the Body: Archaeologies of Corporeality*, eds Y. Hamilakis, M. Pluciennik and S. Tarlow. London: Kluwer Academic/Plenum Publishers, pp. 99–103.

Hamilakis, Y. 2013. *Archaeology and the Senses: Human Experience, Memory, and Affect*. Cambridge: Cambridge University Press.

Hamilakis, Y. 2017. 'Sensorial assemblages: Affect, memory and temporality in assemblage thinking', *Cambridge Archaeological Journal* 27(1), 169–82.

Harris, O. J. T., McDonald, M., and Robb, J. 2013. 'The body in the age of technology', in *The Body in History: Europe from Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 7–31.

Haynes, J. 1992. *Nubia: Ancient Kingdoms of Africa*. Boston, MA: Museum of Fine Arts.

Ingold, T. 2007. 'Materials against materiality', *Archaeological Dialogues* 14(1), 1–16.

Ingold, T. 2012. 'Toward an ecology of materials', *Annual Review of Anthropology* 41, 427–42.

Kendall, T. 1997. *Kerma and the Kingdom of Kush 2500–1500 BC*. Washington DC: Smithsonian Institution.

Knappett, C. 2005. *Thinking Through Material Culture: An Interdisciplinary Perspective*. Philadelphia, PA: University of Pennsylvania Press.

Knappett, C. 2007. 'Materials with materiality?', *Archaeological Dialogues* 14(1), 20–3.

Knappett, C., and Malafouris, L. 2008. 'Material and nonhuman agency: An introduction', in *Material Agency: Towards a Non-Anthropocentric Approach*, eds C. Knappett and L. Malafouris. Berlin: Springer, pp. i–xix.

Knoblauch, C., and Lacovara, P. 2012. 'Nubian ceramics', in *Ancient Nubia: African Kingdoms on the Nile*, eds M. Fisher, P. Lacovara, S. D'Auria and S. Ikram. Cairo: American University in Cairo Press, pp. 200–9.

Lacovara, P. 2003. 'Deposit of "domestic" pottery at Kerma', in *Egyptian Pottery: Proceedings of the 1990 Pottery Symposium at the University of California, Berkeley*, eds C. Redmount and C. Keller. Berkeley, CA: University of California, pp. 80–6.

Malafouris, L. 2008a. 'At the potter's wheel: An argument *for* material agency', in *Material Agency: Towards a Non-Anthropocentric Approach*, eds C. Knappett and L. Malafouris. Berlin: Springer, pp. 19–36.

Malafouris, L. 2008b. 'Is it "me" or is it "mine"? The Mycenaean sword as a body-part', in *Past Bodies: Body-Centered Research in Archaeology*, eds D. Boric and J. Robb. Oxford: Oxbow, pp. 115–24.

Manzo, A. 2017. 'Architecture, power, and communication: Case studies from ancient Nubia', *African Archaeological Review* 34(1), 121–43.

Mauss, M. 1934. 'Techniques of the body', reprinted in *Incorporations*, eds J. Crary and S. Kwinter, 1992. New York, NY: Zones, pp. 454–77.

Minor, E. 2012. 'The use of Egyptian and Egyptianizing material culture in Nubian burials of the Classic Kerma Period' (unpublished PhD thesis, University of California, Berkeley, ProQuest Dissertation Publishing).

Minor, E. 2018. 'One more for the road: Beer, sacrifice and commemoration in ancient Nubian burials of the Classic Kerma period', in *Current Research in Egyptology 2017, Proceedings of the Eighteenth Annual Symposium, University of Naples, 'L'Orientale'*

3–6 May 2017, eds I. Incordino, S. Mainieri, E. D'Itria, M. Pubblico, A. Salsano and F. Rega. Oxford: Archaeopress, pp. 126–38.

Nordström, H. 2004. 'Pottery production', in *Sudan: Ancient Treasures: An Exhibition of Recent Discoveries from the Sudan National Museum*, eds D. Welsby and J. Anderson. London: British Museum Press, pp. 248–52.

O'Connor, D. 1993. *Ancient Nubia: Egypt's Rival in Africa*. Philadelphia, PA: The University Museum, University of Pennsylvania.

Reisner, G. 1923. *Excavations at Kerma*, Parts IV–V. Cambridge, MA: Harvard University Press.

Robb, J., and Harris, O. J. T. 2013. 'Body worlds and their history: Some working concepts', in *The Body in History: Europe from Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 7–31.

Sherratt, A., and Sherratt, S. 1991. 'From luxuries to commodities: The nature of Mediterranean Bronze Age trading systems', in *Bronze Age Trade in the Mediterranean*, ed. N. H. Gale. Jonsered: Paul Åströms Förlag, pp. 351–86.

Steel, L. 2016. 'Kitchenalia in Bronze Age Cyprus', *Gastronomica* 16(3), 79–90.

Stockhammer, P. 2012. 'Performing the practice turn in archaeology', *Transcultural Studies* 1, 7–42. [online] Available at: *http://heiup.uni-heidelberg.de/journals/index.php/transcultural/article/view/9263* (accessed November 2017).

Walsh, C. 2013. 'The high life: Courtly etiquette in the Late Bronze Age Eastern Mediterranean', in *Current Research in Egyptology 2013: Proceedings of the Fourteenth Annual Symposium*, eds K. Acetta, R. Fellinger, P. L. Gonçalves, S. Musselwhite and W. P. van Pelt. Oxford: Oxbow Books, pp. 201–16.

Walsh, C. 2016. 'The transmission of courtly lifestyles in the Bronze Age Eastern Mediterranean' (unpublished PhD Thesis, University College London).

10 ALL FINGERS, NO THUMBS

The Materiality of a Medieval Relic

Janet Burton

> Paradoxically, in current academic literature, 'the medieval body is both everywhere and nowhere'
>
> (Harris and Robb 2013, 132)

As noted by Harris and Robb, there is surprisingly little discussion of medieval bodies: even in the plentiful literature of saintly relics the notion that these material objects comprised body parts tends to be overlooked. This chapter addresses this paradox, looking at the materiality and agency of relics through the specific example of the relic of Saint Germanus from Selby Abbey.[1]

Material remains of saints

Relics – the *reliquae*, the remains of the saints – are a well-known phenomenon of the Middle Ages; nevertheless, they continue to be a significant focus for scholarly research on such aspects as the 'social construction of holiness… the religious significance of bodies and of geographical place' (Bynum and Gerson 1997, 3). We may take as a starting point the definition of a relic offered by Cynthia Hahn: 'a relic is a physical object that is understood to carry the *virtus* of a saint or Christ, literally the virtue but more accurately the power of the holy person' (Hahn 2010, 290); or, as Smith expresses it, 'the material articulation of the holy' (Smith 2015, 41). In classical Latin the word *reliquae*, which we translate in this context as relics, meant the ashes or physical remains of a dead person, but by the Middle Ages the connotations had widened to include as well as the material remains of a body, in whole or in part, material objects associated with a saint, or

touched by him or her (Bartlett 2013, 239). Matter, specifically bodily matter, presented the medieval church, society and culture with seemingly contradictory meanings. Christian theology taught that before the Fall of Humankind the human body could be thought of as a 'spiritual and eternal being'; on the other hand, in consequence of the Fall, the body was physical and material, and subject to decay (Freeman 2011, 18–19), although we should also note that while the 'body in death was corrupt and repugnant flesh… saints' relics were revered as powerful' (Harris and Robb 2013, 132). The implicit question was: what possible value might this matter have? This illustrates how bodies had agency; a fascination with non-decay evoked a spiritual response or belief in people.

Holy theft: Division, removal and transformation

Common to the medieval phenomenon of relics was their theft, often known as *furtum sacrum*, or holy theft (Geary 1978). Such removal was justified on the grounds that the saint in question would not be slow to demonstrate his or her displeasure if he or she did not approve. Such theft may have involved the dismemberment of the body, as in the case of the Selby relic; this process is narrated in the foundation history (*Historia*) of the abbey. The author begins his text in this way:

> For the first reading, I have thought it fitting to make known the story of the finger of our father and patron, Germanus – who is worthy to be venerated, and who is the origin and theme (*causa et materia*) of almost all our narrative – and of how someone once violently tore his finger away from the bishop's right hand. I have taken care to introduce this at the very beginning of the reading for you, my reader, for this reason, so that, when I begin the narrative of past events, the discourse may continue uninterruptedly without a break caused by deviation, and it will not be necessary to digress from telling one story to another.
>
> (Burton, with Lockyer 2013, 9)

This, then, is our author's strategy. He wants to tell the backstory first, so that the reader will fully understand the significance and history of the finger. Although the word *materia* is here translated as 'theme' it

is interesting that the choice of the Latin word also gives the reader a sense of the physicality of the relic within the structure of the narrative. The text then goes on to describe the first of two attempted 'holy thefts'. A monk at Auxerre became so devoted to the saint of his church that he decided to steal something from his tomb.

> Emboldened by this hope and inspired to carry out the deed, he went to the place where the body of the most holy bishop lay, and – as I believe – having thought in advance what he wished to snatch, the one guilty of sacrilege removed the middle finger of the right hand, either by biting or by cutting it off.
>
> (Burton 2013, 11)

St Germanus was not slow to register his disapproval and condemned the sinner to run around for the rest of his life shouting 'Saint Germanus have pity on me'. There were further consequences:

> Immediately, and by common consent of the brethren, the body of the bishop was put back in such a place, and so positioned, that it might not be seen or approached without the consent of the majority. The tomb was enclosed on every side by a strong wall, with only one iron door allowing access [...] The finger, however, was set in an ivory casket and was placed reverently high on the altar in an exalted position beside the body. It was irrefutable proof of the incorrupt body that the finger remained clothed with its flesh and skin intact, so that the hairs in the middle of the joints even stuck fast to the skin and thus, to the wonder of those who looked on, the finger could be, and was, habitually, lifted into the air by them.
>
> (Burton 2013, 13–14)

This passage is significant in a number of ways. First, the body of the saint was moved to a safer, less accessible spot. We have evidence from Gregory of Tours that the first shrine of Germanus was not in a crypt but was nevertheless easily visited. In the ninth century, an earlier *confessio* was enclosed in the Carolingian crypt which can still be seen (Burton 2013, 12–13 note). Second, the finger was not restored to its owner, but kept in close proximity to him in an ivory casket or reliquary. The choice of an ivory for the reliquary is also significant.

Ivory was expensive and thus prestigious (Guérin 2010). The monk Theofrid of Echternach, in listing suitable materials for reliquaries, placed ivory behind gems and gold in his hierarchy (Hahn 2010, 309; see also Gertsman 2018). Ivory, as a material, was highly prized for its exoticness, deriving from faraway, almost mythical places (cf. Helms 1988). Moreover, Cynthia Hahn (2010, 310) reminds us that from antiquity, ivory – intriguingly another disconnected body part – was associated with the body, largely due to the affordances of this material (Gibson 1979). When used for a reliquary, its pure white colour was seen as a reflection of the holy status of its contents. The smoothness of ivory, which was believed to be incorruptible, was an indication that the human remains it contained were also incorruptible. We can see here the interaction of the body part and its container. Third, there is a strong sense of the physical presence of Germanus through the incorrupt body part. As stated above, if a shrine were opened – as St Cuthbert's was at Durham in 1104 for his translation to a new tomb (Rollason 1989, 35–41) – an undecayed, fleshy body was taken to be a sure sign of sanctity. In the Selby history the lack of decomposition – and thus the holiness of the relic – is enhanced by the minute detail, including the ability to lift the finger by the hairs on the knuckle. Overall, these chapters serve not only to authenticate the relic but to provide a 'biography' (cf. Kopytoff 1986) for the finger.

The significance of this attempted 'holy theft' in the narrative is that it sets the scene for a second such event. Another monk of Auxerre, Benedict, held the office of subsacrist with responsibility for the abbey relics. After three visions of St Germanus, he reluctantly responded to the saint's order to steal the finger relic and travel to England where he was to found an abbey at Selby. What is of particular interest in the context of this chapter is how he was told to conceal the relic in order to effect his escape unhindered:

> You will take my finger which is on the altar with you to remind you of me and, so that you can carry this safely and without danger of losing it, you should cut open your arm between the elbow and the shoulder with a dagger, and place the finger inside. You should not be afraid to do this, because you will not lose any blood nor feel any pain.
>
> (Burton 2013, 19)

One can understand Benedict's reluctance, but eventually he did as bidden:

> Under the silence of night he snatched the finger of the glorious bishop, as he himself had ordered him, and, opening up his arm, he placed the finger inside. In this one action alone many miracles shone forth, because he neither discovered any blood from the wound, nor, although injured, did he suffer affliction. In addition to this, there was the magnificence and glory of no less a miracle because, when he had moved the precious relic towards his arm, the wound straightaway opened itself, with an aperture just sufficient to receive it, and, once it had taken in the finger, again it received it with just the right closure. However, he bound the wound in linen clothes as if he had a burnt arm.
>
> (Burton 2013, 21)

Benedict's human arm defied natural processes and responded to the approach of the relic. The very sensual description of Benedict's visceral interaction with the finger of Germanus is typical of medieval sensual interactions with relics; see, for example, the vivid account of Hugh, bishop of Lincoln's acts upon the relic of Mary Magdalene at the Abbey of Fécamp, which Gertsman attributes to 'anticipation and curiosity… [as well as] an aggressive determination, a longing to possess, and therefore either greed or awe or both' (2018, 27, and below 211–12).

This account of the relic's journey from Auxerre to Selby provides us with an itinerary of object (Joyce and Gillespie 2015), charting the finger's movement though space and time and its concomitant transformation into an object of agency. It begins as the bishop's finger, an integral part of his body, which he, as priest, used to make communicative gestures as part of the religious liturgy. This transforms after death into a non-corrupting, fleshy body part of a saint subsequent to which is its disembodiment, theft and journey to Selby, where it was displayed, resulting in its object agency, and its eventual loss. This itinerary of St Germanus' finger encompasses a flow of transformed relationships between people and things, shifting histories associated with the finger-relic and changing significance and agency of the relic-object as it moves into different social contexts.

The body part relic and its containers

Benedict's own body was the second of three recorded reliquaries that housed the finger of Germanus. Reliquaries are highly significant, because they not only housed, honoured, and indeed protected the relic, but sent messages about their holy contents (Hahn 2010, 291). For Benedict's journey to England, finger in arm, the reliquary, which in Auxerre had been precious ivory, was human flesh. The finger, though intact, had – temporarily at least – been transformed by being subsumed into another body part. The close physical relationship between the relic and Benedict's own body is described further:

> When sickness perhaps compelled Benedict to go to the baths he held aloft his right arm in which the most wonderful finger was enclosed so that it was always clear of the water and prayed very fervently that the finger should not be damaged by any injury through the waters. When those who were there saw this and asked why he did it he at first said that he had injured his arm in some way, but afterwards he told his host the truth of the matter…
>
> (Burton 2013, 31)

This is an imaginative recreation – or invention – by the Selby author: in the narrative, for a short while at least, Benedict's arm became the shrine reliquary. When he raised his arm in blessing it became a human, material, form of the medieval body part reliquary. Just as the first reliquary, the ivory casket at Auxerre, established a material as well as symbolic connection between relic and container, so here we can see an interaction between the body part and its reliquary – the arm. The arm is the container for the relic, and the relationship between the two material beings is one of mimesis (Bynum and Gerson 1997, 4).

Body part reliquaries such as these, in particular arm reliquaries, were common from the twelfth and thirteenth centuries, and are a vibrant subject of research (Boehm 1997; Bynum and Gerson 1997, 4–5; Hahn 1997; Bynum 2011, 70; Gertsman 2018). Bynum identified one of the earliest-known body part reliquaries as the arm of St Basil from the second half of the eleventh century, now at Essen Cathedral (Bynum 2011, 70). Finger or hand reliquaries are less common, and

it is likely that arm reliquaries (Fig. 10.1) enclosed fingers and hands as well as whole arms. Moreover, the body reliquary did not always match the body relic it contained; indeed, it may have housed numerous relics. Hahn draws attention to the two arm relics of St Gereon in Cologne, one of which contained – according to its inscription – relics of Sts Sixtus, Agapitus, Felicissimus, Nereus and Achilleus, and

Fig. 10.1 Arm reliquary of St Elisabeth, c. 1240, from the former Premonstratensian monastery of Altenberg.

the other relics of some thirty saints (Hahn 1997, 21). We can see the particular attraction of arm reliquaries, whatever sacred matter they enclosed. Held aloft they could emulate the act of blessing and could have been carried for ritual and processional purposes, thus displaying the relic even if it were concealed within (Bynum and Gerson 1997, 4; Hahn 1997; Hahn 2017). It is, as Hahn (1997) has suggested, the unique association of arm reliquaries with the ability to mimic gesture, particularly that of the liturgy, that gives them their distinctiveness. The same would hold true of the fictionalized human, material reliquary of Benedict's own arm.

Benedict's journey, finger in arm, in response to the vision of St Germanus, did not go smoothly. The author describes how having misheard St Germanus, Benedict made his way not to Selby but to Salisbury. It took a further vision of the saint (who appeared *subridens* – laughing!) to convince him of his mistake. But his brief stay in Salisbury was not without profit, for he encountered a rich and powerful man, Edward, probably the sheriff of Wiltshire, who saw Benedict on his way loaded down with gifts:

> The little gifts – no less precious than beautiful – which Edward, driven by love, afterwards entrusted to Benedict to beautify the house of the Lord and pay reverence to Bishop Germanus, are witness to this. Indeed, he gave him a round golden reliquary in which to place the precious finger, which was of excellent size and quality, wondrously engraved, and of expensive workmanship, and to this day it is preserved in the monastery of Selby, and kindles in all those who look on it no less praise of the object itself than wonder at the grandeur of its ancient artistry.
>
> (Burton 2013, 27)

This was the third of the reliquaries to contain the finger. It was not an arm reliquary but a round golden one which – with the finger – became a part of the material culture of the abbey that grew up around the small hermitage established by Benedict at Selby. The reliquary, a reminder of Benedict's travels and his adventures as well as the guardian of the sacred relic, became an important part of the corporate memory of the abbey. Gertsman has recently examined the materiality and agency of reliquaries, focusing on vibrant matter of the

rich materials from which they were fashioned and affective powers of these material (2018, 36–7). Similar material agency is evident in the description of our reliquary. Gold and gems – which had biblical associations with the New Jerusalem – ranked highest in Thiofrid's hierarchy of materials used for reliquaries (Hahn 2010, 309). As Bynum (2011, 132) emphasizes, jewels and gold underlined 'their permanence and closeness to – perhaps even residence in – the heavenly Jerusalem'. One function of reliquaries is that they protected the relic and kept them from harm and theft. But more than this, they were regarded as being as efficacious as the relic itself. To turn to Thiofrid again:

> As the soul itself in the body cannot be seen and yet works its wonders therein, so the precious treasury of dust [relics] works unseen… Who with fast faith touches the outside of the container whether in gold, silver, gems, or fabric, bronze, marble or wood, he will be touched by that which is concealed inside.
>
> (cited in Hahn 2010, 309)

We can see how relic and reliquary almost merge in their identities (see Hahn 2017, 10). In our text there is an emphasis on the physicality and the materiality of both.

The agency and materiality of the relic

The finger of Germanus played no small part in the transformation of the community at Selby. At his first arrival on the banks of the Ouse, in emulation of one of the miracles of Christ, Benedict healed a dumb man through raising the finger in blessing:

> Having spoken thus, he took the precious finger of the bishop and made the sign of the saving cross on the mouth of the dumb man. The chains which had previously held his tongue condemned were burst, and the power of the mouth restored in wonderful manner, so that it could be used to speak…
>
> (Burton 2013, 37)

The finger has become the *distributed* agent (cf. Gell 1998, 222) of the power of St Germanus, and, through him, the power of God.

Nevertheless, the audience is constantly being reminded of the physicality of the relic. For example, Benedict was not above using the relic as a pledge:

> At that time Benedict acquired one hundred marks from Erneis de Burun, then sheriff of Yorkshire, and entrusted the most precious finger to him as a pledge for such a great sum.[2] When he was about to take this weight of silver in the presence of witnesses Benedict brought the precious pledge from its casket and holding it aloft by the hairs which stuck to the skin below the middle joint, in the presence of them all he said to the sheriff, 'Lest I hand over to you a cat in a bag, pay careful attention to what you are getting as a pledge for your money and to what it is like. Its quantity is assuredly without estimation, its quality without definition, its worth without price, its virtue and support without compare.' And thus, putting the most holy finger back into its casket, he gave it into the care of the sheriff. (Burton 2013, 47)

The remainder of the text demonstrates the power and agency of the relic through a range of miracles. It thwarted thieves, saved the church from flooding when the River Ouse burst its banks, turned back fire, freed prisoners, saved men and women from torture, healed the sick and restored the dead to life. All the time there is a sense of the relic, as a living, physical being. Benedict's small hermitage was transformed through the patronage of the powerful sheriff of Yorkshire who spotted it while he was patrolling the River Ouse. The language used by the Selby author is significant. He does not say that the sheriff built a monastery for the runaway monk from Auxerre. He tells how he ordered his followers 'to erect his pavilion in the manner of a guest house, so that it might receive the glorious finger and might honour it be extending hospitality to it', speaking of the finger relic as his 'guest' (Burton 2013, 41). The body part has in a material as well as a metaphorical sense become the whole; it functions metonymically.

Materiality, symbolism and gesture

But why a finger? And why the middle finger of the right hand of the saint? We do not know whether this was an authentic relic of

St Germanus – nor does it really matter. What was important was that it was clearly so regarded at Selby. There is no independent record of Benedict's theft among the historical writings emanating from Auxerre. The thirteenth- to fourteenth-century *Gesta* of the abbots of Auxerre do refer to Benedict's theft of the relic, but the source is the Selby *Historia* itself. The only known medieval manuscript of the *Historia* survives from the library at Auxerre and seems to have been sent there shortly after its composition in 1174; the Selby monk's account was thus absorbed into the historical traditions of Auxerre (Burton 2013, xiv–xvi, lxxx–lxxxiv). This raises many questions about the relationship between Auxerre and Selby that are beyond the scope of this chapter. But why did our author choose to construct the narrative around a relic that is so clearly identified as the middle finger of the right hand? Here we need to go back to the text that underpins much of the Selby history and is its principal literary source, the Bible. There are two significant elements: the finger (particularly the middle finger) and the hand to which it was once attached (the right hand).

The significance of the right hand needs no urging within the biblical tradition from both the Old and the New Testament. To take one of several examples from the *Book of Psalms*: we see the author addressing God with: 'Thou hast a mighty arm, strong is thy hand, and high is thy right hand' (Psalm 89, 13; see also Psalms 60, 5; 63, 8; 108, 6). A further Old Testament reference is to be found in the book of the prophet Isaiah: 'Mine hand also hath laid the foundation of the earth, and my right hand hath spanned the heavens' (Isaiah 48, 13). The New Testament locates Christ on the right hand of God: 'And Jesus said … "ye shall see the Son of Man sitting on the right hand of power and coming in the clouds of Heaven"' (Mark 14, 62). The right hand, then, is the locus of the power and virtue of God.

The significance of fingers can be seen in different ways. They are about creative power, as we see in Psalm 8: 'When I consider thy heavens, the work of thy fingers (Psalm 8, 3)'. They are also about healing power:

> But if I with the finger of God cast out devils, no doubt the kingdom of God is come upon you.
>
> (Luke 11, 20)

> And they bring unto him one that was deaf and had an impediment in his speech; and they beseech him to put his hand upon him. And he took him aside from the multitude, and put his fingers into his ears, and he spit and touched his tongue.
>
> (Mark 7, 32–3)

They are about authority:

> And he gave unto Moses… upon Mount Sinai two tables of testimony, tables of stone, written with the finger of God.
>
> (Exodus 31, 18)

They are about hidden mysteries and guidance towards their understanding:

> In the same hour came forth fingers of a man's hand and wrote over against the candlestick upon the plaster of the wall of the king's palace, and the king saw the part of the hand that wrote. Then the king's countenance was changed and his thoughts troubled him so that the joints of his loins were loosed and his knees smote one against another.
>
> (Daniel 5, 5–6)

Finally, they are about ritual and blessing.

> … and thou shalt take the blood of the bullock and put it upon the horns of the altar with thy finger and pour all the blood beside the bottom of the altar.
>
> (Exodus 29, 12)

> And Moses took the blood and put it upon the horns of the altar round about with his finger, and purified the altar, and poured the blood at the bottom of the altar, and sanctified it, to make reconciliation upon it.
>
> (Leviticus 8, 15; see also Leviticus 4, 6; 4, 17; 9, 9)

This last link between both the hand and the finger(s) and blessing is inherited by medieval tradition. The finger, as argued above, is linked

to liturgy and liturgical practices (see Gombrich 1966, 394 and fig. 3). There are three principal forms of benediction attributed to Christ and to priests. One was with the thumb, index and middle fingers of the right hand extended, with the ring and little finger folded into the palm. The second was with the tip of the ring finger touching the tip of the thumb while the index, middle and little fingers are extended. The third is with the index and little finger extended while the tips of the middle and ring finger touch the thumb. All contain references to the sign of the cross (Trumble 2010, 52–3). An arm reliquary could be fashioned in any of these gestures. The examples used by Hahn (1997) show two main types of blessing, the open-handed palm (Hahn 1997, 22) and the 'blessing gesture' which corresponds to the first pose described above (Hahn 1997, 21–5). A raised arm relic would have been, in one way, static, and in another, moved, to emulate, and in imitation of, a priest's physical blessing. It would have become animate, a part of performance and sacred ritual. The most powerful connotations of hands, fingers and blessing are in the performance of the Mass, when the priest's raised right hand, middle finger pointing upwards, marks the transubstantiation of bread and wine into the body and blood of Christ. These attributes mark the 'thing-power' or agentive capacities (Bennett 2010) of the finger and hand and signify why these body parts were so frequently transformed into relics.

The power of the finger/hand in the Selby history is implicit. The actual Selby relic itself no longer exists. By reference to relics that have survived the centuries, the inscriptions they sometimes bore, and the labels that were used to authenticate them, we can show that for the medieval mind the power and agency of God was transmitted through the saint and then through the fleshy body part or reliquary. It is the very incorruptibility of the relic, in contrast to the decaying flesh of normal mortal bodies, that the relic acquired its potency and agency, the materiality of the body reflecting the purity of spirit. Hahn (1997, 25) draws attention to an arm reliquary now in Copenhagen that bears the inscription *Dextera domini fecit virtutem*: 'The right hand of God makes saintly power'.

The author was immersed in the Bible, in which the fingers of the right hand clearly had significance. There may have been other sources of inspiration for the story of the finger relic. Textual evidence demonstrates that the Selby author had access to the *Miracula*

of St Germanus, penned by the Carolingian monk of Auxerre, Heiric, and completed in 873–5. This contains a story of how, when the body of Germanus's predecessor as bishop, Amator, was being translated to a new tomb, the monks of St Germanus, eager for a relic, thought it appropriate to demand the fingers of the hand that had once forcibly tonsured Germanus. But 'fingers' here is in the plural, the hand is not specified, and at best this is a loose parallel (Burton 2013, lxxxii–lxxxiv). In making the relic of the middle finger of the right hand of the saint the pivot of his narrative and of the origin myth of Selby Abbey, our Selby monk chose a powerful symbol of authority, based on biblical connotations of wisdom, guidance, healing and benediction.

But there were other, more negative, connotations associated with this particular digit, and here we turn to Isidore, bishop of Seville (d. 636), whose enduring fame rests on his encyclopaedic *Etymologies*. This extensive work was widely known and widely copied in the Middle Ages. This is what he has to say about the right hand and various fingers. The right hand (*dextra*) Isidore derives from Latin *dare* (to give) and both his classical and biblical sources lead him to associate it with a pledge of peace (Barney et al. 2006, 235). He traces the root of the word fingers (*digitus*) either to *decem* (ten) or *decenter* (handsomely) because they form 'both the perfect number and the most appropriate order'. He continues:

> The first finger is called thumb (*pollex*), because among the rest it prevails (*pollere*) in strength and power. The second is the index finger (*index*), which is also called the 'greeter' (*salutaris*) or 'pointer' (*demonstratorius*)… The third finger is called 'immodest' (*impudicus*), because often an accusation of a shameful action is expressed by it. The fourth is the ring (*anularis*) finger, because it is the one on which the ring (*anulus*) is worn… The fifth is called *auricularis*, because we use it to scrape out the ear (*auris*).
>
> (Barney et al. 2006, 235)

If we follow Isidore's interpretation, transmitted from the classical world, then – oddly perhaps – the Selby monk has chosen as his sacred relic a body part with rather dubious connotations. I am not sure at present how to interpret this. It may raise questions about the early medieval sources to which the author had access. We know he had a

copy of Heiric's *Miracula* of St Germanus, a text that appears not to have circulated widely in England, but we cannot assume that the library contained a copy of Isidore, although that was better known. Our Selby author may not have known about this alternative interpretation. Or maybe our author had a sense of humour – indeed such is evident in the text.

Conclusions

Medieval society prized relics and saw them as a source of power – these disembodied body parts had agency (e.g. Gertsman 2018). Current research, however, continues to show that there is more to be explored, in terms of the physicality or materiality of relics, the relationship of relics and reliquaries, and especially body part reliquaries, and to challenge the 'one size fits all' notion of an unchanging phenomenon. One final example comes from another English literary source rather later than the Selby history, and serves to underline the way in which material relics were transformed through contact with humanity. The 'life' of Hugh, bishop of Lincoln (1186–1200) – to whom the epithet 'saintly' is often applied – records how the bishop was himself guilty of a holy theft. Whereas the Selby author admitted that he did not know whether the monk of Auxerre bit or cut off Germanus's finger, the author of Hugh's life was quite clear that when Hugh visited the monastery of Fécamp he chewed off two fragments of the bone of St Mary Magdalene. 'After reverently examining and kissing the much venerated bone, he tried unsuccessfully to break it with his fingers, and then bit it first with his incisors and then with his molars' (Douie and Farmer 1962, 169). The reactions were polarized. The abbot and monks of Fécamp were appalled at what they called 'profanity' and the bishop's lack of courtesy in 'gnawing… as if he were a dog' the relic they had shown him in order that he might venerate it. The bishop's view, which his biographer thought worthy of record, was different:

> If, a little while ago I handled the most sacred body of the Lord of all the saints with my fingers, in spite of my unworthiness, and when I partook of it, touched it with my lips and teeth, why should I not venture to treat in the same way the bones of the saints for my protection, and by this commemoration of them increase my

> reverence for them, and without profanity acquire them when I have the opportunity?
>
> (Douie and Farmer 1962, 170)

Hugh was here referring to the Mass and the doctrine of transubstantiation, when physical matter – bread and wine – was transformed into bodily matter. The bone-relic, the material remains of the saint, were not polluted by contact with his body, but retained their power and agency.

References

Barney, S. A., Lewis, W. J., Beach, J. A., and Berghof, O., with M. Hall 2006. *The Etymologies of Isidore of Seville*. Cambridge: Cambridge University Press.

Bartlett, R. 2013. *Why Can the Dead Do Such Great Things? Saints and Worshippers from the Martyrs to the Reformation*. Princeton, NJ: Princeton University Press

Bennett, J. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham, NC and London: Duke University Press.

Binski, P. 1996. *Medieval Death*. London: British Museum.

Boehm, B. D. 1997. 'Body-part reliquaries: The state of research', *Gesta* 36, 8–19.

Burton, J., with L. Lockyer 2013. *Historia Selebiensis Monasterii: The History of the Monastery of Selby*. Oxford: Oxford University Press.

Bynum, C. W. 1995. *The Resurrection of the Body in Western Christianity, 200–1336*. New York, NY: Columbia University Press.

Bynum, C. W. 2011. *Christian Materiality: An Essay on Religion in Late Medieval Europe*. New York, NY: Zone Books.

Bynum, C. W., and Gerson, P. 1997. 'Body-part reliquaries and body parts in the Middle Ages', *Gesta* 36, 3–7.

Douie. D. L., and Farmer, D. H. 1962. *Magna Vita Sancti Hugonis: The Life of St Hugh of Lincoln*. London: Nelson.

Freeman, C. 2011. *Holy Bones, Holy Dust: How Relics Shaped the History of Medieval Europe*. New Haven, CT and London: Yale University Press.

Geary, P. J. 1978. *Furta Sacra: Thefts of Relics in the Central Middle Ages*. Princeton, NJ: Princeton University Press.

Geary, P. J. 1986. 'Sacred commodities: The circulation of medieval relics', in *The Social Life of Things: Commodities in Cultural Perspective*,

ed. A. Appadurai. Cambridge: Cambridge University Press, pp. 169–91.
Gell, A. 1998. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press.
Gertsman, E. 2018. 'Matter matters', in *Feeling Things: Objects and Emotions through History*, eds S. Downes, S. Holloway and S. Randles. Oxford: Oxford University Press, pp. 27–42.
Gibson, J. 1979. *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.
Gombrich, E. H. 1966. 'Ritualized gesture and expression in art', *Philosophical Transactions of the Royal Society of London. Series B. Biological Sciences* 251, 393–401.
Guérin, S. M. 2010. Ivory carving in the Gothic era, thirteenth–fifteenth centuries', in *Heilbrunn Timeline of Art History*. New York, NY: The Metropolitan Museum of Art, 2000. [online] Available at: *http://www.metmuseum.org/toah/hd/goiv/hd_goiv.htm*. Accessed August 2017.
Hahn, C. 1997. 'The voices of the saints: Speaking reliquaries', *Gesta*, 36, 20–31.
Hahn, C. 2010. 'What do reliquaries do for relics?', *Numen* 57, 284–316.
Hahn, C. 2017. *The Reliquary Effect: Enshrining the Sacred Object*. London: Reaktion.
Harris, O. J. T., and Robb, J. 2013. 'The body and God', in *The Body in History: Europe from the Palaeolithic to the Future*, eds J. Robb and O. J. T. Harris. Cambridge: Cambridge University Press, pp. 129–63.
Helms, M. 1988. *Ulysses' Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance*. Princeton, NJ: Princeton University Press.
Joyce, R. A., and Gillespie, S. D. 2015. 'Making things out of objects that move', in *Things in Motion: Object Itineraries in Anthropological Practice*, eds R. A. Joyce and S. D. Gillespie. Santa Fe, NM: School for Advanced Research, pp. 3–19.
Kopytoff, I. 1986. 'The cultural biography of things: Commoditization as process', in *The Social Life of Things Commodities in Cultural Perspective*, ed. A. Appadurai. Cambridge: Cambridge University Press, pp. 64–91.
Rollason, D. 1989. *Saints and Relics in Anglo-Saxon England*. Oxford: Blackwell.

Smith, J. M. H. 1990. 'Oral and written: Saints, miracles, and relics in Brittany, c. 850–1250', *Speculum* 65, 309–43.
Smith, J. M. H. 2012. 'Portable Christianity: Relics in the Medieval West c. 700–1200', *Proceedings of the British Academy* 181, 143–67.
Smith, J. M. H. 2015. 'Relics: An evolving tradition in Latin Christianity', in *Saints and Sacred Matter: The Cult of Relics in Byzantium and Beyond*, eds C. Hahn and H. A. Klein. Dumbarton Oaks: Dumbarton Oaks Research Library and Collections, pp. 41–60.
Trumble, A. 2010. *The Finger: A Handbook*. New Haven, CT and London: Yale University Press.

Notes

1. Germanus, the saint whose finger is the subject of this paper, was bishop of Auxerre (France) from 418 until his death in 446 or 448.
2. There is a play on words here. Benedict refers to the finger relic as a *pignus* (pledge) for the loan of money. The word was also used of the bodies of saints, which were the *pignora*, the security left by saints on Earth after their death to guarantee their continuing vigilance for their followers (cf. Geary 1986, 176). Smith (2012, 151) points to relics as the *pignus* of the 'compact which Christian divinity had made with humankind… tangible tokens of exchange: treasure on earth that was simultaneously treasure in heaven'.

GLOSSARY

We have included this glossary to help you navigate the text in the preceding chapters. This is not intended as a definitive dictionary definition of these terms, but rather to explain how these terms are being used in this book.

Actant Any entity that acts upon, affects and/or modifies another entity.

Actor Network Theory (ANT) A relational theory, which proposes that humans and non-humans (natural and socially/culturally constructed things) are both subjects that exist within a network of relationships.

Aetiology The cause(s) of a disease or medical condition.

Affect The ability to produce an action or a response. Root of the word: to influence.

Affordances The properties of a thing that determine the possible ways in which it might be used.

Agential realism A theory derived from Quantum Physics and developed by Barad ('Posthumanist performativity', *Signs: Journal of Women in Culture*, 2003), which recognizes the agency of matter. This highlights how the world is not made up from separate, bounded entities, but that things emerge or materialize through their intra-action (see *Agency* and *Intra-action*).

Agency The ability to effect changes through being (or doing). Traditionally attributed only to people, agency is now considered as distributed between items and as emerging from the relationships between substances or materials (see *Agential Realism* and *Intra-action*).

Agentive Having agency, producing an effect.

Animal Turn Scholarly move that encourages attention be given to the role animals play in co-creating human lives (see *Anthrozoology*).

Anthropocene The most recent geological time (within/after) the Holocene, so-called because of the pervasive human influence on the Earth, affecting and altering the atmosphere, biosphere and hydrosphere.

Anthropocentric/ism A viewpoint that privileges the human as the most significant entity in the world and thus interprets the world according to human experience and values (see also *Human Exceptionalism*).

Anthropogenic Resulting from human activity; created by humanity (e.g. pollution).

Anthrozoology Discipline that explores animal–human animal relations.

Assemblage A coming together or arrangement of a heterogenous group of entities (human and non-human, material and immaterial) within a relationship that is in a constant state of becoming.

Autopoiesis The capacity of a system to reproduce and maintain itself (e.g. the chemistry of a cell).

Becoming Used to present existence as an ongoing process rather than a fixed event.

Becomes/ing-with Used to illustrate how everything (subjects and objects) become what they are because of multiple influencing factors. Challenges separatist ideas that imagine things emerge without influence. The term arose from the *Multi-species Move* (see below) and was coined by Donna Haraway in *When Species Meet* (2008) to demonstrate how humans become-with the animals they live with.

Biosocial The interaction of the biological and the social.

Body schema The sense one holds of one's body: its shape, position, place etc.

Bricoleur Someone who creates, crafts or makes things using whatever materials are readily to hand.

Cartesian Relating to the French philosopher René Descartes (1596–1650) whose mechanistic theory of existence that separates flesh from thinking has profoundly shaped modern notions of reality.

Cartesian cut The separation of the material and non-material world, e.g. the separation of mind or 'spirit' from matter.

Cinnabar Mercury sulphide, bright red in colour and source of the pigment vermillion.

Co-generative Generating or becoming together.

Consubstantial Of the same substance or essence.

Corporeal Relating to the body; having a body (flesh); *Corporeality*: condition of being flesh.

Cosmology/ical Aspects of social life that explain the origins of the Universe through creation stories, ritual practices and other forms of knowledge.

Distributed object An object that exists in multiple spaces or places simultaneously. E.g.: the Internet.

Dividual A form of personhood (see below), in which the self is not bounded and separate but instead is composite, extending beyond the body. People are made up of multiple social relations and are understood to comprise parts of other entities, both people and things.

Embodiment The lived experiences of the body and tactile engagements with the material world; *Embodied practices:* physical actions, performing as a body.

Enlightenment The European intellectual movement that favoured logic, scepticism and reason over other ways of understanding and creating knowledge. Enlightenment methods currently predominates global scholarship.

Entanglement A term borrowed from Quantum Physics that aims to describe the multiple intersections and tangled nature of being. According to Ingold, entanglement reminds us of the flow or web of connections between diverse entities with no defined directionality or point of origin. However, in Quantum Physics, entangled is the term used to explain how one thing can exist in two places at the same time.

Entoptic Visual phenomena that arise from the eye. These can be drifting forms or bright patterns.

Epistemology The study of human knowledge: its origins, nature, methodologies and limits.

Ethnography/ic A written account of people lives based on information collected from participant observation, which is a qualitative research method that uses immersive, embodied experience to create knowledge about people's cultural lives.

Hagiography/ical A biography that overly exerts the virtues of the individual.

Hallucinogen/ic A substance that produces hallucinations (visions) through incorporation. This could be through ingestion, topically or inhalation.

Haptic The sense of touch and the experience one has as a result of touch.

Heuristic A practically-based, hands-on or interactive approach to learning; enabling someone to learn something for themselves rather than being taught.

Human exceptionalist/ism The notion that human abilities are exceptional and exceed any other entities' abilities to shape practice or existence; *Human exceptionalist ontology*: a method of understanding existence that elevates humanity above other beings.

Hydrocentric Defines the water-oriented lifestyles and cosmologies of many Amazonian groups.

Interorganismic Between species (see also *Metaorganismic*).

Intra-action Fundamental to Barad's *Agential Realism* (see above), intra-action is a new term that describes how entities come into being from the shifting flow of atomic particles that manifest as the materials of the world when they join (relate to each other). In contrast to representations that present the nature of reality as composed of separate entities, intra-action shows how things emerge from forces inherent in the relationships created when particles collide.

Materiality The physical qualities and material properties of things; the entanglement of people and things within a recursive relationship.

Material culture The objects that people create, consume, trade and discard; objects are described as culture in physical form; Material Culture studies forms an interdisciplinary speciality that explores the relationships between people and the things they use.

Meshwork A concept that describes how life events, materials, subjects and objects shape each other. Meshwork is distinct from a network (see *Network*) in that things are conceived as interwoven rather than just connected or knotted together.

Metaorganismic Across species.

Mind-body The notion that the physical body, thoughts, emotions and spirituality are unified as flesh.

More-than-human An approach that critiques philosophies that separate the human from the rest of the world and in so doing privileges the human; a mode of enquiry that challenges the notion that people are separate from the rest of the world by demonstrating how human lives are shaped by non-human forces. More-than-humanism aims to encourage scholarship that includes more than just humans because people are composed of non-humanity and cannot exist outside the ecology of matter. (See the work of Susan Whatmore, e.g. 2013, 'Political ecology in a more-than-human world', in *Anthropology and Nature*. London: Routledge.)

Multi-species (move) A move in anthropology and other disciplines that attends to the inseparability of human and other lives; how other species are involved in human lives and interspecies influences. It is also concerned with speciesism, which challenges the attribution of rights according to species.

Network A theoretical construct used to conceptualize the connections between interactions and how entities relate (see *Actor Network Theory* above as an example of network theory).

Ontoepistemology The notion (central to the New Materialities) that what is in the world (ontology) and knowing or thinking about the world (epistemology) cannot be separated from each other.

Ontology An area of study that explores the nature of being and existence; how one understands being and existence.

Other-than-human Agents other than humans. This can include non-human animals, plants, geological forms (e.g. rocks or mountains) and physical forces (e.g. wind).

Partible The idea that a person is composite, made up from a collection of relations with other people and things: these composite parts can be extracted, exchanged and absorbed by another person. This sense of personhood is known from Melanesian ethnographies.

Pedology The study of soils.

Perceptronium A material form of consciousness; comes from the hypothesis proposed by physicists that self-awareness might be material.

Person/s Traditionally, a term used to describe individual humans, the term is now more fluid and includes other-than-human

being such as dolphins or rivers as individuals with rights (see *Personhood*).

Personhood What it means to be a person (see *Person/s* above) according to the rules of a given culture or ontology. This is an ongoing process: persons are made, maintained and transformed throughout their life. Personhood is associated with rights. Attributing personhood gives entities rights.

Perspectivism/ist A concept devised by anthropologist Viveiros de Castro that encapsulates the differences between Amerindian ontologies and other methods of understanding being. Its articulating theme concerns the way all living entities are conceived as seeing themselves (their perspective) similarly. Perspectivism in anthropology is used to challenge the nature/culture divide.

Phenomena The basic material foundation of reality. This asserts that 'things' cannot exist as individual, separate bounded entities. Instead all 'things' emerge from the flux of engaging materials that collectively join to temporarily produce 'things'; '*things-in-phenomena*': seemingly separate items that are materially connected.

Phenomenology Theoretical perspective that maintains knowledge and meanings are subjective; any understanding of the world is personal and arrived at through one's experiences and bodily senses.

Phyto-matter Plant matter.

Porosity The state of being porous; used to describe how materials merge, blend and physically penetrate each other at a molecular level and otherwise.

Post-humanism Literally meaning after or beyond humanism; this refers to a state in which people and intelligent technologies are increasingly merging and becoming intertwined.

Quasi-agents Physical forces that induce change but that are not human (used by Bennett, *Vibrant Matter*, 2010). These can include events such as storms, or could be commodities or edibles.

Relational ontology A set of ideas about being that is concerned with relationships.

Sedimentation The acquisition (or layering) over time of body habits and knowledges.

Taskscape Describes the related aspects or 'territory' of a task.

Therianthrope/ic Fantastic creatures that combine people with other animals.

'Thick' description A term coined to describe the comprehensive detail of accounts needed for qualitative research and ethnographic writing to be useful.

Thing-power The ability of inanimate things to influence, act and generate effects.

Third Wave Feminism A theoretical approach used to embrace material agency from a feminist perspective (also known as *Material Feminism*).

Tholos tomb A tomb with a stone-built circular burial chamber above ground. Associated with the Minoan and Mycenaean cultures of Bronze Age Greece.

Totemism A system of social organization that connects people to other species as sacred, spiritual kin.

Transhumanism The modification of people using various new technologies such as genetic and bio-engineering, digital technologies etc.

Vitality/ism The lively, agential powers inherent in materials.

INDEX

B

D

E

R

S

T