Introduction

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Taking insight from the wisdom of Marie-Jeanne Rose Bertin who - as Marie Antoinette's dressmaker - cautioned that 'There is nothing new except what has been forgotten', this volume is in part a project in highlighting how the lineages of thought and methodological approach in Material Culture Studies (henceforth MCS) produce the anthropology of material culture as it stands today. These advancements in MCS, represented in the chapters, take a number of forms. Some of the chapters are explicitly position pieces, challenging how anthropology of material culture is currently being done, and arguing for new directions of enquiry or new methods of investigation. Other chapters advance new typologies of objects, or take old theories into new areas. Many of the chapters explore the ramifications of specific methods, and offer new methodological frameworks to address areas of human experience which demand a new or reimagined analytical approach. While the scale of investigation, and the types of object in question, varies widely across the collection, five key themes emerge around a reconsideration of what the object is. These five themes - concerning the self and personhood, temporality, scales and topology, representation, and participation - draw the object into sharp relief, as an anthropological imperative, and allow us to explore the role the object plays as both a topic of study and an ongoing source of research questions within the anthropological project.

However, the advancements that this book proposes must be understood in relation to what has come before. In framing this book as a stage in a long conversation that is happening within the research group at UCL Anthropology, it is helpful to have a brief account of how that conversation has been shaped so far. There are many ways to retell this history and lineage of MCS, and important contributions to this genealogy have been done by the Editors of the Journal of Material Culture (Miller and Tilley 1996), Mike Rowlands (1983), Victor Buchli (2002), Daniel Miller (2005), Christopher Tilley (2006), Dan Hicks and Mary Beaudry (2010), Paul Basu (2013) and Haidy Geismar et al (2014), amongst many others. Our intention in this volume, however, is not to produce another genealogy of MCS for introductory context-setting purposes. Rather, the volume illustrates how the historical foundations of MCS - or what we the editors call 'lineages' - are central to current and nascent work in the field. By making explicit how these lineages have developed within UCL, we are situating the 'advancements' in theory and method put forward in this volume not in terms of wheels re-invented, but recognising that the epistemological foundations of MCS allows us to explore very old discourses in light of new phenomena, and reconsider classic frameworks within new contexts. Each of the chapters actively engage with an epistemology of the lineages; and, through this, advancements in various directions are made. In this Introduction, we first offer an (albeit brief) overview of how MCS has developed at UCL, and then turn to the five themes that the volume addresses.

MCS at UCL, its foundations and threads

In establishing the *Journal of Material Culture* in 1996, the Editors opened the first issue with an editorial that made the case that material culture studies is an un-disciplined field of study. In framing it in this manner, they highlighted the intellectual freedom gained by drawing from multiple disciplinary insights and methodological approaches. There were no certain ancestors to whom must be paid homage, and no need to guard the borders of disciplinary territory. Nonetheless, in this Introduction we argue that there are strong lines of influence that have shaped how the research group at UCL Anthropology (who, notably, are the managing editors of the *Journal of Material Culture*) has come to claim, and maintain, that un-disciplined nature (see also Hicks and Beaudry 2010 and Basu 2013 in this regard).

In founding the Anthropology Department at UCL in 1947¹, Cyril Daryll Forde drew upon his own multidisciplinary training – first in Geography and then in Ethnology – as well as important work being done in the University of London at the time on physical Anthropology (in Anatomy) and material culture as technology (in various collections). Being trained in Ethnology in the U.S., under Alfred Kroeber and Robert Lowie, Forde's ethnographic method was also heavily influenced by Linguistic Anthropology. While Forde rejected the social theories associated with the anatomical studies at the time, he insisted on the study of physical anthropology, and the human relation to material technology, as core to the anthropological project. This broad, interdisciplinary position set him at odds with the dominant school of Social Anthropology at the time, following Bronisław Malinowski, at the LSE.

Malinowski's interest in the object was limited to its social function and role within the broader context of meaning (Young 2000; Bell and Geismar 2009), and was marked by an 'indifference to structural problems', giving too little detail to 'significant structure' (Lévi-Strauss 1963:132; cf Mosko 2013, though see Basu 2013 for a defence of Malinowski's influence in material culture studies). For his part, Forde maintained that the study of the material basis for humanity was vital. In his book *Habitat, Economy and Society*, he is concerned with cultural difference and social change, investigating both diffusion and the 'functional relations' that 'any element [of civilisation] plays in the life of a people'; he argues that, 'These active cultural factors operate on the relatively static materials of race and physical environment,' but require 'a fairly full and balanced picture of actual peoples' to be understood (Forde 1963[1934]:8).

In 1962, Forde appointed Peter Ucko to help develop the study of technology within the department. For his part, Ucko framed this primarily in terms of art, having studied Near Eastern anthropomorphic figurines during his doctoral research, carried out at UCL. This emphasis on the visual and formal elements of art objects was part of wider interest at the time, such as by those like Anthony Forge at the LSE. It was Ucko that started using 'material culture' in its present sense, that is, the study of the relationship between people and things irrespective of time and space. This was a movement away from specific contexts of historical study in museums or by archaeologists of the distant past, and critiquing the ethnographic study of material culture for its overarching concern for categorisation of morphological classification. Concurrently, different groups at other research institutions developed different emphases within MCS, some – such as that at the School of Anthropology and Museum Ethnography at the University of Oxford – maintaining and

¹ We are indebted to the authors of Geismar et al 2014 for providing an English working draft of their German language publication. While the interpretation and errors are our own, the broad narrative of the research group relies on this paper drafted in 2013 as a key source.

developing the centrality of museums in MCS. For his part, Ucko broadens the remit of MCS, and argues that 'the study of human artefacts can act as a bridge between most other aspects of anthropology'; moving outside the museum, he sees the study of material culture as central to 'the future development of anthropology as an integrated academic subject' (1969:28). In the comparative project that he undertakes, in his 1969 Curl Lecture, Ucko highlights the fact that as material culture data is manufactured artefacts, comparison can be done regardless of the specific time of origin (ibid.:29).

Students of Anthony Forge and Peter Ucko – notably Francis and Howard Morphy, Robert Layton, and Alfred Gell – took forward their interest in material culture as related to the anthropology of art. This group of scholars was also heavily influenced by French structuralism and American symbolic anthropology, and during this period, in the 1960s, the core elements of material culture studies at UCL were established. This can be characterised by a central focus on the object, the importance of especially visual art – and later the image more broadly, an interest in technology, the environment and archaeological insight into landscape and the contemporary past.

It is also in this period – and especially into the 1970s and 80s (Hicks 2010) – that a growing interest in structuralism and Marxism shaped the kind of ethnographic work being done. Students of the department, such as Mike Rowlands (1984), responded to the wider Marxist interest in social anthropology, moving emphasis away from the functionalist interest on the object and its uses, in favour of wider examination of the processes and modes of production by which they were formed. This gave rise to sustained attention to the means by which objects are made, and the social and historical influences of production, but has been fundamentally shaped by the longer history, especially in francophonic, ethnography and theory on technique (e.g. Lemonnier 1986, 1992; Leroi-Gourhan 1971[1943], 1973[1945]; Mauss 1973[1935]).

In the 1980s, Daniel Miller, trained in Archaeology and Anthropology at Cambridge, joined the research group, and brought with him an interest in the work of Georg Wilhelm Friedrich Hegel, Karl Marx, Nancy Munn and Georg Simmel. In his reading of Hegelian dialectics, Miller (1987) was able to help frame a theory of objectification that sought to overcome the subject/object dualism, and open material culture studies to examination of how 'things make people as much as people make things' (2009). Miller's interest in the 'humility of the thing' (1987:85ff) also helped bring attention to mundane objects, at the same time as a similar move in culture studies (e.g. Hebdige 1988), that maintained the comparative empirical method of ethnographic enquiry.

In the 1990s, the research group was expanded, incorporating more of an archaeological influence from Cambridge, with the addition of Chris Tilley and Victor Buchli – both students of Ian Hodder. This expanded the already important work on landscape and the built environment by those like Barbara Bender (1998). Tilley's work drew upon the post-processual school of archaeology, with a strong emphasis on phenomenology in dialogue with structuralism (1974, 1996). With his interest in architectural forms and archaeology of the recent past, Buchli's work opened up new attention to the home (2013), as well as immateriality and decay (2017).

In this same period, two students of Alfred Gell at the LSE, first Susanne Küchler and then later Christopher Pinney, brought new approaches to the anthropology art and visual culture. Küchler's work on *malanggan* mortuary statues, and later textiles, proved an important means to rethink the relations between persons and objects, specifically in terms of the role of object as extensions of thought (Küchler 2002; Küchler & Eimke 2007). Pinney's interest in the image, and the bodily responses which they evoke, has brought new perspectives concerning the phenomenology of aesthetics and the localisation of global practices, such as photography (1997, 2004).

The shape of the research group, has, as one sees when reviewing this history, had strong influence from the perspectives of Anthropology of Art at the LSE and Archaeology from Cambridge, as well as the close institutional affiliation, shared teaching and use of the Ethnographic Collections with Archaeology at UCL. In this light, the un-disciplinedness of material culture studies, as expressed by Daniel Miller and Christopher Tilley (1996), may be seen in contrast to the stronger (and older, more well established) schools of thought represented at the institutions from which many of the core members of the research group had come. For its strengths, the Malinowskian tradition of anthropology, nonetheless, has replicated some of his own shortsightedness (Mosko 2013), and, as Tilley has shown (1991, 1994, 1999), MCS affords a much greater interdisciplinary reach than is common to archaeology. Whereas Miller and Tilley made the comparison to language – which while a broad phenomenon has found a home in its own dedicated discipline – maybe the better comparison is to Conservation, which, drawing from a range of discrete disciplines, benefits from a broad and unifying umbrella. As with the Department of Anthropology and Conservation at Kent (or indeed the Human Ecology Research Group at UCL) demonstrate, the holism of socio-cultural anthropology allows for this multi- or un-disciplined area of study to flourish.

In the breadth of attention to various kinds of objects and technology, the emergence of new genres of objects - such as seen in digital devices and digital objects - gave rise to a new area of research focus, in the establishment of the digital anthropology research group as part of wider MCS. In establishing the new area of study, Miller was joined by a series of people working on various aspects of digital media, e-communications, and earth observation - who each have brought widening perspectives and interdisciplinary backgrounds. At present, this group includes Haidy Geismar, Hannah Knox and Antonia Walford. While 'the digital' in its broad sense can be read as a problematisation of material culture, in its claim to 'virtuality' and 'immateriality', the fact of the matter is the digital is simply another genre of material culture, and while at times marked by ephemerality, it is also deeply reliant upon established infrastructures of the built environment and articulated within human practice as a material entity with which to engage. For example, drawing on a background in critical museum studies, intellectual property rights, and photography in anthropology, Geismar's exploration of the practices of digitalisation in museum and archive settings interrogates the continuity of the normativities built into digital architecture within the virtual spaces of digital collections (2018). Knox's work on roads and hard infrastructure has led to new research pathways in digital infrastructure and 'smart' technology developed out of an interest in the politics of material - such as roads and concrete - and implicitly carries forward Forde's interest in the economy of the material environment and the technological adaptation within a given ecology. Similarly, Walford's training in the intersection of STS and anthropology of science has led to ongoing research in technology and observation from a relational perspective, shifting from the visual object to rather consider the emergence of new knowledge economies of digital metrics and data, and their social and political efficacy.

Taken in this light, the material culture research group at UCL has had a consistent focus on the object, particularly within the framework of visual art and technology, broadly conceived. This tradition set down by Daryll Forde, has continued through the subsequent generations of the research group. The original engagement around art between Ucko and Forge has continued

through students of Forge and Gell, and the original close relationship between archaeology and the research group exemplified in the work of Ucko has been a constant element as well.

In the recent years, as new members of the group – most of whom are represented as contributors in this volume – have been added, the central interest in the social roles and implications of the object, the relational capacity of the art work, and the importance of technology and material environment has continued as important influences. Several different research agendas and pedagogical initiatives have emerged over the last decade which demonstrate the enduring importance of these themes for MCS more broadly. Ludovic Coupaye has developed a research programme around the role of technology drawing on French theorists often overlooked in anglophone academia, and draws upon his formal training in art history and archaeology to examine the practices and techniques enacted upon and demanded by the object in order to deconstruct the category of 'technology' and its socio-political role in both public and academic discourse. Adam Drazin's focus on Design Anthropology brings together classic interests of MCS, such as attention to the form of the object or engagement with the aesthetic qualities of materials, critically examining how academic scholarship is instrumentalised within design contexts, and examining how dialogue with public and private sector institutions around issues such as aging, mobility, and the home can bring new anthropological insight.

It is also worth highlighting that alongside these permanent members of the research group mentioned so far, there are a group of early career research and teaching fellows. In many cases these have been brought into the group as part of European Research Council grants led by Miller, Pinney, or Buchli, or they have been hired to help support the teaching of MCS within the department. Those included in this volume (Carroll, Jeevendrampillai, Reese, Schacter, and Walton) were those in the group as of Summer 2018 when the collection began to be collated; alongside these, Delphine Mercier, who is the Collections Curator of the UCL Ethnography Collection, also supports teaching and the intellectual project of object-oriented study within the group. Within this new generation (four of whom completed their PhDs in the research group), the idea of 'un-disciplined' MCS was a core defining mark of the kind of anthropology to pursue. This has become something of a self-fulfilling prophecy, as the research trajectories being developed (most explicitly in this volume seen in Schacter's contribution) push in directions and develop methods of that un-disciplined nature. It is an undisciplined-ness, however, that is still marked by an interest in collections, museums, visual media and technology.

Whether this continuity within the tradition established by Forde and Ucko is an intentional act of design, or an accident of interest within the wider field is obviously debateable, but it is our contention that this consistency is at the heart of the research group's capacity to generate innovative research within the broader movement back to 'materiality', seen across many disciplines within the humanities and the social sciences. This tension between the foundational approach to objects in the work of Forde and Ucko, and the new forms of material culture that confront us as scholars of MCS, gives the contributions to this volume a specific inflection. The chapters in this book demonstrate the importance of a relational approach to the object, and how placing objects at the centre of our analyses allows the re-imagining of a range of fundamental aspects of social life, such as personhood, temporalities, scales, representation, politics. The challenge of re-theorising the object and materiality in this way lies in staking out new conceptual territory which does not return us to the deterministic and reductionist perspectives of

evolutionists, but draws on lineages of MCS which allow objects, artefacts and materials their full range of social and cultural possibilities and efficacies.

The 'material turn', broadly conceived, has over the last few decades converged around a move away from representationalism and semiotics, and a rejuvenated interest in teasing out the affordances of materials and materialities². This has been done in different conceptual languages and using different intellectual coordinates, from tracing out object biographies, to attending to the physical attributes of images, to a focus on the political materiality of infrastructural systems. However, their convergence indicates a shared commitment to re-theorising the constitutive role of the object in social life in a way that does not reduce objects to inert vessels in human semiotic systems. The chapters in this book all take on this challenge in different ways, and in so doing, push the discipline of MCS in new and exciting directions. Unlike other approaches in MCS that have also taken on this challenge, such as 'new materialism' (see for example Barad 2007; Bennett 2010; Braidotti 2013), the authors assembled in this volume do not seek to redefine the material world in terms of vitalism, so much as work through rich ethnographic material in order to propose a framework for how the object is active within social practice in often pre-social ways. That is, the properties and affordances of objects means that the possible sociality is, at least in some sense, there before the socialisation of the material form. Thus, there is a drive to understand, through empirical observation of the matter of society, what the role of material is in culture.

Bringing the Object back (again) - from lineages to advancements

This volume's analytical focus rests centrally on the object, and what it is as an analytical point of access to, and as an ethnographic element within, wider social and cultural phenomena. This has always been a point of research and debate within MCS, so it should be no surprise that this comes to the fore in this volume where we are explicitly thinking about the lineages of thought in MCS. Across the collection, the authors each deal with object-ness differently. There is no dominant agenda nor definition, and – while some contributing authors present specific cases for articulating what an object, or kind of object, is (e.g. Walton on 'place-object' and Coupaye on 'technical object') or reimagining what it might be or do within society (e.g. Jeevendrampillai's argument on objects as labour, or Drazin's insight on the object biography), or suggesting what the epistemic benefit of an object might be (e.g. Mercier, Schacter, Knox, Pinney) – in this Introduction we are using it simply in a broad sense.

While we are cognisant of the analytical burden terms such as 'object' (or artefact, thing, stuff, substance, material, etc.) carry, we draw upon the empirical benefit of the 'object' in Peircean semiotics – as the source or vehicle of the sign – as a way to tie the semiotic entanglement of culture to the concrete certainty of an observable and material world, away from the arbitrariness of the Saussurian sign. While the shift from symbolic to semiotic anthropology did recognise the importance of the object as the anchor and producer of the sign, it is still a significant step to the kind of MCS that investigates the capacity or affordance of that object, and how this shapes the

² For an overview of the debate around materiality see Miller (2005), Ingold (2007) and his respondents, or Carroll and Parkhust (2018) in considering how these affordances may engage with wider analytical domains.

form and social ability of the sign. So, in emphasising the object in the Peircean sign, we also, conversely, are able to link the empirically observable lived-in world to the relationality of social form. In doing so, we come to trouble the subject-object dyad by highlighting how objects relate within interartefactual domains or within various milieu of relational and sequential actions. In this manner, this empirical object orientation is also a driving force within the analytical project of anthropological theorisation (e.g. Küchler) and application (see especially Miller and Haapio-Kirk).

So, while MCS as it was (re)born in the 1990s was an 'undisciplined' project of enquiry, it can be seen to have developed, at least as an anthropological project within this institution, to be, rather, an anthropology of materials that is emphatically ethnographic in its method and relational rather than semiotic in its epistemology. If, as Hallowell (1955) argued, human society is characterised by an 'object orientation', then the investigation of these objects and orientations is significant to the broader anthropological project, and it is in this sense that the emphasis on the object comes to fruition. In distinct ways across the chapters, this collection forefronts new perspectives on the material object as a place for knowledge production and reimagines what exactly the capacity of the object is in society.

Within this broader conversation, five dominant themes are important to highlight. These include issues of selfhood and post-/humanism; temporality; scales and topologies; representation; and politics.

Self, Personhood, (Post-)Humanism

In The Soul of the Primitive (1966[1928]), Lucien Lévy-Bruhl presents the idea that the person is distributed through their belongings, and that this allows for an understanding of person-object relations that is not simply representational, but facilitates the intersubjective continuity of persons, even past death. The mentality of 'primitive' versus 'civilised' peoples, and how their cognitive and logical (as both evolutionary and cultural) apparatus worked was, for Lévy-Bruhl, intimately connected to the role that artefacts played in the social, and especially ritual, capacity of a culture group. In thinking through what the person is, and what it means to be human, the relationship between humans and objects, and specifically tools, is often articulated as central to the human project. Debates about the evolutionary development or the psychic unity of (hu)mankind rested, to a great degree, on the material culture used (or left behind) by various societies. And for its part, recent anthropological debates have considered the interconnectedness of people and materials at a global (and beyond) scale (Povinelli 2016; Moore 2016; Olson and Messeri 2015). While the scale (see below) of this can be disorientating, the simplicity of the object, as Drazin suggests, is such that investigating the object's biography allows new avenues into interrogating the specific narratives of contemporary global crisis, as well as wider politics and norms of identity and selfhood.

If the definition of humanity rests upon some articulation of technology, then it is fair to consider the possibility that a new frontier in technology – be it cybernetics, or AI – could frame a new stage of humanity, or indeed posthumanity. However, Coupaye's methodological emphasis on the autonomous sequences of action within the internal milieu of technical devices, acting apart from, but impinging upon the actions of, the human user, calls into heightened relief the assumptions about society and anthropocentric bias in anthropology. In Walford's chapter, we see how scientific subjectivities are themselves derived through the aesthetic effects of knowledge objects. The scientific, technological frontier is itself a deeply inculcated in the ethical bias and political landscape of human society. As German media theory has shown, there is an aspect of everything 'new' wherein we have always already been doing it; the question is not what is new, but rather 'How was the human always already historically mixed with the nonhuman?' (Siegert 2015:6). In this vein, the contribution by Carroll and Parkhurst asks us to be critical of the (ethnographic and analytical) claims to 'posthumanity' and the novelty of cyborgian enhancements of/to the 21st century body, mindful of the long tradition in religion and philosophy of human aspiration to something more-than-human.

Time: Futures, Histories, Presentness

Within the anthropological attention to material culture, there has always been the critical issue of temporality as it is inscribed in the object. As Pinney (this volume) reminds us, the Durkheimian tradition approaches objects as a historical record of society. However, as Hallowell argues, the 'object orientation' of society means that objects 'are sources of power to human beings through the 'blessings' they bestow' (2002 [1960]:21). The possibility of futurity, not historicity, being the primary temporal framework of objects has important implications, as a social anthropology of materials should, then, be examining objects not as a record of society, but as key players within society, and in the processes by which futures are imagined and brought into being. Objects have been understood to play constitutive roles in mediating the temporality of social practices, as ecological approaches to anthropology demonstrate, wherein the objects and material resources are understood as part of, especially the timing and ritual of, social custom (Rappaport 1999). However, the way in which objects can actively produce futures - and in so doing, inscribe pasts - is developed in several chapters of the volume. The futurity of the object is most explicitly addressed in Pinney's consideration of both prophetic illustrations and photography, where it is the indeterminacy of the image that lends it so readily to becoming an index of the future, and where the photographic is a form of disturbance rather than illustration that anticipates what is to come rather than records what is past. Similarly, Reese's discussion of the animated luminescent gopurams in Indian political festivals highlights the futurity of care and obligation between the divine political persona and the publics drawn into the warm glow of their incandescent atmosphere.

In a different manner, Coupaye's elucidation of the technical object points to the processual ontogenesis of the device, and the lineages of social, material, and political influences that come to produce any given artefact. This historicity, however, is shown to have a critical decisiveness in shaping the future, as the automatization of the technical life impinges on the person's quotidian movements, knowledge, and expectations. The relation between historicity and futurity is also productively problematic in Schacter's discussion of belatedness as it appears as a theme in the co-curated gallery exhibition *Motions of this kind*. In this latter setting, the curatorial, as method, brings together various histories and presentnesses – often taut with contention and politics – and makes explicit the benefit of considering the project of data elicitation in fieldwork, and the museological display of objects, to both be ongoing and iterative projects directed at future potentialities.

It is clear here how the question of the critical moment of the contemporary period of post-(modern, colonial, human, etc.) is also implicated in these discussions of the temporality of the object. The putative 'post'-colonial in Schacter's chapter, and 'post'-human in Carroll and Parkhurst's, are both challenged by a consideration of how objects hold together different temporal frames, be it the way that colonial pasts (and presents) linger on in ways that can be creatively re-worked in contemporary artistic production and collaboration, or how objects from any given historical time period have always been enrolled in human extensions of themselves into the future. This dynamism of objectual temporality is mirrored in Drazin's attention to how objects have biographies, moving simultaneously through time as well as space, and how in this their futures are tangled up in their present. This vision of possible futures, of ideal futures, shapes not only the production of objects now, but also, as Drazin shows, shapes how objects are moved, exchanged, kept or discarded within their individual lives. Such an emphasis on the futurity of objects is also a challenge to MCS to engage in new modes of objects, and Knox and Coupaye both make a case for approaching certain contemporary technical objects with an eye to revealing their unexplored social and political potential.

Scales, Space(s), Topologies

Re-theorising spatiality has been a crucial element of several branches of MCS. One particularly influential retheorisation came out of the archaeological and phenomenological approach of Chris Tilley, who has argued consistently for the importance of a sense of place rather than space - or 'human space' over 'abstract space' (Tilley 1994). This has resonated with other direct challenges put to a specific form of spatialisation, variously called 'cartographic' (Turnbull 1989), 'euclidean' (Küchler 2001), 'mathematical' or, at times, simply 'western' (Ingold 2000). Space and place has been a contentious re-visited issue for anthropology more broadly, founded as it is on a method that privileges a certain sort of colonial spatial imagination (or 'Christian', see Boyarin 1991), that of the exotic fieldsite. But within MCS this problematisation has been specifically attuned to the role of the material world in generating the coordinates for social action, coordinates that are often shown to escape the confines of a cartographic worldview. In his paper on means of navigation, Gell (1985) makes a distinction between token-indexical and non-token indexical images to frame how a subject's perspective – a view of a landmark, for example – works in tandem with a general, abstracted view of the landscape. In the movement through space, the situated view of the landmark, the token-indexical image, relates to other token-indexical images within a sequence that allows the navigation in relation to the non-token indexical view of space. In this sense, a map, as a non-token indexical artefact, allows the person to anticipate their position within the world. Similarly, Küchler's work on the malanggan of New Ireland (2002) and the tivaivai of the Cook Islands (2007) both demonstrate the non-euclidean ways that the object, like a knot, is a topological artefact that allows the folding in of space, capturing it in the concretised artefactual form. Like the token indexical map, objects hold within themselves the information of complex systems, as an abstract geometry, allowing this conceptual space to be held and contemplated in manageable forms (Küchler and Carroll forthcoming). Alternatively, Tim Ingold's work (2000) on the emergence of places as a result of human interactions with their environment emphasises the extent to which people always move through and dwell in space, and it is these relations with the material world that surrounds them that generates places.

In a similar way, and often linked to the issue of space, the concept of scale has also undergone a thorough interrogation within the broader field of anthropological MCS. Influential here has been the work of Bruno Latour, who in developing Actor-Network Theory (ANT) argued for a 'flat' approach to studying social worlds in which there is no presumption of scalar differentials before the research has been conducted (2005). Different 'scales' – such as local and global, or micro and

macro – emerge from practice and cannot exist independently of the specific networks of persons and things that constitute any social setting; that is, events or things can only become local or global. It is Latour's problematisation of the scalar concept of a 'society' or 'the social' that perhaps resonates most clearly with Marilyn Strathern's widely-adopted position on scale which she developed over the 1990s, in which she questions the analytical usefulness of concepts such as 'society' and 'individual' and the relations thought to inhere between them. Drawing on her work in Melanesia, and putting it into generative relation with mathematical ideas from the 1980s, she proposed a different scalar image to that of parts encompassed by a whole, that of Mandelbrot's fractal, a non-euclidean mathematical form which conserves complexity at every scale (Strathern 1991). In this she was in creative conversation with the ideas of other Melanesianists, such as Roy Wagner's notion of a 'holographic worldview' (2001). This Melanesianist perspective, also seen in the work of Gregory Bateson (1972, 1979), was influential in Gell's formulation of the role of the art-like object and 'index' within his theorisation of the social agency of things and in the role of objects as part of the extended mind (1998).

The chapters in this book build on this previous body of work, starting from the realisation that both cartographic or abstract space and euclidean dimensionality are of questionable usefulness for MCS. But rather than pushing back against the constraints of any one particular spatial or scalar imaginary, the chapters seek to explore the new geometries that present themselves when the enquiry is explicitly object-led. The object is, as Küchler highlights, something in sequence, both temporally and spatially, knowing its predecessor and anticipating its successor, within the abstract geometry and spatiality of how objects relate to each other. In her telling, certain objects - like the machinist's model - 'show off' complex social systems under perpetual construction that extend well beyond the object itself and allow us a vision of the scope of object relations beyond the human. This extensive capacity of objects to work within a number of different geometries is also picked up on in a very different register in Buchli's chapter. Asking what sort of ethnographic object the International Space Station (ISS) is, Buchli points to the challenges of an extra-terrestrial ethnography for traditional anthropological fieldwork. Not only does being in a Low Earth Orbit confound the physical and material expectations of terrestrial settings, in terms of gravity and indeed diurnal and nocturnal rhythms; but also the ISS itself is distributed between the terrestrial and the extra-terrestrial, the human and the cosmic, requiring theorisation of the attunements and worldings between these distributed scales of the ISS.

The spatial presumptions of method itself are here brought into stark relief, and indeed an attention to the problems that different scales of objects pose for traditional MCS is a theme that runs through various of the other chapters, including that of Knox's on the agency of digital devices; Coupaye's on the efficacy of technical objects; Walford's on the aesthetics of scientific data; and Mercier's on the wide reaching implications of the object in solitary observation or in a locally produced set. In Walton's chapter, the potential for digital objects to have spatialising effects – for objects to also be 'places' – is explicitly drawn out in order to argue for a theoretical position and methodological approach that can grapple with the types of movement and reproduction afforded by digital photographs, and the kinds of dispersed, but highly sensual and affective, social configurations made possible because of the image as place-object.

Representation: aesthetics, signs, semiotics

While scholarly work in the first decades of the 20th century held in high regard the role of the physical and environmental factors within the human society (e.g. Forde 1963[1934]; Boas 1955[1927]; Hallowell 1955), the broad trend in anthropology was away from object orientation. In its place, anthropology focused on symbolic interpretation, seen for example in the Geertzian tradition, wherein material culture was increasingly read as representational, following the semiology of Ferdinand de Saussure, thus holding the object to be valued socially only for its capacity to hold attributed meaning. By taking culture as 'a system of inherited conceptions expressed in symbolic forms' (1973:89), and religion as 'a system of symbols' (1966), Geertz frames the anthropological project as one principally concerned with the interpretation of symbols. With the shift from symbolic to semiotic anthropology, afforded a greater importance to objects, as Peirce's 'triadic relation of sign, object, and interpretant includes an ontology of objects as well as an epistemology of subjects who conceive or know the objects through mediation of the sign' (Singer 1980:491). As such, semiotic anthropology granted a greater focus to the context of representation and the qualities of the objects (Mertz 2007).

In other object-oriented disciplines, such as art history and archaeology, the latter half of the century saw an increased focus on the aesthetics and cultural value of the artefact as a way to shift attention away from the problematic aspects of the politics of representation (Fowles 2016; Rubin 1984; Küchler and Carroll forthcoming). The return in the 1990s towards objects in anthropology reflected what Christopher Pinney and Nicolas Thomas (2001) signaled as a need to look 'beyond aesthetics' in our interests in the visual (and indeed language), to wider material forms, registers and contexts wherein objects circulate. In a similar move, scholars like Birgit Meyer (2009, 2012) and Webb Keane (2003, 2013) have sought to articulate the role of objects, specifically, and material more broadly, within the cultural and semiotic worlds of human society. Meyer's interest in the mediating capacity of objects, whereby they are instilled with an authority that allows them to hold key positions in social, and especially religious, settings has made important contributions to the ways that objects work within the social, and deeply intersubjective, relationality of human society. However, in her emphasis on mediation, the object is quickly lost, and appears manifestly present only when it does not work correctly (2011). In this sense, the approach of media studies all too often is beguiled by the 'humility of things', such that the social ability of the object to hide in plain sight is successful not only in the ethnographic context, but also in the analytical arena. By contrast, as seen in Drazin's chapter, there is great analytical insight to be gained via an almost absurd attention to the object, not only as it mediates human relations, but as it exists as an entity outside of those relations, as well.

Similarly, the Percean influence in Keane's work has had immense benefit in terms of critically engaging how signs work within society, but the intellectual burden of his work rests on a linguistic assumption which constrains the possibilities of what the object might do. If, as Küchler suggests, the object – and specifically its sequenciality – is able to hold in its relations knowledge which cannot be articulated in human language (and indeed may only be partially grasped in human cognition), then the place of objects as signs far exceeds what may be achieved within a linguistic analytical model.

Turning back to objects in this way is not then simply a question of eschewing representationalism, but of allowing the object a fuller range of analytical affordances, which in turn pushes us to once again reconsider not only the relation between objects and representations, but also the relationality of objects *per se*. This is clear in Knox's chapter, in which she asks us to consider how knowledge is itself an object, and how the 'epistemology' of digital devices as 'empirical technologies' permit new ways of knowing, or in Walford's chapter where 'objectivity' is recast as a form of relational capacity inhering in knowledge objects like scientific data. Across several of the chapters, objects emerge as relational and dynamic, generators of knowledge, rather than static vessels of meaning, as we see clearly in Schacter's analysis of the capacity for art objects to challenge and question concepts and ideas and thus produce new paradigms of thought.

From this perspective, representation and linguistic analyses in MCS need not be relegated to the concerns of the past, or rendered outmoded for the sake of new research sites, questions and approaches. What images show, tell and represent, remains fundamental in understanding what certain kinds of visual objects are and how they have e/affect in a range of material forms, registers and contexts; this can be seen in the 'prophetic' futurity of almanacs in 19th century England (Pinney), in the camera phone digital photography and the visual (geo-)politics of place (Walton), and the *gopurum* light towers in South India, which manifest the form of deities or individuals that are often rendered from print photographs or illustrations (Reese). Despite the many moves beyond representation, aesthetics, language and semiotics, the present volume highlights a need to both maintain these analytical registers in exploring material cultural phenomena, while exploring theoretical frontiers that bring us to areas such as temporality, affect, place, digitality.

Participation, Politics, People

Moving beyond representation, however, is more than simply a theoretical motivation animating this collection. In thinking about what objects might represent, Jeevendrampillai, Burton and Sanglante demonstrate that the representational capacity of the object is not just to stand in for people, but is also formative of labour and labour practices. In their work, and the wider Objects of Desire collective, the possibility of the object carries with it a certain political potential. Objects here are not merely representative of sexwork, but mediators of relations that constitute the labour of sexwork, and within this framework of possibility, the subject may find the political efficacy to assume or resist a particular subject position. Similarly, in Reese's chapter, it is the infrastructures and politics in which the object — in her case a *gopurum* electric light tower — is embedded along with the materiality of the object that a/effect both the human eye and specific bodily responses, such as squinting, as a politics of the ways of seeing.

Questioning the subject/object binaries on which representational strategies rest also implies questioning the social role and status of MCS, asking how it comes to matter outside of elite academic circles. Several contributors in the volume examine the contemporary role(s) of the anthropologist. While MCS has been traditionally directed at what objects are and do in the world, several chapters in the volume actively explore and advance the role of the anthropologist as participant in the politics of presence, participation, visibility. Geismar explores how anthropologists can be social commentators, exploring how the characteristic inside-outside stance of the ethnographer can be employed to advance the social and political participation of academics as cultural critics. Geismar advocates for an engaged social responsibility, but one that challenges a certain contemporary instrumentality of academic research into neoliberal regimes of knowledge production. Similarly, Miller and Haapio-Kirk take up the issue of anthropologists participating in the world as part of a broader position piece about making anthropological, and MCS specifically,

research – as an object of knowledge – matter in the world. Public education through anthropology, or a 'public anthropology' is hereby advocated as something that 'matters'. As with Geismar, Miller and Haapio-Kirk push back against the neoliberalisation of academic knowledge, and both chapters highlight, in effect, the political significance of anthropological knowledge itself as a kind of 'epistemic objects' or 'knowledge producing entities' (see Schacter and Knox, respectively).

The role of the anthropologist also comes to the fore in Schacter's chapter, which thinks through the curatorial pursuit in the context of exhibiting art. Here, co-curation, collaboration, and art objects are implicated in the wider postcolonial politics of participation. In this way, the object itself becomes generative of new theoretical positions and has methodological implications for further research. In Schacter, the emphasis is on co-curation, while in Mercier's piece, the researcher is inculcated within an intimate, exploratory project of analysis, via 'be with' the object, in order for its qualities to be brought forth to the researcher.

In the multiple voices of this conversation, and the themes that cut across the chapters, it is important that even while framed around the object, these themes start with questions of humanity and end with people. Ultimately, even in the un-disciplinedness of MCS, it is – or at least has come to be in this research group – a deeply anthropological project that takes the anthropological imperative of the object as a source of analytical and methodological insight. To adapt Robert Farris Thompson's insight about aesthetic objects more broadly, considering the object turns 'ancient objects of thought into fresh sources of guidance and illumination' (1973:67).