

Creative Practice: How Communities were ‘made’ at Çatalhöyük

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Abstract

What role did creative practice play in social life at the Neolithic tell Çatalhöyük, and what evidence is there to suggest that making informed the maintenance of the ‘social bond’? Socio-creativity is an undeveloped but important area of research for archaeological approaches to the Neolithic, and offers a unique opportunity to consider both individual and community dynamics, tensions and changing social values from the residues of material interactions. Utilising the work of Bennett (2010a), Barad (2003, 2007, 2012), and Gell (1998) I formulate a critically-informed but practically embedded methodology that finds material “phenomena” (Barad 2003) at the settlement. Çatalhöyük offers a particularly unique example of social organisation as it is believed to have been an egalitarian settlement (Hodder 2014a,c). Furthermore, the material culture provides us with a rich dataset that contains the traces of highly creative and materially-engaged individuals who routinely made and re-made things, such as sun-baked clay figurines, basketry, and beads. I focus on Neolithic interactions with colourful or brilliant materials, substances, and spaces, and explore how these material interactions, as phenomena, reveal certain sensorial dynamics in-action at the Neolithic town. I outline how creative practices can create certain sensory dispositions - ways of seeing, feeling and doing - and I argue that the senses can be profiled during making events (cf. Howes and Classen 1991). The sensorial implications of making have wider connotations for the changing dynamics and tensions between ‘communities of practice’, and can yield important information about macro-scale changes in lifeways (Lave and Wenger 1991; Wenger 1998, 2012; Wendrich 2012; Bartlett and McAnany 2000). I contend that creative practice was an important element of egalitarian community maintenance and argue that socio-creativity played an integral role in social organisation at Çatalhöyük.

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Chapter 1 Introduction

1.1.0. Introduction

Creative Practice, communities, and making are three themes deeply embedded in my work as a researcher and artist. Through my creative practice I have created workshops and artworks using experiential and multi-sensory learning strategies (Bruner 1966; Laird 1985) and experimented with the ‘social bond’ (Hirschi 1969; see Bishop 2012). I have experienced the powerful connections that can be created during making events - moments where humans and materials interact and create new material forms. These events offered practical and intentional engagement with humans and materials. I have also become aware of the senses and how properties such as colour are not stable, but culturally contingent (section 4.6.3.). I contend that making and creating with others can create powerful experiences that have the capacity to impact emotionally, socially, and importantly, sensorially on individuals and communities, and this argument is supported by anthropological literature on ‘making’ (Ingold 2013), and the contemporary discourse on the ‘social turn’ within the history of art (Bishop 2006). In this thesis, I offer a ‘socio-creative’ (Giglio 2015; section 4.2.2.) approach to Neolithic material culture and focus on the social impact of making by analysing the residues of creative practices.

The Neolithic period in the Near East has been approached from both socio-economic and socio-cultural perspectives (Cauvin 2000: xiv); however, few have adopted a socio-creative approach to the archaeological record. Renowned approaches to the Neolithic include archaeologist Gordon Childe’s (1925) presentation of a “Neolithic Revolution”, a great swathe of farmers emerging from the Near East at the beginning of the Holocene with new technologies and relationships with the land. However, archaeological research into wild and domestic plants indicates that the Late Natufian communities evidence a significant expansion in horticultural knowledge (Kuijt 2000a: 79). Natufian hunter-gatherers were living semi-sedentary lifeways (Banning 2003: 5; Byrd 2005: 232). Thus, the transition from the Mesolithic to Neolithic is generally believed to be a much more gradual affair (Richards 2003). Now a ‘polycentric’ approach to social formation is presented as a more likely foundation for Neolithic communities in the Near East (Gebel 2004: 28), and this involved regional differences between house types

and both ‘local and regional subsistence solutions’ (Bayliss *et al* 2015: 3). Thus, the idea that an exodus of communities left Pre-Pottery Neolithic B (henceforth PPNB) systems in the Middle Euphrates should be balanced with the examination of local sequences and how ideas spread, rather than specific techniques and functions (Bayliss *et al* 2015: 22). Özdoğan (2011) emphasises that there was very much a ‘neolithic way of life’ which suddenly appeared across several regions at the beginning of the seventh millennium BC, but it emerged in Southeastern Europe ‘from different types of simultaneous occurrences’ (2011: S416). Thus, the ‘scope’ and ‘pace’ of the Neolithic process is now examined on a local-level, and the analysis of ‘Neolithization processes’ take into account the changing environment and landscapes evidenced across the Near East (Goring-Morris and Belfer-Cohen 2011: S195).

Byrd (2005: 270) discusses the ‘situational’ character of the developments in the PPNB Near East, where the social and ideological changes differed between regions but were ‘increasingly occurring at the same tempo’. Therefore, the transition to the Neolithic lifeway is now argued to be much more gradual, and it is the material culture, and not simply the subsistence strategies or commitment to sedentary lifeways that offer the defining features of the period (Watkins 1990: 336). On the matter of material culture, Verhoeven discusses the importance of ritual during PPNA and PPNB, and notes the aurochs skulls and horncores (2004: 247), ancestor veneration (2004: 246), and the ‘symbolic elaboration’ of houses, emerge during these periods (2004: 243). During the PPNB, Verhoeven (2004: 254) argues ritual and ideology were characterised by communality (public displays), dominant symbolism (evocative symbols), human-animal linkage (the attachment between humans and animals), and vitality (fertility or ‘life-force’). Verhoeven writes “marked PPNB ritual symbolism was an expression of the desire to influence ritual behavior and the supernatural world, in order to manipulate the human world” (2004: 256).

Cauvin (2000) adopts a socio-cultural perspective and argues that the ‘Neolithic Revolution’ evidenced the first exploitation of the ‘natural’ environment, and a transformation of the human mind (2000: 3). Trevor Watkins (1999) also argues that there was a marked conceptual reconfiguration at the beginning of the Neolithic. Watkins uses the house and the role it played within a community as an example, and

notes that the Neolithic marked a transition from the perception of a house as a shelter and utilitarian space for working materials, to a 'home' - a place where symbolic activities occurred and family groups expressed their identity (1999: 344). Thus, there are several different approaches to defining the Neolithic and the changes that inspired humans to live in large, permanent settlements. The Neolithic "origins" debate has tended to dominate discussions of this period (Robb 2007: 24), however, my analyses considers making events (such as wall painting or figurine-making) across multiple generations at a Neolithic tell, therefore I intend to contribute to contemporary understandings of the longevity of a settlement rather than the origin. Thus, this thesis is indebted to the socio-cultural perspective and duly acknowledges the important role of human agency, but offers an approach to the Neolithic that examines both humans and their situation in a 'vibrant' world (Bennett 2010a) of material agents (Gell 1998; Knappett and Malafouris 2008). Socio-creativity is an undeveloped but important area of research for archaeological approaches to the Neolithic, and offers a unique opportunity to consider both individual and community dynamics, tensions and changing social values from the residues of material interactions at a Neolithic settlement.

1.2.0 Research Question

1.2.1. Research Question

My primary research question asks: What role did creative practice play in social life at the Neolithic tell Çatalhöyük, and what evidence is there to suggest that making informed the maintenance of the social bond? Çatalhöyük, as one of the earliest towns on the Konya Plain, is believed to be an egalitarian community that housed a large group of people (3,000-8,000) for over 1,400 years (Hodder 2007a: 106). The Çatalhöyük Research Project has carried out some experimental work in the field of making, such as: making a replica house (St George 2012), making Neolithic paints (Çamurcuoğlu 2015), making Neolithic figurines (Meskell and Nakamura 2005), and experimenting with the ambience inside the replica building (Bosch 2012). However, the social and sensory implications of making, and the transformation of creative practices through the spatiotemporality of the Neolithic mound remains a relatively new

field of inquiry. The analysis of ‘material engagements’¹ at the tell will yield important information about the ‘sensory profiles’ (Howes and Classen 1991; Classen 1997) of makers through time, and provide further information on the status of social organisation at Çatalhöyük. This thesis considers how Prehistoric egalitarian communities at Çatalhöyük managed to co-produce social order and cohesion through their vibrant creative practice. I argue that social integration and differentiation are expressed through material gesture and are embedded in the residues of making events. Thus, this thesis will explore socio-creativity at Çatalhöyük through the analysis of “making” (Ingold, 2013) and link creative practice to the “social bond” (Bishop 2012; Hirschi 1969) via the material residues of making events.

1.2.2. Key Challenges

Locating the social impact of creative practices is challenging because it is a form of ‘tacit’ knowledge making, and some argue that it is a type of knowledge that is difficult to communicate in written and spoken words (Niedderer 2007a, b; see section 4.5.2.). Additionally, within the field of archaeology, specific types of making such as craft specialization (Wright 2008; Baysal and Wright 2012; Baysal 2013), tool specialization (Wright 2014; Russell 2016; Carter 2011), and general ‘technologies’ (at Çatalhöyük: Hodder 2013; Wright 2012) are well-researched. Equally, experimental archaeology has led to the location of authentic materials and utilised making processes to re-create architecture, artefacts and even food stuffs (Busuttil 2013; Outram 2008; Zuckerman 2000; Crew and Hill 2012). Therefore, the theme of ‘making’ is already embedded in research and public engagement within the field of archaeology, particularly under the auspices of ‘experimental’ archaeology; nonetheless, there is still much work to be done in this area.

Added to the challenge of locating the social impact of creative practices from material remains is my focus on ‘community’ - a problematic, but highly relevant, concept for archaeology (Harris 2014a: 86). The Neolithic period in the Near East is often defined

¹ Malafouris (2013) offers a theoretical understanding of material engagement that indicates ‘the synergistic process by which, out of brains, bodies, and things, minds emerge’ (2013: 17). I will discuss Material Engagement Theory in section 3.4.4., and Malafouris’ influential work will be detailed in sections 3.4.2., 3.4.3, 4.3.5. It should be noted that I use the term ‘material engagement’ more broadly to refer to instances where humans and materials are engaged in an activity, I use this term mainly in connection to ‘making’ activities which include grinding pigments, preparing plaster, painting, making mudbricks, beads and so on.

by themes such as sedentism, agglomeration, domestication, and agriculture (Hodder 2007a; Hodder and Cessford 2004; Bar Yosef 2001; Bar Yosef and Cohen 1989; Flannery 2002; Verhoeven 2004). Intuitively, the term ‘community’ seems to resonate with social practices of staying, being and working with others; however, co-residence is not the primary indicator of a ‘community’ (Harris 2014a: 80, 89). Thus, despite the physical proximity of human agents at the tell, it would be problematic to simply assume the site, as a whole, delineates a single community (Canuto and Yaeger 2000: xiii). Therefore, how I synthesise creative practices and ‘community’ is important. I unpack ‘community’ in section 1.3.3., particularly in reference to the archaeology of community (Kolb and Snead 1997; Yaeger and Canuto 2000; Bartlett and McAnany 2000; Harris 2014a; Pauketat 2001, 2008). However, at this stage it is important to note that I follow on from archaeologist Oliver Harris and envisage community as a ‘doing’: something that humans and materials do (2014a: 92).

1.3.0. The Approach: Locating Archaeological ‘Phenomena’

1.3.1. Context of the Approach

My approach to the research question is rooted in the acknowledgement that matter is ‘vibrant’ (Bennett 2010a), and the recognition that the boundary of the body schema is not definite (Malafouris 2008b). Therefore, an integral part of my analysis of human-thing relations during making is the focus on vibrant matter and the blurred boundary between body and matter during making. To briefly contextualise this approach within the archaeological discourse (before Chapter 3 which outlines the context of the approach in greater detail); object biography (Kopytoff 1986, Hoskins 1998, Gosden and Marshall 1999), material agency (Gell 1998; Knappett and Malafouris 2008), and symmetry (Shanks 2007; Witmore and Webmoor 2008; Webmoor 2012; Olsen 2007), are some of the different theoretical approaches social archaeologists and anthropologists use to characterise and understand human-thing relations. However, tensions often arise in relation to the definition of ‘human’ and ‘thing’; there are those who are happy to state “everything in the world is equally a thing” (Witmore 2014: 241); whilst others are keen to ensure humans are not simply reduced to “just another thing” (Hodder 2014b: 228). Despite these tensions, a strong cohort of researchers (Latour 2005; Bennett 2010a; Witmore 2014; Knappett and Malafouris 2008; Harris

2014a) have dedicated time to addressing the exaggerated role of the human in the social milieu and, also, the causal milieu (Gell 1998: 20). Even those who wish to sustain the human:thing dichotomy, or ‘dialectical’ relationship, are aware that things can draw humans into hard labour, and that humans are dependent on things (Hodder 2012a). On the matter of anthropocentrism, archaeologist John Robb notes that one way to tackle the issue is to “decenter humans, effectively viewing them as creations of things rather than the converse” (2007: 18). In philosophy, steps are being made to address this issue under the ‘Object Orientated Ontology’ banner (see Harman 2002, Bogost 2012, Morton 2013). Similarly, archaeological New Materialists, such as Christopher Witmore, address the interpretive imbalance in the discourse by placing things and not humans in the centre (2014: 206). I argue that contemporary analyses of material interactions in archaeology still tend to assert, either incidentally, or sometimes intentionally and overtly, a clear boundary between person and thing, and it should be noted that this distinction is often maintained for ethical reasons (see Bennett 2010a: 11-12).

Certainly, there are exceptions to this observation, particularly theorists who are interested in notions of becoming (Harris 2013, 2014a, b), externalist approaches to cognition (Malafouris 2008c), and certain approaches to relational ontology (for example, Marshall and Alberti 2014). Oliver Harris (2013, 2014a) explores the relational differences between humans and things in affective assemblages (his work will be discussed in section 3.5.8., 4.5.1.). Harris argues that by discussing the relationships between humans, animals, plants and material things, humans and things are not reduced to being the same, instead the differences between them are revealed to be relational (2014a: 89). Archaeologist Lambros Malafouris (2008c: 22) considers material interaction through the lens of cognition, and considers the “in between, rather than within, persons and things” (his work will be discussed in section 3.4.3., 3.4.4.). Marshall and Alberti (2014) have introduced Karen Barad’s relational ontology to theoretical archaeology and used her agential realist approach to analyse and interpret ‘archaeological bodies’ which refer to “human and non-human, animate and inanimate, skeleton and fleshed social body” (2014: 19, 20, 22; discussed in section 3.3.3.). These archaeological theorists in particular have influenced the formation of my theoretical approach.

1.3.2. Locating ‘Phenomena’

Clearly there are different ways to de-centre the role of humans in human-thing relations, however, in this thesis I argue that in archaeology there is a tendency to define the ‘thing’ in terms of the ‘Cartesian cut’ (Barad 2003: 815). Thus humans and things, or simply things, are framed as unique entities, a position Karen Barad rejects (her argument will be discussed in detail in section 3.3.3.). Contra-Descartes Barad proposes a definition of ‘thing’ that is much more radical, she presents an understanding of entities (humans, things) not as unique beings but ‘phenomena’ in constant ‘intra-action’ (2003: 815). Following on from Barad’s agential realist approach the relationship between person and thing is presented in this thesis as phenomena, and my aim is to examine and interpret the archaeological record by looking for things and persons not as unique entities but in “phenomena” (Barad 2003: 815).

To do this I have chosen to take a phenomenological position and to focus on the material residues of “making” (Ingold 2013). After all, humans are not separate from the material world, but work within the material world (Thomas 2006: 15). Thus, the analysis of making offers a unique focus on material engagement as a transformational and socially embedded activity for both humans and things (*contra* Hodder 2016: 81; see section 4.2.1), and it is the relational nature of making that parallels the conceptual approach to the examination of phenomena in the archaeological dataset. Such an approach examines the evident life in the residues of creative practices by focusing on the sensorial attributes of ontogenesis - the work that brings things into being (see Ingold 2014: 234), and encourages researchers to acknowledge the variability in social experiences and the diversity of cultural practices (Pauketat 2008: 235). Thus the residues of making are presented as materials in-action and are explored to make sense of the creative practices and people of the past. Therefore, my approach requires the articulation of an archaeologically informed theoretical approach to human-thing relations that accommodates an ontological re-articulation of the body. Thus, in this thesis I aim to analyse Neolithic creative practices without resorting to the Cartesian cut.

To enable this approach it is crucial that the theoretical position is situated in the archaeological discourse to demonstrate the value of the concept for archaeological interpretation. I plan to illustrate that the very foundations of the conceptual re-alignment of human-thing relations lie in the phenomenological-turn in archaeology (post-1994) that has been firmly accepted in certain quarters of the discourse (Tilley 1994; Brück 2005; Bender 2002, Bender 1998; Bender *et al* 1997; Gosden 1994; Hamilton and Whitehouse 2006; Van Dyke 2013; Thomas 2000, 2006, 2009).

Phenomenological approaches to embodied experiences of landscapes, architecture, and things, have brought Prehistory closer to the contemporary audience, and provided innovative opportunities to think about (even ‘with’) the past through material engagement.

1.3.3. Creative Practice, Community, Co-presence

The emotions that emerge during making could be described as ‘affective relationships’, and following on from Oliver Harris, I propose that creative practices, though a mixture of ‘co-presence’ and ‘affect’, can make communities (Harris 2014a: 91, 92). Yaeger and Canuto define community through interaction and identity formation, and whilst they acknowledge the importance of the spatial (or ‘co-residence’), they emphasise the importance of frequent co-presence (2000: 6-7). A key factor being that there are multiple scales of ephemeral and emergent communities and these can help us understand how community identity is constituted (Yaeger and Canuto 2000: 8). As such, Pauketat presents community as a “dimension of cultural practices, performances, or experiences” (2008: 240). He succinctly remarks: “Community is what community does” (Pauketat 2008: 240). Embracing Yaeger and Canuto’s notion of ‘co-presence’ and Pauketat’s focus on practice, Harris offers a more-than-human stance by proposing communities are assemblages made of relationships between humans, animals, plants, material things and so on (Harris 2014a: 77, 89). Communities are what people and materials do (Harris 2014a: 92). Following Harris’ argument, I contend that the Neolithic creative practices will reveal information about the different communities in-action at the tell. The examination of creative practice focuses on moments where maker and materials ‘intra-act’ (see section 3.3.3.); these experiences entail moments of co-presence (particularly between humans and materials) and produce affect (for more on

the ‘affective’ relationships formed during making see section 4.3.4. for ‘communitas’ and section 4.2.2. for the ‘social bond’) - key social aspects of community formation. Therefore, I argue that the examination of phenomena (or ‘doings’) will offer insight into dynamics and tensions and yield information about communities in-action at the tell.

1.4.0. The Aim: To link Creative Practice to the ‘Social Bond’

1.4.1. Socio-Creativity and the Neolithic

The challenge lies in applying the theoretical approach practically to an archaeological dataset. My aim is to formulate a critically-informed but practically embedded methodology that finds material “phenomena” at Çatalhöyük. Çatalhöyük offers a particularly unique example of social organisation as it is believed to have been an egalitarian community (Hodder 2014a). There are already precedents where material residues have been used to understand Prehistoric sociopolitical structures (Hodder and Cessford 2004). However, I argue that these structures often envisage “passive” agents (both human and material). Creative practice was a regular part of everyday life at Çatalhöyük and therefore an integral part of being a Neolithic person. Making was a daily practice and the quest for materials and substances were routine endeavours spread amongst the community. The ethical-turn in contemporary art practices indicates that there is “art” in creating the “social bond” (Bishop 2012: 22). Bishop notes that the social and symbolic activity mobilised during a participatory art event can become a “model or a prototype for social relations” (Bishop 2012: 22; see section 4.2.2.). Here I argue that the vibrant and pronounced creative practice evidenced at Çatalhöyük is the key to understanding Neolithic social organisation and community formation. This thesis will interrogate the relationship between making and the social structure by locating persons and things in phenomena through the evidence of “making”. Therefore, I aim to determine whether creative practices informed social organisation in Neolithic egalitarian communities. By doing so I plan to provide a clearer understanding of creative practice during the Neolithic and the potency of material gesture for social formation at Çatalhöyük.

1.4.2. Sensory Engagement

To focus my discussion of archaeological phenomena I analyse Neolithic ‘intra-actions’ (section 1.3.2. and 3.3.3.) with colourful or brilliant materials, substances, and multi-sensory spaces, and focus on how these material interactions, as phenomena (therefore, ‘intra-actions’), reveal certain sensorial dynamics in-action at different points during the inhabitation of the Neolithic town. My aim is to emphasise that creative practices can create certain sensory dispositions - ways of seeing, feeling and doing - and I argue that the senses can be profiled during making events (section 4.6.0.; Howes and Classen 1991). The sensorial implications of making have wider connotations for ‘communities of practice’ (Lave and Wenger 1991; Wenger 1998; Wendrich 2013; see section 8.3.2.), because the dynamics operating in a community can help to identify macro-scale changes “within the overarching society” (Bartlett and McAnany 2000: 102). In Chapter 8 the sensorial profiles ascertained from the phenomena analysed in Chapters 5, 6 and 7, are synthesised with the changing social dynamics and tensions located from material phenomena found at the settlement.

1.5.0. Synthesizing Theory and Practice

1.5.1. Çatalhöyük: A Neolithic Town

This section introduces Çatalhöyük as my case study and section 1.5.2. will describe the favourable cultural practices that make the analysis of phenomena at the Neolithic town possible. On the Konya plain in Anatolia a 20 metre mound covering an area of 12.95 hectares sits at the edge of the small farming village called Küçükköy (Mellaart 1962: 42; Farid 2011a). Visible from the village, the true significance of the mound was only revealed to the wider public in 1961 when British archaeologist James Mellaart began his excavations at the site (Mellaart 1962). The excavation revealed a complex, industrious and creative Neolithic settlement that was later confirmed to have inhabited the land for over a thousand years (Bayliss *et al* 2015). The site’s name ‘Çatalhöyük’ translates to “forked mound” and refers to the distinctive shape of the tell; the West mound is Chalcolithic, whilst the East mound is Neolithic (Hodder 1996) with over 19m of Neolithic deposits (Bayliss *et al* 2015). In 2001 the tell was dated to 7,300 - 6,200 calibrated BC (Cessford 2001); however, in 2015 the starting date of the settlement was shifted 200 years later to 7100 BC (Bayliss *et al* 2015). The new starting date was found using the Bayesian chronological modeling technique, a method that synthesises

radiocarbon data and excavated sequences using a statistical system (Bayliss *et al* 2015).

Çatalhöyük is one of many Neolithic settlements that emerged across Anatolia during the period. Along with Çatalhöyük, it was the excavations of Hacilar, Can Hasan, Süberde, and Erbaba that first indicated Anatolia had a rich and complex Neolithic period, and questions arose as to what role Anatolian sites played in relation to the Near East and also to Europe (Özdoğan 2011: S417). The relationships between Anatolian sites such as Nevalı Çori, Çafes Höyük, Cañonü, Hallan Çemi, Pınarbaşı, Hacilar, Süberde, Erbaba, Asıklı Höyük, Can Hasan, Kaletepe, Tepecik-Çiftlik, Köşk Höyük, Yumuktepe, Göbekli Tepe, Domuztepe, and Kuruçay Höyük are slowly being sketched out (Figure 1; Appendix 1 for Anatolia and Near East Chronology), and convincing synergies in creative practices have emerged between Çatalhöyük and the earlier Neolithic site Boncuklu Höyük dated 8300-7800 cal. BC, located 9.5 km north of Çatalhöyük (Fletcher *et al* 2017: 352; Baird *et al* 2012: 16). In addition to the decoration inside the houses at Boncuklu Höyük (bucrania and plaster reliefs), the building practices and the structured use of space also anticipate the practices at Çatalhöyük (Fletcher *et al* 2017: 352). There are also similarities between the Boncuklu clay objects and the pottery finishes, techniques, and shapes, and those found at Çatalhöyük East during the early phases of occupation (Fletcher *et al* 2017: 363). Ian Todd (1998: 17) conducted an important survey between 1964-66 that examined prehistoric sites across central Anatolia (instigated by Mellaart); he notes synergies between Asıklı Höyük, inhabited 8300-7500 cal. BC (Astruc *et al* 2011), and Çatalhöyük, which include burials underneath the floors, rooftop entry points, and the ‘continuity of architectural plan’ (1998: 22).

A key question of the Neolithic period is: why did people decide to settle in one area and to work the land and herd animals (Byrd 2005: 231)? Byrd notes: “In the Near East, the onset of sedentary, complex hunter-gatherers and then later the widespread occurrence of large food-producing villages were fundamental milestones that dramatically changed the social landscape” (2005: 232). Indeed, the movement from ‘food procurement’ to ‘food production’ was a key change in the mode of being (Byrd 2005: 237) and, importantly, this took place across a diverse set of ‘precipitation and

vegetation zones' in the Near East (Goring-Morris and Belfer-Cohen 2011: S195). Belfer-Cohen and Goring-Morris are keen to stress that 'change was not homogenous throughout the region' (2011: S209). Equally, within Anatolia, the process of Neolithization, as Özdoğan (2011) notes, was a 'multifarious process' (2011: S427). Nonetheless, several pan-Neolithic social trends are evident at Çatalhöyük, such as farming and domesticating crop agriculture (Twiss *et al* 2008: 43); a dramatic rise in domestic sheep (which at the settlement happened between 7500-7100 BC) (Bayliss *et al* 2015: 21; Pearson *et al* 2007); and the use of pottery for cooking, which at Çatalhöyük occurred suddenly around 6500 BC (Bayliss *et al* 2015: 22; Hodder 2012a: 185; 2016: 29).

Initially Çatalhöyük impacted upon the 1960s Neolithic discourse in three key ways; firstly, it expanded the Neolithic territory beyond the fertile crescent (Farid 2011a) to central Anatolia; secondly, it offered an intricate, complex, symbolic and artistic material culture that outshone contemporary Turkish Neolithic settlements such as Mersin on the South coast (Mellaart 1962: 46); and thirdly, it provided an example of a Neolithic town that sustained itself for 1400 years of occupation (Farid 2011a). Accordingly, Çatalhöyük demonstrated that the earliest communities on the Anatolian plateau had been, as Mellaart succinctly put, "quite underestimated" (Mellaart 1962: 46). Çatalhöyük first re-emerged during the 1958 survey of the Konya Plain when rich finds were found on the surface of two mounds. Contemporary work at the Neolithic site of Hacilar had revealed a gap in the historical sequence of the Early Neolithic period, and it was objects of this particular period that were found to be predominant on the surface of the Çatalhöyük tell (Mellaart 1962). At this time, James Mellaart was leading his fourth and final excavation at Hacilar after which he began the first excavation at Çatalhöyük in 1961 (Mellaart 1962: 41).

In the years since its first unveiling two major excavations have taken place at Çatalhöyük. First, British archaeologist James Mellaart excavated 1960-63 and 1965, after which the site was closed until Ian Hodder re-opened the excavation in 1993, with clearance to excavate until 2018. The calibre of data excavated at the tell provides the potential for analysing 'making' in-depth due to the vibrant creative practice taking place across the generations that lived in the town. Beyond the advantages of focusing

on a settlement of Neolithic peoples who were creatively active, further encouragement can be found from the open-access to excavation data employed by the Çatalhöyük Research Project. Their presentation of the data has made the site both remotely and physically accessible due to transparent sharing of data online via the website which hosts the database. The database is updated after every season and this has meant that this source, along with the archive reports, have provided the latest information for my research.

1.5.2. The Material Culture at Çatalhöyük

Çatalhöyük featured tightly-packed mudbrick buildings often built next to each other with abutting walls (Twiss *et al* 2008: 43). The houses are estimated to have a life-cycle of 60 years (Matthews *et al* 2006), with timeframes varying between 50-100 years (Cessford *et al* 2005). After this period of inhabitation, the houses were closed or abandoned, and the next layer built above. Some of the buildings appear to have been intentionally burned as part of a dramatic house closure event (Haddow *et al* 2016: 8); whereas others may have been accidentally set alight (Twiss *et al* 2008). However, not all house closures involved conflagration; usually, materials deemed culturally recyclable - such as the wooden posts used to support the roof - were removed, the floor was scrubbed, the roof was dismantled, and the top sections of the walls were knocked down to create the foundations for the next building (Farid 2007; Twiss *et al* 2008: 43; Ganis 2012: 133). Thus, the occupants of the town built vertically, creating new structures on-top of old architecture (Hodder 2010; Düring 2001). Cultural practices at Çatalhöyük, such as building vertically, plastering over wall paintings (Matthews *et al* 1996), and burning buildings (Cessford and Near 2005; Cessford 2007; Twiss *et al* 2008), have preserved a significant amount of data.

Added to the generations of making events that have accumulated at the tell, are the archaeological methodologies employed by the contemporary excavation team. Microartifactual analysis is used to identify different cultural practices within the building by examining floor patterning and the density of floor deposits (Cessford, 2003). Matthews *et al* (1996) use photomicroscopy to conduct micromorphological analysis of the levels of soot between layers of plaster. Optically Stimulated

Luminescence², Accelerator Mass Spectrometry (Bayliss *et al* 2015; Cessford 2001, Cessford and Carter 2005), and dendrochronology have also been utilised to interpret the archaeological evidence (Bayliss *et al* 2015). These scientific techniques rely on a variety of skills and samples, and have been performed during the postmodern zeitgeist that urges for “multivocality” and “reflexivity” (Bender 1998; Hodder 2003: 56). In keeping with this spirit, the data retrieved from the site by the contemporary excavation is transparently shared through an online open-access project database. Annual excavation reports and a variety of publications written by the hundreds of team members who spend a season or more at the site add to the online resource. All these factors have meant that the Çatalhöyük excavation is producing an impressive archive. I have mined these data for my own research questions, and have tested, evaluated and challenged contemporary interpretations and simultaneously utilised the data to form my own interpretations. Thus, Çatalhöyük is a rich source of detailed information that provides the ideal context to examine phenomena (introduced in section 1.3.0.) located in the archaeological record.

The phenomena I examine in this thesis tend to originate from the more elaborate buildings found at Çatalhöyük. The original excavator James Mellaart identified a distinct building category and referred to these elaborate buildings as ‘shrines’ (Mellaart 1967). Some of these elaborate buildings have been designated ‘history houses’ by the contemporary excavation team (Hodder and Pels 2010). History houses are those houses that were rebuilt on top of the foundations of older buildings, contain a large number of burials, and demonstrate continuity in the placement of internal features (Hodder and Pels 2010, Hodder 2013, Hodder 2014a: 13. Wright 2014). History houses emerge throughout the life-course of the town (Mellaart 1967; Düring 2001; 2007; Hodder and Pels 2010). It should be noted that microartifactual remains indicate that domestic activities took place in all buildings (Matthews 2005b: 392; Farid 2007; Düring 2007; Twiss *et al* 2008: 43). In addition to the history houses there are three other house categories used by the contemporary excavation team: elaborate/large houses that may have paintings, reliefs or bucrania; burial houses that have comparatively high numbers of burials, and ‘relatively undistinguished houses’ (Wright 2014). The history houses

and/or elaborate houses contain higher rates of creative material engagements such as painting, sculpting, and (implied) performance through structured deposits (Last 2005: 206). ‘Enfleshed’ animal skulls attached to walls and covered in clay, plaster and pigment create dynamic wall features (see section 6.3.4.), and large plastered bulls’ heads (henceforth bucrania) puncture the corners of rooms or protrude into the central spaces; these features rupture the flow of movement around the interior space (Meskell 2008: 377; Govier 2016: 143). In addition to the bucrania, these unique interiors contain further architectural elaborations, such as: benches, pillars, installations, and paintings (Hodder 2014a,c).

Elsewhere I have used the term *sui generis* (or ‘unique’) to describe the special, elaborate spaces of Çatalhöyük, and to move away from the culturally loaded term ‘shrine’ (Govier 2016: 144). Many of the phenomena I examine in this thesis tend to emerge from buildings that fall into the ‘special’ category at the settlement, and emerge from houses that are large and have elaborate interiors (such as B.77), wall paintings (B. 80), bucrania (B.77, B.52), or unique burials with special deposits (B.60, B.49). Therefore, I will continue to use the term *sui generis* to describe these special buildings as not all would fall into the current ‘history house’ category. *Sui generis* spaces are those spaces where archaeologists can detect transformational activities, and identify activities that disrupt the temporality of the everyday. At Çatalhöyük, higher rates of creative activities are detected in *sui generis* spaces; bucrania, animal skull wall fixtures, wall paintings, and pigment and bone tool phenomena. *Sui generis* is used to indicate that unique, temporal activities occurred in the space and that the event(s), whilst temporary, were (potentially) sensorially rich experiences for the participants (section 7.5.2.). In section 7.5.0. I will explore the ‘heterotopic’ qualities (or ‘otherness’) of these spaces, but at this juncture in the thesis it is important to note that the term *sui generis* is used as an analytical tool to indicate to the reader the activities in these spaces were beyond the everyday, and that those who partook in these socio-creative experiences were privy to social experiences that created shared knowledges and events that shaped, adapted and/or stimulated the practitioners senses. Thus, whilst the activities temporarily transformed the space, and the sensory stimulants were ephemeral (thus, smells dissipated, painted features were covered in plaster and rendered invisible) those who knew of these activities, like the contemporary

archaeologists removing layers of plaster, had an understanding of the space that was contextualised by their access to the activities that had taken place (due to the enclosed nature and limited size of the space, the activities that took place inside may have been relatively esoteric). Thus, there were those in the Çatalhöyük community who knew - and were there - when the leopard wall feature was painted pink (discussed in section 5.2.4.), or when a shiny copper bead was dropped in a speleothem and then placed in a burial context (discussed in section 5.2.1.), these were creative events beyond the everyday.

1.6.0. Contributions to the Archaeological Discourse

1.6.1. Develop Material Agency in relation to the New Materialisms

This thesis develops both the “material agency” and New Materialisms discourses. I re-focus attention onto Alfred Gell (1998) and his outline for the agency of art. It should be noted that I will henceforth refer to this concept as “material agency” a term later articulated by Knappett and Malafouris (2008; see section 3.4.2. for discussion of this term). I argue that Gell outlined a second argument for the agency of art that has been overlooked (section 3.5.0.). I critique Witmore’s outline of ‘New Materialisms’ for perpetuating the Cartesian cut, an aspect that I argue is inverted by Jane Bennett’s discussion of “vital materialisms” in *Vibrant Matter*. By synthesising the works of Bennett (2010), Gell (1998), and Barad (2003) I approach material gesture in the past as “vital”. I argue that both Bennett and Gell’s discussion of material agency can be anchored by Barad’s notion of “intra-action” (Barad, 2003, 2007, 2012). The examination of “intra-actions” or “phenomena” in an archaeological context is a key contribution to the discourse. The conclusions drawn from this in-depth study of material phenomena at Çatalhöyük will contribute to our understanding of community cohesion during the Neolithic in Anatolia, particularly those communities that are argued to be heterarchical or egalitarian. My key contribution is to reveal creative practice as an important element of egalitarian community formation and negotiation by arguing socio-creativity informed social organisation, and the material residues of these activities can yield information about community dynamics and tensions.

1.7.0. The Archaeological Data

1.7.1. The Project Database

The “research portal” on the website: www.catalhoyuk.com houses the project database. In addition to the project database there is an extensive bibliography, and archive reports, photography, video and illustration data. The project database has a search engine where one can choose to “browse” or “search” the data. Excavation data includes “sheets” using the following categories: “building” “space” “feature” or “unit” as well as “samples” “X-Finds” and “skeletons”. There is also the option to explore the “Lab Team Data” through the following categories: archaeobotany, clay objects and geometric shapes, chipped stone, conservation, faunal, figurines, groundstone, heavy residue materials, microfaunal, and phytoliths.

1.7.2. Unit sheets

I examined the online unit sheets to find further details about particular objects, for example a small bone tool found embedded in a lump of green pigment (section 5.4.1.). The unit sheet hosts a cross-section of data, including: the category of the unit, when it was excavated, the area it was found, dimensions, discussion, and photographs - these details are all housed on the “sheet”. There are links to other directly relevant information, and often geospatial information (details that position the unit in relation to the site) is provided. Each unit will usually be connected to a building, a space, and a feature, and these are all numbered.

Unit numbers are given to all deposits found at the tell. Taylor *et al* explain that a single context method has been used at the site where archaeological sequences are “excavated stratigraphically, and atomized into its separate depositional and truncation ‘units’” (2014: 133). Unit numbers are included in my discussion directly after the item is described, meaning that the reader can go to the database and access details about the unit. The synthesis rather than separation of data and interpretation is part of the reflexive-turn in archaeology, and a methodology I embrace in this thesis (Hodder 1999, 2000; Tringham 2012). Unit numbers are usually 5 digits, however, some units have more than one part, in these instances the number will be followed by a letter such as

“x” or “h” and an additional number. In section 5.4.1. I discuss a bone pin U.8184X4, this unit emerged from the basket burial of a baby which included clay beads U.8184X6, a shell U.8184X3, fragments of dried wood U.8184X5, and the pin. These items are attributed unique numbers at the discretion of the excavators. This particular bone pin provides an interesting example as it was found embedded in a lump of pigment, so these two items are recorded as a single unit number U.8184X4. The fact that these two separate things - bone tool, pigment - are recorded as a single unit indicates that the examination of ‘phenomena’ holds archaeological value; it is an example where researchers have chosen to identify the objects as a process that carries greater meaning as the sum of its parts.

Building numbers are attributed when the excavators are certain that “one or more spaces are part of a building” (Farid 2008: 18). Spaces are areas both inside and outside buildings that are delineated by the excavators. A space number will be given to a storage room, for example, or perhaps to an area that seems to be a “room” in a building. Features are things that appear to belong together; several units might make the feature, for example, a burial cut (a hole made in the ground and various things placed inside along with a single body or several bodies) and the materials used to infill that hole will be given a shared feature number.

In this thesis, I align the data I discuss with the contemporary data recording system: buildings are referred to as “B.” followed by their allocated number, for example: “B. 77”. Both Space (Sp.) and Feature (F.), followed by the corresponding unique number, also included where necessary. Individuals are also numbered and usually referred to as Sk. (Skeleton) followed by the number attributed to the human skeleton, for example Sk.6706.

1.7.3. Excavation Diaries

The excavation diaries can be searched using a “quick” or “complex” option, with entries from 1996-2015 (except for 2002). Excavators use categories such as “unit” “space” and so on in their entries. These comments can become useful additions for further research into certain artefacts. Whilst the diaries transparently reveal the tensions

between certain team members as the excavation progresses, it is the archaeological detail that can be drawn from these data that is extraordinary. The thought processes behind excavation techniques and methods is constantly expressed and often critiqued when there are differing opinions amongst team members. By including this source the Çatalhöyük team acknowledge, value, and encourage “multivocality” in archeological interpretation (Hodder 1986, 2008; for more on multivocality see Trigger 1984; Shanks 2008: 137-138).

Excerpts from the excavation diaries also appear in this thesis, and when these details are cited the name of the author and the entry date is included - these details allow other researchers to go to the online database and access the source directly. The excavation diaries, whilst providing an interesting read detailing the emergence of the site from a wide range of perspectives and a variety of voices, often detail immediate responses to the material culture at the “trowel’s edge”. The diaries are written on the day and often outline information that sometimes does not make the published report. The diaries act as vignettes that create an immediate response to the materials as they emerge from the mound; this qualitative data is vital for any researcher who is not present when the excavation is taking place. The videos reinforce this source; excavators sometimes record video diaries, talking through the areas that they have excavated and offering their interpretation of the data they have unearthed. These informal videos often take place at the end of the day when the excavator is clearly tired; nonetheless, the information is similar to an in-depth tour of the excavation space.

1.7.4. Phasing Levels

The unit sheet also includes details about the “settlement phase” which is divided into “Associated Mellaart Levels (from Space)” and “Associated Hodder Level (from Space)”. It is usual for these last two pieces of data to read “unassigned yet”, especially the Mellaart Levels. On this matter, I have found Shahina Farid’s 2008 diagram outlining the relationships between buildings excavated during the two eras particularly useful. The “South Area Phasing Strand” brings together the buildings in the South Area from the two separate excavations (Farid 2008: 20). Synthesising the two separate excavation eras has proved challenging. Farid notes the buildings which were excavated in the 1960s have no phasing material and could be described as a “blanket

phase” (2008: 17, 19). However, it is noted that there are 27 charred material samples that were used to locate radiocarbon dates in the 1960s (Bayliss *et al* 2015).

Mellaart numbered the levels of occupation from I-XII, and also that Level VI had two phases categorised by the excavator as A. and B. Farid, Hall and Hodder examined heights in the 2008 excavation season, the team attempting to “correlate 1960s’ heights recorded on the floors of published plans with current project heights taken from buildings that Mellaart had left *in situ*” (Farid 2008: 16). The results indicated that Level VI was “inconsistent” and only “present in some locations” (Farid 2008: 16). Excavation work carried out in 2008 also revealed B.80 to be at Level VI; however, again there was no division in the layer evident at this location in the excavation (Farid 2008: 19). The contemporary excavation under the direction of Ian Hodder has a new phasing that has the area stated, such as “South”, followed by a letter that indicates the phase in the area from T-G (Farid 2008: 20).

The geospatial element of the site is perhaps the hardest part for the remote researcher to understand. Identifying where artefacts have been found in terms of space, feature, and building is generally simple; broadening this understanding to relationships between buildings is more challenging. In the thesis I utilise data from both excavation eras, and therefore have chosen to use Mellaart’s building attributions when discussing his data and Hodder’s building numbers when utilising information from the contemporary excavation. This means that sometimes I refer to buildings by their number, for example “B.77”, and at other times I will be using Mellaart’s excavation reports and refer to buildings using his system, which references the area, level, and building number, an example being “EVI, 20”. I have drawn a map (not to scale) of the North area that correlates with data from Farid 2008, Wright 2014, Taylor *et al* 2015, Hodder 2014a and the Çatalhöyük Research Project online database. This map (Appendix 2) aims to orientate the reader should they wish to consider the situation of the buildings in the North Area of the settlement.

1.7.5. Excavation Areas

As the site is globally recognised as of great importance for our understanding of the Neolithic (in 2012 it was classified as a UNESCO World Heritage site), several international teams have excavated at the tell. Excavation teams are located in particular areas that are given a unique name, for example the University of California excavated at the tell from 1997 - 2003.³ The area they excavated is referred to as “BACH” which stands for Berkeley Archaeologists of Çatalhöyük and the area they excavated in the East Mound. Ruth Tringham was the director of the excavation, and the team developed a project called “The Last House on the Hill”. Their excavation primarily focused on B.3 ca 7,000 BC in the “North” area of the excavation (Tringham 2012: Chapter 1). The life-story of the house was unearthed and the unique presence of a collapsed roof allowed archaeologists to explore the activities that were taking place on the Neolithic rooftops (Tringham 2012: Chapter 1). Other areas referred to in this thesis are North (East Mound Northern Prominence), South (East Mound Southwest flank), and 4040 (East Mound).

1.7.6. Dataset for the Thesis

In the thesis I consider a variety of material culture found at the settlement. These include bone tools embedded in pigment lumps, pigment residues in shells, pin-pricked figurines, hand icons, and worked obsidian. I present this material data in the form of a Table (Appendix 3.). I correlate the phenomena into material categories (for example, Obsidian and Chipped Stone) and each category is labeled numerically, the Table includes the unit number, space number, location, area, level, material, context, and also archival data such as the excavation year, and photo credit. The rationale for this dataset is to have a cohesive reference point for the phenomena I consider in the thesis and further contextual information for the reader. I retrieved this data from the Çatalhöyük Research Project online database (please see acknowledgements).

1.8.0. Experiential Data

1.8.1. The Experience of Walking the Site

³ The following webpage illustrates the different areas that are currently being excavated: <http://www.catalhoyuk.com/database/catal/areas.asp> accessed 6.5.16.

Mustafa Tokyağsun (Site Custodian) guided me around the excavation when I visited the site in April 2013. The opportunity to see the site itself and its situation in the landscape was invaluable. Landscapes are not simply passive forms molded by human cognition and movement, they are “woven into life, and lives are woven into landscape” (Ingold 2004: 333). Thus, walking the area provided “tactile, feet-first, engagement with the world” (Ingold and Vergunst 2008: 5). Understanding the site in relation to size, density, and population became easier when walking the land. Areas of archaeological excavation were cordoned-off, and the viewing point is designed by the site director and team, who determine where you may look from. Therefore, the visitor’s movement around the site is governed by walkways. Despite these restrictions, my British urban eyes, whilst *au fait* with the literature about the site, were still astounded by how close all the structures were; residents shared partition walls and buildings conglomerate into tightly compacted mudbrick residences. The closeness of the walls encouraged my imagination to fill in sensorial details such as sound and smell. To imagine the life going on either side of the wall, to imagine voices spoken and whispered, perhaps muffled by the mudbrick and plaster walls, but a gentle humming of life nonetheless. The nature of the created environment asserts that this was a physically intimate community.

Similarly sized buildings were sometimes built directly above closed buildings (Twiss 2008: 42). The ‘rhythms’ in house-making practices (for further detail see section 2.6.1.) implies that there was a common understanding of how individuals at the settlement were to exist together, and surprisingly this seems to have been apparent from even the earliest levels of inhabitation. The close proximity of the houses, the sharing or abutting of house walls, the uniformity in building practices and spatial arrangements - all these aspects indicate that this was an egalitarian community with a shared and embodied knowledge of how life was to be carried out at Çatalhöyük. The visit informed my understanding of the site and I was able to spend a prolonged period of time in the library at the British Institute at Ankara and make key visits to the Konya Archaeological museum and the Museum of Anatolian Civilisations (Ankara) during my stay. These trips provided the bulk of personal photographic material I include in the thesis.

1.8.2. The Experience of Making

In the thesis, I also engage with experiential (Bruner 1966; Kolb 1984), multi-sensory (Shams and Seitz 2008), and collaborative learning strategies (Leigh-Smith and MacGreggor 1992). During my research, I conducted two ‘making’ (Ingold 2013) experiences with the students I taught on the Interactions with the Environment Level 4 Anthropology module (see Appendix 4). These experiences included: collective plastering of a ‘wall’ and collective painting exercises (Chapter 6), and offered opportunities to experiment with materials and methods of making (sections 6.3.2. and 6.4.2.). During these exercises careful attention was paid to the substances in-action, and how intra-actions with materials were socially and sensorially negotiated. This method is in keeping with the overall theme of creative practice, and the argument that we learn through doing (Ingold 2013: 13). Ingold (2013: 2) introduces this notion through Gregory Bateson’s ‘deutro-learning’ - a strategy that enables individuals to be taught *by* the world (Ingold’s emphasis). Individuals grow “into knowledge”; thus, in keeping with experiential learning tenets, learning is a process rather than a product (Bruner 1966: 72).

To explore the vital aspects of ‘co-presence’ between humans and things, and to consider vibrant materials, I handled obsidian and quartz stones and observed their relationship with light (Appendix 5). These material engagements provided vignettes of human-material co-presence, and helped to orientate my sensory engagement with materials (Howes and Classen 1991). Howes and Classen (1991) argue that the researcher should consider their own sensory biases, and should be aware that certain senses in unique cultures are repressed or exaggerated. Therefore, by handling the types of materials that were used at Çatalhöyük (and making with them), I made efforts to sensorially engage with the materials, and explored their potentialities with the knowledge that these specific materials had been used in meaningful ways at the settlement (Chapter 5, 6, and 7 will detail these phenomena). These experiences offered moments of “metawareness” (Richardson 2003: 1626) - opportunities to reflect on the process of material engagement and learning.

1.9.0. Thesis Outline

Chapter 1: Introduction

I began the thesis by introducing the topic of my research and my interest in the role of creative practice in Neolithic communities. I presented my research question: What role did creative practice play in social life at the Neolithic tell Çatalhöyük, and what evidence is there to suggest that making informed the maintenance of the ‘social bond’? I proposed that creative practice at the settlement informed community maintenance and negotiation. I identified several challenges, including: the difficulties of analysing ‘tacit’ knowledge, the breadth of research already conducted in Neolithic making, and the problematic term ‘community’. In anticipation of Chapter 3 where my theoretical position is outlined in detail, I briefly offered an overview of theoretical approaches to human-thing relations - a key issue in the analysis of making - and I argued that the Cartesian cut informs these approaches. In section 1.3.2. I explained that I will examine archaeological evidence of making events (creative practices) as ‘phenomena’ (Barad 2003). I outlined two key aims in addressing the research question: to unpack the role socio-creativity played in the Neolithic and to ascertain the sensory dynamics in play at a Neolithic settlement. The Neolithic town Çatalhöyük was introduced as my case study, and a brief overview of the settlement and material culture was offered. The synthesis of material agency and New Materialisms was identified as a key contribution to the archaeological discourse. The data used in the thesis was discussed in relation to Çatalhöyük Research Project Database, and I outlined the ‘experiential’ data generated and used in my analysis.

Chapter 2: Literature Review

Chapter 2 provides a review of the excavation reports and key literature that discusses a variety of creative practices at Çatalhöyük. The excavation reports provide the backbone to the review; James Mellaart (excavated 1960-63 and 1965) and site director Ian Hodder (excavated 1993-2018) produced annual excavation reports. In conjunction with these data, during the time that Hodder has led the excavations there have been several publications that bring together a variety of researchers who have worked at the site. I consider how Çatalhöyük challenged preconceptions of the capabilities of Neolithic communities. The chapter presents major themes that have influenced how researchers have approached the site. I argue that “grain and grudge” along with the ‘mother goddess’ theory have shaped our understanding of the Neolithic in the Near East. The

idea that visual responses to iconography have curtailed our interpretation of the archaeological data is also presented and I highlight some of the issues that have emerged from the analysis of symbols by emphasising that these symbols are culturally contingent. The process of “making” is argued to be a fertile area for the analysis of creative practice at Çatalhöyük and is presented as the subject that will be addressed during this thesis.

Chapter 3: Thinking Through Making

In Chapter 3 I explore theoretical positions on material interactions between persons and things, and literature from both the archaeological and anthropological discourses are synthesised to present an overview of theoretical approaches to human-thing relations. The focus of the chapter is on the re-articulation of the work of anthropologist Alfred Gell (1998), who formulated an argument for material agency (section 3.4.0.). I highlight Gell’s synthesis of the philosopher Edmund Husserl’s methodology for spatiotemporal consciousness and material engagement in relation to the artist’s oeuvre (section 3.5.2.). The discussion raises the notion of the “bounded ego” and this problem is answered by applying philosopher Karen Barad’s (2003) presentation of things as “phenomena” and her neologism “intra-action”. Processes of making are argued to be an important investigation for archaeological theory. The theoretical approach is contextualised in relation to the New Materialisms discourse, and following on from Ingold (2013), I present the case for the analysis of transformations rather than documentation.

Chapter 4: Creative Practice: Thinking with Makers

During Chapter 4 I respond to the problems identified in the literature review (sections 2.4.0. and 2.5.0.) that indicated visual responses to the iconographic representations of the body had impeded interpretations of social organisation at Çatalhöyük. Firstly, I consider archaeological and anthropological stances on making and doing, these include a discussion of the “chaîne opératoire” (section 4.3.1.) and “communitas” (section 4.3.4.). Trevor Marchand’s (2014; 2016) research into craft-work as problem-solving is also introduced as a key approach to making and learning and how cognitive engagement develops in tune with the materials at work. Creative practice is revealed to

be a social activity that can shape the senses of those who engage with materials in making contexts. From the art of making the “social bond” (Bishop 2012) to the sense of “collective joy” (Turner 2012), the sociality of making as a process is equally emphasised. Ingold’s (2013) discussion of the “finished artefact fallacy” (section 4.4.2) reminds us that the material cultures we engage with are not necessarily perfect and are sometimes mid-making, broken, or even mistakes. Marchand’s sensitive analysis of craftspeople and apprentices shows how they adapt with the materials they are working on when experiencing ruptures and flows in the making process. By investigating persons learning wood craft methodologies Marchand explores the developments of these techniques as they are spoken between teacher and apprentice. His analysis revealed that sensory engagement can be learnt and honed in making scenarios and that the senses can be shaped in such contexts. I develop arguments outlined in sensorial archaeology in conjunction with the anthropology of the senses to problematise how we currently approach sensory engagement (Hamilakis 2011, 2013; Day 2010, 2013; Rice 2013; Classen 1997; Howes and Classen 1991; Pink 2010; Goodwin 1997). Our understanding of the senses is vital to this thesis as it will shape how we think about making, and I discuss Yannis Hamilakis’ argument that the senses are embedded in matter (2013: 5-6). I argue that there is a complex relationship between the senses, and provide anthropological examples revealing how the senses are culturally profiled. The chapter emphasises how exploring “making” in the past has the potential to reveal emotional, affective, physical, and sensorial qualities embedded in the remains of material intra-actions.

Chapter 5: ‘Intra-actions’ with Colourful, Brilliant Materials

In this chapter, I apply the theoretical position to the location of ‘phenomena’ outlined in Chapter 3 to the archaeological data at Çatalhöyük. I begin my exploration by considering making events with colourful, brilliant materials at the settlement. These phenomena include colourful stalagmites, reflective obsidian mirrors, and a dolomited piece of limestone found in a burial context. This chapter focuses on locating agency and exploring how these things ‘in-phenomena’ (Barad 2003: 817) have influenced and shaped those who have engaged with them. Entanglements of materials are explored as creative events; pink stalactites along with the addition of “blue eyebrows” painted on a

skull become mementos of creative gestures. Pigments are a major focus of the chapter, from pigment scattered in burials to lumps of pigment found with bone pins embedded in their body. The relationship between the materials reveals a particular intra-action and I develop an argument that suggests body painting or tattooing may have been practised at the town. To support this case I analyse a range of bone pin tools and figurines that have perforations on the face and head region. The presence of these bones in burial contexts in conjunction with green pigments indicates that these are not just offerings to the dead, but reference a particular material process. Unique anthropological examples of engagement with pigment are spotlighted to understand the range of socio-cultural meanings pigment can carry. The dangers of material engagement are also highlighted through the analysis of cinnabar and how heating the pigment can physically impair those who engage with the substance. The aim of the chapter is to showcase agency as an enactment (Barad 2003, 2007, 2012), and to demonstrate how the presence of colourful, brilliant matter at the town reveals patterns in sensory engagement. The emphasis in this chapter is the exploration of things in-phenomena (Barad 2003), and how they feature in key social practices such as burials and house closures.

Chapter 6: Making and Applying Colourful Substances

The focus in this chapter is on moments where humans collaborate with matter, particularly when materials are adapted to create new substances, such as the addition of fluid to pigment to make paint. Following on from Marchand's research into mistake-making, I explore the material evidence of a paint-spill at the foot of a significant wall painting in B.80. The paint-spill reveals intriguing information about the painting practice at the town and I contrast this piece of evidence with other related equipment. In keeping with the key themes of creative practice (section 4.2.3.) and the methodology of making (introduced in section 1.8.2. and explored in Chapter 4), I present an ethnographic vignette of the experience of making and painting a plaster wall. The experience provided insight into the types of social interactions that inform these different types of making and reinforced my theoretical stance that making can directly influence the social bond. The aim of the experience was to explore the variety of sensory engagements that take place during a making experience and how these are collectively negotiated. In keeping with the New Materialisms (see section 3.3.0.)

discourse the vitality of the substances and the ‘capacities’ (Delanda 2006: 7) of the materials are highlighted. How the body interacts with the substance was invoked in a bid to understand how the plaster wall came into being. Neolithic sensory proclivities were revealed, and unique uses of three different shades of “red” are argued to indicate that the community had a particular sensitivity to the colour. The painting practice is at the heart of this chapter, and my analysis takes a holistic approach to making, from making-mistakes, making-handprints to locating evidence of Neolithic “doodling”. These unique phenomena yield telling information about the community and reveal a far more nuanced account of the wall painting as creative practice than the contemporary narratives that I critiqued in Chapter 2.

Chapter 7: Making and Entering Colourful Experiences

This chapter illustrates how we might consider the *sui generis* houses as “experiences”. To aid this discussion I consider contemporary experiential artworks and Foucault’s (1967) ‘heterotopia’ concept to explore the methodologies employed by creators of these experiences and to understand how space is intentionally adapted to create an impact on those who enter. The chapter explores the impact such spaces have on the body through the exploration of key “tools” used to alter space in experiential artworks: darkness, panorama and augmentation. Opportunities for haptic, ocular, and aural engagements within the embellished buildings at the settlement are considered and it is suggested that the spaces, when displaying the wall paintings, became “activated”. To build up a picture of what it was like living in such close proximity to one another, ethnographic research carried out in the Govindpuri Slums (Rice 2015) is examined to consider how we come to “know” spaces. The sounds shared in the Govindpuri Slums capture a community living in close proximity and it is useful to explore how human life is shared and experienced through sound and not sight. I synthesise this data with an artwork that exploits “panoramic sound” and work exploring soundscapes at the site carried out by Steve Mills (2014). These multi-sensorial narratives help build an understanding of the communities that used these spaces, and through Foucault’s outline of heterotopic space, and research into magic and ritual, I propose that the activated *sui generis* houses created moments where groups could negotiate social relationships and social organisation.

Chapter 8: Socio-Creativity and Social Organisation at Çatalhöyük

Having explored creative practice in the previous chapters and the evidence of material intra-actions at Çatalhöyük, it is clear that a vibrant and complex creative practice was in-action at the town. In this chapter I explore the social repercussions that making has on community formation. I argue that creative practice during the Neolithic was a significant feature of egalitarian communities. The relationship formed between maker and material is integral to our understanding of how communities functioned during this time. I assert that the processes of making are the informative gestures of the past. In addition to this critique I forefront Karen Barad's notion of "performativity" to illustrate that when analysing the archaeological record a more fruitful endeavour would be to look for phenomena (Barad 2003). To develop how creative practice can be linked to egalitarian social organisation I discuss 'communities of practice' (Lave and Wenger 1991; Wenger 1998) and argue that the nuances in creative practices, such as the different methodologies used to create the hand icon, indicate that there were different communities of practice at the settlement. I propose that the creative practices reveal tensions between groups and this could indicate either issues in knowledge transmission between households or household groups actively asserting their egalitarian status. Creative practices are linked to social organisation, and socio-creativity argued to be a fundamental aspect of the Çatalhöyük lifeway

Chapter 9: Conclusion

In the concluding chapter, I focus on the key aspects developed in the thesis: the role of creative practice in the co-constitution of maker and material, and how social value and community dynamics are in-action during these acts. The discussion of colourful materials and substances at the Neolithic town offers a particular sensory avenue to consider, and the synthesis of different intra-actions with colourful, brilliant materials and substances indicates a degree of social differentiation at the town that appears to become more pronounced around 6500 BC. Restricted access to paint and pigment, and similarly, changes in creative practices, indicate shifts in material engagement, and the emergence of different relationships with substances. Material intra-actions are re-framed as socio-creative events and I argue that the analysis of creative practice offers

an important insight into social cohesion and negotiation at Çatalhöyük. Building on these findings I outline three specific areas for future research which are informed by the material processes I have explored: the potential heat treatment of pigments and paint; whether pigments were placed on the body, embedded in the skin, or consumed; and how creative practices such as mark-making evolved during the life-course of the community. I also outline how my thesis has contributed to theoretical archaeology and the Çatalhöyük discourse.

This concludes my introduction to the thesis, in the next chapter I provide a literature review that focuses on the analysis and interpretation of creative practices at Çatalhöyük.

Chapter 2: Literature Review

2.1.0. Introduction

When Çatalhöyük was first unearthed, the structural complexity, advanced creative productivity, size and population density led to a re-assessment of the Anatolian Neolithic (Mellaart 1962). The success of Çatalhöyük is reflected in their apparent domestic triumphs: the longevity of the settlement combined with the breadth of their creative output positions the settlement as a prime example of a successful Neolithic life-way. The community produced sun-baked clay figurines, basketry, and beads, to name a few of their endeavours, and these materials have stood the test of time (in many cases this is due to the favourable abandonment processes discussed in section 1.5.2.). The material culture provides us with the traces of a highly creative, materially engaged community that evidently made and re-made things on an hour to hour, day to day basis. It is true that the creativity demonstrated at Çatalhöyük may simply be symptomatic of a Neolithic life-way, nonetheless, Çatalhöyük stands as a testament of the ingenuity and talent of those living in the community; it demands that we re-visit and perhaps reconsider some of our narratives asserted for this particular period.

2.2.0 A Neolithic Settlement called Çatalhöyük

2.2.1. The History of the Excavation

The significance of Çatalhöyük was quickly realised, and after the first season of excavations Mellaart confirmed that: “during the Neolithic period, at least, ‘Çatal hüyük’ [original spelling] was the capital site of the Konya Plain.” (Mellaart 1962: 42). The western mound was dated to the Chalcolithic period and the eastern mound was dated earlier to the eighth and seventh millennia BC. Complex buildings were grouped closely together often sharing walls, the buildings were made of mudbrick, plastered internally and the entrance point was from a hole in the roof that was reached by a ladder along the south wall (Twiss *et al* 2008: 43). The structure of the site consisted of horizontal levels of occupation and when a house reached the end of its use-life it was filled in by the occupiers and then built upon vertically; repeated patterns of habitation provided the potential for an in-depth analysis of one of the earliest (and largest) sedentary communities known.

The excavation history of the site begins with James Mellaart, the first excavator, who produced four excavation reports with the last published in 1966. Ian Hodder took over from 1993-Present and has produced annual fieldwork archive reports and ten edited volumes. The analysis of these documents provides a comprehensive understanding of the variety of material culture found at the tell and the evolution of the narratives about this archaeological site. I shall examine how the material data has been interpreted, with particular reference to portable objects like the figurines and non-portable objects such as the wall paintings and sculpted wall-features; these primary objects appear to have inspired James Mellaart's interpretations of the site.

Mellaart identified 12 layers of occupation with one level (VI) divided into two subcategories, and it was anticipated that a further 20 ft of deposit lay below (Mellaart 1966: 167). Level X was radiocarbon dated as 6500 BC +/- 100 (Mellaart 1966: 168). Significant amounts of carbonised artefacts indicated that mass-conflagrations had taken place at the settlement; indeed, Mellaart observed during the first excavation season that out of ten layers of occupation excavated only two did not show evidence of burning (1962: 44). Mellaart published four seasons of reports which primarily focused on art and symbolism found at the site. Obsidian, glass-like volcanic rock that becomes a highly reflective mirror-like material when polished, was widely used for several different and seemingly complex reasons, from obsidian mirrors, to tools such as blades and a spearhead, the raw material was even ground and added to paint (Carter 2011; Anderson *et al* 2014). Unique burial patterns were identified, and the iconic figurines strongly influenced narratives developed by the excavator (Figure 3). The seeming predominance of visual representations of the female body in the material culture found at the tell, encouraged Mellaart to assert that the community worshipped a Mother Goddess (Mellaart 1962: 57).

Mellaart (1963: 46) drew parallels with two other Anatolian sites; Can Hasan⁴ which he had identified during a survey (Mellaart 1954), and Hacilar which he excavated prior to Çatalhöyük (see Mellaart 1958). At the time of the excavation, Mellaart noted that the latest painting on the north wall at Çatalhöyük, preserved only in a fragment near the

⁴ Can Hasan excavations were directed by David French (see French 1962, 1963, 1998).

northeast corner (P1. XLIIb), depicted “a typical textile pattern in black which has many analogies with the similar patterns on the painted pottery of Hacilar” (1966: 178). Undoubtedly, his finds at Hacilar also influenced the way he approached Çatalhöyük (see section 2.2.1. for further details about Mellaart and excavations at Hacilar); at Hacilar multiple figurines of females had been found and there was already an established theory that the Neolithic may have been a matrilineal society governed by a Goddess (Gimbutas 1974). This approach influenced and shaped his analysis and led Mellaart to assert contentious interpretations of the material culture. Totemic imagery found particularly in the ‘shrines’ were presented as unequivocal signs of the female deity. For example, the vulture icon was argued to “represent the Great Goddess in her aspect of death” (Mellaart 1964: 64). Sculpted zoomorphic wall-features were interpreted as the “whirling” or “running” Goddess (Mellaart 1964).

The second excavation report identifies a shift in instances of wall paintings, Mellaart argues that “no trace of any painting, whether geometric or figural, has been found at Çatalhöyük later than Level III” (1963: 46), but “red painted panels, posts, benches, etc., however, are still frequent and the red painted hearth and part of the floor continue” (1963: 46). Thus, Mellaart argued that a significant shift in the iconographic repertoire occurred around (if not before) Level III. He notes that there is an increase in weapons during the later periods (1963: 47), and this observation continues to be correct today with stone mace heads only appearing in middle to late levels (Wright *et al* 2013; Wright 2014). Early in his interpretation of the material culture at the site, Mellaart asserted that the geometric patterning captured in the wall paintings was a precursor to patterning later found in the kilims (traditional Turkish rugs that are still made today). Mellaart synthesized the geometric patterns (zigzags, quatrefoils, dots, and so on) with those found on woven woolen rugs (1963: 48). Shifts in patterning seem purposeful and with intended meaning, particularly evident in the case of plastered leopards in The Shrine VII, 44 which have several distinctive phases of patterning where the leopard’s spots change collectively (Mellaart 1966 Plate XXXVI-XL). Mellaart recorded seven separate layers of painted patterns, each with a layer of plaster between them (1966: 177); these findings are questioned during the contemporary excavation led by Hodder when Wendy Matthews (2005b) locates up to 700 separate washes of plaster on a single wall of a house (Hodder and Cessford 2004: 22).

Mellaart's work at the site in the 1963 excavation season dealt primarily with the 'shrines', in particular EVI, the shrine which features the leopard motif. Building on the Goddess narratives asserted in the first two excavation reports, he describes the iconography as religious (Mellaart 1964: 66) and that there is a 'pantheon' inside the shrine. His interpretations became increasingly detailed but equally highly contentious. According to Mellaart the "pantheon" was: "[P]resided over by the mother goddess, her son, and husband-male spirits of fertility symbolized by large and small bulls-and her daughter [...] younger version(s) of the great goddess herself" (1964: 47).

During the third excavation Mellaart went far deeper into the mound, to Level X where vulture imagery emerges. The excavator noted that: "Wall paintings and reliefs and the technique of cut-out figures in plaster seem to accompany the earliest buildings found so far on the site" (1964: 73) and that the earliest levels of the Tell were "neither smaller nor inferior to the better known examples in the later levels" (1964: 73). Pigment, from an early phase, seems to be used primarily on wall paintings and in burials, with figurines (see Mellaart 1962: 92) also occasionally featuring some patterning (Figure 3). Mellaart comments in the fourth excavation report that: "the people of Çatalhöyük did not develop an early painted ware, and confined their artistic activity to wall painting" (1966: 170). He argues that pottery appears to have been primarily for utilitarian purposes due to the lack of painted decoration on ceramics (1966: 172). Mellaart also observed careful use of pigment in burial contexts, noting, "[d]uring the 1965 season at Çatalhöyük at least 80 burials were recorded in building-levels V-XI, nine of which had been treated with red ochre" (1966: 183). He further remarked:

"[O]f these nine red ochre burials, five came from Level VII and the remaining four from Level VIII, one might conclude that red ochre burials become more common in the lower levels of the site. As before, all are those of women (1966: 183)".

He asserted that red ochre burials appeared to be more often found in shrine contexts (1966: 183). Mellaart clearly noted that there was a particular use of colour and pigment at the town, and his findings do suggest that there were acceptable and non-acceptable uses of pigment (the raw substance) and paint (the raw substance mixed with fluid).

Pigment has continued to be observed in the contemporary archaeological exploration and is an important source of information (Çamurcuoğlu 2015). Mellaart's involvement with Çatalhöyük came to an abrupt end in 1965 when he was banned by the Turkish Ministry from excavating in Turkey on suspicion of illegal trading in antiquities, known as the infamous 'Dorak affair' (Pearson and Connor 1967).

2.2.2. The Contemporary Excavation

Ian Hodder has directed the excavation since its re-opening in 1993 (the site had been closed since 1965), with the new aim of providing the Turkish Ministry of Culture with a well-planned heritage site. During the thirty years of closure the Konya landscape had changed dramatically due to a new programme of investment into irrigation; Konya had transformed into a fertile plain, with the water table artificially maintained at 10m below the plain level (Hodder 1996).

The technological developments of the 1990s provided the opportunity to generate new methodologies to decode the past. Micromorphological investigations provide detailed accounts of how "clean" a house was before it was abandoned or closed (Matthews 2005a: 145). Photomicrographs (photos taken with the aid of a microscope) of wall-plaster revealed different carbon levels between the layers that could be matched to changes of seasons and fire-use (Matthews 1998; 2005b: 368). In former interpretations, Mellaart (1965b) had anticipated that certain buildings had lasted over a century during their use-life. Earlier houses lasted 70-100 years whereas later houses were used for 50-70 years and micro/macro artifactual remains indicate that all houses excavated since 1993 were inhabited (Matthews 2005b). Some houses were built simultaneously, with the same bricks, and often sharing party walls (a wall that is shared by two adjoining buildings), which indicated shared resources, building practices, and blurred building boundary delineation. However, careful analysis of the mortar used in the construction, revealed that mortar recipes differed between houses (Matthews 2005a: 134).

Matthews' new evidence suggested that the wall paintings were only visible for a matter of months but were repeated through the house life-cycle, and long-term relief plasters were constantly re-plastered and rejuvenated (2005b: 367). Thus, during the

contemporary excavation an astounding level of detail could be perceived via new scientific methods. The intricacies in habitual practices could be identified, and changes in style suggested organic growth within the settlement. Developments in excavation methods, and a shift in the focus away from visual responses to the material culture towards meticulous scientific investigations, led to a deeper and more nuanced understanding of the settlement which continues to grow with every excavation season (see section 2.6.0. and 2.7.0.).

2.3.0. Key Neolithic Issues at Çatalhöyük

2.3.1. Social Organisation at Çatalhöyük

As stated in the introduction, in this thesis I analyse creative practices to understand social dynamics, tensions, and value. Creative practices offer insight into the aforementioned socio-cultural factors, and offer a new approach to the analysis of social organisation in the past. In this section I examine how material culture, particularly at the case study site, has been used to make observations about social organisation in the Neolithic.

Current understanding of the Neolithic in the Near East, and in particular at Çatalhöyük, is based upon the idea that if there are more people living together there is more potential for conflict (Rosenberg and Redding 2000; Goring-Morris 2000; Hodder and Cessford 2004). Archaeologists (Rosenberg and Redding 2000; Goring-Morris 2000; Hodder and Cessford 2004) argue that if there is a large group of people settling in one area, storing food and materials, then “sociopolitical structures are needed that can resolve conflicts” (Hodder and Cessford 2004: 17). Archaeologists (Byrd 1994; Flannery 1972, 1993; Hole 2000; Wright 1984) look for evidence that suggests centralisation of power and organisation, and such elements of social organisation are located in material evidence that suggests “ranking, rituals, symbolism and public space” (Hodder and Cessford 2004: 17). The materiality of these socio-structures are objects and spaces that suggest public rituals, replication of common symbols to demonstrate collectively held beliefs, and the physical remains of feasting or objects that are used in such processes (Hodder and Cessford 2004: 17).

Following Fletcher (2005) the materiality of socio-structures could be framed as ‘material behaviours’. Fletcher argues that the material can act as: “a fundamental regulatory factor which assists the growth of human communities, and as a restrictive, potentially deleterious constraint on social life” (1995: xix). Thus, material behaviours can restrict or aid settlement growth (Fletcher 1995: xix). Fletcher outlines some of the social issues behind potential conflict, a key suggestion (that bears particular relevance to Çatalhöyük) is noise (1995: 95). Fletcher considers noise in relation to interaction, communication and stress and how these factors correlate with settlement growth. He synthesises communication (or ‘transmission signals’) with stress, and argues too much noise can interrupt the transmission signals, equally, delays in the sharing of information or things, can result in intolerable interactions (1995: 95). Fletcher contends that the human sensory system has a finite capacity, the human brain can handle a finite amount of information, and there is a limit to the amount of interactions a human can handle (1995: 69). Whilst Fletcher’s model could be critiqued for relying on a universalist approach to sensory perception, he does provide an innovative argument that explains how material behaviour can restrict or aid settlement growth (Fletcher 1995: xix); thus, social dynamics and pressures are visible from material interactions.

As the archaeological evidence at Çatalhöyük indicates that the mound was inhabited for up to 1400 years (Farid 2011a), settlement growth and stability are particularly relevant topics for contemporary research at the site. Hodder discusses the build-up of stress at Çatalhöyük in the period leading to 6500 BC; he observes high population density, rise in fertility, and increase in disease (2016: 74). Hodder notes that during this period: “Many buildings are burned and the continuity in house rebuilding is broken. In the upper levels of occupation, larger elaborate buildings emerge” (2016: 74). The transition period between 6700 BC and 6500 BC (Levels South L and M) evidences several significant cultural changes such as sandier bricks and by Level M (6500 BC) the notable use of pottery in cooking (Hodder 2016: 31). By the latest level on the East Mound (which ends by 6000 BC) there is a considerable decline in animal installations and bucrania (Hodder 2016: 37). Thus, the transition between Level VII (Level South M Level North F) and Level VIB (Level South N and Level North G) marks a key transition period at the settlement and these levels pivot on 6500 BC.

Whilst Fletcher's (1995) work highlights the dynamic nature of settlements in general, Hodder's (2016) analysis of the material culture at Çatalhöyük makes clear links between settlement growth and changes in material behaviours. The socio-cultural factors behind changes in material behaviours at Çatalhöyük have been discussed by several researchers (such as Wright 2014; Hodder and Cessford 2004; Martin and Meskell 2012). Katherine Wright (2014) analysed 2429 ground stone artefacts and 20 buildings and 9 yards at Çatalhöyük and observed that private households had access to "cooking features" and ground stone, however the distribution of stone toolkits indicates that the households were not self-sufficient (2014: 28). The elaborate buildings contained concentrations of complete (unbroken) querns, which may indicate "an unusual status, specialization or hosting of task groups" (Wright 2014: 28). Wright argues that changes in the ground stone assemblage at Çatalhöyük indicate that during the history of the settlement there was a transition from egalitarianism to "something much more complex"; however, egalitarian principles were maintained throughout the occupation of the East mound (2014: 29). These changes include a rise in maceheads and the appearance of andesite serving trays in middle to late levels which Wright suggests may reflect weapon-use and/or political authority and more formal dining practices (2014: 28). Nonetheless, ranking, rituals and public space are not overtly visible from the archaeological remains at Çatalhöyük (Hodder and Cessford 2004), therefore, the degree of social differentiation between individuals and communities at the tell is not obviously transparent and requires detailed analysis of all aspects of life at the settlement to interweave further narratives to support Wright's key observations.

Hodder and Cessford (2004) synthesise the figurines with memory and outline how these objects were used as mechanisms of power. Hodder and Cessford (2004) interpret the figurine and other materiality as objects that have significant metaphorical connotations with memories imbued within. The power within these memory-based objects (or "mnemonics") was more than just a reflected memory, but suggests how they were used and that new memories could be produced too: "[i]t is not just that all these objects acted as mnemonics for more complex cognitive memory. It is rather the materiality created memory" (Hodder 2005a: 131). Hodder and Cessford discuss two distinct types of memory: commemorative and habituated, and highlight the importance of distinguishing between commemorative events from habituated behaviour (2004:

32). According to Hodder and Cessford, commemorative events involve specific social memories linked to specific people and events, whereas habituated behaviour involves the repetition of acts like rituals that become codified without the specific link to a memory of events (2004: 32). Thus, the specificity of the memory construction (2004: 32) is used to differentiate between site-wide habituated behaviour embedded in routine practices (like the placement of the hearth in the south area of the house) and house-based memory (2004: 32). Hodder argues that there is a “shift from long-term house based memory politics to short-term alliance-based memory politics” (Hodder 2005: 190). Hodder and Cessford (2004) suggest that the increased use of narrative art in the wall paintings of later levels and the contemporary evidence that indicates the images were quickly covered implies that it was the momentary act of commemorating that was important.

Thus, habituated practices linked to memory, and statistical patterning of material culture, have been synthesised or collated to explain how Çatalhöyük was socially organised, and dynamically through time. Building on this discussion of the material expressions of sociopolitical organisation I consider next the argument that there would be a need for centralised power and the belief that more people equal more conflict (Hodder and Cessford 2004). The next section unpacks the issue of ‘conflict’, and how it has been observed at Çatalhöyük.

2.3.2. Grain and Grudge

Due to the significant development in farming practices during the period, it is argued that grain production and domestication are defining characteristics of the Neolithic. I argue that one aspect of our current understanding of the Neolithic in the Near East could be described as the ‘grain and grudge’ predicament. The disproportionate number of female “goddess” figurines from the period are interwoven in to the grain narrative via the notion of fertility. Haaland and Haaland (1996) correlate the socioeconomic backdrop to the Neolithic and the production of figurines. They note that as the Neolithic was a period of early farming, there was an increased awareness and dependence on successful crops. They also argue that cultivation of crops increases the awareness of fertility of the land (Haaland and Haaland 1996). They linked women’s

fertility to crop fertility as an explanation for the predominance of female figurines. In such interpretations the figurine became a metaphor for fertility; a mascot for the first farmers. Meskell argues that it is an assumption to equate female imagery with fertility, Meskell stating: “images of large, mature women do not a priori equate to fertility” (Meskell 1998: 60). Diane Bolger highlighted that images of large women could just be fat, not pregnant, women; “figurines with swollen bellies and large hips, sometimes seated on stools, were assumed to be pregnant, although there was no real proof of this” (Bolger 1996: 367). Thus, grain and fertility become intertwined with culturally contingent responses to the female body.

The second characteristic is the grudge/threat dichotomy; it is argued that Neolithic communities need defensive social structures in place to prevent conflict between endogamous and exogamous community relations (or as mentioned before, social structures to prevent in-house conflict due to increased numbers of co-existing persons). Together these interpretations could be described as the ‘grain and grudge’ approach to the Neolithic - an approach that this thesis aims to dispel as a curtailing assumption that still shapes our narratives.

Despite the evident closeness in residences, the town has not been interpreted as intimate; instead, arguments outlined by Mellaart (1964: 40) and Todd (1976: 25) asserted that the density of the buildings was in fact ‘defensive’ and related to potential flooding and/or threat from other people (Düring 2001: 2). Archaeologist Bleda Düring rightly questions this functionalist explanation for the architecture at the Neolithic town by presenting three key arguments (2001: 2). Firstly the buildings themselves both in early levels of VIII and later levels V-II are open and accessible and cater for a significant, and in its own right, large population; on this matter, Düring asks “*who* could have threatened the inhabitants” (2001: 2). Secondly, the earliest levels (Level VIII) are still 2.5m above the contemporary floodplain level, and according to Roberts (1982) the plain was lower during the Neolithic, thus, the likelihood of a flood that reaches over 2.5m seems highly unlikely especially as the Konya Plain stretches for kilometers (Düring 2001: 2). Thirdly, mudbricks are not adequate protection if water was a real threat (Düring 2001: 2). Düring’s compelling arguments contradict Mellaart’s argument that the people of Çatalhöyük would be fearful of others and create living

spaces primarily designed with defensive reasons in mind Mellaart (1964: 40). The next section will focus explicitly on how the products of creative practices (particularly the figurines) have informed contemporary understandings of ideology and religion at the settlement.

2.4.0. Material Culture: Ideology and Religion

2.4.1. The Figurines and the Neolithic Mother Goddess

The global response to a complete figurine unearthed during the 2016 season (Kark 2016) suggests that the figurine continues to dominate the Çatalhöyük discourse. Figurines are ubiquitous finds at Çatalhöyük; between 1993 and 2005, 526 figurines have been found. Of those, 183 are recognizably human parts/humanoid, 229 are animals and the rest are unrecognizable (Hamilton 2005: 187-214). Mellaart's excavations retrieved 254 figurines, 120 of these representations of animals (Hamilton 2005: 217). Many of these pieces were unstratified, meaning they had not been attributed an archaeological context and became miscellaneously connected to the site. Mellaart's method of excavation has been criticised by many (Hamilton 2005; Last 2005; Bailey 1996) due to the lack of contextual information of some of the artefacts; many figurines, for example, did not have any building attribution (Hamilton 2005).

The images in the 1960s excavation reports are not simply an appendage to the text, but instead provide the backbone to our understanding of the site, and in some cases are the only record of what was present when Mellaart excavated, for things have been lost or damaged due to the conditions in which they were retrieved. Mellaart provides an exciting account of the site as it was discovered, although many of his interpretations of the finds and conclusions drawn about the site are debated due to his contentious synthesis of artefacts with religion and because his finds were not stratified.

2.4.2. Critique of the Mother Goddess

Peter Ucko (1962: 38) was the first to question the quality of the evidence for the Mother Goddess theory: "the general Mother Goddess interpretation fails to cover all the known facts" (Ucko 1962: 38). He asked how the figurines were used rather than

why they were significant, and approached his analysis by dividing the works into their individual sites. Ucko used ethnographic analogy to illustrate a ‘range of practices’ (Ucko 1962: 45); this significantly enhanced the figurine discourse as it removed the Western lens and broadened our approach by highlighting the variety of contemporary figurine practice. The main criticism for the figurines being ritual equipment for a particular religion was that the figurine was the main material evidence used to identify cultic activity. A key problem with the connection is that the figurine was routinely decontextualized and is an object that cannot explicitly and solely be linked to cult and ritual activities (Ucko 1962).

The figurine could have a number of meanings and uses, and the argument for the figurines as a pan-cultural phenomenon are rooted in essentialism. Ucko highlighted the weakness of identifying a cult due to the presence of a figurine: “a building cannot be assumed to have ritual or cult significance simply on the basis of an associated figurine, unless ritual character is established in some other way” (Ucko 1962: 41). Andrew Fleming questioned the practicality of such a concept by asking how such motifs were diffused over such a large area (Fleming 1969: 248). Fleming stated that even where there are suggestions of ‘diffusion’: “there is little evidence of the nature of the mechanisms involved” (Fleming 1969: 248).

Despite contemporary criticisms of the goddess ideology (such as Ucko 1962), Mellaart maintained that the Mother Goddess was a key aspect of the ‘religion’ at the Neolithic town, and even proposed that there was a link between Çatalhöyük and the “classical times [of] Cybele, Artemis and Aphrodite” (1976: 24). Unprecedented finds at the Neolithic town, such as the throned female sculpture flanked by leopards became important icons for the 1970s Goddess debate. Marija Gimbutas made key contributions to the Mother Goddess debate during the 1970s (Gimbutas 1974) and her work has been acknowledged (if indeed as problematic) by several academics engaging with the figurine discourse (Ucko 1996; Hamilton 1996; Meskell 1998b; Malone 1998). She examined figurines across ‘Old Europe’ (1974), by looking at the figurines from the Vinča, Szentes, Cucuteni, and those found at sites in Thessaly and Macedonia as a collectively bound corpus bounded by time alone. The collection of figurines was believed to have ritual significance and considered vestiges of a past religion; Gimbutas

argued that: “many figurines were ex-votos and like the words of prayer were dedicated to the Great Goddess” (Gimbutas 1974: 17). Goodison and Morris’ edited volume attempted to mediate the goddess debate, by trying to “bridge the gap between the two camps” (1999: 6). Therefore, Ucko (1962), Fleming (1969), Goodison and Morris (1999), Meskell (1998a,b, 1999), and Hamilton (1996), all provided enlightening counterarguments to the assertion of a Neolithic ‘Mother Goddess’.

2.4.3. Contextualizing the Figurine in the Neolithic

Meskell (1998b: 53) argued that even if the Neolithic centered around a goddess cult there was no logical reason to believe that women had a higher status: “cultures with strong female deities may still regard women in the profane world as a low-status group” (Meskell 1998b: 53). Talalay (1994) reiterated that the Mother Goddess was an assumption: “archaeologists have failed to recognise the complexities of use and meaning and have assumed *a priori* that a collection of figurines from a single site (or region) served a single function or held one meaning” (1994: 38). Talalay provided an analysis of figurines found in Neolithic Greece to highlight the unique uses of figurines in Neolithic communities. She found that the figurines were “useful devices marking regional ties in a preliterate society” (Talalay 1987: 161). She defended this argument by visual analysis of the designs and the deliberate breakages on the figurine legs. Talalay argued that the figurines had been made to be broken (Talalay 1987: 163). By weaving the figurine corpus she was studying in with considering the socioeconomic climate of the Neolithic, she argued that small communities of below 200 are not biologically viable when they are committed to endogamy, and therefore the Neolithic communities of the Peloponnese - whose size, though debatable, is estimated at 200 (according to Talalay 1987: 162) - were practising exogamy. The consideration of community relations and the possibility that exogamy was practiced is important as it reveals community relationships that stretch beyond the geographical location of the settlement (1987: 168). Talalay proposed that as women were relocated between the sites via exogamy, and the clear stylistic link between the communities, indicates that the artistic tradition was being spread by women (1987: 91). Talalay’s work presented a new way of approaching the figurine; by thinking beyond the aesthetics, and considering the socioeconomic climate the figurines were circulated in, she was able to produce an argument that considered the relationship between figurine and community.

Her social archaeological approach highlighted the potential for creative interpretation as it presented the figurine as dynamically positioned within a community; this was particularly innovative as until this point the figurine had been placed in a “static position” (Meskell 2007: 142) “destined to spend their lifetimes sitting it out upon altars and pedestals” (2007: 142).

2.4.4. An “Archaeology of Desire”

Even at the contemporary excavation at Çatalhöyük (1993-Present), there are conflicting interpretations amongst excavators who have worked at the site. Meskell (2007), Hamilton (2005) and Hodder and Meskell (2011) have very different interpretations of sex and gender at the site. Meskell sees a predominance of male imagery, which she argues is “strongly demarcated across a range of imagery” (2007: 140-141) and concludes “maleness is very evident” (Meskell 2007: 140-141). Hamilton disagrees, commenting: “there is a clear move away from ambiguously- or lightly-sexed figurines towards strongly sexed female figures” (Hamilton 2005). Meskell concludes that she is going to look for “personhood” (2007: 141), whereas Hamilton provides a detailed argument for a shift in gender ideology centered on Level VI (Hamilton 2005: 211) due to an increase in “strongly sexed figurines” (2005: 211). Hodder and Meskell (2011) argue that the phallogentric imagery has been “downplayed” (2011: 237).

Archaeologists have highlighted that inferring male and female sex on the basis of secondary sexual characteristics is problematic (Malone 1998; Lesure 2002). Other arguments debated the notion of gender and how useful, or indeed relevant, the term was when discussing prehistoric communities. Caroline Malone illustrated the inherent sexism in some of our misinterpretations of the figurines that identified the female sex from figurines depicting obesity and no specific genitalia (Malone: 1998: 148). Richard Lesure also commented on the use of “sex indicators”, remarking, “the body is characterized by primary and secondary sexual features: where clear primary ones are absent, none of the other features, including steatopygia, prominent bellies, and of course breasts, can be considered definite indicators of sex” (Lesure 2002: 602). Hamilton observed that: “while it could be argued that the lack of femaleness is indicative of maleness, such a line of reasoning not only works from negative evidence,

but suggests that maleness would have been regarded as a negative characteristic, that males are non females” (Hamilton 2005: 212). Clearly, the ascription of the male/female dichotomy led to discrepancies between the figurine and archaeological record. Meskell refers to this disconnection an “archaeology of desire” (1998: 60).

Diane Bolger (1996) analysed a change in gender ideology from Chalcolithic to Bronze Age Cyprus on the basis of the shift of the female representation from “genetrix” (birth-giver) to “mater” (mother) (1996: 371). From the change in representation of the female, Bolger argues that this reflects an “ideological decline of female status” (1996: 371). Ucko warned that our Western dyadic approach to sex might not be applicable to Prehistory and a simple ‘sexual dualism’ might not have existed (Ucko 1996); gender may have been a ‘fluid’ concept (Ucko 1996; Bolger 2012). Certainly, with regard to the anthropomorphic schematic clay figurines found at Çatalhöyük, constructing biological sex indicators appears to be of little importance to the creators. Hamilton (2000) concedes that gender may have been a more fluid concept, thus as gender is culturally contingent, it may take on a different form that is hard for contemporary audiences to recognise.

One of the main causes of the discrepancy in the figurine record is how we interpret the anthropomorphic clay figurines. Currently the schematic, quickly-made figurines are quantified along with the other conceptually-nuanced, labour-intensive figurines. The majority of anthropomorphic figurines are schematic representations of humans pinched and formed out of clay, and they shift figurine statistics dramatically. As a result of their inclusion in the figurine corpus, archaeologists state that: “most figurines are found in secondary depositional contexts and domestic refuse” (Hamilton 2005: 195). Hamilton interprets the variety of representation and material as a reflection of their profane status: “the representations range from natural stones through seriously schematic images and generalized humanoid figures to elaborate and highly-developed human forms. Thus there is little likelihood that they represent a clearly-defined group of deities” (Hamilton 2005: 208).

Thus, the majority of figurines found at Çatalhöyük are interpreted as sexless, perishable and profane (Hamilton 2005); however, individual analysis of the figurines

highlights the fragility of this interpretation. To create categories within the figurine collection is difficult, apart from discernible material differences such as size and content, further categories such as ‘good’ and ‘bad’, in terms of execution, are shied away from due to the subjective nature of aesthetic responses to art. If we examine different styles of making we can see that certain artefacts took longer to make, and this factor might be a way of discerning different values between figurines. Also the different deposition practices also indicate that the figurines served different purposes - some were left in domestic refuse (Hamilton 2005); some were placed on shrine floors during house closure activities (Mellaart 1963). Those figurines that appear to be part of house-closure and abandonment practices could be classed as ‘special’ due to the high level of intricate modeling, delicate and intentional application of paint, attention to fine detail and complex combination of symbols (e.g. sculpture of throned parturient female flanked by two leopards). Equally, if we are to use Hamilton’s terminology, we can see that ‘schematic humanoid figurines’ tend to be found in rubbish pits or secondary deposition. When discussing the location of these figurines it must also be noted that there is archaeological evidence for certain items being mended and fixed; thus damage due to use-wear was not necessarily a reason for deposition. Hamilton (1996) identified such a case, where a figurine had been fixed through additional drill holes, however the object was incomplete when it was found which she suggests may indicate that despite being broken it was still in circulation. This piece was part of the leopard-themed group of four figurines all deposited within the same building EVIA: 10. Mending the figurine suggests that this object was valued, and this argument is enhanced by the fact that it was also ‘ritually’ deposited within the dwelling (Hamilton 1996: 219). Contrary to the statistics, these figurines are clearly sexed with primary and secondary sexual indicators, mended and left in a distinctive manner.

Researchers are in agreement that many of the figurines, particularly those which would be categorized as abbreviated, non-diagnostic, zoomorphic, and anthropomorphic were often “expediently made” due to the simplicity in form and structure (Meskell *et al* 2007). These types of figurines required little more than time, clay and hands to create. Less than a third of both the animal and human figurines analysed in the 2012 report were considered by the team to be finely modeled. “Finely modeled” indicates the figurines exhibit more “bodily features” such as “the horns and beards of goats; the

tails, muzzles and swayed backs of horses; the upright tails and attentive postures of dogs; the ears and snout of boars” (Meskell, Nakamura and Der 2012: 190). According to their analysis of the figurines, these details can be less than 1cm; thus, approximately one third of the figurines analysed for the 2012 report demonstrated reasonable care in creation and an awareness of form and attributes. The report reveals that the human head, when found, does not depict facial characteristics. However, occasional hair and nose are present, even fewer have ears and mouth, and eyes are usually omitted (Meskell, Nakamura and Der 2012: 191). Therefore, these figurines are general objects that marginally represent the human form. Hamilton’s classification “schematic” seems appropriate here as it emphasises the simplicity in the way they are created and how they are almost formulaic in character.

Martin and Meskell (2012) are skeptical of Nakamura and Pels ideas that the figurines are primarily used for magical/ritual practices. The wounded figurines, ones which were stabbed directly after making, lend themselves to this interpretation as they physically demonstrate stab wounds. Martin and Meskell (2012) and Meskell, Nakamura and Der (2012: 191) acknowledge that ritual/magical behaviour is a factor and cite Bell (1992), Hodder (2006), and Voigt (2000), who place an emphasis on the act of making, where the figurines become a means for wishing. Nakamura (2004, 2005) emphasises that during the process of making (and ridding) the creator becomes a ‘powerful agent’. Perhaps the most uniform characteristic of this type of figurines is that they tend to end in middens or ‘dumping contexts’ (Meskell, Nakamura and Der 2012: 191; Martin and Meskell 2010: 91). These contexts suggest that the pieces are ‘throw-away’ objects that once made, and played with end quickly crumbled, disfigured, or broken. The figurines found in dumping contexts are clearly left in haphazard ways, sometimes the archaeological evidence suggests that they were swept out of the house and left with the rubbish (Meskell, Nakamura and Der (2012: 191). This factor supports the notion that this type of figurine is not part of an esoteric practice, as the objects are not carefully disposed of as would be expected of products particularly created for private consumption. As the deposition of this type of figurine appears to be replicated in site-wide contexts, it seems reasonable to suggest that the process of making the figurine was important. There are examples within the figurine corpus that demonstrate both intentional damage via stab wounds and accidental use-wear breakage. Horns are one of the weakest parts of the figurine and are often found broken-off from the figurine. In

relation to this point Martin and Meskell's (2010: 92) recent research on the zoomorphic figurines found at Çatalhöyük, the researchers observing that many of the figurines had a limited life-cycle with finger nail marks and small incisions and breaks. They argued that these markings suggested that the pieces were expediently made and had a short use-life (Martin and Meskell 2012: 404). On this basis they argue "it was the act of making that was significant" rather than the establishment of a long term iconography (2012: 404). I think this is a crucial observations and I take this observation forward in this thesis by focusing on the processes of making. The next section will explore other material culture at the tell, particularly the wall paintings and how gender narratives have been developed in response to the images.

2.5.0. Material Culture and Gender

2.5.1. The Wall Paintings

Mellaart's preliminary report contained photographs of figurines, wall paintings, horn cores, beads, architecture, burials, platforms, querns, polishers, bone tools, mace heads, a bone spatula and fork, and a collection of baked clay stamp seals (Mellaart 1962). But the illustrations of the wall paintings copied by Anne Louise Stockdale dominate the visual recordings in the report, and become more than a simple supplement to the photographic images. In several instances the 16 illustrations are solitary recordings of paintings destroyed in the excavation process. Mellaart stated that the wall paintings, as the earliest examples of paintings on human-made walls, were "the most spectacular contribution" to Near Eastern archaeology (1962: 57). And the distinctive painting practice, where images were routinely covered by layers of plaster and then painted again later in the sequence, was anticipated to be a practice connected to a particular type of ritual (1962: 58). Mellaart writes: "it is perfectly clear that these paintings served a definite purpose and were not just painted for artistic reasons alone" (1962: 58). The report, whilst stating that even the earliest wall paintings in A III, I. where all walls except for the south one is covered in wall paintings of hunting scenes (including the 6ft bull image), this visual repertoire contrasts with the paintings found in AIII, 8. which are all geometric and appear to diverge between different geometric patterning through the phases (1963 Plate V). The wall paintings in A VI, 6 combine both

figurative and geometric forms. Level VI (particularly the Shrine in Level A VI, I) had been destroyed by a “tremendous conflagration” (Mellaart 1963: 51).

The wall paintings have been examined by a number of researchers since their first unveiling in the excavation season of 1961 (Mellaart 1962, 1963, 1965, 1966; Collon 1990; De Jesus 1985; Gimbutas 1990; Hays 1993; Pratt 1970; Rice 1997; Last 1998; Meskell and Hodder 2011). Mellaart argued that the complex paintings and symbols at Çatalhöyük were conceptually conceived and developed over many years, that they were not “achieved over night” and that the developed nature of the practice demanded “a long series of predecessors” (1966: 191). Indeed, the visual iconography found at Çatalhöyük was unprecedented. Mellaart commented that there was an “absence of contemporary or earlier material from such sites as Jericho, Seyl Aqlat, Eynan, Jarmo or Tepe Sarab. No direct connections can be shown to have existed between any of these sites and Çatalhöyük” (1963: 78). Subsequent excavations across the Near East have revealed further examples of wall paintings. Important additions include those found at Bouqras, a Late PPNB tell situated on the Euphrates and dated to 6400 cal. BC (Çamurcuoğlu 2015: 73; Cauvin 2000: 177). At Bouqras ochre washed walls were found, and a wall painting depicting 18 ostriches and/or cranes painted in red (Schmandt-Besserat 2009: 48), along with a red ochre plastered ‘human face’ with a preserved ‘eye’ containing pieces of obsidian (Cauvin 2000: 183; Çamurcuoğlu 2015: 73; Akkermans and Schwartz 2003: 121). Wall and floor paintings have also been found at Tell Halula, an important site in northern Syria occupied for over 2000 years between 8500 cal. BC to 6000 cal. BC (Kuijt *et al* 2011: 507). At Tell Halula, Red and black figurative and geometric designs were found on some areas of the walls and floors (Cruells *et al* 2017: 28), and a unique painting depicting 23 silhouettes of female figures painted on a floor near the hearth (Schmandt-Besserat 2009: 48). At Umm Dabaghiyah (5800 BC-5300 BC) in the Jezira region of Iraq (Young and Nashli 2013: 183), geometric patterns (wavy lines and large dots) were found during the 1970s excavations, and in one painting (the ‘onager frieze’ see Kirkbride 1975) equids are depicted walking in lines behind each other (Schmandt-Besserat 2009: 48-49; Kirkbride 1975: Plate VIb and VIIa). Kirkbride described the most popular designs as “fairly thick wavy lines and others resembling thick herringbone patterns”, and noted that some of the imagery bears a ‘strong resemblance’ to the iconography depicting ‘vulture’ wings

found at Çatalhöyük (1975: 7). Kirkbride similarly observed layers of plaster between paintings on the same wall; red ochre was used predominately, however, black and yellow also appear (1975: 7). Basta (Jordan), Djade al-Mughara (Syria), Ain Ghazal (Jordan), Teleilat Ghassul (Jordan), have similarly yielded important examples of paintings, and in Turkey Boncuklu, Çayönü, Hacılar, Aşıklı Höyük, and Can Hasan III (see Çamurcuoğlu 2015: 71-74). Therefore, the presence of paintings on floors and walls, particularly the panels of red, geometric designs, or animals, are now considered a wider phenomenon than first anticipated during the Mellaart excavations. Nonetheless, the Çatalhöyük portfolio remains an impressive dataset.

Early interpretations of the wall paintings at Çatalhöyük have been marred by the Goddess narrative that led researchers to over-emphasise gender and ritual in their interpretations. The oversimplification of the interpreters' culturally contingent responses to the paintings created misshapen metanarratives that require further supporting archaeological evidence. An example of this can be seen in De Jesus' (1985) chapter on the wall paintings. The iconography at the town appears eclectic and ephemeral, there is a mixture of abstract geometric forms and grand-narrative type figurative works. Despite the evident variety in visual imagery De Jesus argues that there is clear conceptual order, neatness, and "precise expressions of spiritual and secular" (1985: 128). De Jesus relies on Leroi-Gourhan's (1964) work on cave paintings to identify categories such as female symbols, male symbols and "combined symbols" that appear to be generalizations that simply reinforce stereotypical and outdated notions of a clear-cut division between the sexes. A further issue arose in relation to the Mellaart *et al* (1989) publication *The goddess from Anatolia*, which featured 44 new drawings of Çatalhöyük wall paintings without photographic evidence (Eiland 1993; Mallett 1990). The stylistic differences between the new drawings and the photographs published in the original reports, and the lack of photographic documentation of the original wall paintings that inspired these new drawings brought Mellaart's argument and evidence into question (Eiland 1993: 861; Voigt 1991).

2.5.2. Wall Paintings and Masculinity

In 2011 Ian Hodder and Lynn Meskell drew parallels between Çatalhöyük and the iconography found by archaeologist Klaus Schmidt at Göbekli Tepe. To understand the wall paintings found at Çatalhöyük, Hodder and Meskell used statistical patterning of symbols found at the town to establish thematic hierarchies. Through the analysis they located three key themes: maleness, wild animals and piercing flesh (Hodder and Meskell 2011: 236-7). Their findings contradicted the traditional reading that the female, and not the male, was a dominant icon in the Neolithic period (Mellaart 1967; Cauvin 2000; Verhoeven 2002). To explain their findings they argued that phallogocentric imagery had been “downplayed” and “maleness” was a “prime cultural signifier” (Meskell and Hodder 2011: 37).

Despite their interpretation being the antithesis of former readings of the Neolithic, Hodder and Meskell admit that they are not attempting “[to] replace one metanarrative with another” (2011: 237). Hodder and Meskell use the phallic icon to suggest overall themes to the Neolithic. In their argument the ‘Turkish Neolithic’ is arbitrarily delineated as a geographically pronounced area with ‘masculinity’ proposed as a major characteristic (2011: 237). They argue that there is a: “a suite of themes involving skulls and birds of prey, wild cattle, and other dangerous animals and masculinity circulated over enormous areas of the Middle East during the period in which people settled into large villages or towns and adopted agriculture” (2011: 250). Alternatively, I contend that the distinction of sex into oblique binary opposite categories, the statistical use of ‘body parts’, and the resulting oscillation between the dominance of the two symbols along with the proposed interpretation of the symbol is problematic.

Early in the article Hodder and Meskell establish that they were not the first to observe phallic imagery, they note Mellaart too discussed the presence of the phallus: “F.V.1, the best-preserved building showing humans interacting with wild animals, of the 13 large quadrupeds depicted, six have a penis shown” (Mellaart 1966 cited in Hodder and Meskell 2011: 237). Certainly the presence of the phallus in the image is a clear indicator of sex, but Hodder and Meskell choose to see such imagery as revealing “masculinity as a source of power and authority within the material and symbolic repertoire of the Turkish Neolithic” (2011: 237). Their reading of a “strong masculine presence” (2011: 237) due to the occasional depiction of ithyphallic wild animals is, to my mind, too bold. We might note that such images show animals being trapped, baited, and teased by

humans of indeterminable sex. Such images could also be understood as humans trying to tame or control male sexuality, and that in this instance “maleness” is being equated with the wild. This reading of the image would lead to such imagery indicating the domestication of male sexuality, which would contradict with Hodder and Meskell’s view that the phallus indicates power and authority. Symbols are historically and culturally contingent and embedded in complex social networks enlivened by people and things. I argue divorcing body parts from persons and removing creative practices from the formulation of symbols impairs archaeological interpretation.

2.5.3. Symbolic Failings

The fragility of interpretations that assert gender are addressed in this thesis, and a marked departure from these conjectures will be demonstrated through the argument that ‘ways of seeing’ are culturally constructed (Berger 1972; Forge 1970). De Jesus’ account draws parallels with other interpretations that focus on the Neolithic mother goddess metanarrative (Mellaart 1962, Gimbutas 1990). Secondary sexual characteristics such as ‘breasts’ are used to identify female iconography (De Jesus 1985: 132) and Mellaart pushes the symbology of ‘female’ to include imagery of felines (Mellaart 1962). Images of leopards are interpreted as representatives of the goddess and it is asserted that such imagery is always associated with the female (Mellaart 1962: 30). This anthrozoomorphism appears to contradict other archaeological evidence located by Mellaart himself; we know that there are figurines within the visual repertoire where leopards are shown interacting with both male and female characters and so not exclusively associated with females (man riding a ‘bull’ Figure c-d Mellaart 1964: Plate XV; boy riding a leopard, Mellaart 1963: 86). Vulture iconography is also associated with the female gender too and are understood to be symbols of both “life and nourishment as well as death” (De Jesus 1985: 131). Many of the sculpted wall features are presented as ‘female’, and this becomes increasingly problematic as Mellaart’s excavations continue the obligatory ‘gendering’ of objects is asserted from little if any evidence. Further problems with this interpretation can be found in the fact that these images are likely to be zoomorphic rather than anthropomorphic.

When we consider the anatomical construction of these features we can see that the positioning of the legs is not anatomically possible for a human body. Due to the

outstretched “arms” and “legs”, these forms have been referred to as “splayed” figures (Türkcan 2007: 260) and are more likely to represent the body of an animal (Russell and Meece 2006: 215). Recent finds that have emerged during the contemporary excavation, such as a clay stamp seal that has been identified as a bear (Türkcan 2007). The stamp seal U.11652.X1 (Figure 4) has more iconographic relevance to these particular wall features than the female form. Hodder explains that the stamp seal U.11652.X1 (B.44) is “a key” to understanding these wall features and that the stamp seal “clearly show[’s] that the figure is an animal, probably a bear” (2005c: 2). In light of this discovery, it is probable that the reliefs with upraised arms and legs are representations of bears but not necessarily goddesses. Mellaart’s interpretation of a black limestone figurine from Level IV (Mellaart 1963: Fig. 19,) is the single interpretation that acknowledges the binary opposition of male and female might not be as rigidly held as his interpretations suggest. The figurine is formed in the shape of a phallus but is inscribed with an anthropomorphic image of a person with a clearly articulated vulva; primary sexual references to both male and female sex are visually present. De Jesus also acknowledges this piece despite it contradicting his narrative; but he simply refers to the iconography as a “combined” symbol (if indeed such a clear dichotomy in gender existed during the Neolithic). The exploration of gender relations at the settlement has led to a series of problematic interpretations and I am keen to avoid making statements about gender based upon culturally contingent symbols. Beyond portable objects such as figurines, and *in situ* wall paintings, there are also the buildings that house the materiality of day-to-day living at the settlement. The next section spotlights a pragmatic approach to building practices at the settlement (Ganis 2012).

2.6.0. The Contemporary Excavation

2.6.1. Rhythms in Spatial Construction

There are several ‘routine’ elements in house-making at Çatalhöyük, and within the house we see usual patterns in spatial construction and creative practices (Hodder and Cessford 2004). These patterns include: obsidian caches near hearths; spatially constant platforms and burial locations; ladders and large bucrania consistently positioned near west walls; ovens and hearths consistently found in the south area of the houses; ‘art’ and burials positioned in the north (Hodder and Cessford 2004: 22). In addition to these notable patterns there is also, consistently, no evidence of pottery in burials (Hodder and

Cessford 2004: 22). Each house is estimated to have a lifespan of 50-100 years (Mellaart 1964; 1967), and the size of central rooms is “rarely more” than 5 metres x 5 metres (Hodder and Cessford 2004: 22). The consistency in these elements indicates that the community had a keen awareness of how, and where, things should go within the houses. Hodder and Cessford did observe differences between the recipes for making plaster and bricks; however, they maintain that “the degree of repetition of plastering practices is remarkable” (2004: 22). They highlight research conducted by Matthews (2005b), who found (up to) 700 re-plasterings and paintings on a single wall over the course of 70 years, and comment that all central rooms “in all Ceramic Neolithic levels show repetitive re-plastering of walls, floors and platforms” (Hodder and Cessford 2004: 22). These rhythms in construction also reveal that there was a shared understanding of the internal layout of the buildings and how these elements were to be made.

Serena Love has carried out extensive research on the mudbrick compositions at the tell, and through the analysis of magnetic susceptibility and calcium carbonate values, she was able to confirm if mudbricks were made using the same sources of clay (2013a: 268). Love found that the introduction of temper did not alter the magnetic susceptibility and calcium carbonate values of the raw clay (2013a: 268), this observation led to Love finding that at particular moments in the settlement some houses were created using bricks that looked similar to the neighbouring buildings, but were made from different manufacturing processes or using different tempers (2013a: 269, 270). Equally, she also noticed that in the South Area Level M, several houses were using the same source but the bricks were made from different compositions (2013b: 91). An example of this scenario is found in the mudbricks of B.65 which, when compared to mudbricks from its contemporary neighbour B.69, contained a higher content of organic materials but the same magnetic susceptibility and calcium carbonate values, therefore, the manufacturers were using the same source but different recipes (2013b: 90). Love argues that there was a ‘subtle autonomy at house level (2013b: 91), and that different groups may have intentionally used unique recipes for mudbricks and mortars (2013a: 270). Love argues that building materials carry social meaning and cultural value (2013a: 273), and her research clearly indicates that careful analysis of the materiality of the houses and manufacturing processes can yield important information about socio-cultural practices which could be linked to cultural values

(2013a: 274). From her analysis she deduces that certain groups at the settlement were actively expressing their ‘difference’ during the performance of manufacturing mudbricks and buildings but this difference was hidden once the walls were plastered (2013a). The nuances in making practices and how these practices relate to socio-creative practices is an area of research that I will take forward in this thesis.

On the subject of building practices, architect Mary Ganis carried out a research project at the tell during the 2011 excavation season. Ganis indicates that many of these domestic, house-based construction and maintenance decisions were rooted in practical reactions to the climate and landscape. For example, Ganis explains that the reason why plaster was used in such abundance was because the materials used to build the houses such as the wood posts etc. were highly flammable and plaster is a flame retardant. According to Ganis when plaster is exposed to a flame it releases water vapour and this can slow down the fire, and when plaster is used to coat timbers it also insulates and retards the structure of the building from burning (Ganis 2012: 136).

Whether plaster was used for only this reason is debatable, though it might have been an important contributing factor. Hodder argues that because the walls are made from sun-dried mudbrick they expand and contract depending on moisture levels (Hodder 2016: 21). Therefore the walls of the building needed to be repeatedly covered with plaster to sustain changing levels of moisture (Hodder 2012a; Witmore 2014: 207).

One might question why buildings shared partition walls and were built in such close proximity, Ganis notes that the close proximity of buildings had thermal benefits; during the heat of the day the building would absorb heat and keep the internal space cool which would then be released when temperatures outside cooled (Ganis 2012: 131). Hodder interprets this method of construction differently, arguing that buildings were built closely together to support each other’s walls to avoid their collapse and to reduce energy used in construction:

“Another solution to the problem of slumping and collapsing walls [...] was to build separate houses, tightly packed up against each other. In the earliest levels, up to South K and L, there are many examples of houses that shared walls. In one case a pair of houses was built on the same foundation raft. This type of construction saves energy during construction as only one wall has to be built between neighbouring houses (2016: 29)”.

These two interpretations seem equally plausible. Further consistencies include the positioning of the hearth in the buildings. Ganis explains this factor in relation to draw and changes in seasons, as we know fireplaces tend to be along the southern wall, and she notes that in summer the prevailing wind is northerly. This means the wind would draw the smoke directly through the opening above the fireplace (Ganis 2012: 129). The wind in winter differs and is generally southerly (Ganis 2012: 129). However, as it is stronger the pressure is lower on the roof than it is inside the room, and the smoke is thus drawn out again (Ganis 2012: 129). Ganis' research into the velocity of wind offers reasons that explain why the community adhered to certain architectural layouts both within and without the buildings. Furthermore, she argues that changes in the position of the hearth - which we occasionally see in the archaeological record - might be related to either changes in the microclimate or different heights in buildings which would impact upon the wind velocity on the roofs (Ganis 2012: 130). Thus, when we do see subtle movement in the position of the hearth we might first look to building developments in the surrounding area.

2.6.2. 'Clean' and 'Dirty' Areas in Neolithic Buildings

Despite these pragmatic reasons, the matter remains that the cultural preference for creating wall paintings along the northern wall in history houses and/or elaborate houses at Çatalhöyük goes against the practical use of light present in the internal space. The rhythmic consistency of the house-makers at the Neolithic town means that we are able to say with relative confidence that the hearth would usually be placed along the southern wall along with the rooftop access point. Thus, the focus of light would be in the opposite side of the room to the wall painting. Hodder states that walls in the southern areas of the buildings were quickly covered in the residues of the fire, and became embedded with soot (2016: 38). He argues that it "made sense" to put the wall paintings in "the northern cleaner parts of the room" (2016: 38). However, there is a tension between the routine re-plasterings, the soot, and the temporary appearance of the wall paintings. Matthews' (2005b) research revealed hundreds of layers of plaster on a single wall, which suggests that in houses with a life span of seventy years that there were nigh on monthly, or bi-monthly, re-plasterings. Even Hodder has remarked that "[w]ithin 10 cms of floor or wall deposit it is possible to find up to 450 layers of re-plasterings" (2012: 304). This factor, along with the fact that soot is not necessarily a

permanent feature - it can be cleaned - creates a debate around how stark the difference between the 'dirty' and 'clean' areas was in an open space room. Seasonally, levels of soot on the wall would change, and this has been observed through changing levels of soot between layers of plaster (Matthews 2005b: 365; Hodder 2012a: 305).

It is true that Çatalhöyük can reveal the "a richly textured record of the minutiae of daily life" (Hodder 2012a: 303). However, we might reflect on the minutiae on offer in our own daily living circumstances, and perhaps question how aware are we of the microartifactual as we go through life. On this point it is important to acknowledge that what might seem as pervasive levels of dirt under the microscope, become less pronounced to the naked eye. Whilst it is important to observe the material trails of busy areas within the houses, it is important that we separate busy-ness from "dirtiness". Furthermore, I argue the binary opposite of clean/dirty is unhelpful, and draws upon an outdated key structuralist tenet as a method to understand human interaction. A major criticism of structuralist approaches is the argument it is a method rooted in essentialism, as it presents culture as a stable and transparent structure (Layton 2000: 48).

This point becomes clear when we question the notion of 'dirt' and accept that it is culturally configured. Anthropologist Mary Douglas describes dirt simply as "matter out of place" and argues that the concept of dirt is culturally configured (2002 [1966]: 44). She argues that communities that 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 [1966]: 44). Therefore, it is not necessarily the case that the community at the Neolithic town would have the same approach to soot being "dirty". Hodder highlights research carried out in B.1 by Cessford (2007) and Rosen (2005) and states "phytolith evidence suggests different types of matting on the different platforms" (Hodder 2012a: 305). Therefore, certain cultural practices, such as placing mats in certain areas, spatially alter levels of 'dirt'. This might mean that rather than being a matter regarding dirt, it might more likely be about comfort: for some, it is more comfortable or warming to sleep or sit on a reed mat than a plaster floor.

Invariably, at the entry point of any building, the footfall will be more pronounced, and as cooking also takes place here as the hearth is situated under the roof-entry point to

allow smoke to be released, again, there would be more activities around this area - hence more bodily residues and traces of living (or ‘dirt’). The clean/dirty dichotomy has also been used to explain why we do not see painted pottery; this is a conceptual leap that I find problematic. Hodder argues:

“The cooking pottery introduced at Çatalhöyük was initially burnished but otherwise undecorated. 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 question whether the consistent and constant emergence of dirt informed the preference for painting in the northeast areas within the building. Whilst the northern areas of the room are technically “cleaner” this may be due to a range of reasons that should be accounted for rather than oversimplified. Therefore, whilst it is relevant to acknowledge the potentiality of functional and practical approaches to space and material, it seems important to also offer alternative interpretations, ones that examine phenomena to reveal actual material events in the archaeological record.

Indeed, there are arguments that can be formulated against several of the pragmatic reasonings that have been outlined above. Using plaster because it was flame retardant comes into debate when we consider the mass, and potentially deliberate, conflagrations that occurred at the town, particularly around 6500 BC (Hodder 2016: 74). Further research into wind velocity includes the argument that certain houses are built on slopes therefore the height of buildings varied (Frank *et al* 2015: 307). By 6500 BC - 6400 BC (Level South O/ Level VIA) it is suggested that there were two-storey buildings (Hodder 2016: 29, 30). Therefore, there is a tension between building height, wind velocity, and how these data are used in relation to the internal organisation of the buildings. In the next section I provide an overview of some of the creative practices considered in the thesis and two particular approaches proposed by Last (2005) and Tringham (2012) that I have found particularly informative and will take forward in this thesis.

2.7.0. Taking Making at Çatalhöyük Forward

2.7.1. The Experimental House at Çatalhöyük

Researchers at Çatalhöyük built a replica Neolithic house on site (Figure 5 and 6), and by doing so they re-enacted some of the creative practices found at the tell.

Experimental archaeologist Ina St George conducted research at the tell over three excavation seasons, during which she was part of a team that experimented with plaster and paint before they attempted to re-make a Neolithic house (St George 2012: 473).

The process of making revealed the “working properties and limitations of the clay materials” (St George 2012: 473). The experimental and experiential approach evidently helped the researchers understand certain creative practices at the tell, and helped the team to develop their conservational knowledge (St George 2012: 473).

I entered the experimental house whilst visiting Çatalhöyük in April 2013. The house has an additional access point on the side so that visitors to the site can enter as if through a doorway rather than from the rooftop; this addition added more light to the interior of the building. Initially I entered the building to gain a sense of space. However, I emerged from the building dazzled by the light and surprised by how dark it was inside (Figure 5). From the perspective of a painter, it became difficult to understand how the buildings facilitated both making and viewing the wall paintings. There were numerous sensory stimuli within the buildings, not just figurative paintings, but swathes of colour in the form of painted platforms and panels, and some of the nuances in the colours used in the abstract paintings were so subtle that they would be hard to see in such conditions. This point became even more apparent when thinking through wall paintings such as the lozenge design in B.80, which revealed that whilst red ochre and cinnabar were sometimes used in the same painting, they were not mixed and were used in separate and distinct manners to form painted patterns (an analysis of the painting is provided in section 6.4.0.). Without the addition of a light source, or direct sunlight, the difference between these two shades would be hard to visually discern in the gloomy interiors. Both painter and viewer would struggle to see in such environments, and it would be hard to see the difference between red ochre and cinnabar inside the buildings. Yet these colours were used in carefully arranged patterns and imagery, therefore unique painters may have been given certain colours to create a certain element of the design. According to my experience of the experimental house, dark areas are particularly pronounced at the end of the building, the area that is farthest away from the rooftop opening which acts as the natural (and potentially only) light source in the building. The enclosed storage areas, which have limited accessibility, are

particularly dark. The physical addition of darkness is important to consider when analysing material engagement.

The experimental house at the site includes wall paintings, but not bucrania; the addition of the wall paintings provides a useful impression of what it would be like inside an elaborate house. However, the building essentially captures a generic internal space at the town, with the addition of two one-tone paintings that simulate some of the iconography found at the town (Figure 6). How material agents such as light, darkness, and smoke informed the experience of those entering the building and engaging with these different materials and substances still needs to be clearly addressed.

2.7.2. Examples of Making at Çatalhöyük

The making, mending, cleaning and maintaining of structures and things at the town indicates that the community had certain creative practices and methods that were sustained through the generations. Hodder describes these practices as “social” and “spatial” codes (2016: 38). Thus, “making” is observed in the Çatalhöyük archaeological record as a key Neolithic socio-creative practice. Clay, stone, limestone, bone and pigment were used to make figurines (Hamilton 1996, 2005; Meskell and Nakamura 2005), beads (Hamilton 2005; Bains *et al* 2013), ornate weapons/tools (maceheads Wright *et al* 2013, Wright 2014; chert and obsidian blades Carter 2011; an ornate dagger Mellaart 1964: 104) wall paintings, sculptures, bone tools (Russell 2016), and plastered installations/wall fixtures (Meskell 2008). Time was spent chipping stone and flint (Baysal and Wright 2005; Conolly 1999), polishing obsidian (Carter 2011), and making and applying, a variety of pigments (Çamurcuoğlu 2015), to walls (Mellaart 1962), figurines (Meskell and Nakamura 2005: 168), and bodies in burial contexts (Patton and Hager 2014). A wide palette of colours have been recorded, from orange to pink and purple (Mellaart 1962: 58); red, black, pale pink, dark grey, and white (Wright *et al* 2013: 333), even glistening reds (Anderson *et al* 2014). Pottery was baked in the sun; clay was shaped and formed and sometimes used to encase animal skulls, particularly bucrania. These animal parts were covered with plaster and pigment and were often added to the walls to create protruding sculptures reminiscent of “gargoyles” but placed on the inside of the buildings (Figure 7). Textiles and basketry crafts were also practiced at the town; mats, baskets and cordage have been found (Ryan 2011). Long trips were made to find raw materials such as cinnabar and obsidian, Cessford and

Carter suggest that obsidian was carried back from quarries such as Göllü Dağ-east and Nenezi Dağ, in southern Cappadocia, both 190 km away from Çatalhöyük (2005: 206, 310). Cessford and Carter use Santley's travel rates of 20km a day (which were proposed for Mesoamerica) and suggest that journeys to the quarries would take at least 10-13 days (2005: 210).

The multifaceted and nuanced practice of 'making' at Çatalhöyük will provide the Neolithic dataset to introduce a discourse of making for archaeology and cultural anthropology. The material engagements located at the town are used here to explore and contextualise the products of creative practices. Material expressions embedded in the archaeological remains are re-socialised through the analysis of phenomena. The following two sections consider contemporary approaches to 'art' and making at Çatalhöyük.

2.7.3. Contemporary Art and Çatalhöyük

Despite arguing that the term 'art' itself is "nebulous", archaeologist Jonathan Last has demonstrated the methodological value of using conceptual art as a means of examining and understanding structured deposits at Çatalhöyük (2005: 197). In doing so, Last (2005) offers a new methodological approach to the material culture found at the tell by utilising conceptual art practice of the 1960s and 1970s as a means of explaining material engagement in the Neolithic past. Last compared the structured deposits found at Çatalhöyük with the twentieth-century performance art of Josef Beuys (2005: 197). During his performances, Josef Beuys moved around the gallery environment with intended meaning, and purposefully engaging with materials. The residues of his actions are presented as installations in gallery-settings, such as his piece *Lightning with stag in its glare 1958-85*. Last uses Beuys' performance art to reveal the processes that lead to the act of material placement identified by archaeologists as structured deposits. The installations of the residues of Beuys' performances and the videos that capture the artworks provide an important reminder of the processes behind the materials we encounter in the archaeological record. Beuys' abstract, and yet deeply personal, performances were powerful non-linguistic gestures.

Last argues that archaeologists, through material categorization, turn objects into “fossilized gestures, powerless and out of place” (2005: 197-208). By moving away from individual aesthetics, symbols, and functions, and instead moving towards group meanings of the deposits, Last attempts to reconnect content (deposits) and context (architectural setting) (2005: 197). He argues that the duo have been inappropriately ‘abstracted’ in the archaeological record (2005: 197). Last also argues that Beuys uses “familiar objects in unfamiliar ways” and by doing so, the artist “highlights the ‘invisible relations between things’ serving to expose ‘secret analogies’” (2005: 207). Last’s work demonstrates that the analysis of different types of contemporary art practices in relation to prehistoric material engagement can successfully inform archaeological analysis and yield evocative results. For example, by examining the videos and installations of Beuys’ work, we are viscerally reminded of the relational qualities between the agents (human, material, and other-than-human entities) that together these elements inform the structured deposit. His analysis also reveals how both before and during the placement of the things, there are processes in-action: the human agent’s body may have paced, crawled, collected these items; and they may have experienced feelings of loss and mourning (the range of emotional experiences Beuys evoked during his performances) before finally settling the things in the ground. However, I argue that the products of creative practices located in the archaeological past do not need to be described as ‘art’ in order to use contemporary art practices to understand them. Therefore, whilst I favour the term creative practice over the term ‘art’ for the analysis of Neolithic artefacts (see section 4.2.3.), I shall utilise contemporary artworks as anthropological examples of creative practice to explore the potentiality of the material gestures of the past (particularly in Chapter 7 where I examine the experiential dimensions of colourful spaces). The performed aspect of structured deposits resonates with Tringham’s (2012) discussion of the rhythms of life, the next section will relate her important observations regarding making at Çatalhöyük.

2.7.4. The Senses and Making

Archaeologist Ruth Tringham, inspired by Stewart’s (2007) notion of “event based entanglement” (2012: 540), responded to the archaeology at Çatalhöyük by synthesizing memories of events, general rhythms of life - such as the human need for “feeding” (2012: 540), and ‘taskscape’ (Ingold 1993: 158). ‘Taskscape’ is a term

attributed to Tim Ingold who uses the concept to describe “an array of related activities” (1993: 158). The anthropologist notes that the “taskscape is to labour what the landscape is to land” (1993: 158). Tringham’s approach is an important example for those considering sensory engagement at the Neolithic town. Her argument also creates an important tension with Hodder and Cessford (2004), who similarly examine the ‘rhythms’ of life, but through Bourdieu’s (1977) notion of habitus. Tringham explains that she is trying to find a way to conceive life at the town “without creating a generic series of repetitive practices that lose sight of the amazing richness of everyday life in Neolithic Çatalhöyük” (2012: 540). To this end she thinks about “daily rhythms” such as walking (e.g. walking with animals) and carrying (e.g. carrying tools) and then “longer-term rhythms” such as seasonal disruptions (“maintenance season” e.g. building/maintaining the houses) and seasonal phenomena (e.g. stork migration, meteor showers) (2012: 544). Building on this analysis, she utilises the archaeological evidence to enliven some of the sensual engagements of the past, from the smell of animal dung to the taste of sweet honey; these unique sensory engagements provide vignettes of past experiences (2012: 548-550). However, in amongst her overview of the various forms of sensory engagement in the past, Tringham points to the experience of making, and this is why her work is presented here. Tringham writes:

“We can share with the Neolithic residents of Building 3 the sensation of touching and—through experiment—working with clay, plaster, obsidian, flint, andesite, straw, bone, wood, reeds, grasses and other plant materials, live animals, dead animals, fire, and so on. We can also construct the kinesthetic details of smoothing, carving, and drilling, from tasks that require fine fiddly movements of the hand, such as beadmaking, to tasks that require movement of the whole body, such as threshing (2012: 550)”.

Tringham’s approach underpins the analysis outlined in this thesis. Her acknowledgement of the relationship between the senses and making, and suggestion that these are relevant areas of inquiry, is important, particularly as she makes these suggestions through the analysis of material culture found at Çatalhöyük.

2.8.0. Conclusion

During this literature review I have summarised the Çatalhöyük excavation reports produced by both James Mellaart and Ian Hodder and paid particular attention to their analyses of creative practices such as wall painting and figurine-making. This investigation was expanded to include literature that particularly considered these creative products at Çatalhöyük and to other geographical locations (both in Europe and the Middle East) where similar Neolithic items have emerged.

The role of the ‘Mother Goddess’ and interpretations that centre on gender seem to have been thoroughly considered and have evidently shaped several narratives that have been used to explain life at Çatalhöyük. Ucko problematised gender roles in the past by highlighting that gender may have been a much more “fluid” concept, his stance seems a much stronger starting point that allows the materiality to be considered without the arbitrary ascription of sex where it is debatable, particularly as the gender discourse has moved beyond the concept of binary sex (Butler 1990).

The literature review indicates that archaeologists have tended to respond to the material cultures as encoded signs, and it would appear that many of these analyses have relied on visual interpretations of wall paintings and figurines as symbols. The weakness in these interpretations primarily lies in the decontextualisation of objects from the social processes involved in their production. Further issues include the argument that seeing is culturally contingent - an argument I shall develop throughout the thesis - and how it is important to consider how our sensory engagement with the past might be culturally specific and out of sync. Mellaart’s reports contain enticing details about the excavations, although his prescription to the mother goddess theory shaped his interpretations which often appear subjective responses to the material culture. Nonetheless, his reports are vital sources that help us understand the range of material practices occurring at the town. His sensitivity to colour and pigment use are particularly pronounced and well-documented in the reports. Information gathered from his observations will be synthesised with data retrieved from the contemporary excavation.

Martin and Meskell’s (2012) argument that the act of making in relation to the figurines appears significant and is a line of inquiry I am keen to develop and pursue. Equally so

is Hodder and Cessford's (2004) observation that the "act" of commemorating is significant for the community. These ideas centre on the notion of materiality as process rather than product, and as a practising maker and participatory artist I contend that the analysis of processes of making in the past will add significantly to our understanding of social dynamics and tensions at Çatalhöyük. Tringham (2012), and Last (2005) offer innovative approaches to material culture, and I use Tringham's sensorial observations as a starting point to investigate the sensory discussion at Çatalhöyük.

In order to develop this approach, the next chapter brings together anthropological and archaeological theories that examine and consider "making". The aim is to develop a theoretically informed methodology that interrogates Neolithic creative practices and thinks through the physical and social repercussions of these endeavours. Making, after all, is an important action that can bring people together (this point will be explored in Chapter 4). When we think about the processes involved in making, we begin to explore the material remains as material actions and can start to envisage vignettes of past activities. In observing the changes in creative practices and considering the impact these activities had on their collective sense of being, particularly health and well-being, we can see a preference for particular materials, and that repetitive material actions can reveal sensitivities and preferences, thus, revealing certain 'sensory profiles' (see section 4.6.2.). This thesis will show how ways of making can tell us much about a community's way of being and different ways of "doing". The next chapter contextualises this approach in relation to the theoretical archaeological discourse.

Chapter 3: Thinking through Making

3.1.0. Introduction

The literature review revealed that explorations into creative practices at Çatalhöyük, such as painting and figurine-making, have tended to reinforce metanarratives centered on themes of the mother goddess, “grain and grudge”, and gender. During the first excavation period, and under the direction of James Mellaart, these Neolithic themes were supported by material evidence in the form of single figurines (often unstratified) and culturally contingent visual responses to iconography (see the excavation reports written by Mellaart 1962-66). Whilst the contemporary excavations and research carried out at the site under Ian Hodder have amassed a dataset of carefully stratified material culture, the same preoccupation with gender and hierarchy appear to inform some of the metanarratives that have been offered for sociopolitical organisation at the settlement (for example, see section 2.5.2.). Creative practice is an important but undeveloped theme at Çatalhöyük, and the role creative practice plays in community formation is an area of research that offers unique insight into specific Neolithic socio-cultural events. During this thesis I will pay particular attention to creativity, and will demonstrate how creative practice informed social formation, cohesion, and negotiation.

The material remains of creative practices at Çatalhöyük indicate that the act of ‘making’ (Ingold 2013), like growing crops or tending animals, was an important activity at the town. The material processes behind creative products, gestures and events can yield useful information about sensory engagement (section 4.6.2.), and I will utilise this data to reveal changing social values and community dynamics at the settlement (explained in section 4.7.0., applied in chapters 5, 6, 7, and developed in Chapter 8). In light of these observations it is apparent that the ‘processes of making’ are a fertile area of research at Çatalhöyük. However, before I examine processes of making I need to establish the theoretical approach that I will adopt for the analysis of human and material engagements.

Making involves contact, and we might think of the act as correspondence between humans and things (Ingold 2013: 31). During making, things (materials, substances, and so on) respond to human gestures (Ingold 2013: 31). The relationships between humans

and things, and how we theorise this relationship in conjunction with the analysis of material culture, is a core discussion in archaeological practice and theory.

Archaeologists begin with “things” (Witmore 2014: 205), therefore it is important that we are conceptually self-conscious of the way we think about these interactions. As this thesis explores thinking through makers and making, it is important that I contextualise the approach in relation to the archaeological discourse. The reason for adopting this approach is to explore the theoretical advantages of thinking about materialisms through processes of making, and highlighting the dangers of responding to solitary decontextualised artefacts. The interface “between” persons and things is the subject of this chapter. Here I explore how the relationship has been defined, and how this thesis adds to the archaeological discourse by offering a radical approach to the body.

It is important to note that the methodology to which I am contributing in this thesis is not focused on sequential or a historical-biographical approaches to the object. Linear readings of archaeological engagement are well-trod in the form of the “biography of the object” (Kopytoff 1986; Gosden and Marshall 1999; Hoskins 1998). Instead, this contribution aims to harness imagination and empirical data along with skills and knowledge developed from my personal creative practice and experimental archaeology. As a practising artist and maker, my experience of making acts as my “knowing from the inside” (Ingold 2013). The aim is to transform the archaeological record into contextualised rhythms of life. To explore such notions under the auspices of performativity (Barad 2003; Butler 1990; 2004) rather than the habits of habitus (Bourdieu 1977) will add to the methodological framework we have in place to discuss material engagement in archaeology. Such an endeavour would lead to a form of transformational social archaeology - founded upon the vivid and ‘vital’ material engagements of the past (Bennett 2010a; section 3.3.1. and 3.3.2.). This is a distinctive genre of archaeology rooted in how agents experience and transform the world, and understood by the identification and analysis of their unique agencies that emerge from enactments (Barad 2003, 2007, 2012). It explores the archaeological record as evidence of collisions between persons and materials. Such an analysis looks further than the process of production, as seen in a hypothesised *chaîne opératoire* (De La Feunte 2011; Schlanger 2005; section 4.3.1.), or structured social behaviour (Mauss 1934; Bourdieu 1977; section 3.2.1.). Instead, the type of transformational and ‘experiential’

archaeology outlined in this thesis interrogates multi-sensorial possibilities embedded in the residues of creative practices (Govier 2016), to understand the expressive and powerful gestures of making (sections 4.4.3., 4.5.2., 4.5.5., and 4.6.0.). As such, a methodology formed under such pretexts would resonate with the phenomenological tradition as it is grounded in the “experience” of material engagement (Thomas 2006: 1). Whilst creative practice is a new avenue of inquiry, my approach is firmly rooted in the phenomenological-turn, and this chapter will begin by establishing how this thesis builds on the tradition.

3.2.0. Phenomenology

3.2.1 Phenomenology and Archaeology

The Phenomenological-turn in archaeology led by Chris Tilley (1994) was cultivated under the auspices of a phenomenological approach indebted to Martin Heidegger. Tilley’s *Phenomenology and the Landscape* (1994) re-framed Heidegger’s ‘being-in-the-world’ and linked it to an evocative interpretative methodology of the landscape by encouraging the archaeologist to intuitively respond to the landscape. This theoretical stance inspired a new wave of archaeology that acknowledged the ‘lived experience’ of the landscape (Thomas 2001; Witcher 1998). To explain this further, Tilley writes:

“Being-in-the-world resides in a process of objectification in which people objectify the world by setting themselves apart from it. This results in the creation of a gap, a distance space. To be a human is both to create this distance between the self and that which is beyond and to attempt to bridge this distance through a variety of means - through perception (seeing, hearing, touching), bodily actions and movements, and intentionality, emotion and awareness residing in systems of belief and decision-making, remembrance and evaluation (1994: 12)”.

Tilley argues that a ‘modernist Western logic’ (1994: 2) was being ‘superimposed’ (1994: 2) on the past, he argued that “the statistical correlations and functional interdependencies [...] are the function of a contemporary myth-making” (1994: 2). In opposition to these stagnant and elitist interpretations, phenomenological responses to the landscape would create both reflexive and multi-vocal narratives of the past, and highlight how space is not a neutral container for action, but is culturally constructed (1994: 10).

The phenomenological approach as outlined by Tilley is useful as it articulates a further step in mechanisms of social control that go beyond social organisation of space, consumption and linguistics and on to movements of bodies around spaces. This approach resonates with Bourdieu's notion of 'habitus', where he describes how the physical body habitually moves around socially constructed spaces and legitimises power structures on a daily basis (Bourdieu 1977, 1984, 1986). Bourdieu's work focuses on the role social agents play in social reproduction, and his presentation of social practice and habitus has been widely used in archaeological theory to explain how social agents function in relation to the social structure (Shanks 2008: 135). Bourdieu's approach is centered on human action or 'practice' and attempts to avoid "reducing human action to either external constraints or subjective whim" (Swartz 2002: 616). The wider issue being that peoples intentions are not always fully realised as their free will is curtailed by social 'norms' that act as structures and forces informing their actions (Shanks 2008: 135). However, the alternate stance to this predicament is that there is no free will, and this is a deterministic stance few wish to adopt (Shanks 2008: 135). Thus, Bourdieu's presentation of habitus offers an analytical approach to the relationship between structure and agent.

Tilley's phenomenological approach opened up the landscape as a space of social construction by demonstrating how movement in open spaces could be socially conditioned via systems of belief, remembrance, and evaluation (1994: 12). He presented case studies of Neolithic sites such as those found in Pembrokeshire to articulate his point, these places were considered by examining movement via paths, and markings in the landscape, Tilley notes that these aspects would help people identify and situate their position via 'familiar' places or objects (1994: 16). These familiar places become the subjects of storytelling; thus the landscape is presented as a socially constructed space which is constructed through immaterial belief systems embedded in agents, that in turn articulate, or at least influence, how people are to engage with the environment. The essence of his argument is that the landscape (or space) should be seen as a 'medium' and not a 'container' for action (Tilley 1994: 10) and that there are multiple ways of experiencing - thus interpreting - space or 'spaces' (Tilley 1994: 10). Taking his point further, we might note that the landscape is

not neutral space, but hosts places that are formed and shaped through shared knowledge of former interactions. The multivocality evident in such a methodology contradicted positivistic and empirical analysis of landscapes; a point I will draw out below.

3.2.2. The Phenomenological-turn in Archaeology

In the broader context of the archaeological discourse of the 1990s, Tilley's phenomenology of the landscape was part of the 'post-processual' movement that developed from the 1990s-Present. Post-processual archaeologists primarily aim to redefine "social practice, social units, and social groupings" and to critique culture-historical archaeology and cross cultural generalizations (Shanks 2008: 134-136). The movement continues to be a reaction against processual archaeology which could be described as a scientific research method combined with a "systemic conception of society and culture" (Shanks 2008: 134). Post-processualists are interested in the 'embodied subject'; the "social subjects, thinking and plotting agents who work their way through society and history seeking goals, constantly sending out signals and signs, constantly interpreting the cultural signification around them" (Shanks 2008: 136). Aiming criticism at the processual method, Tilley argued that the exclusive use of science seemed to abstract and detract from human affairs (1994: 7). In keeping with the ideas outlined by the French sociologist Henri Lefebvre in *The Production of Space* (1974), Tilley asserted that space is socially produced (1994: 10). In light of this view, the phenomenological approach to the landscape made a clear departure from the: "irrational abstracted idealism of a geometrical universal space to an ontological grounding of space in the differential structuring of human experience and action in the world" (Tilley, 1994: 11).

Tilley's approach emphasised how ideas regarding supernatural forces or the ancestors can shape a person's reception and understanding of the land (Thomas 2006: 54). His outline for a phenomenological approach to the landscape was conducted in the spirit of postmodernism and his argument presented as a "perspective" and not a methodology (Tilley 1994: 11). However, the arguments put forth in archaeology during the Processual/Post-processual debate were often founded upon a distinction between science and the social, between data collection and interpretation, and in the case of

post-processual scholars, the social and the interpretative were favoured at the expense of the scientific (this last point is particularly in reference to Tilley 1990 and 1994). Other post-processual archaeologists such as Ian Hodder (Hodder 2001; Preucel and Hodder 1996) and Michael Shanks (Shanks and Tilley 1987; 1992; Shanks 2008), along with Tilley (1994), pointed to interpretation and subjectivity and the need for both in archaeology. However, Andrew Fleming (1999, 2005, 2006) critiqued the lack of material evidence used in post-processual interpretations. Fleming also argued that such interpretations did not account for ephemeral qualities of the landscape (1999). Tilley certainly presented some aspects of the landscape as “stable” (Thomas 2006: 17), arguing that the “bones” of the landscape have “remained substantially the same since the Mesolithic, and can still be observed” (Tilley 1994: 73-4). However, Fleming is correct to point out the ephemeral, as what we see now in the landscape - particularly since the phenomenological-turn (as outlined by Thomas, 2001, 2006, 2009; Tilley 1994) tended to focus on prehistory - is likely to have changed.

3.2.3. Phenomenology and Experience

In recent years Julian Thomas has provided a comprehensive overview of the phenomenological-turn in archaeology and has critiqued the way the philosophy has been applied to the archaeological discourse (2006: 43). Thomas argues that whilst phenomenology is often presented as a ‘method’ in archaeology, the approach has often led to investigators simply interpreting landscapes and objects using “their unbridled subjective experience” (2006: 43). Thomas (2009), in defense of Tilley, responds to criticisms such as those articulated by Fleming by stating that Tilley’s phenomenological approach simply uses the body to interact with material culture and the landscape (2006: 55). Thomas explains that this is a valuable experience because it produces “an understanding in the present which stands as an analogy or allegory for those of the past” (2006: 55). Thomas acknowledges the value of the phenomenological approach, and argues that it is through the experience of interior spaces of prehistoric monuments that the “experiential dimensions” are revealed (2006: 55). Thomas explains that phenomenological research considers how: “constructed spaces both constrain and facilitate performance, interaction and experience” (2006: 55). Crucially, he proposes that the purpose of this approach “is to document experiential worlds and forms of subjectification that are remote from our own” (Thomas 2006: 56). If we are thinking of

being and being-in-the-world, all perceptions, bodily engagements, emotions and intentionalities are culturally contingent. On this matter, Thomas argues that people have “distinctive” positions that influence their reaction to landscape (2001: 176). He describes these positions as “different cultural tradition[s]” (2006: 47).

Therefore, the phenomenological tradition in archaeology emphasises the ‘experience’ of past agents and contextualises their experiences in relation to evidence found in the archaeological record and contemporary engagement with material culture. Through the adoption of the phenomenological tradition Tilley brought the “senses” into the landscape, and urged researchers to see, smell, and touch the environment they were studying. Thus, my focus on creative practices and the processes of making, along with the importance placed on sensory engagement with materials, takes forward the phenomenological tradition in archaeology by valuing and analysing the experiences of material engagement during the Neolithic. However, in order to take this discussion forward I need to address the pressing issue of envisaging the environment as a ‘medium’.

3.2.4. Phenomenology and Passive, Malleable Space

I argue that the phenomenological approach outlined by Tilley envisages non-humans, ‘nature’ or even the ‘environment’ as passive. Whilst Tilley’s presentation of place moves beyond the notion that space is simply a container for human action, deeming it or any matter as a ‘medium’ is, from the perspective of a vital materialist or deep ecologist, equally problematic (Bennett 2010a; Naess 1973). Space is not neutral, and not always accessible (Thomas 2009: 17). Nor is it necessarily malleable, nor is it something we simply “use”. Thomas argues that contemporary archaeologists often think about the land “as an inert spatial resource”, and he attributes this to a “Cartesian conception of space” (2006: 55, 48). The view that the environment is malleable, motionless matter ready for human intervention and manipulation, is a perspective that some reject (Bennett 2010a; Naess 1973). Jane Bennett explains this point further: “nonhumans are already named as a passive environment or perhaps a recalcitrant context for human action” (2010a: 111). I too am keen to move beyond this anthropocentric narrative in this thesis.

To be clear, this is not an issue regarding the social construction of space, as Tilley certainly highlights the issue. Judith Butler's work regarding the notion of "performativity" certainly aids this matter, she argues: "If I have any agency, it is opened up by the fact that I am constituted by a social world I never chose" (2004: 3). Thus space is not a *tabula rasa*; it is a social world already in enactment (Butler 2004: 3). Butler's work highlights the tensions that are already in-action in the space we move through. It is important to note the phenomenological underpinnings of this approach; Heidegger and Merleau-Ponty both emphasise that we enter a world in-action (Higgin 2016: 3). Anthropologist Marc Higgin notes: "[t]he 'intentionality' of phenomenal experience, its about-ness, is always orientated in response or correspondence to an ongoing 'lifeworld'" (Higgin 2016: 3). Elsewhere the characteristics of social space or 'on going lifeworlds' are described as social structures, norms and organisations (Shanks 2008: 135). Thus, social space is teeming with social pressures and forces, and Tilley's work certainly highlights this issue.

My departure from Tilley is centered on the argument that his presentation of the landscape is anthropocentric, and, following on from the recent introduction of New Materialisms in the humanities, it is no longer adequate to sustain a model where humans continue to play the central and dominant role in the experience. It is at this juncture a second-wave of theory is introduced to explore the agency and vitalism of the worlds humans (and things) inhabit, the previous section contextualised the phenomenological underpinning of my thesis, now I will explore New Materialisms, a discourse that urges us to reconsider the central and dominant role of humans (Bennett 2010a; Witmore 2014; Coole and Frost 2010). From the New Materialist perspective things and non-human entities are not passive matter, but vibrant (Bennett 2010a). Coole and Frost note "New Materialists are rediscovering a materiality that materializes, evincing immanent modes of self-transformation that compel us to think of causation in far more complex terms" (2010: 9). The next section will unpack the New Materialisms discourse, and indicate how I will take the phenomenological tradition forward through the adoption of "vibrant matter" (Bennett 2010a).

3.3.0. New Materialisms

3.3.1. “Thing Power!”

The title of this section is taken from Jane Bennett’s *Vibrant Matter* (2010a: 20) in which she emphasises the vitality of matter and explores how it informs, provokes, encourages, and even shapes human interactions. As her work focuses on the power and vitality of “things” (along with substances and materials), it has inevitably made an impact on archaeology. Christopher Witmore has taken the important step of envisaging an archaeological discourse informed by the New Materialisms-turn. Witmore argues that, from the perspective of a New Materialist, plaster walls are not perceived as “mere vehicles” (2014: 203) for understanding past cultures, nor are they simply seen as “a derivative of some monopolizing agency or ontologically privileged entity” (2014: 204). Instead, the emphasis is placed on the thing itself being a participant, and perhaps more provocatively, that things are not “mere intermediaries” (2014: 204, 205). The New Materialisms interest in thing power is rooted in placing “things in the centre” (Witmore 2014: 206). Archaeological New Materialists, such as Witmore, acknowledge the power of things (2014: 206). This approach seems to have emerged predominately as part of an epistemological shift in the discourse that acknowledges the agency or “power” of things (Knappett and Malafouris 2008; Hodder 2012a). Witmore states that New Materialisms: “possesses no presuppositions that matter is less interesting, less nuanced than the person who presumably wielded it, controlled it, disposed of it” (2014: 204). In keeping with the New Materialisms discourse, the power of things is acknowledged here, although in this thesis I take a more radical approach to human ontology. That is to say, the person/thing category is intentionally blurred in this thesis, as is the boundary between separate entities, and agency is abducted from enactments rather than unique entities (Barad 2003, 2007, 2012). These factors create an archaeological approach rooted in a particular ontology of the body. Harris and Robb argue that the body is ‘multimodal’, and that there are multiple co-existing ontologies of the body (2012: 674). Therefore, the ontology adopted in this thesis, and its context within the anthropological and archaeological discourse is clearly outlined in the next two sections (3.3.2 and 3.3.3.).

3.3.2. Vibrant Matter

The academic consideration of the ‘power of matter’ can be found in numerous texts that address material agency, in particular Barad’s original works where she provocatively asks how does “matter make itself felt?” (2003: 810). Barad argues that “to figure matter as merely an end product rather than an active factor in further materializations, is to cheat matter out of the fullness of its capacity” (2003: 810). Bennett echoes her sentiments by also focusing her discussion on matter. Bennett’s work is unique in that it emphasises the power of matter and blurs the boundaries between bodies. Bennett uses the word “efficacy” in her analysis of vibrant matter, the word captures the ability to produce intended events (2010a: 20). Where debate emerges around the term agency, particularly regarding the relevance of intention (Gell 1998: 16-18), efficacy becomes useful, as it is a word rooted in the ability to create an intended result. Bennett’s onto-tale provides several examples which demonstrate efficacy and agency. These moments are presented because they demonstrate objects doing things beyond their remit; when they do more than the original intention and purpose of their design and creation (Bennett 2010a: 20). On this subject, ‘capacities’ is also a useful term to embrace in the discussion of vibrant matter (Delanda 2006). Delanda distinguishes between the properties and capacities of matter, noting 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, thus they are not numerable like properties (2006: 50). Agencies, efficacies, and capacities are useful terms that aid the discussion of matter, and are terms adopted in this thesis.

Continuing with Bennett, her seminal piece *Vibrant Matter* begins by grounding everything - humans and things - as “materials” (2010a). She argues that “materiality is a rubric that tends to horizontalize the relations between humans, biota and abiota” (2010a: 112). Though Bennett does not explicitly commit to dissolving the division between humans and things, she offers several examples that suggest a blurred, even porous, boundary between the two, particularly in relation to the agency that emerges from assemblages of human and non-human elements (2010a: 25). For

example, Bennett discusses the agency that emerges from the North American blackout, which she describes as an assemblage of coal, sweat, electromagnetic fields, and other agents (2010a: 25). I too ascribe the same agency and efficacy to the materials involved, however, I intend to reject things as unique entities and instead locate agency from evidence of making as examples of “intra-action” (Barad 2003: 815). This approach is inspired by Karen Barad’s groundbreaking rejection of a “thing” as a unique entity (2003: 815). I will discuss her argument next.

3.3.3. The Cartesian Cut

Physicist and feminist philosopher Karen Barad discusses the “Cartesian cut” in her presentation of agential realism (2003: 815). 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 that questions the conceptual validity of the “thing”. To develop her argument, Barad utilises the work of physicist Niels Bohr to reject atomistic metaphysics and redefine things as “relationships” and not “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 things as basic entities (2003: 813). For Barad (2003: 815), this argument impacts upon agency, she argues that agency 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). Barad 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 dependent on the experiment used to measure it, this goes against classical physics which states that there are only two types of ontologically distinct entities - particles or waves - that 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: 60-62); thus, if the apparatus is changed a different entity is produced (Marshall and Alberti 2014: 26). Referring to Bohr, she writes that there are “no things before the measurement, and the very act of measurement produces determinate boundaries and properties of things” (Barad 2012: 62). Thus, 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: 54-56). Barad’s work has clear repercussions for archaeology, Jones (2012) and Marshall and Alberti (2014) have introduced her agential realist relational ontology to the archaeological discourse. Andrew Jones offers an argument for analysing past processes rather than fixed archaeological categories, and notes that: ‘it is only by considering a performative approach to materials that we can grasp the complexities of the human past’ (2012: 2). Jones acknowledges Barad’s work, and proposes to: “preserve [Barad’s] emphasis upon the constitutive power of performance and on the mutability of materials”, but to also “highlight the liveliness of materials; their capacity and their potential to possess life” (Jones 2012: 14). Jones specifically references Bennett (2001, 2010) and suggests that it is important to acknowledge ‘the liveliness of matter’; I too synthesise the works of Bennett and Barad, but place an emphasis on Bennett’s (2010a) discussion of ‘vital materialism’ (detailed below). Jones’ emphasis on the importance of processes (2012: 7), events (2012: 23), and the critical role materials play in life (2012: 145-146), along with his emphasis on ‘the dynamic and vital capacities of materials’ (2012: 193), are all aspects I take forward in this thesis.

Marshall and Alberti have also made an important contribution to archaeological understandings of Barad’s agential realism. Their 2014 paper focuses on the causal relationship between discourse, practice, and matter and 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: 25-26). 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: 25-26). Thus, her argument presents a different causality and way of thinking about the complex relationships between material practices (Barad 2012: 56).

Marshall and Alberti use the term 'body' instead of 'phenomena' as they are concerned with revitalising the concept of the body whilst ensuring "histories of feminist struggles over bodies are part of the continued redeployment of the term" (2014: 23). A key aspect of my argument is the rejection of the Cartesian cut, and in order to develop the Baradian approach I will commit to using the term 'phenomena' to describe intra-actions between matter (humans, materials and substances) during making events. I contend terms such as the 'body' still sustain the idea that the body is a unique entity. The porous boundary between humans and things becomes particularly apparent during making, thus, my focus is primarily on the permeability of the 'ontological contours' of the body (Malafouris 2008b: 6; section 3.4.4.). Therefore, I plan to take a specific aspect of Barad's agential realist approach - her notion of phenomena - and apply it to an archaeological case study.

Inspiration for this presentation of the body can be found in Bennett's work. By emphasising the "common materiality of all that is" Bennett grounds the body in matter (2010a: 122). She explains that there are colonies of bacteria (other bodies) inhabiting the crook of the human elbow; thus, humans, are not a single entity but an "array of bodies" with fluctuating porous boundaries (2010a: 112). This reframing of the body is why Bennett refers to *Vibrant Matter* as an 'onto-tale' (2010a: 117).

To aid the re-conceptualisation of the permeable and porous body we could think on a molecular level and consider Primo Levi's *The Periodic Table* in which he describes the movement of a carbon molecule in, out, and through the body. His description is shared here to highlight the artificiality of the "cut":

"Our atom of carbon enters the leaf, colliding with other innumerable (but here useless) molecules of nitrogen and oxygen. It adheres to a large and complicated molecule that activates it, and simultaneously receives the decisive message from the sky, in the flashing form of a packet of solar light: in an instant [...] it is separated from its oxygen, combined with hydrogen and (one thinks) phosphorus, and finally inserted in a

chain [...] the chain of life. It is again among us, in a glass of milk. It is inserted in a very complex, long chain, yet such that almost all of its links are acceptable to the human body [...] One, the one that concerns us, crosses the intestinal threshold and enters the bloodstream: it migrates, knocks at the door of a nerve cell, enters, and supplants the carbon which was part of it. This cell belongs to a brain, and it is my brain, the brain of the me who is writing; and the cell in question, and within it the atom in question, is in charge of my writing, in a gigantic minuscule game which nobody has yet described. (Primo Levi, *The Periodic Table, 1995* [1984]: 232)⁵

As the carbon atom moves in, around and beyond us the boundary between the body and space seems both porous and transformative; by following a single carbon atom Levi shows us the constant flow of the body and all its parts (we are, to quote Bennett (2010a: 112), an “array of bodies”). Levi also highlights the agency of the atom, how it has the capacity to transform and act during transit and at one point ends up in his brain as a part of *his* entity that questions and follows *its* being; such a description makes a mockery of the ‘Cartesian cut’ - which, after all, is a “tradition” (Hurn 2012: 30) we are now emerging from. By recognising that the body has a blurred or porous boundary we can see that the body, as matter, emerges through constant intra-activity.

3.3.4. Bifurcations or Porosity

The human/thing dichotomy could be described as a ‘bifurcation’ - an arbitrary division (Witmore and Webmoor 2008: 57). Witmore and Webmoor have addressed this issue, and in this section I shall unpack their argument to illustrate how their notion of ‘mixtures’ is different to the approach I adopt in this thesis. Witmore and Webmoor use the term ‘bifurcations’ in reference to “modernist dichotomies” such as nature/culture and things/humans, which, they argue, present things as asymmetrical “detached and separate entities” (2008: 57). Witmore argues:

“Thought and action, ideas and materials, past and present are thoroughly mixed ontologically [...] Any radical separation, opposition and contradiction between people and the material world with which they live is regarded as the outcome of a specifically modern way of distributing entities and segmenting the world (2007: 546)”.

⁵ My use of Levi here is inspired by Jamie Cross and the paper he gave at the 2015 ASA plenary ‘Anthropology needs to disregard the distinction between life and non/life’.

These ideas are part of the symmetrical movement in archaeology (Witmore 2007; Webmoor and Witmore (2008), which begins with “mixtures” and not “bifurcations” (Witmore 2007: 549). Referencing Latour, they state “[a] mixture is an ontological state prior to the process of purification which dialectics is complacent in accepting and exacerbating (Latour 1993). It is, therefore, with the mixture that we must begin” (2008: 59). I argue that mixtures are similar to Hodder’s (2012) entanglements, they can be, to use Webmoor and Witmore’s own description, “bewildering” (2008: 59). It is hard to imagine an archaeologist, at the trowel’s edge, revealing a bone pin embedded in a lump of azurite pigment (Table 2, Bone Tool 2) and seeing a “mixture”, they might, however, observe an “intra-action”. I argue blurring the boundary between persons and things, particularly in the act of making, is different to Witmore’s notion of “mixtures” (2007: 546).

The usefulness of the term “mixture” is debatable, as it seems to suggest that things are muddled or even combined, whereas if we think of Heidegger, some things can suddenly come into our view, sometimes more urgently so, than others (Heidegger 1962). There are things that won’t ‘mix’, that do not form new substance, like Neolithic carbon in Neolithic lungs (section 7.2.4.). I argue that in such instances there is no mixture, but there is a clear intra-action that is useful for archaeological interpretation. These intra-actions can help archaeologists identify the patterns of diffraction - the “differences that make a difference” (Barad 2012: 50).

I argue Hodder and Webmoor and Witmore, despite providing versatile methods to analyse human-thing relations, still sustain (and despite the latter’s critique of bifurcations) the Cartesian cut. Recent work by Witmore (2014: 205-6) continues to adhere to a clear distinction between persons and things; “materialisms” for him are the things archaeologists start with: “material culture”. He writes: “archaeologists begin with material things and they follow this stuff wherever it may lead” (2014: 205). Witmore acknowledges “bacteria” and “air” as “things” (2014: 206). By doing so, he creates symmetry between human and non-human entities and their capacity to act (Witmore 2007). Nonetheless, analyses that state archaeologists “follow” material culture reiterate a universal human body, with definite contours, and this is rooted in a dualism that I am keen to move beyond in this thesis. The causal link between

archaeologist and material ('we follow') also sustains a different agency model to the one embraced in this thesis; I follow Barad (2003, 2007, 2012), and contend that bodies and norms are *co-constituted* in practice (Alberti and Marshall 2014: 25-26; see section 3.3.3.).

The analysis of making acknowledges vital materials and the crucial substances that inform the intra-actions, like smoke and fumes. Making offers a unique focus on specific intra-actions in the past, and still supports the blurred, intra-acting agency that emerges between persons and things. My concern is that we do not simply follow matter, and that matter is not as clearly removed, separate, or apart from us as Witmore's interpretation implies (see Bennett 2010a; Barad 2003; Gell 1998; Delanda 2006). From my perspective, the work of Bennett and Barad challenges the definite nature of the ontological boundary of the body (an area that Malafouris explores via cognitive archaeology, section 3.4.4.). The next section destabilises the notion of 'human' and 'personhood' by arguing that personhood is an enactment, and highlighting that in some cultures notions regarding humans and things are interchangeable. The importance of 'doings' provides the bedrock on which I support Barad's (2003, 2007, 2012) case for agency as an enactment.

3.3.5. The Social Body

Moving from the presentation of the biological body to the social body, we might consider how Bennett's notion of the body as an "array of bodies" impacts upon social engagement. Like a swarm of bees, our 'bodies' are in flux, and held together by the persistent tension between other entities who are equally bodies in flux; this is how the social body is imagined in this thesis. The implications of re-imagining the body as porous, dynamic, sentient, cognitive, congealing matter infused with energy, and constantly forming and re-forming must be considered. Anthropology has long yielded ethnographic examples that indicate a 'person' is not exclusively synonymous with 'human' (Hurn 2012: 30) and that personhood emerges through recognition (Hurn 2012: 30; Viveiros de Castro, 1998: 476; Kohn, 2008). Hurn (2012: 32) highlights the work of Viveiros de Castro, who has found that for many Amerindian peoples, both children and strangers are not automatically "persons" (de Castro 1998: 475). She writes: "when

employing a phenomenological orientation [...] personhood is acknowledged through interactions” (Hurn 2012: 31-32). Thus, there is cultural variability in what constitutes “personhood” (Hoskins 2005: 74). If we follow this line of argument, we could argue that, much like Butler’s stance on gender, we “do” personhood (Butler 2004). We might think of personhood as an enactment rather than an attribute, and that personhood is actualised by culturally contingent social relationships.

On this matter, Malafouris casts doubt on the division between the physical and social body (2008: 11), he argues that bodies change and they do not change in isolation but “in relation to the material reality they become attached in different historical contexts” (2008: 11). Thus, to summarise, what constitutes ‘personhood’ is culturally contingent, the physical body is not fixed but changing, and these changes are related to a material reality (see section 3.4.4.). Furthermore, on this matter it is important to note that ‘things’ (for those who sustain the human:thing dichotomy) can substitute for persons. On this last point, the substitution of persons for things has been anthropologically demonstrated in research that focuses on gift-exchange in Melanesian communities (Mauss 1954; Malinowski 1922; Strathern 1988). These ideas are presented here as further evidence to support the argument that the Cartesian cut does not articulate the complex, fluid, and inter-changeable relationships between persons and things. I develop this argument further in the next two sections by examining material agency and re-visiting the work of anthropologist Alfred Gell, who also explored the substitution of persons for things in his seminal piece *Art and Agency: An Anthropological Theory* (1998).

3.4.0. Material Agency

3.4.1. Alfred Gell and Material Agency

Firstly, Gell’s notion of the agency of art is extended to the agency of things; according to Gell “social agency can be exercised by ‘things’” (1998: 17-18). Whilst Gell initially describes things as ‘secondary agents’ (Gell 1998: 20-21), he also argues that things can be moral entities ‘in themselves’ (1998: 21). Gell’s discussion focuses on the agency of art and objects (1998: x), but in this thesis I use the term ‘material agency’ when discussing his concept (Knappett and Malafouris 2008; section 3.4.2. outlines rationale

for using this term in relation to Gell's work). Gell's reading of material agency relies on an understanding of agency in which agents are not necessarily intentional beings. He argues that an agent has the ability to initiate causal events and that someone becomes an agent when they "disturb the causal milieu in such a way as can only be attributed to their agency" (Gell 1998: 20). The argument is that 'things', as well as people, can also disturb the causal milieu, and therefore agency can be applied to 'things' as well as people. Whilst we might argue that 'intentions' or 'intended action' are a large part of being an agent, Gell disagreed with this and instead argued that when events transpire they are not always as we intended; therefore 'intentions' need not be a prerequisite for agency (Gell 1998: 16-18). He explained that an agent does not become an agent until they disrupt the causal milieu; therefore whilst we can say people or events have potential agency through intended actions, their actual agency is realised '*ex post facto*' (Gell 1998: 20). Gell simplifies agency to action, and by doing so removes the intentionality as an important aspect of agency. By re-articulating "agency" Gell conceptualises inanimate objects as valid agents who are able to cause but not cogitate. To justify this concept, he argues that the immediate other in a social relationship need not be a human being, and that an object could be seen as a conduit through which our own agency and the agency of others can cause effect. Gell's argument for material agency is based upon his presentation of the mind being external to the body and constituted of events, indexes, and people of which agency can be abducted individually (1998: 236).

3.4.2 Material Agency

Knappett and Malafouris argue that the agency debate has been stunted due to the dominance of Gell's contribution and instead attempt to broaden this discussion with their co-edited volume *Material Agency* (2008), a volume which introduces 'material agents' that are materially rather than anthropocentrically conceived (2008: XII). In the volume, Carl Knappett notes that the primary agency of humans is obscured by the secondary form of material agency proposed by Gell (which Knappett describes as 'agency by association') and he notes that this position could be exploited as the role of the human is obscured ('do guns kill people or people kill people?' debate, Knappett 2008: 140). Knappett attempts to move away from dualistic approaches to agency by

synthesising material agency with Actor Network Theory and discussing networks of interconnected actants (humans, artefacts, texts) (2008: 154). Annette Weiner has also used the term ‘material agents’ to describe how certain things “as they are exchanged between people, act as material agents in the reproduction of social relations” (1992: 3). Thus, in both theoretical and ethnographic discussions of the flow of human-thing relations, both materialist and sociological approaches have raised things as ‘material agents’.

I prefer to use the term ‘material agency’ when discussing the agency of ‘things’ debate. Gell framed his discussion as a contribution to the anthropology of art, and he did not explicitly qualify his concept as the agency of things, objects, or materials. By addressing the notion of agency in terms of intentionality and causality, I argue that Gell built the foundations for the material agency discourse in anthropology and archaeology. I contend that in his chapter on the ‘artist’s oeuvre’ Gell conceptualised a type of material agency that surpassed the secondary form he initially introduced (1998: 20). I also argue that his rich discussion of nonhuman agency is more nuanced than the ‘secondary form of agency’ that has generally been used to define his theory (see Witmore 2014: 212; Malafouris 2008: 7; Knappett 2008:140), and I will present this argument in section 3.5.0. and specifically in 3.5.7. Therefore, I purposely use the term ‘material agency’ to discuss his contribution, and to re-assert his integral role in the material agency discourse.

Material agency has been accepted within archaeological theory as a philosophical idea that few align their theoretical approaches with; many are uncomfortable with the idea that agency can be attributed to inanimate objects. Anthropologist Tim Ingold rejects the term and prefers ‘animacy’ to ‘agency’, arguing: “the more theorists have to say about agency, the less they seem to have to say about life” (2010: 3). He calls agency a “reductive logic” (2010: 7) that cuts things off from their natural flows, and he uses the visual metaphor of a kite to illustrate his point: “To think of the kite as an object is to omit the wind – to forget that it is, in the first place, a kite-in-the-air” (2010: 7). If we were to think about agency in relation to this point, we could follow-on from Karen Barad (see section 3.3.3.) and argue that agency is abducted from the phenomena of the kite in flight. Ingold describes material agency as giving the object the potential to “act

back” (2010: 7). I argue that Ingold’s critique of Gell’s notion of material agency could equally be regarded as reductive (and I will demonstrate this by outlining a detailed stance on Gell’s material agency in section 3.5.0.). Despite Ingold’s best efforts to render the term void, the agency of objects continues to be discussed with moderate interest (Ahearn 2001; Hoskins 2005; Knappett 2005; 2010; Latour 2005; Gosden 2005; Miller [ed] 2005; Malafouris 2008c; Malafouris and Knappett [eds] 2008; Steel 2013a; 2013b). This thesis contributes to the agential-turn in archaeology by outlining agency utilising Gell’s discussion of Husserl and the “artist’s oeuvre” - an element of his discussion that has not been fully realised in archaeology. Material agency, in general, is an attractive reading, especially for cultural anthropologists and social archaeologists as it introduces a force that would otherwise not be present in the world of prehistoric communities where voices are hard to hear.

3.4.3. Material Interactions and Agency

The work of Lambros Malafouris should be highlighted in this thesis, due to his significant contribution to the material agency discourse, his rejection of Cartesian dualism, and his research on material engagement. This section will address key aspects in Malafouris’ work that resonate with my own interests and approach to material culture, and outline how our approaches differ. Malafouris has worked specifically on material interactions, and has utilised the relationship between the potter and clay to explore a neuro-scientific approach to ‘tacit’ knowledge formation (2008c: 20). Malafouris focuses on the interaction between the potter and clay at the potter’s wheel to address the ‘agency problem’ (2008c: 21). He examines the “in between, rather than within, persons and things” and describes this as the “brain-artefact interface” (2008c: 22). His approach is situated in externalism, and as such focuses on an empirical approach to the science of the mind. Like Barad (2003), Malafouris outlines an argument for the presentation of agency as a doing and the “emergent product of material engagement (2008: 25; 34). The concept of time is vital to his discussion, he proposes “the first condition of agency identification should be to define the portion of time which encapsulates the event you want to describe” (2008c: 25). To enable this identification Malafouris describes the “chrono-architecture of the act” (2008c: 26). His focus on neural processes, speeds of brain activity, and causal links, takes his archaeological method into the deep space of the mind (2008c: 27).

Elsewhere, Malafouris explores the boundary between the Mycenaean sword and person through considering the boundary of the skin and dismisses the mind/body/world divide (2008b: 5). Malafouris rejects the ‘natural dualism’ perspective because it envisages a clear boundary between living and non-living things (2008b: 6). Malafouris rightly questions the “definite” nature of the “ontological contours” of body, and argues that these contours are culturally contingent through the example of the Mycenaean sword (2008b: 6). Malafouris argues that the sword transforms and extends the “body schema” (2008b: 1), he refers to neuroscientific research to explain that “the systematic association between the body and inanimate objects can result into a temporary or permanent incorporation of the latter into the body schema” (2008: 9). Thus, the Mycenaean sword as body part and material agent shapes and extends the body, and he argues this point through the adoption of a cognitive perspective. I take a sensorial rather than cognitive approach to creative practices, and my research focuses on sensory engagement with matter. In this thesis, I develop a unique approach to material engagement using sensory archaeology to demonstrate how the senses are culturally contingent and how during activities like making, the senses can adapt and even become culturally profiled (see sections 4.6.2. and 4.7.0.). It is the interface between the senses and matter, rather than the interface between mind and substance, that I focus on (this angle is developed in Chapter 4), and it is through the vitality of materials rather than an externalist argument against mind/body dualism that I challenge the definite nature of the ontological contours of the body.

3.4.4. Material Agency or Material Engagement Theory?

Material Engagement Theory (henceforth MET) is specifically aimed at dealing with the “artificial line between persons and things” (Malafouris and Renfrew 2010: 1). Malafouris and Renfrew argue that human thought was built into and executed through things (2010: 2) and that the relationship between cognition and material culture was an area of research that had not been explored (2010: 2); MET thus focused on the analysis of the interface between mind and object (2010: 2) in the hope that it would aid our approach to the archaeological record. MET’s argue that when we classify something external to us as a thing, object or artefact, there is an intellectual process taking place

when we think through objects via perturbation, objectification, intentional use or modification (Malafouris and Renfrew 2010: 5). An artefact is an object that has been qualified and quantified and likely to be understood in terms of value, whereas a ‘thing’ is enigmatic it is likely to be the material that we understand least of all as a ‘thing’ is “ambiguous and undefined” (Knappett 2010a: 81). Indeed, on this point, outside of the archaeological discourse, the archaeologist is seen as a potent agent on this front, with ethnographer Laura Watts noting “Archaeologists pick up a stone and make it an artifact through their touch, separating it from the other stones” (2009: 7). MET archaeologists tend to differ on this point, arguing instead that the classification thing, object, or artefact is described as “gradations or ontological moments in the cognitive life of things” (Malafouris and Renfrew 2010: 5). According to MET these ‘gradations’ are not internal; instead, they argue that when we engage with material culture, the mind is extended beyond the body and this is based upon a philosophy of mind theory called externalism which envisages the mind as stretching beyond the body: we think through things. It should be noted that this philosophical approach to the mind challenges the internalist mind/body dualism described by Descartes, where the mind contains internal mental states and is separate from the external world of objects and events (Kent 1992: 57). Continuing with this angle, MET’s argue that objects invested with the capability to create or enhance cognitive processes are described as ‘active’ (2010: 2) and Malafouris and Renfrew argued that there was “action potential” (2010: 1) in the relationship between mind and object and that this interaction could “shape us” (Malafouris and Renfrew 2010: 1).

MET’s Malafouris and Renfrew, like Gell, visualise the object as a conduit for cognition, an external part of the cognitive process. However, their interest is in understanding the intellectual process between mind and object, and this link seems to extend only as far as the individual mind, whereas Gell presented an idea not just of the mind extending beyond the body (as seen in externalism) but that there was collective engagement occurring in such interactions where minds, objects and bodies meet and transform. I discuss this point further below. MET’s description of objects as ‘active’ is similar to Gell’s argument for the agency of the object, and their preference for ‘active’ over ‘agent’ is a subtle distinction that clearly demarcates their work from Gell.

Nonetheless, they similarly argue that the way we engage with material can “shape” us, and objects are “active” in this relationship: this describes the agency of objects.

The relationship between mind and material was at the forefront of Gell’s argument for the agency of objects. In his chapter on the extended mind he argued:

“[T]here is ‘isomorphy of structure’ between the cognitive processes we know (from inside) as ‘consciousness’ and the spatio-temporal structures of distributed objects in the artifactual realm (Gell 1998: 222)”.

This quote illustrates that the mind is expressed externally and that the relationships formed with others and the objects they create, give, and attain are more than just a reflection of personality, but an external structural representation of individual consciousness. If we think of MET’s notion that we think through things, and consider the multitude of things a person engages with at any one time we might consider that both Gell and MET approach the object from an externalist stand-point. However, MET is preoccupied with the consideration of the relationship between the individual and the object, whereas Gell’s stance creates an analytical framework where minds (plural) and things connect, creating an external cognitive process that is also a collective cognitive process. This argument is outlined in his explanation of the artist’s oeuvre.

3.5.0. Revisiting Gell’s Material Agency

3.5.1. Material Agency and Husserl’s Phenomenology

Gell utilises Edmund Husserl’s framework to demonstrate that consciousness can be abducted from the relationships between materials. Gell uses the relationship between an artist’s material output such as artworks, sketches, and photographs to synthesise the cognitive relationships between the objects with the developing consciousness (1998: 222). It was Husserl, and not his student Heidegger, who was the true originator of the phenomenological concept. Husserl’s phenomenology is transcendent and not linked to being-in-the-world as explained by Heidegger’s (2005 [1962]: 27) concept of Dasein (‘Being-there’). Thomas explains that from the Heideggerian perspective “things can only reveal themselves to us in a world. Worldly things are not just objects in

consciousness: they are always embedded in a complex network of relations between people and things, and they are only comprehensible as such” (Thomas 2006: 6). Thus, Heidegger’s approach rejected mind/body dualism by arguing that things reveal themselves to us in different ways and this can be informed by the types of interaction and involvement we have with them (Thomas 2006). Husserl, however, posited a scientific methodology of consciousness described as a ‘transcendental-phenomenological idealism’ (Husserl 1960 [1931]). In his analysis of the science of consciousness, Husserl provided a critical framework that outlines the spatiotemporality of consciousness (Gell 1998: 222). Husserl described this relationship as: “an order of cognition, proceeding from intrinsically earlier to intrinsically later cognitions; ultimately, then, a beginning and a line of advance that are not to be chosen arbitrarily but have their basis ‘in the nature of things themselves” (Husserl 1960 [1931]: 12). The philosopher argued that consciousness is always directed at something, be it real or imagined, thus intentionality is key to his discussion (Thomas 2006: 44). Julian Thomas points to the influential role Franz Brentano played in Husserl’s method; Brentano argues mental states are always “directed at something” (2006: 44). Brentano notes: “[i]ntentionality always takes a form in which individual mental events are connected to one another relationally, so that a single episode of sense-perception is never just the acquisition of an atomised unit of information” (Thomas 2006: 44). Husserl’s proposal takes forward the relationality between mental events, and it is this particular aspect that Gell (1998) utilises in the final chapter of *Art and Agency: An Anthropological Theory* in which he discusses the artist’s oeuvre and distributed mind. This discussion is detailed next.

3.5.2. The Agency of the ‘Artist’s Oeuvre’

Gell presents the artist’s oeuvre as a distributed object, that is the collection of sketches, paintings and any other work created by the artist could be considered as a whole. He described the distributed object as “an independent chunk of space-time” (Gell 1998: 232). He defended his concept by arguing that all of the artworks created by the artist are linked through the artist’s mind: early sketches lead to paintings, later paintings are influenced by the artist’s memories of former works, the links between artworks is described as “protentions” or “retentions”, and this results in the creation of a network

of artworks linked through mental states (Gell 1998: 235-236). Gell is exploring “states of mind” and how these adapt and change as the artist moves through space and time.

“Protention” is used to describe the relationships between current state of mind and future thoughts, whilst “retention” is used to describe the relationship between the current state of mind and past thoughts. The cognitive relationships with the past (retentions) are already considered through discussions that outline “memory”, whilst the cognitive relationships with the future could be described as “anticipatory” (protentions) (1998: 239). He argues that there is a structural isomorphy (a corresponding relationship) between the artist’s oeuvre and the internal cognition of the artist. He explains: “the temporal structure of the index-to-index relations in the artist’s oeuvre externalizes or objectifies the same type of relations as exist between the artist’s internal states of mind” (Gell 1998: 236). Therefore, each individual artwork, sketch, or photograph created by the artist is an index in this context. Formatting an artist’s oeuvre in this way goes beyond aesthetic preoccupations into a deeper analysis of the relationship between the expressive cognitive process and how it externalises thoughts in the material world. I would say it is indisputable that there is a cognitive link between the artworks of a particular artist and, like Gell insinuates via his description of protention and retention links, that some of these links are strong and some weak.

The idea that our agency is infused into the objects we come into contact with, but also that the sum of our personhood is encapsulated in the material culture we engage with, is a key aspect of Gell’s argument for the agency of objects. As he writes:

“[A] person and a person’s mind are not confined to particular spatio-temporal coordinates, but consist of a spread of biographical events and memories of events, and a dispersed category of material objects, traces, and leavings (Gell 1998: 222)”.

Gell reconstructs a form of human agency that goes beyond death where the tangible creative output of the artist could be considered, collectively, as a substitute for the artist. However, the agency of the distributed object was stunted by Gell’s own death, as he was not afforded the opportunity to defend his argument or articulate how it could be

applied practically. However, Gell was focusing on the anthropological connotations of the agency of art; he did not know that his work would have significant repercussions in the archaeological discourse surrounding material agency.

3.5.3. Collective Consciousness

Through the links between things and persons we can consider the shifting perception of the subject marked out by the “protentions” and “retentions” Gell described in his methodology (Gell 1998: 239). But first, it is noted that Gell originally visited the work of Husserl in his 1992 piece *The Anthropology of Time*, where he published his interpretation of Husserl’s “time consciousness” as a diagram that illustrated the influences of past, present and future on cognitive processes (1998: 239). The diagram illustrates that consciousness is constantly in flux, that influences from the past can fade away the further time moves on, and equally things imagined for the future can become more pressing and present in the conscious as time brings them closer (Gell: 238). Husserl mapped out these points to demonstrate how perspectives are temporal and can be modified from the point of experience (1998: 238); crucially for archaeology, these are expressed through material engagement. Both ‘temporality’ and the unfolding consciousness are not discussed in MET, but this method of object analysis could yield stimulating results for the archaeological record. On this matter, the philosopher Robert Sokolowski writes “every act of consciousness, every experience, is correlated with an object. Every intending has its intended object” (2000: 8). Thus, unlike the Cartesian predicament where the body is a ‘closed cabinet’ (Solowski 2000: 11), the phenomenological stance argues that things are ‘ontological’ and not ‘psychological’ - that is to say, “things share in being” (Sokolowski (2000: 15). Gell’s presentation of protentions and retentions focuses on the relationships between things, and his theory is developed through the discussion of Duchamp’s oeuvre as “artistic consciousness” and the “Maori Meeting House” as an example of collective consciousness expressed through the lineage of the house (Gell 1998: 253) that goes beyond “the egocentric predicament” (Sokolowski 2000: 9).

3.5.4. Agency and “Intra-action”

Continuing with the theme of agency and the ontological tension between body (ego) versus bodies (Bennett's notion of ego), Barad's rejection of "things" on ontological grounds is spotlighted here (2013: 812). She argues that "the primary epistemological unit is not independent objects with inherent boundaries and properties but rather *phenomena* [...] phenomena are the ontologically inseparability of agential intra-acting "components" (2003: 815; section 3.3.3.). Agency for Barad is not an attribute, but "ongoing reconfigurings of the world" (2003: 818). Intra-action appears pertinent to Gell's artist's oeuvre, for the agency he is offering is formed through the relationship between the artist and things, or even the artist's things without the artist themselves. If we were to use Barad's terminology, Gell's artist's oeuvre could be described as a 'phenomena' (2003: 814).

3.5.5. The Partible Person

Within the field of anthropology, significant ethnographic research has been dedicated to understanding the types of relationships formed with and through objects, and several studies - particularly those into the Melanesian Kula exchange - the ceremonial exchange of shells between islands - have shown that objects can be re-imagined as substitutes for persons (Malinowski 1922; Mauss 1954; Strathern 1988). Marilyn Strathern's 'The Gender of the Gift' (1988) is relevant for this discussion as she describes how during the Kula gift-exchange people become 'partible' (Strathern 1988: 185). Strathern argues that during the ceremonial exchange "things are conceptualized as parts of persons" (Strathern 1988: 178) and that persons become metaphorically partible and multiple (Strathern 1988: 185). This ethnographic example inspired Gell's notion of the artist's oeuvre. Gell argues that the material output of the artist Marcel Duchamp is partible from the artist and that the relationships between form a similar structure to the internal consciousness of the artist. Participants in the Kula are known through the shells they exchange; sometimes they do not even come in contact with one another, but they are 'known' instead through the objects exchanged. A Trobriand man reveals to Strathern that: the "men on Fergusson Island do not know my face, but from my kula valuables they know my name and my father's name" (Strathern 1988: 196). Hoskins noted the similarities, or "kinship", between Strathern's partible person and Gell's argument for the distributed mind (Hoskins 2006: 76). There are similarities

between the two ideas. Firstly, both give examples that demonstrate objects and people becoming interchangeable. Secondly, they envisage a person who has the capacity to metamorphose into an object. The latter is a separate entity that can circulate socially. Strathern succinctly states: “the multiple person is ‘transformed into a unitary entity: the man becomes his prestige’” (1988: 197).

3.5.6. Fractal Personhood

Strathern pushes the notion of the ‘partible’ person to the ‘transformed person’. Gell acknowledges that Strathern writes about the objectification of personhood (1998: 74) and indeed is clearly influenced by her take on the objectification of personhood particularly with reference to object exchange (1998: 74). But there is dissonance (whilst not made explicit) between Gell and Strathern on the matter of whether personhood has the capacity to transform or transfer and whether personhood is a unit or an aggregate. Gell clearly utilises Strathern’s discussion of partible personhood to argue that a person’s agency can become embedded in external objects. Furthermore, Gell states that artistic consciousness can be mapped by external objects. He writes: “What persons are externally (and collectively) is a kind of enlarged replication of what they are internally” (1998: 222). However, it appears that whilst Gell agrees with Strathern on the capacity for personhood to be transferred to an object, he does not argue for the subsequent object to become a ‘unitary entity’; instead, Gell’s personhood is always multiple.

Gell turns to the work of Wagner (1991) and explains that to see one bounded body - an ego or a unit - is a very “Western” position (1998: 140), thus implying that the bounded body is a cultural construction. Gell seems to move beyond Strathern’s transformation by utilising Wagner’s ‘fractal personhood’ to question the ‘inner subjective self’ (1998: 141). According to Wagner, a ‘fractal person’ is “an entity with relationship integrally implied” (1991: 163). Wagner argues that the identification of a person as a human being and a person as a ‘clan’ (1991: 163) are ‘arbitrary sectionings’ (1991: 163); by doing so, he places bodily reproduction *vis à vis* genealogy. Both Wagner and Gell question the unitary nature of personhood, and Gell utilises this sentiment to destabilise the individually bodily-bounded ego. Bennett’s materials adds further illumination to

the point: according to Bennett humans are material configurations (2010a: 111-112). She explains how there are six different groups of bacteria inhabiting the inside of her elbow, each of which is busy converting raw fat to ensure the movement of the skin on her inner elbow (2010a: 112); this observation leads her to assert that rather than being ‘embodied’ we human materials are “an array of bodies” (2010a: 112). She describes the relationships between human and non-human as ‘fractious kinship’ (2010a: 112).

Returning to Strathern and Gell on the partible person, the division in these theoretical stances here is not whether personhood becomes embedded in an external object, but whether during the transformation the person emerges as either a ‘unitary’ or ‘fractal’ entity, and this distinction is important as it distinguishes between individuals exerting extended or multiple agencies. Gell’s example focuses on a dead artist, whilst Strathern is discussing the living (and their ancestors). Gell seems to argue for a *transference* of the artist’s agency into his oeuvre due to the collection of things and the combination of these objects and relationships being a unitary expression of artistic consciousness.

“Duchamp (the artist) has simply turned into this object, and now rattles around the world, in innumerable forms, as these detached person-parts (Gell 1998: 250)”.

Wagner’s critique of the ‘arbitrary sectionings’ taking place when we cordon off and curtail the human to a unitary body, appears similar to Barad’s (2003) critique of the Cartesian cut. To add theoretical weight to Wagner’s argument we can turn to Barad’s use of the physicist Niels Bohr and her ontological argument for humans as “beings in their differential becoming” and not “independent entities with inherent properties” (2003: 818). Thus agency is a ‘doing’, an ‘enactment’ and not an attribute (2003: 827); therefore, Gell’s material agency could also be understood as an enactment. Simply put, we should think of agency as a verb, that agency is a *doing* word. This approach illustrates that making is interchangeable with agency; and the theoretical approaches to making proposed in this thesis build upon Barad’s theory of agency as enactment (2003, 2007, 2012). This stance is useful, for the contemporary debate on the matter has thus far focused on whether things can be agents, a dilemma that appears to hinge on the issue of how we understand a theory that states inanimate objects can act.

My approach is founded on the idea that things are not separate, but intra-acting, and that making is a doing. Therefore, agency emerges from this enactment.

Ahearn (2001, 2010) argues that as agents, our capacity to act is mediated socio-culturally (2010: 28). Thus, agency is mediated by things, and is a culturally relative concept. She states “conceptions of agency may differ from society to society, and [...] these conceptions might be related to notions of personhood and causality” (2010: 30). This stance is ethnographically informed and allows for a theory of agency. Ahearn adopts a relativistic stance and asserts that there are different types of agency (just as there are different notions of personhood, demonstrated earlier in my discussion of personhood emerging through recognition). However, this is not to be confused with there being levels of agency where some entities have more, less or no agency; Ahearn does not ascribe to agency as a spectrum (Ahearn 2010: 39). Indeed, it does seem futile to attempt to try and ‘measure’ agentic acts. Nonetheless, such a discussion rests upon agency being something an entity has, and this notion is dismissed here in favour of Barad’s notion that agency emerges whilst in relationships (Barad 2003, 2012: 54).

3.5.7. New Materialisms and Gell

In light of this discussion, I contend that the ‘artist’s oeuvre’ argument as outlined by Gell is often over-looked (see Witmore 2014: 212). Witmore’s dismissal of Gell is related to Bruno Latour’s argument for symmetry between persons and things; Witmore argues that the human entity is positioned equally with or to other things - sometimes “hand in hand with things” (2014: 12). Thus, Gell’s notion of a secondary form of agency embedded in objects is at odds with Witmore’s view, as it “leaves humans firmly in command” (2014: 2012). I contend Gell’s writing on the artist’s oeuvre means that his stance on material agency is more nuanced (section 3.5.2.). Unlike the artist as human, the objects that make their oeuvre are not constricted to a biological timeframe, and they ‘live’ on as the artist’s “consciousness” beyond death (Gell 1998: 250). Whilst the objects map out consciousness between a collection of objects, they also represent an enactment and a different sort of causality (see Barad 2012: 55) that can be utilised by archeologists looking for agency in the past.

3.5.8. 'Becoming' and Archaeology

Our understanding of the spatio-temporality of these connected objects is enhanced by Deleuze and Guattari's notions of 'becoming' (2005 [1980]). Deleuze and Guattari explain, "becoming is to extract particles between which one establishes the relations of movement and rest, speed and slowness that are 'closest' to what one is becoming, and through which one becomes" (2005 [1980]: 272). 'Becoming' is a major theme of their works, and marks moments of transitions where agents are in the "midst" (Beaulieu 2011: 72). This concept is different to Actor Network Theory (Latour 2005, Law 1992) and Ian Hodder's (2012) notion of "entanglements", where the focus of inquiry is placed on the relationships formed between objects and persons *ex-post facto*. Deleuzian thought looks at things as they emerge into the World, be it persons or things, both individual entities, and these relationships are considered in-action, emerging as individual persons and things through relations already in existence. Materials are always in "flow" (Harris 2014b: 6); and it is the emergent properties of becoming that have influenced key inspirations of this thesis such as Ingold (2013) and Bennett (2010a).

Currently there is a new train of thought in theoretical archaeology that is looking to Deleuze and Guattari (particularly the former), and their discussion of a theory of assemblages; philosopher Manuel Delanda developed the initial ideas and terms they introduced into a concrete 'assemblage theory' (Delanda 2006: 3), and the idea has been introduced to theoretical archaeology by Oliver Harris (2014b). Harris has successfully applied assemblage theory to archaeological practice, explaining that a pot can be understood as an 'event' on the history of the flow of the material substance (Harris 2014b: 6), and that other events such as deposition, fragmentation and excavation will also be events listed in the material's history (Harris 2014b: 6). Harris argues that there is a flow of relations occurring between different ideas, signs, meanings, and materials on a single pot. He uses Deleuze and Guattari's term "assemblage" rather than Heidegger's "gathering" (2014b: 6). Harris argues that all these different elements can be located on a single artefact (2014b: 6). Harris is not just talking about the assemblage as a label arbitrarily applied by archaeologists to findings from the past; rather, he is adamant that his understanding of the assemblage is very much 'real' (2014b: 6) in that

the assemblage exists in the world, and therefore carries “ontological weight” (2014b: 7).

How we perceive time is relevant to Harris’s discussion of the assemblage, for the gathering he is describing is temporary (2014b: 6). It seems that the relevance of the relationships formed between these materials, signs, relationships and meanings is the fact that they shared a moment in time together (Harris 2014b: 6). This is a significant shift in how we understand archaeological assemblages as it moves the focus away from the idea that an intentional being has placed such objects, and that the objects are ‘static’ entities. The agents of the past are the focus of his discussion, and all elements of these clusters (materials, humans, animals, plants, scientific machinery) are integral to the assemblage, due to the unique context of its emergence (Harris 2014b: 9). The relevance of the assemblage is situated in the fact that it merged and emerged in a particular moment in time together and that this is still unfolding when the archaeologist arrives to excavate the pot (Harris 2014b: 9). Thus, archaeologists do not “make” assemblages but take “part in the active making of the past through the movement of our trowels, the testing of our machinery, our explorations of social and philosophical theory” (Harris 2014b: 9). Harris (2014b) outlines four aspects we can analyse when looking at the relations between persons and things. Founded on a philosophical stance espoused by Deleuze and Guattari 2005 [1980] and DeLanda (2006), Harris argues that assemblages are four-fold in form, and as such he describes them as “tetravalent assemblages” (2014b: 7-9). The assemblage is firstly a physical form, it has “expressive” qualities, and is both territorialising and deterritorialising simultaneously (2014b: 7). For Harris there is always movement, always “becoming” (2014b: 7). Territorialising and deterritorialising are about the coming together and moving apart of assemblages (2014b: 7), when things ‘rot’ they leave the assemblage and this action is viewed as another “temporality” within the assemblage (Harris 2014b: 13). If we imagine an assemblage, it is the territorialising and deterritorialising that marks different times, and see the presence of the older microlith forms in an assemblage found at a megalithic tomb at Ascott-under-Wychwood as an indication of a strong connection between these two eras. Territorialising delineates the boundaries of the field of action, as it highlights the pot as an event that connects substances such as milk, clay, and pig fats which, in turn, all have relations outside of the pot (2014b: 13). The clay used to

make the pot can be linked to a variety of known clay sources. The pig bones on site could reveal the different breeds of the animal (2014b: 13). Harris uses the term “deterritorialising” to describe the moments of decay, of fire damage and also the parts of objects that we can determine are missing either through intentional damage or accident, such as the way “fire consumed the flesh around animal bones” (2014b: 13). Harris has made good headway in the application of assemblage theory to archaeology, his focus on locating movement and the ‘flow of life’ in the static archaeological record, and the terminology he uses to describe these movements, provides a precedence in the archaeological discourse for imaging ‘things in flow’.

In-keeping with relational ontologies and concepts such as becoming and flow, in this thesis I will develop a Baradian approach and focus on locating the phenomena of materials in intra-action. This analysis is firmly rooted in agential realism (Barad 2003, 2007, 2012), and inspired by the discussion of vibrant matter (Bennett 2010a). One final issue remains in the discussion of the theoretical underpinnings of my thesis, and that is my preference for term ‘vital’ and not ‘new’ materialisms. The final section of this chapter outlines the vital materialist approach to material phenomena.

3.6.0. Transformations

3.6.1. Life as Transformation

If we are to think of life as ‘cycles’ and that these cycles interweave (Ingold 1993: 160) as they unfold and pause in the archaeological record, then is it possible to draw out one of these cycles, to focus on a particular rhythm, and follow it from beginning to end? This type of analysis would consider the process of creation and consumption, and would focus on, as Ingold puts it, transformations rather than documentation (Ingold 2013: 2-3). To understand making is to acknowledge it as an action rooted in transformation; the emphasis here is placed on production rather than product, and crucially, producer as producer-in-action. This thesis considers variants of matter - human and other-than-human - as collectively transforming during the act of making. Following Ingold, we might articulate creative engagements - such as painting or plaster-making - not as “modalities of the production of art” (Ingold 2000: 12) but as processes of becoming.

Social archaeologist John Robb similarly teases out “strand by strand” the “normality of the past” (2007: 22). He argues “we have subjected our archaeological material to only a very limited range of questions and to questions which highlight our fixations rather than where the material leads us” (2007: 22). For Robb this means examining the minutiae of life to direct material culture back into the realms of human action (2007: 22). The following comment captures the reason why he proposes this argument, which resonates deeply with my own approach:

“Nothing is more tedious than the butterfly-collecting of pottery decorations; nothing more exciting than watching human hands direct their fingers at work on the clay of their lives” (Robb 2007: 23)”.

By considering the “small things forgotten”, Robb explores the “organising textures of social reproduction in Neolithic Italy” (2007: 22-23). My aims are very similar, and in Chapter 8 I will link creative practice and social reproduction at Çatalhöyük. However, at this juncture, it is important to note that the point of departure between Robb’s argument and my own, is the strategy we employ to understand and share this data, and this point links to both the epistemological differences between transformations and documentation, and also the crucial distinction between anthropology and ethnography (Ingold 2013: 4-6). These aspects will be explained next.

3.6.2. Transformation, Not Documentation

Inspired by the anthropologist Clifford Geertz (1973) and the ethnographic technique, Robb offers a “thick description” of Neolithic life (2007: 23). He describes this as a “strategy of saturation” (2007: 23). My approach, which is grounded in creative practice, follows on from a different anthropological strategy, one which focuses on making and “knowing from the inside” (Ingold 2013: 5). Ingold describes this approach as the “art of inquiry” and explains that it is a style of learning that is distinctive from the descriptive techniques employed in ethnography (Ingold 2013: 4, 6). Indeed, the primary aim of Ingold’s discussion of making is to “liberate” anthropology from ethnography (Ingold 2013: 4, 6). He describes ethnography as a practice that provides description and documentation, and explains the importance of separating the two terms (anthropology and ethnography) in the following few lines (2013: 4, 6):

“An anthropology liberated from ethnography [...] would no longer be tied down to a retrospective commitment to descriptive fidelity. On the contrary, it would be free to bring ways of knowing and feeling shaped through transformational engagements with people from around the world (Ingold 2013: 6)”.

Transformation is at the heart of Ingold’s project (2013: 6), and to make a clear distinction between anthropology and ethnography, he grounds them in two distinctive learning strategies. He argues:

“Anthropology is studying with and learning from; it is carried forward in a process of life, and effects transformations within that process. Ethnography is a study of and learning about, its enduring products are recollective accounts which serve a documentary process” (Ingold 2013: 3).

Ingold is adamant that anthropology and ethnography are distinct (2013: 3). From my perspective, I understand that this is an area of contention and that some might disagree with this distinction. However, for the purpose of my analysis, I highlight Ingold’s convincing argument to demonstrate that there are alternative methodologies to employ in the search for the “organising textures of social reproduction” (Robb 2007: 22). Therefore, in-keeping with Ingold, learning with makers and materials is the anthropological strategy employed in this thesis. Precisely what this strategy entails is the subject of Chapter 4: Creative Practice: Thinking with Makers.

3.6.3 New Materialisms in Archaeology: Documentation

Ingold separates anthropology from ethnography and the implication of this distinction feeds into my critique of Witmore, I argue that the New Materialist employs an ethnographic, rather than anthropological technique in his proposed approach to the past. Witmore suggests data collection through description and documentation as suitable methods for the archaeologist faced with a potential archaeological dataset (Witmore 2014: 221). Witmore urges archaeologists to:

“Saturate, oversaturate, with video and photography. Shatter the photographic frame, aim for collage [...]. Then describe and describe some more—all this descriptive detail one can unpack later, if there is

time, in a space where hesitation is possible. Dozens of hours of ambient video walks along routes of transhumance, along paths, streets, walls, or through museums; video diaries of those confounding moments of contact with weird stuff will pay off later. Still, anything we do in documentation is always a translation (Witmore 2014: 221)".

Despite Witmore's reasonable suggestions, one could argue that through his suggestions the role of the archaeologist shape-shifts into that of an archivist, or, a simple mediator and collector of data. How can the archaeologist correspond appropriately with the worlds they engage with if they simply amass descriptive and inevitably subjective data? I argue that a strategy of saturation is not the only route for interpreting the archaeological record from a New Materialist perspective.

In section 3.6.2. I spotlighted transformations rather than documentation; in this thesis I demonstrate an alternative strategy by focusing on transformations and locating the processes of creative practices in the archaeological record at Çatalhöyük. Ingold remarks that anthropology can help us to "better correspond" with the world, and that this is a better pursuit than the simple "accumulation [of] more and more information about the world" (2013: 7). Ingold's distinction between corresponding with the world, rather than accumulating data about the world, creates an interesting tension with Witmore's strategy to "oversaturate" (2014: 221). I argue that the exciting and innovative ideas that underpin the New Materialist-turn can offer a far more complex and nuanced methodological approach. In the next chapter I offer a sensorial and experiential approach rooted in the analysis of making, therefore focusing on an archaeology rooted in transformations and not documentation.

3.6.4. Vital Materialisms and Archaeology: Transformations

Therefore, I take forward the New Materialisms discourse in archaeology by offering an alternative approach to vital materials; one that employs an anthropological rather than ethnographical strategy of learning (Ingold 2013: 1-11). This approach is inspired by Ingold's focus on correspondence between maker and material (2013: 7) and his approach to "thinking with and learning from" (2013: 3). To do this, I examine evidence of making in the archaeological record by thinking through making and with makers. I describe my approach to transformations and phenomena as Vital Materialisms.

‘Vitality’ is useful word to embrace in this discussion, and it captures the essence of this particular approach to matter and the body.

Bennett has provided a comprehensive overview of the concept of “vitality” in science and the humanities (Bennett 2010a: Chapters 5 and 6). My use of “vital materialisms” refers specifically to the type of vitality that Bennett offers (2010a: viii). A type of vitality that acknowledges: “the capacity of things - edibles, commodities, storms, metals - not only to impede or block the will and designs of humans but also to act as quasi agents or forces with trajectories, propensities, or tendencies of their own” (Bennett 2010a: viii). During her discussion of vibrant matter, Bennett reclaims “vitality” by locating and theorizing the “vitality intrinsic to materiality” (2010a: xiii). She does this by detaching: “materiality from the figures of passive, mechanistic, or divinely infused substance. This vibrant matter is not the raw material for the creative activity of humans or God. It is my body, but also the bodies of Baltimore litter” (Bennett 2010a: xiii). Therefore, by focusing on Bennett’s concept of vitality, and the correspondence between maker and material, the boundary between bodies begins to blur and become permeable. It is the transformative capacity of making for both “things” and persons, that has encouraged me to frame my approach as a vital, and not new, materialisms.

3.7.0. Conclusion

This thesis explores the relationship between the social body and the physical body and how this relationship is negotiated during the act of making. It conceptualises making not as embodied knowledge but as expressive and enacted agency, and emphasises making as an agentic doing. My work follows on from Karen Barad and abducts agency from relationships and not things. Uniquely, I explore the relationships formed between materials - that being persons and things. Inspired by Bennett’s argument for the vibrancy of matter and the vitality of materialisms, this piece acknowledges but does not commit to the semantic use of ‘materials’ in relation to the ontological distinctions between things and persons. Whilst being inspired by New Materialisms, I take a position on the notion of the “body” that is distinct from contemporary arguments (Witmore 2014) that outline “New Materialisms” for the archaeological discourse.

Archaeological New Materialists commit to the power of ‘things’ and this reading resides in an understanding of the body that involves the “Cartesian cut”. Following Barad (2003), the “cut” is problematised in this thesis. Whilst my work is clearly situated in the New materialisms discourse, I take forward Bennett’s (2010a) presentation of the body, therefore, I use her term ‘vital materialisms’ to explicitly connect my approach to her work.

The result of this is the presentation of blurred relationships as they form and emerge between things - all things - both human and other-than-human animals, entities and beings. In doing so, this work reacts against former interpretations of the archaeological dataset that have used phenomenology to theorise the link the physical body to the social body, and whilst this has aided studies into memory-formation in the past and how memory can be a mechanism of social control expressed non-verbally through embodied knowledge, there is much more work to be done if we are to identify the lives of individual agents ‘on the ground’. The phenomenological approach I suggest in this thesis is inspired by Alfred Gell’s interpretation of Edmund Husserl’s phenomenology and the philosopher’s focus on the external consciousness expressed through the relationship between things (Husserl [1931] 1960). Such a reading allows for relationships instead of things - and it is the examination of making as an ‘intra-activity’ (Barad 2003) that will be used to help us better understand the connotations of material engagements in the archaeological past. By considering material engagement as expressed through the physical body, this thesis demonstrates that the reproduction of the social body could be intentionally rather than ‘habitually’ enacted in egalitarian communities (Bourdieu 1977: 78). By contextualising making as agency - a ‘doing’ - I argue that agency is evident in the archaeological record. During this thesis, I will provide a methodology for analysing making in the past that is indebted to notions inspired by the anthropologist Marcel Mauss of “being and doing” (Schlanger 2005: 27), but also creating a conceptual space for these experiences to be unstructured, and the relationship between maker and material to be mutually agentive and co-constituting. This approach is Posthumanist in that bodies can be human and nonhuman (Barad 2003). Ontological challenges are bounded to any discussion of agency, and with regards to this matter it is hoped that the previous discussion has acknowledged and explained the onto-foundations and epistemological allegiances with which this thesis

has engaged. In this chapter, I have explored the theoretical underpinning of thinking through making and how this approach ties in with the archaeological discourse. From here we move on to explore the social implications of creative practice and what happens when we make.

Chapter 4 Creative Practice: Thinking with Makers

4.1.0. Introduction

The aims of this chapter are threefold, the first of which is to assert the use of the term ‘creative practice’ in the archaeological discourse. Secondly, to highlight the sociality of making and to argue that the relationships formed during making are powerful forces that influence and shape the maker and community (Ingold 2013; see section 3.6.0.). Thirdly to think through the maker and material in relation to the impact making has on the senses. Creative practice is introduced here as a term that identifies and locates the creative practitioners through creative action rather than creative product. In this analysis creative products such as the figurine or plaster wall are explored as figurine-making and plaster-making; thus the focus is shifted from product to process (section 4.4.1.). It is through this subtle change that the emergent qualities of making are revealed and a clear departure is made from the culturally specific term “art” (see section 4.2.3.).

Making is a zone of social negotiation and offers an opportunity to think about the archaeological record as a dynamic and emergent process rather than a collection of solitary products containing static symbolic meaning. This chapter will consider anthropological and archaeological ideas that pay close attention to makers in order to demonstrate new ways of envisaging materials as processes and expressions of agency. These ideas include: *chaîne opératoire* (Leroi-Gourhan 1964; Schlanger 2005; De La Fuente 2011; White 1993), *communitas* (Turner 2012), and craft-work as problem-solving (Marchand 2010, 2014, 2016). All of these ideas discuss moments when matter is shaped and transformed, be it from a technical, emotional, cognitive or sensory perspective.

Here, I explore making as a social process primarily to examine the relationships that are formed during the act and how these extend beyond the individual maker. The application of Barad’s agential realist approach to creative practice reveals that during making, the maker, material and norms are co-constituted, and that the material plays an active role in the reconfiguring of social boundaries (2003, 2007, 2012; see section 3.3.3.). Therefore, the dynamics and tensions formed during making are explored

through the analysis of contemporary craft and industrial apprenticeships. The chapter will also explore how the maker is transformed during apprenticeships and the impact that these social learning processes have on the senses. The linchpin to this discussion is Tim Ingold's 2013 book, *Making: Anthropology, Archaeology, Art and Architecture*. The following quote taken from the book succinctly captures the primary aims of this chapter: "[to focus on] processes over products, methods of seeing over what is seen" (2013: 7). Regarding "methods of seeing": this chapter pays particular attention to how makers engage with material transformations - particularly material observation. This point is then developed through work carried out in 'sensorial archaeology' which argues that the senses are embedded in matter (Hamilakis 2013: 5-6). The aim is to understand how the senses are shaped whilst interacting with matter and how these can be detected from the residues of creative practice; this helps to unpack some of the social processes in-play during the making event (or 'intra-action') and how this information can be detected from material culture where the maker is no longer present. This chapter begins with the argument for the analysis of 'creative practice' in archaeology.

4.2.0 Creative Practice and Archaeology

4.2.1. What is Creativity?

Ian Hodder claims "creativity is a constituent process within everyday life and is not confined to great artistic, scientific or technological innovations" (2016: 79). When thinking of actions during the Neolithic it is important to remember that most members of the community would need to be competent users of the materials around them. On the matter of crafting and social organisation, archaeologist Elizabeth DeMarrais notes that "[i]ndividuals in heterarchies would be expected to exercise greater independence in their daily routines, with more freedom to decide when to engage in skilled crafting." (2013: 347). DeMarrais proposes that the ability to carryout a variety of crafts (or 'multi-crafting') in a single household would be a necessity as in such social organisations "fewer institutions exist to centralize information, coordinate interactions, and streamline activities" (2013: 347). Whilst Çatalhöyük is presented as an egalitarian settlement (Hodder 2014a,c), social organisation at the town appears to get far more complex as time passes (Wright 2014: 29) and segues, arguably, into a more

heterarchical social system (Pilloud and Larsson 2011). Either way, DeMarrais' (2013) argument for multi-crafting seems relevant for Çatalhöyük, as there is no overt indication of the centralisation of power (Hodder and Cessford 2004), therefore it is likely that individuals would be able to carry out a number of creative practices.

The microartifactual remains found in buildings at Çatalhöyük indicate that all spaces were used for domestic activities and making, such as food-making, obsidian-knapping and so on, therefore a variety of activities took place inside the buildings (Cessford and Carter 2005: 310). B.75 may have housed bead-making specialists due to a toolkit of drills (chert microblades) and “bead blanks” (Carter 2011: 14); however, this example is unique (Carter 2011: 14), and so there is not enough evidence at present to assert that there was a skilled group of specialist workers who solely engaged with particular materials and fulfilled unique roles in the town (Cessford and Carter 2005). The archaeological remains suggest that making uniformly took place throughout the space of the town. Therefore, it is important to stress that ‘craft’ and the act of ‘crafting’ then does not have the same cultural connotations that it does today. Members of the communities at Çatalhöyük were clearly crafting on a day-to-day basis, and making things for different aspects of their lives.

Hodder highlights that there are those who argue creativity is imposed on form and others who argue that creativity is co-produced (2016: 80). The former could be equated with the hylomorphic model, where practitioners “impose forms internal to the mind upon a material world” (Ingold 2013: 21). The co-constitutive forces of humans and materials is a particular theme addressed in this thesis, and this approach is indebted to Ingold's (2013: 22) presentation of making as ‘morphogenetic’ process. On this matter, Hodder establishes his position on making by stating: “I wish to argue that the main limitation of both these perspectives is that they remain overly focused on the maker and the material” (2016: 80). He argues that the analysis of making does not situate the products/artefacts in their “wider entanglements” or “their broader material dependencies, tensions and entrapments” (2016: 80). The following quote clearly articulates his point:

“[A]ll creativity is historical, embedded in the possibilities afforded by particular situations. Creativity is embedded in entanglements and in the horizons of possibility they produce. As a result, it cannot be adequate to focus

on the maker and the process of making itself, whether one sees that process as the imposition on matter or as a co-production (2016: 81)”.

I argue that the processes of making (namely creative practice) can reveal the socio-cultural restrictions, tensions, and dynamics of communities in-action. Material intra-actions can reveal sensorial engagement with matter, and whilst the broader connotations of this point (such as how the senses can be shaped during making) will be addressed in section 4.7.1., here it is important to note that the senses are mediators and not simply receptors of social value (Rice 2013: 6). Thus the analysis of creative practice can reveal a nexus of interplaying agencies, capacities (section 3.3.2), efficacies (section 3.3.2.), and social values, propensities, and preferences. Later in this chapter I will argue that intra-actions between material and maker can reveal sensory profiles (section 4.6.2.). All these elements conjoin to support the argument for focusing on the maker (*contra* Hodder (2016) on the act of making), because it can yield vital information about individuals and communities. It is clear that creativity is an area of tension in this discussion, and it is important that I establish my position on the potentiality of creativity beyond the remit described by Hodder (2016).

I follow on from psychologist Mihaly Csikszentmihalyi who emphasises how communities can inform or shape creative outcomes (Henry 2006: 1). Csikszentmihalyi states: “Psychologists tend to see creativity exclusively as a mental process [but] creativity is as much a cultural and social as it is a psychological event” (2012: 3). Thus, in this chapter I pay particular attention to the potentiality of creativity and creative practice as a social experience; to do this I examine making in relation to the transmission of knowledge, and how the senses are shaped during material interactions (section 4.6.0. and 4.7.0.). Cultural and social pressures are placed upon the maker, and these dynamics are revealed and embedded in and during material intra-actions; thus, the material residues of making events can yield vital information about the past. Therefore, in this chapter I argue against Hodder’s understanding of creativity by demonstrating that the processes of making can reveal key information about individuals and communities. Participatory art is explored next to explore the socio-creative aspects of art and making together in groups.

4.2.2. Socio-Creativity and the ‘Social Bond’

Marcelo Giglio uses the term ‘socio-creative’ to frame a pedagogical model that focuses on socio-cultural and creative learning (2015: 137). His work focuses on musical composition and how teachers can place creative collaboration at the centre of teaching (2015: 137). Giglio addresses the relational, co-constitutive nature of creative action (2015: xvi), thus, presents his model as a socio-creative approach. I argue that his use of ‘socio-creative’ instead of socio-cultural is because the latter does not quite capture the creative impetus that emerges during these learning events. I use the term socio-creative to examine how social and creative factors interact and how the analysis of creativity (as an intra-action) can aid our understanding of social dynamics, tensions, and values in prehistoric communities. Igor Kopytoff contends that ‘culture’ is a cognitive construct, he argues that “[culture] achieves order by carving out, through discrimination and classification, distinct areas of homogeneity within the overall heterogeneity” (Kopytoff 1986: 70). Thus, from a socio-cultural perspective, materials are made cultural, but several examples discussed in this thesis are in the midst of ‘materialization’ and potentially not quite rendered ‘cultural’, therefore, to forefront the creative impetus behind certain material engagements, and to allow for the creativity to be co-constituted between maker and material, the term socio-creative is developed in this thesis.

From my perspective, a useful way of thinking about the social aspects of making is through participatory art - an art genre that focuses on the social relations formed during co-created art events. Participatory art is a type of collective making, and the events coordinated in this category of art often envisage participants as co-constituting the event. Often audience members become participants who are called upon to act in some way during the piece; their ‘participation’ becomes integral to the formulation of the artwork. The value of these artworks is often ascertained from the social impact achieved during the art event and this is evaluated through the analysis of social relationships. Art historian Grant Kester (2013: 153) draws attention to artists who have “defined their practice precisely around the facilitation of dialogue among diverse communities”; these socially-engaged artists offer process-based and performative approaches. Kester highlights the value of these works, noting “these exchanges can catalyze surprisingly powerful transformations in the consciousness of their

participants” (2013: 153). Claire Bishop⁶ explains that the social and symbolic activity mobilised during the art event becomes a “model or a prototype for social relations” (2012: 22). On this matter, Bishop observes an “ethical turn” in art because the value of these types of artworks is often judged not on aesthetics but on the impact it has on making or enhancing social relationships (Bishop 2012: 22).

Bishop provides a groundbreaking critique of participatory arts and how governments have utilised the practice to “repair the social bond” (Bishop 2012: 28). Social bonding theory emerged from the criminology discourse and the analysis of deviant behaviour; Travis Hirschi (1969) proposed that there are four key elements that create the social bond and their presence can deter criminal behaviour, they are: attachment, belief, commitment, and involvement (Krohn and Massey 1980: 529; Hodwitz 2014). The theory proposes that if any of these four elements are weakened then the bonds between individuals and institutions can become broken and this can inform and change law-abiding behaviour (Hodwitz 2014). Bishop describes how the New Labour government in 1997 encouraged and supported participatory arts due to social inclusivity being integral to the artform (2012: 13-14). Thus, the ethical criteria, rather than the aesthetic, began to dominate arts funding, and valuable artworks were those that targeted social exclusion (2012: 13). These artworks were deemed successful as they intentionally focused on creating community events which were particularly formulated to have social impact and to bring people together. Bishop describes the invisible relationships formed during participatory art both between those doing and those witnessing as a “group dynamic” (2012: 6). She reminds us of social aspects of making, and how the ‘ambition’ of participatory arts is to create a social bond (2012:13).

“[T]oday’s participatory art is often at pains to emphasise process over a definitive image, concept or object. It tends to value what is invisible: a group dynamic, a social situation, a change of energy, a raised consciousness. As a result, it is an art dependent on first-hand experience (Bishop 2012: 6)”.

Bishop argues that New Labour presented teenage pregnancy, drug use, violence as “individual developments” of an excluded minority that could be resolved through

⁶ Despite her critique of participatory arts and the ‘connection between user-generated content and democracy’ (Bishop 2012: 283), Bishop’s historical positioning of participatory arts (Bell 2017:73), and acknowledgement of the ambition and intention of the artform in different cultural contexts through history is particularly valuable here.

social inclusivity (2012: 13). Bishop explains that the left critiqued this for being a discursive move that shrouded structural social inequality (2012: 13). These developments in participatory art contrast with Hodder's understanding of creativity as being where one loses oneself "in the moment". Thus, I argue Hodder's interpretation of creativity does not account for the ethical turn (or social turn) in participatory art, and new models that evidence the wider social implications of these activities.

4.2.3. Why 'Creative Practice' and not 'Art'?

Morphy and Perkins (2006) argue that 'art' is a vital aspect of human action, and contend that contemporary notions of art as purely aesthetic and decorative have essentialised the act and removed it from everyday life (2006: 22). They argue that this essentialist stance has encouraged a 'synoptic view' and led to social scientists not taking art seriously (2006: 22). They note that an unfortunate by-product of this attitude is that art artefacts tend to be excluded from anthropological discussions (2006: 3-8). Thus, Morphy and Perkins raise several important reasons for utilising the term 'art' in anthropology and archaeology, however, despite art being a useful ethnohistorical concept to explore the potentialities of making events, the term itself is problematic when applied to Prehistoric contexts.

Ingold argues that the concept of 'art' is a uniquely Western and historically specific term (Ingold 2000: 22-23). Anthropologist Sally Price notes that: "the 'eye' of even the most naturally gifted connoisseur is not naked, but views art through the lens of a Western cultural education" (1989: 92-93). Visual anthropologist Anthony Forge highlights different forms of material engagement between cultures, and argues that vision can be "socialised" (1970: 287). Thus, sensory engagement is not neutral, stable, or consistent, but a complex and culturally contingent matter (Price 1989, Layton 2003, Forge 1970, Berger 1972).

Anthropologist Robert Layton similarly contends that aesthetic values vary between cultures, and a "different theory of being" can impact upon the effects of art (2003: 6). A key problem with using a term like art is that it misleadingly implies there is a shared cognitive, emotional, sensorial, and physical relationship with this particular type of

material culture, and this creates an essentialised notion of being. Ethnographic analogy reveals complex forms of material engagement, and these often carry deeper connotations beyond aesthetic pleasure and cognitive stimulation, such as drawing to heal (section 4.7.3.) or painting to create portals to other worlds (section 6.5.2.). Therefore, describing Neolithic figurines, wall paintings and architectural installations as ‘art’ raises several problems, particularly as the creators of the pieces would not necessarily identify their creative practices and products with the term ‘art’. In this thesis, the term ‘creative practice’ is offered as a preferable alternative to the problematic use of the term ‘art’. By spotlighting creative practice I intentionally move away from debates regarding culturally contingent notions of aesthetics and value, and instead take forward the examination of art processes by exploring creative practice as an interpretive methodology for understanding material culture. There are different ways to examine making processes and creative practices; the next section examines three distinct ways to think about makers and to unpack how materials and makers ‘do’.

4.3.0. Thinking about Makers

4.3.1. *Chaîne opératoire*

Some archaeologists have utilised the *chaîne opératoire* to analyse material gestures and actions of the past (Schlanger 2005; Sellet 2016; Dobres 2000). The concept shares kinship with making, as both consider material action. *Chaîne opératoire* was first outlined by André Leroi-Gourhan (1964) and refers to operational sequences that take “material form” (White 1993: xviii). The sequence “refers explicitly to the manual creation of a material culture that is extracorporeal” (White 1993: xviii). These operational sequences are:

“[C]ulturally or ethically conditioned and highly structured but through repetition and conditioning at a young age become more-or-less subconscious. Whether these operational sequences structure the fabrication of stone tools, the manufacture of personal ornaments, or the creation of painted and engraved underground sanctuaries (White 1993: xviii)”.

Chaîne opératoire considers the chain of sequences from production, consumption and disposal, and concentrates on the relations between different culturally constructed

engagements. In such cases we can examine, amongst other things, shared cultural cognition via material engagement (De La Fuente 2011; Schlanger 2005). Nathan Schlanger successfully articulates the simplicity of the *chaîne opératoire* concept as “the range of processes by which naturally occurring raw materials are selected, shaped and transformed into useable cultural products” (2005: 25). The aim of the concept is to realise how the social, ecological and cognitive aspects of former material engagements play out in a spatiotemporal framework (2005: 25). De La Fuente describes the *chaîne opératoire* as a “syntax” of “actions, gestures, tools, and technical knowledge” that transforms matter to contain social meaning (2011: 89).

The concept examines a specific type of engagement with matter; these are argued to be ‘technical’ activities (Schlanger 2005: 27). Furthermore, it is founded on the idea that there is a structure to this type of engagement that can reveal the “interplay between mental and material possibilities, involving planning and decision-making” (Schlanger 2005: 29). The analysis of making, however, is different, particularly because making explores how the material shapes and corresponds with the maker and the environment (Ingold 2013: 23). Making places “the maker from the outset as a participant in amongst a world of active materials” (2013: 21). Equally, making envisages “a gestural dance with a modulation of material” rather than “discrete operations” (Ingold 2013: 26). Thus, making accounts for the role of the material in the emergence of the phenomena, an aspect that receives less attention in the *chaîne opératoire*. My analysis of making focuses on the act of creation as a phenomena, and how material intra-actions reveal social tensions and dynamics.

4.3.2. The ‘Bricoleur’ and the Engineer

There are other types of making and forms of material engagement to further unpack. The following discussion reveals two very different categories of makers who are defined through the processes they employ during material engagement. Lévi-Strauss’ distinction between the ‘bricoleur’ and the ‘engineer’ - two particular types of makers - are now considered to deconstruct and add to Ingold’s presentation of ‘making’. Lévi-Strauss described the bricoleur as follows:

“[Their] universe of instruments is closed and the rules of [their] game are always to make do with ‘whatever is at hand’, that is to say with a set of tools and materials which is always finite and is also heterogeneous because what it contains bears no relation to the current project, or indeed to any particular project (Lévi-Strauss 1962: 11)”.

This role contrasts with that of the engineer who “subordinate[s] each [task] to the availability of raw materials and tools conceived and procured for the purpose of the project” (Lévi-Strauss 1962: 11). The idea is that there are two separate approaches to making, and both types are prefaced by the processes they adopt during material engagement. One maker deals with specific tasks with specific tools, and the other has a set of tools along with ingenuity to ‘make do’ and fix through making in an ad hoc manner. The engineer abides by the instruction manual whereas the bricoleur responds directly to the materials and works through a process of discovery.

The tools procured and used by the engineer may reveal more about social meaning in that they engage with materials in normative, culturally constructed ways - specific tools are used to achieve planned results. Whereas the tools of the bricoleur - particularly those found in-action - might instead reveal the cognitive process of the bricoleur. The consideration of these two makers offers a useful starting point to acknowledge that there are a variety of approaches to making and how we might begin to observe and understand the material residues of a variety of makers from the archaeological record.

4.3.3. The Maker: a bricoleur or an engineer?

Lévi-Strauss’ discussion of these two very different types of maker is raised here to query, or even destabilise, the level of technical knowledge involved in some creative enterprises and to demonstrate differing approaches to making. On the matter of making objects, archaeologist Julian Thomas also observes a distinction between the person as a ‘producer’ and as a ‘crafter’ of artefacts (2007: 3). Thomas argues that the distinction can be related to the spread of Christianity and the shift from a view where things emerged “out of a kind of work that revealed their inherent qualities of their constituent materials” (which he aligns with “crafting”) to the idea that the human was a producer

due to the world being re-framed as a “made thing” that could be “appropriated and consumed” (2007: 3).

Chaîne opératoire is a relational framework applied to communities engaged with industrious and technical engagement who create products for exchange. *Chaîne opératoire* is ideal for analysing objects-in-motion and breaking-down the multiple relationships - either through trade, marketing or production lines - formed beyond the simple dichotomy of production and consumption (Schlanger 2005: 28). But the objects I am addressing in this thesis are those which appear to be primarily made and consumed by the “maker-cum-user” (Ingold 2013). For example, if we examine the use-life of some zoomorphic figurines at Çatalhöyük we can see that they were formed out of clay, stabbed and then discarded (Hamilton 2005), and these actions are likely to have been carried out by the maker of the figurine due to the quick drying-time of modeled clay. I argue here that this process is an expressive gesture, can yield sensuous engagement, and can impact on those who are also co-present.

The *chaîne opératoire* yields information about the different forms of relationships created through material engagement. However, the practice of making outlined here implies a much more interactive relationship forming between person and material. The analysis of material culture in this thesis will acknowledge these relationships by considering how these interactions can cause persons as well as things to be made, formed, or transformed. Building on these ideas, I focus on the social impact of these embodied relationships - how it feels to touch clay, see light, see others touching clay and seeing light, and whether socio-cultural nuances that shape this touching, seeing and feeling can be detected from the material residues of material engagement (for more on ‘touching clay’ see my analysis of Malafouris (2008) in section 3.4.4.). These types of engagements are socially ‘sticky’ (Hodder 2012a: 94); even emotionally ‘sticky’, and can transfer sensations (Harris 2014a: 91). This thesis explores the potency of making in relation to contemporary theoretical stances on creative practice and community. The relationships formed through the experience of making are hard to examine as the social, physical, emotional impact of such activities tends to be invisible. Edith Turner’s (2012: 4) outline for “communitas” can help us explore the often invisible but highly emotional relationships produced during making; her work is explored next.

4.3.4. **Communitas: Working “Matter” Together**

In this section I explore making in relation to ‘communitas’ to consider how working matter with others can create joy and meaningful moments. Anthropologist Edith Turner explores a series of experiences (which are shared by friends, colleagues and students) where collective joy has emerged from mundane, spiritual or unexpected situations. The stories share examples where persons describe a moment when they experienced “togetherness” (2012: 4) and identify this as an enjoyable experience that they equate with being “in the zone” (2012: 57, 58). Communitas was first coined by Edith's husband Victor in *Betwixt and Between* (1964) and *The Ritual Process* (1969), and later developed by Edith Turner in a text that focused on the anthropology of joy (2012). In the text, particular focus was placed on the relationship between “worked matter” and the “agents that work it” (2012: 5). Drawing further from her chapter on the communitas of work, we see communal work - or working together - presented as an example where communitas can flourish. The author writes: “hard physical effort and a group that could become friends” are described as “the simplest conditions for communitas” (2012: 57). One story in this chapter focuses on her husband ‘Vic’ and relates to his experiences working on a railroad marshalling yard, a role he was assigned to due to being a conscientious objector during World War II (2012: 56-58). The following quote gives an impression of the scene:

“Vic and his friends talked continuously between and during jobs. They also became infected with the enjoyment of work - this bug - laboring together at the loading, for the mere rhythm of the thing: fetching the heavy boxes of canned food standing in tall piles on loading pads, dragging them out with forklifts [men] ready and willing to stack the boxes neatly inside; on and on (Turner 2012: 57)”.

The passage reveals the embodiment of the work, the physicality of the labour, the uniformity of the people with a common goal and how this formula created a joyful work experience. According to Edith, Victor often talked about that particular moment in his life (2012: 57). The other examples in the text indicate a similar sentiment: that persons who experience communitas take with them a residue of the event as a memory of shared joy. Communitas leaves an emotional ‘residue’.

Turner contrasts *communitas* with Durkheim's 'collective effervescence', a concept that describes a similar feeling that is generated when groups collect together. Durkheim explains his concept as locating: "a kind of electricity that quickly transports them to an extraordinary degree of exaltation" (2001: 162). Durkheim argues that the condition invites "the suspension of social norms, allowing new concepts and beliefs to emerge" (Buehler 2012: 71). Durkheim was trying to explain shifts and changes in society and religion (social change) with the argument that these emerge from collective action (a result of an increased frequency of 'social interactions') and not from "a simple individual that speaks" (Durkheim 1965: 241). Furthermore, as Buehler points out, collective effervescence was presented as ordered, rational, intentional and not pathological behaviour (2012: 75). Buehler states that this point is demonstrated by Durkheim's deliberate avoidance of the word 'crowd' which, he argues, "[p]sychologists of Durkheim's time associated [...] with individuals' loss of rational control" (2012: 75). Buehler and Olaveson's argue that *communitas* and collective effervescence are similar concepts (Buehler 2012: 74). However, Edith Turner states her reading of joy is different from effervescence as it acknowledges the feeling as an end in itself and does not attempt to reduce it to something lesser, as is seen in Durkheim's case where the occurrence of the feeling is explained as a way of making things (as in persons) function better (Turner 2012: 56). *Communitas* is also different from effervescence: with the latter there is an 'other' that often calls a group together - be it war, protest etc. - whereas during *communitas* there is only collectivity and togetherness - there is no 'us and them' (Turner 2012: 5).

4.3.5. The Role of the Material

Archaeologist Chantal Conneller (2011) has made an important contribution to the way materials are theorised in archaeology. Conneller argues that materials have been neglected, and proposes that the analysis of technological processes will trace the connections between people and materials (2011: 4). Conneller suggests that the "changes in use, or the mode of use, of particular materials that we glimpse in the archaeological record may tell us something important about the emergence of new worlds" (2011: 5). She argues that the examination of the entire process of material transformation will reveal the articulation of different ontologies (2011: 16). Citing

Ingold (2007: 1), she notes that the properties of materials are ‘processual and relational’ (2011: 12). Importantly, she proposes that archaeologists need to consider the role of matter and how it contributes to ‘its own transformation’ (2011: 18). By adopting a vital materialist perspective, I will attend to the transformative capacities of materials in-phenomena, and unpack how material engagement can be explored through the residues of material interactions. Conneller writes “through close attention to past material-technological interactions, quite profound insights into material worlds can be revealed” (2011: 3). In many ways, my work addresses some of the key issues spotlighted by Conneller, such as the role material plays in ‘its own transformation’ (2011: 18), and how changes in material engagement can yield information about the social world under investigation (2011: 125).

Conneller presents a convincing argument for focusing on relations, she critiques the assumption that there are ‘knowable’ properties of materials (2011: 6-7) and contends that the properties of materials are processual as they arise through unique interactions with matter (2011:8), she highlights how “we should not assume the particular properties of a material are important, simply because these accord with our own understandings (2011:8). She discusses Paleolithic Auringnacian ivory basket-shaped beads, and notes that producing beads in this manner worked against the material - ‘it would be a struggle’ (2011: 45). She argues that this is an example of a technology which actively imposes form and ‘ignores the mechanical properties’ of the material (2011: 45). However, the beads were polished in such a way as to encourage their lustrous qualities, and the process of making reveals the intention to create ‘particular surface effects’ (2011: 47); thus, with regards to the material, there are both ‘immediate and latent properties’ to consider (2011: 48). Conneller proposes that the relationship between the maker (or ‘artisan’) and the materials inform the emergence of particular ‘configurations’ (2011: 48). Therefore, the actual engagement with the material is ‘situationally-specific’ (2011: 47-48).

In a recent monograph, Malafouris (2013) has similarly called for a move away from fixed categories and isolated objects and a move towards ‘fluid and relational transactions’ between humans and materials (2013: 9). Malafouris (2014) describes humans as creative ‘thingers’, and introduces the idea that humans “make new things

that scaffold the ecology of our minds, shape the boundaries of our thinking and form new ways to engage and make sense of the world”. From this perspective, creativity is a function of the mind, and the things humans produce shape human thinking and help humans demonstrate and coordinate their socio-cultural abilities and awareness. But, Malafouris also emphasises the relationship between maker and material, and like Conneller, encourages a move away from ‘pregiven and static adaptation’ (2014: 144). For Malafouris, the focus is on the creative idea - an inseparable moment where mind and matter are engaged - which he describes as “a dialectical formation in action” (2014: 145). Thus, the potter at the wheel, touching clay, is conceived as a ‘hylonoetic space’ - a mind-matter moment (2014: 145; 2013: 236). Importantly, for this discussion, Malafouris contends that that human creativity is inseparable “from the capacity to affect and be affected through movement and sensation from the phenomenal qualities of the materials that surrounds us” (2014: 144). Again, we see the role of the material spotlighted, and by adopting a Baradian approach to agency and causality and examining ‘phenomena’ in the past, I will take forward the recognition of the important role materials play in transformations through the analysis of processes of making at Çatalhöyük. By tracing the potent materials of the past and how these vital materials (such as cinnabar) informed material engagements, I too recognise the role of matter and how it contributes to the phenomena (or, following Conneller (2011: 18), the ‘transformation’). Additionally, by utilising a Baradian approach, I consider discourse, practice, and matter, therefore, how bodies and norms are co-constituted in practice is an integral part of my analysis (see section 3.3.3.). The anthropology of making yields important information regarding the socio-economic contexts of making scenarios, and the socio-cultural pressures in-play during making events; by adopting a socio-creative approach (see section 4.2.2.) I will acknowledge the wider social implications of making for community formation at the settlement in chapter 8.

4.4.0. Processes of Making

4.4.1 Process not Product

I have already outlined some of the tensions that emerge during making, such as the emotional bonds that can develop through making (‘social bond’ section 4.2.2. and ‘communitas’ 4.3.4.), and different ways of understanding the maker’s relationships

with tools, such as the bricoleur and the engineer (section 4.3.0.). *Chaîne opératoire* is an analytical tool specifically used to analyse material engagement as a technical gesture, the discussion of the bricoleur and the engineer was raised to reveal two unique approaches to material engagement that were expressed through the tools used during the process. Both these points emphasise processes over products, and tie into the key aim to produce a critically informed methodology that finds material phenomena in archaeological units. *Communitas* illustrates that invisible but potent emotional relationships can form whilst working matter. This astute anthropological observation provides useful insight into the relationships formed through working matter in groups, and is an observation that I will build into my understanding of how creative practices informed the maintenance of communities at Çatalhöyük.

Now the idea of product as process will be developed in conjunction with anthropologist Tim Ingold who argues that making is a process of knowledge acquisition. Ingold writes:

“[T]he only way one can really know things - that is, from the very inside of one’s being - is through a process of self discovery. To know things you have to grow into them, and let them grow in you, so that they become a part of who you are (Ingold 2013: 1)”.

In section 3.6.0. I discussed Ingold’s focus on making and epistemological move away from description and towards “transformations” (2013: 2-3). His call for the analysis of making is clearly influenced by the argument for the transformative properties of materials. The work of theoreticians Deleuze and Guattari (2005 [1980]) has influenced Ingold’s work, and they too argue that matter is in flux and in ‘flow’ (2005 [1980]). This point is emphasised in Ingold’s chapter that focuses on making a handaxe, during which he highlights how our understanding of the biface changes dramatically when we see it as the product of a process and not an end product. Ingold explains that we could consider the object as an object in motion - a core that could be knapped when needed to provide razor-sharp flakes to slice, cut and divide materials (2013: 38). This stance problematises interpretations that read intentionality and cognition from material culture and fail to recognise the accidents of making (for example making mistakes, section 4.4.3.) or even the matter that some objects are unfinished (the ‘finished artefact

fallacy' section 4.4.2.). This thesis develops a different approach by asking what are the 'doings' evidenced from this material interaction. The physical traces of the event are synthesised here with Harris' tetravalent assemblages and his presentation of the pot as an "event" (section 3.5.8.); here I likewise propose the biface as an event (Harris 2014b: 7-9). Agents have conjoined, and forces have been applied. On this matter, it is important to recognise the work of Andrew Jones, who has similarly called for a move away from emphasising 'past stasis' towards 'past processes' (2012: 7), and urges archaeologists to look for fluidity in 'material performances' (2012: 7, 25).

4.4.2. The Finished Artefact Fallacy

Ingold emphasises how easily an object can be misunderstood when it is considered as a "mint" end product (2013: 39). Ingold uses the 'the finished artefact fallacy' as a warning against idealising material culture into perfect projections of "mental templates" (2013: 39). By doing such we forget that these objects have had a material 'life' of their own with numerous material engagements, but also the actual emergence of the product is rife with material challenges and negotiations often carried out with other entities. Ingold introduces the idea through the example of the pencil; he equates the sharpening of the pencil to the chipping and flaking stone. Ingold explains that as he uses a pencil it is sharpened and shaved away until finally it is thrown away. He argues that "we cannot assume that the shapes of recovered cores are those that their makers originally had in mind and sought to impose on the material" (2013: 39). His example reminds us that: things get used and we get things wrong! There is a dual meaning to this second point; that our interpretation can be wrong, but also makers, whilst making, create products that emerge differently to how they conceived them. Julian Thomas refers to this as the "building perspective" which is when objects are interpreted as "surfaces upon which the mind has stamped a preconceived form" (2006: 53). This point leads to a brief but important discussion of the idealisation of products as not just 'finished artefacts' but 'perfect artefacts'; mistake-making is examined next and offers an anchor between creative practice and the sensory engagement of the makers with materials.

4.4.3. Making Mistakes

Trevor Marchand (2009; 2010; 2014; 2016) has carried out ethnographic research into craft persons and practices both within the context of the London's Building Crafts College where he enrolled as a student and also through research carried out over two decades with the masons of Djenné in Mali, West Africa. Marchand explores crafting as embodied learning, trade innovation and skill-based knowledge (Marchand 2009). His most recent work tackles craft work as 'problem-solving' (Marchand 2016).

Undeniably, making things can lead to a range of problems that emerge during material engagement; we could imagine these as 'material discrepancies' - the moment when maker and material collide and antagonise each other. Environmental factors - such as wind, rain, humidity - alter the properties of the materials and the emotions and senses of the maker, and this impacts upon the process of making. Marchand acknowledges this point by stating: "Materials – especially natural ones such as timber, stone or clay – possess distinctive characteristics, inconsistencies, and 'flaws' that behave and respond in sometimes unpredictable or unforeseen ways to applied actions with a tool" (2014: 1; see Conneller 2011: 31-32). Mistakes can arise at multiple junctures during the making-process and in doing so become consecutive barriers that shape and inform the emergent material. Thus, it is paramount that we remember makers do make mistakes. Marchand argues that these mistakes are integral to the learning process. He writes: "learning and practising a craft inevitably includes ruptures to the flow and making mistakes". However, through the experience of problem-solving the craftsperson progresses (2014: 1).

Marchand acknowledges that the 'properties of the materials' are as likely contributors to these mistakes as the makers' themselves experiencing an 'off-day' (2014: 1). Again, his research supports the significance of careful observation and the ability to identify material transformation:

"Problem solving in craft relies, in the first instance, on having a critical eye (and sense of touch) to spot an upcoming challenge or to detect that something has gone amiss; and to make that observation as early in the design-and-making process as possible. Once challenge or trouble has been detected, patience is required to systematically examine the thing(s) being made; retrace steps and procedures; review the methods of making; imagine alternative ways forward; and evaluate them (Marchand 2014: 3)".

Marchand argues that the sensitive use of haptic and ocular senses aids the practitioners ability to for-see and fix problems (2014: 3). These are described as a “critical eye” and a “sense of touch” (2014: 3). He uses the exchange between teacher and learner to interrogate the silent thought processes of solo crafts persons as they are making. Marchand also argues that these senses are acquired and perceptual awareness is elevated during interactions with mentors.⁷ Marchand writes:

“The day-to-day practice of sorting out slip-ups and repairing gaffes is more usually undertaken by carpenters on their own, and in silence. But when it unfolds between two individuals, their thoughts, ideas and strategies are verbally communicated as well as practically negotiated through their coordinated – and sometimes not so coordinated – activities (Marchand 2014: 2)”.

Crafting in the context of London’s Building Craft college is largely focused on passing down trade skills and culturally regarded techniques of construction. During one video Marchand captures Nikki (a learner) and Cheryl (teacher) working on a “stopped mortise-and-tenon” joint (2014: 2). Marchand examines how the two communicate during the experience to explore the notion of problem-solving (Marchand 2014: 2).

Nonetheless, these methods of making are culturally contingent and the exchange between the woodwork instructor and trainee could also be considered in relation to how the senses are trained to see, feel, and hear the would-be-product as it emerges through making. Marchand’s (2014) excerpts of videos taken of the instructor and trainee communicating reveal this process in-action: material parts are placed on a well-lit table, and the two lean over and examine the piece of wood closely, both looking and touching to assess the crafting of the joint. The instructor asks the trainee to look at the piece from different angles: “if we look at it from the other side” (Marchand 2014: 2) and demonstrates where to touch and press on the piece to reveal whether the piece is emerging as planned.

Marchand concludes that the ‘critical eye’ and ‘sense of touch’ are integral to problem-solving in craft (2014: 3). These two points will be teased out later in this chapter

⁷ Marchand discussed this stance at the Beyond Perception 15 Conference, Aberdeen, September 1st-4th 2015.

(section 4.7.1.) under ‘shaping senses’, where it is argued that senses are mediators of social value (Rice 2013), and training systems such as apprenticeships are occurrences when the senses are profiled. In such scenarios the trainee is taught to see and feel the materials in culturally contingent ways.

With regards to making mistakes, Marchand’s work with craftspersons both in London and West Africa reveals the importance of the materials and the impact the environment has on making. He highlights how natural materials like wood have “inconsistencies” and that the discrepancies in the material mean that it can “behave and respond in sometimes unpredictable or unforeseen ways to applied actions with a tool” (Marchand 2014: 1). Equally so, environmental factors inform and shape making, and he explains how seasonal changes and moisture levels in the ground impact upon building practices (Marchand 2009). Water levels are integral to brick production as flooding can impact on the quality of the silts (the material used to make the bricks) (2008: 24). Thus, the building season works in tandem with the changing temperature and precipitation; when the water levels recede, the riverbanks are plentiful, however, when the April rains come, masons are obliged to enter petty trading (Marchand 2009). Marchand’s research into the Masons of Djenné reveals that in some forms of making the ability to overcome these material discrepancies can impact directly on social status, economic reimbursement, and even reflect the moral aptitude of the maker’s teacher. During his research Marchand noted that if a mason promoted an incompetent builder their “own reputation for sound and responsible judgement” would be brought into doubt (2009: 6). Status is clearly embedded in the processes adopted during making and, in the case of the masons of Djenné, there are reputational costs to be met that have financial impact. In tension with the transmission of “how things are to be made” is “what it feels to make”.

4.5.0. Learning Through Making

4.5.1. Making and the ‘Affective Field’

Ingold (2013) explores making as a process of growth, which he argues places the maker “as a participant in amongst a world of active materials” (2013: 21). He utilises experiences of making as knowledge-making events and uses experiential learning

tenets to liberate knowledge acquisition from the lecture theatre (and the ‘Academy’) (see section 3.6.2.). During his argument for making Ingold shares his experience of taking his students to a cold Scottish beach to practice the millennia-old craft of basket making (2013: 22). Ingold focuses on durational interactions (creative practices) such as basket making to demonstrate that processes develop and unfold and that these shape the becoming or emergent objects (2013: 22-24). To explain this point further, during his basket-making exercise Ingold observes that the shape and size of the basket is influenced by affective and physical properties of the agents and these elements are interwoven and emergent during the creative practice: “each basket was different, uniquely reflecting the mood and temperament, as well as the physical stature, of its maker.” (2013: 24). Marchand also recognises the importance of situated cognition and practice, arguing that the way we feel can impact upon the way we make (2016: 12). These additional insights suggest that creative practices can reveal - even ‘reflect’ - numerous attributes both physically and emotionally experienced by the maker (Marchand 2016: 12).

Within the field of archaeology, Harris and Sørensen (2010) have made clear steps towards locating emotions in prehistory; they argue that emotions are not internal and immaterial but situated within a material world where encounters between humans and things are “inherently affective” (2010: 145). Harris and Sørensen propose that humans and things are co-constitutive and note that humans “identify with and through material culture” (2010: 148). Emotions are not simply those feelings trapped inside a persons mental state, nor the tears that fall in response to joy or sadness, but are “the entire range of movements from the mental occurrence to the bodily expressive [which is] in a continuous, recursive and co-constitutive relationship” (2010: 149). Specifically, I wish to highlight their discussion of the “affective field” which they define as “the relationship between agents, where something or somebody is stimulating emotional response in a causal set of events” (2010: 150). The affective field emerges from relationships, and whilst these relationships can be reciprocal, the emotions that emerge are not necessarily the same (2010: 150). Thus, it is a “generative dynamic network” where emotional experiences are produced, and these networks are between people, places and things (2010: 150)

Addressing the affective field in relation to the analysis of phenomena in the past is beyond the scope of this thesis, but I propose there is great potential to synthesise emotions with the phenomena via the analysis of the affective field. Making, especially with others, can be an emotional experience (as demonstrated by the discussion of *communitas* in section 4.3.4.). Next I will explore making as an expression of knowledge.

4.5.2. Tacit Knowledge and Making

In addition to materials responding, reflecting, or evoking the emotions of the maker, there is also the issue of the type of knowledge developed and demonstrated during making which is often described as ‘tacit’ (Niedderer and Roworth-Stokes 2007). The term ‘tacit’ has multiple meanings, but is generally used to describe knowledge that is unspoken (Ingold 2013: 109), or difficult to communicate (Niedderer and Roworth-Stokes 2007c: 2). Niedderer and Roworth-Stokes describe how creative practices produce experiential knowledge that “evades conventional communication by verbal or textual means” (2007c: 2). Malafouris similarly discusses the embodied skill demonstrated during pottery-making as tacit knowledge, and argues that verbal description cannot capture the “real activity and the reciprocity between the crafted and the crafter” (2008c: 20). Ingold, however, argues against this notion, and deconstructs ‘telling’ - the linchpin to the ‘tacit’ argument (the fact it is not spoken) - to accommodate a non-linguistic form of communication (2013: 109-111). Ingold argues that it is through the act of verbal articulation that there is the potential for loss in meaning, and contends that what is not spoken is not necessarily tacit because “telling is a practice of correspondence” and during creative practices persons tell by hand (2013: 111). ‘Telling’ for Ingold is the ability to “recognise subtle cues in one’s environment and to respond to them with judgement and precision” (2013: 110). Thus, Ingold offers a compelling argument for creative practice being an important form of correspondence - a moment where knowledge is expressed and shared through touching materials.

4.5.4. Mimesis or Mimicry

At Çatalhöyük, the similarity between certain objects, such as the figurines, has led to the discussion of mimesis. Meskell *et al* applied the term ‘mimesis’ to figurine-making practice at the settlement and described the act of forming humans or animals out of

clay as a ‘mimetic act’ (2012: 191). The term mimesis is often applied to material culture which imitates the real world in art. Whilst mimesis highlights ‘imitation’ it seems only appropriate to use when we see change instigated by a reaction to something identified as ‘Other’ (Taussig 1993; Huggan 1997). If a culture changes their pottery by painting new patterns similar to those of another distinct community then we might think of this as a mimetic act. When overtly female symbolism, such as ample breast and clearly articulated pudenda, is used in the creation of figurines we might think that art is echoing reality and we could see this as a form of mimesis too. Michael Taussig describes the ‘mimetic faculty’ as, “the faculty to copy, imitate, make models, explore difference, yield into and become Other”(1993: xvii). Taussig suggests that through the mimetic process difference is explored. If we are to continue with Meskell’s interpretation, the figurines would not be predicated on the self, but on the Other: be it a person making a bull, a man making a woman, a woman making a different type of woman. For Taussig, the mimetic faculty is about constructing and naturalising identity and is rooted in: “[the] compulsion to become Other” (Taussig, 1993: xiii-iv).

Huggan (1997) revealed the parallels between what is being represented and the object; he also highlighted the processes and intentions behind the representation by drawing out tensions with mimicry - the act of imitating to ridicule or entertain. He argued:

“In mimicry, the dominant function is that of mischievous *imitation* - the kind of imitation that pays an ironic homage to its object. Mimesis [...] usually refers to a wider process of *representation* that involves the mediation between different worlds and people-in essence, between different symbolic systems (Huggan 1997: 94)”.

Thus, we might consider that his definition relies on the relational presence of an “other” symbolic system. There is no material evidence to suggest that there were (overtly) separate symbolic systems occurring at the Neolithic town. Indeed, to observe the differences and similarities between communities of the Konya plain is an area for future research. Therefore, this thesis will not use mimesis as a theoretical tool to understand the evident “copying” in the figurine practice or other material interactions at the tell. To do so would rely on a symbolic reading of creative products and this thesis seeks to challenge such an aspect. There are alternative ways to think about the formation of similar products. These include learning events when mentors teach apprentices how to make (or replicate) particular objects.

4.5.5. Cultural Transmission: The Apprenticeship

Now the social relationships formed through the apprenticeship will be discussed with particular focus on the transmission of knowledge through making. The discussion of the ‘apprenticeship’ is raised here in relation to Marchand’s work but also to explore a further ethnographic example where agents are taught how to replicate objects through material engagement. The apprenticeship is introduced as an example of a formal and culturally contingent relationship formed between entities in the workplace. In such scenarios making things is the focal point of the transaction/interaction, and is often carried out in craft workshops (along with forges, factories - and several other work settings) with other makers.

The archaeological discourse on the transmission of knowledge in apprenticeship scenarios is comprehensive: from the analysis of knowledge transmission and learning (Shennan and Steele 1999), to the utilisation of ethnographic research and analogy to explore the transmission of craft practices (Gosselain 2008; Bowser and Patton 2008; Stark *et al* 2008). The anthropological and archaeological disciplines, particularly in Americanist archaeology (Stark *et al* 2008: 4), tend to merge during the analysis of learning and the transmission of craft skills between individuals and communities (Stark *et al* 2008: 5). Shennan and Steele (2009) describe key modes of transmission as vertical (parent-child), oblique (learning from non-parents such as master/apprentice), and horizontal (peers and/or members from different communities) (Hosfield 2009: 45). Robert Hosfield examines the ‘modes of transmission’ in which craft skills are shared inter-generationally and with peers, he provides a rich overview of the literature regarding the modes of transmission of craft skills (2009: 46). Building on Shennan and Steele’s work regarding the learning processes that inform the transmission of craft-based knowledge, Hosfield considers relationships between vertical and horizontal knowledge transmission in relation to “degree of conservatism/innovation” (2009: 46).

If the locus of the ‘transmission’ is the making process, then the context of the social relationships in-action during this experience, and the interaction with the material itself, should be considered. As seen earlier, craft knowledge is often collaboratively explored through material engagement (section 4.4.3.), and these scenarios occur in

both the horizontal and vertical transmission models outlined by Shennan (2002) and Hosfield (2009). I argue craft skills are developed through a range of experiences and methods, and I am inclined to view the division between horizontal and vertical transmission models as an arbitrary sectioning that does not allow conceptual space for vital materialist interests in material engagement, agency, and vibrancy. The material teaches the craftsman (or maker) the boundaries and limits of its capabilities; heat and humidity shape and inform the processes, and the careful attention and force of the maker bends and shapes with the material. The permeable boundaries between these agents in-action mean that bodies perspire and haptic sensations alter (for example fingers swell in the heat); thus, the flexibility and dexterity of the maker changes and so too the malleability of the material. All these unique aspects inform the making process and impact on the transmission of knowledge, but remain unaccounted for in universalist approaches to knowledge transmission. Equally, the social positions, such as those described in vertical and oblique transmission, become problematic and ill-fitting when applied to an egalitarian (potentially heterarchical) community like Çatalhöyük, which was not necessarily kin-based (Pilloud and Larsson 2011). Therefore, familial and social positions such as “parent” and “master” are not necessarily stable roles that can be used to structure interpretation at the Neolithic tell. Nonetheless, there may have been unbalanced social roles, and this aspect I will develop in Chapter 8, in relation to restricted access to materials and buildings, and regulated creative practices.

The literature on the transmission of craft-knowledge in archaeological contexts includes empirical interpretive methodologies such as observing pattern variation, and statistical analysis such as the consideration of the density of variability between material culture (Stark *et al* 2008: 8; Hosfield 2009: 56). Whilst these interpretive methodologies are duly noted here, the essence of this thesis lies in the transformative aspect of material engagement, and locating the culturally contingent and emerging senses embedded in the residues of material engagement. This section has identified craft-skill transmission models in the archaeological discourse, but will now segue into the sensory profiling that occurs during learning experiences that centre on material interaction. I argue the senses are culturally and socially shaped during making, and this observation is the focus of the rest of this chapter. Though, it should be noted, the wider

social implications of making and the impact it has on social reproduction (as identified in the cultural transmission literature) will be explored later in Chapter 8. The next section considers the social and sensorial relationships formed between a mentor and apprentice through contemporary ethnographic research that considers apprenticeship practices at a forge. The focus of this analysis is not on the social positions of those engaged on the apprenticeship, but on the process of learning through practical material engagement and how these experiences can shape the senses.

4.6.0. Material Transformation

4.6.1. The Apprentice: Locating material transformations

The archaeological record demonstrates that the forming, moulding or whittling of beads occurred frequently at Çatalhöyük, and across multiple generations (Bains *et al* 2013). However, *how* the creative practice of bead-making was transmitted between generations inhabiting sites across the Konya Plain during the Neolithic has only recently been considered (Baysal 2013). As of 2010 a total of 7,433 “beads, pendants, preforms and fragments” have been found at Çatalhöyük (Bains *et al* 2013: 331). Creating beads is no easy task; certain equipment is needed to form the shape of the bead and create the holes for thread, and this would require the maker to have a degree of knowledge about how to use these tools and practices for a variety of materials. The beads at Çatalhöyük are made from materials such as turquoise, shell, clay, bone and stone (Bains *et al* 2013: 331) - and all of these would require different forms of material engagement. To better understand the transmission and sharing of knowledge I will examine the apprenticeships at the forge, where individuals would be taught through ‘doing’.

Ethnographer Massimo Mollona carried out research at the Sheffield Morris forge (2005: 532). Morris is a small production unit or ‘workshop’ that makes wood-boring tools in Sheffield (Mollona 2005: 533). There are 18 people employed at the workshop and apprentices are taught the trade by older workers who are often relatives or friends of their parents. Through Mollona’s fieldwork it is shown that the workers at Morris, particularly those who work in the forge, consider the work carried out at the workshop to be different from other ‘mechanized’ factories (Mollona 2005: 533). Despite the use

of elaborate machines and the complex economic systems and networks that run parallel with people working matter, I argue the consideration of teaching and learning at the forge has much to offer the discussion of knowledge transference through making. The workers in the forge are often recruited from kin or the children of friends (Mollona 2005: 532); young workers serve an apprenticeship where they learn how to manipulate and form products, and knowledge is transmitted through making with the seasoned workers at the forge. Despite the entanglement of industrial machinery in the process involved, forging is still a creative engagement. Forge worker Tony asserts: “forging is a form of art, and not a simple act of production” (Mollona 2005: 532).

Mollona’s research into the hot workers at Morris describes how the workers observe and communicate through colour; he notes how workers talk about the ‘redness’ of the pieces they are working on in the forge (2009: 34). In this scenario the colour red becomes a call to action, and it is the transformative properties of the metal material that are intertwined in a variety of collective practices at the forge. In the case of apprentices who are learning to identify these material transformations, we can see that it is the transformative qualities of the working matter (materials that are being worked and made) that, in the context of the forge, become moments of knowledge exchange and transmission. The ‘redness’, ‘patchiness’, or ‘roundness’ of the materials are carefully observed and the apprentices’ ability to correctly note these material transformations indicates their ability (or inability) to carry out the work (Mollona, 2009: 34).

In commercial situations, more than the metal material is transformed during the process, and we might consider that the apprentices, too, are also in a state of transformation from apprentice to employed worker. During this process, particular ‘ways of seeing’ are introduced; the gaze is socialised by the elder who teaches the apprentice how to see correct and incorrect material transformations. The patterns of movement around and with materials are all negotiated via material engagement - these are immersive encounters. Material transformations are the locus of this knowledge-sharing. Mollona argues “the knowledge of work in the hot department is embedded in human bodies and socially organized in subjective, fragmented, ephemeral and centripetal spaces of action” (2009: 34). The physical embodiment of working matter and how this can shape, form, and inform the body (and the social body) will be raised

throughout this thesis in relation to my search for locating “phenomena” in the past and how these relate to the formation of communities.

Theoretical discussions have highlighted the embodied nature of making practices and how often, in the case of manual labour apprenticeships, these relationships are negotiated via engagements with a variety of other-than-human things: machinery (Mollona 2009: 35), equipment, tools and so on. We may also think of the other substances that take part in these material engagements such as liquids, heat, sweat, steam, smoke, gas, even colour. To explain this last substance, we might think of the blue light of the gas fire that makers’ learn to see as the hottest part of the flame, or even how certain colours are indicators of transformations (materials in-transition) and become a call to action - an aspect I shall discuss next.

4.6.2. Making Sensory Profiles

Whilst in the ‘becoming’ state of employability, apprentices’ are dependent on their employer’s ability to share knowledge. Mollona writes: “[d]ue to the immaterial, uncodified, subjective and ephemeral working knowledge of the forge, the apprenticeships are locked into a relationship of dependency on their masters’ invisible knowledge and personality” (2009: 34). In the forge, the role of the apprentice is primarily that of ‘maker’ and this particular type of role is culturally justified as a method of knowledge acquisition. However, the role incorporates a range of social relationships and entwined dependencies which demonstrate that *how* the making is done - as in the formal process of material transformation itself - is *as* important as what it produces.

Within the field of archaeology, Willeke Wendrich (2006, 2013) carried out ethnoarchaeological research with a basketmaker in Egypt; she notes that as an apprentice her role involved ‘endless repetition’ to “enhance kinesthetic skills and also to build endurance, create habits, and engrain the movements, actions, and work order in the body”(2013: 13). Wendrich highlights the importance of the tactile and social element of her apprenticeship, and how the experience entailed the assimilation of the feelings and sensations associated with correct making procedures (2013: 13).

An alternative approach to the apprenticeship is to consider it a type of ‘sensory profiling’ where the maker’s senses are trained, even ‘curated’, in order to create ‘perfect’ products. We might reflect on how integral the ability to see redness, roundness and so on at the forge is to the position of apprentice-maker; these material transformations are mediated through sensorial engagement such as “seeing the right red”. On this matter, anthropologist Charles Goodwin has carried out research with geochemists who use colour to determine the chemical reaction they are examining (1997: 117). Goodwin notes how certain chemists determined the black colour category through touch as well as sight (1997: 136), and argues that for the chemists colour was not a “context-free universal colour category, but instead a problematic judgement to be artfully accomplished through the deployment of a collection of systematic practices” (1997: 111). Goodwin contends that the apprenticeship was a ‘situated activity system’ where “newcomers train both their bodies and work-relevant perceptual structures to the demands of the activity” (1997: 136, 117). This thesis ascribes to a theoretical understanding of the senses as socially and culturally configured. Therefore, it is suggested here that making scenarios such as apprenticeships, or types of making that takes place between unbalanced social roles (between the informer and ‘formed’ maker), can create or articulate particular sensory profiles (cf. Goodwin 1997).

Constance Classen (1997) emphasises how the senses can be imbued with cultural meanings and values and entwined with a particular worldview, she links these relationships to a ‘sensory model’ (1997: 402). Whilst these sensory values can change between persons, groups, and cultures, the sensory model can offer a ‘basic perceptual paradigm’ (1997: 402). Thus, Classen offers a collective sensory model that is not ‘limited to individual experience’ (Howes 2006: 114). Howes and Classen use the term ‘sensory profile’ to describe particular ways of sensing (1991: 257). Apprenticeships offer an interesting case study to explore how the senses are shaped during making, as they offer moments where individuals are initiated into certain ways of making and the sensory models that are embedded in these methods. In this thesis I consider synergies in creative practices and relate these to sensory profiles.

4.6.3. Problematizing Colour

Colour is a useful access point to prehistoric sensory orders because mineral-based colours are robust materials that surpass human flesh both in terms of longevity and integrity. Thus, the scatter pattern of colourful green pigment in a Neolithic burial is observable today, whilst the fleshiness of a human body is not, and is instead insinuated through human bones (an example is considered in section 5.4.1.). As we have seen earlier, colour is not context-free, and to unpack this notion further I will briefly outline in this section (and section 4.7.3.) nuances in colour perception to destabilise universalist approaches to colour in the past.

Elsewhere I have discussed the work of Diana Young (2011) who considers the transformative qualities of colour in the landscape (Govier 2016: 146). Her work with the Anangu women highlights how changes in the chromatics of the landscape mark the transitory by “materializing the transformation in itself” (2011: 369). Whilst camping with the Anangu Young notes how the women observed colour transformations in the sky and associated these with ancestral energy and presence (2011: 367). Young describes how certain rocks and features in the landscape interact with the changing light, and become momentarily colourful and animated (Young 2011: 367). These chromatic changes become key moments in the day to anticipate and schedule (Young 2011; Govier 2016: 146). Young highlights places of sudden vitality that are both transformative and transitory due to interactions with light, and her observations provide a physical example to consider Bennett’s notion of vibrant matter and ideas surrounding “impetus as entity” (Bennett 2010a: 119). Similarly, archaeologist Andrew Jones suggests that light should be considered an ‘active force that interacts with matter’ (2012: 74). A key point to make is that the visually changing chromatics of the landscape had further connotations (that being, beyond the spectacle) for the Anangu women.

Within archaeology, Munsell Soil Charts are used to make statements about observable colours in the archaeological record (Gerharz *et al* 1988: 88). These charts attempt to domesticate colour by capturing them as “predictable entities” (Dransart 2016, paragraph 20). Stable colour identities create a shared reference point for colour;

however, human error, individual colour perception, and the variability of colours on the surfaces of archaeological things means that there is a potential margin of error (Gerharz *et al* 1988: 91; Love 2013b: 82). A key issue being that the charts depict uniform colour and surface texture as reference points, however, archaeological things are rarely consistent (or homogenous) in terms of colour and texture (Gerharz *et al* 1988: 91). Thus, due to variabilities in human perception and things, determining colour and talking about colour is a complex matter.

Seeing red - seeing any colour - is culturally informed; there are thousands of reds to choose from, and within creative practices discrepancies in determining colour can lead to errors in material engagement. For example, in the context of the forge (as discussed in section 4.6.1.), the right red reveals the right temperature and becomes a call to the maker to apply the right force. Thus, the 'right' red means the difference between transformations where the metal is not-malleable to too-malleable. Equally at Çatalhöyük we have the distinctive use of at least two different shades of red pigments: cinnabar and ochre (Çamurcuoğlu 2015: 151). These colours are used on wall painting panels, skulls and figurines and the separate use of the two colours implies that colour was used to mediate social meaning - seeing and using particular reds had cultural meaning and therefore it was important to differentiate between the two shades.

In her discussion of the bead assemblage at Boncuklu Höyük (an Anatolian Neolithic site dated to 8200-7700 BC with strong links to Çatalhöyük) Emma Baysal distinguishes between the "perceived properties of the colour" and "actual properties of the raw material" (2014: 67). This observation is relevant to the consideration of pigment; despite the vivid colour of cinnabar and red ochre pigment, these substances can have several uses, and numerous capacities of their own (section 3.3.2.), and their chromatic quality may or may not have been central to their procurement and use (this point will be considered in further detail in section 5.5.3. when the hallucinogenic properties of cinnabar are explored).

Interpreting colour in the prehistoric past is a complex matter. Archaeologists Bar Yosef and Porat have observed an increase in the use of green stone beads at the Late Natufian, PPNA, and PPNB sites in the Near East, and have linked the rise in green

beads to the transition to agriculture (2008). The foundation of their argument relies on the colour green being associated with fertility and symbolising vegetation and crops (Bar Yosef and Porat 2008). Universalist approaches to colour become problematic when we consider that cultural factors inform perception (Coote 1992). Anthropologist Jeremy Coote argues that perception is influenced by cultural factors and cognitive processes, thus, seeing is a complex and culturally informed action (Coote 1992, 245). Following Coote, Joanna Clarke argues: “[i]n order to understand how MPPNB communities experienced and lived in their world, we need to begin to understand the way in which they saw their world” (2012: 2). Clarke proposes that a path to understanding how different communities see their world is to examine the particular forms, colours, brilliance, pattern and proportion that are valued in their society (2012: 2; inter-sensory experiences are explored in section 4.7.3.). The notion that the senses are ‘pre-cultural’ has been disputed in anthropology (Classen 1997), and anthropologists have attempted to recognise different sensory orders to allow conceptual space for sensory modalities beyond the five senses (Classen 1997; Howes and Classen 1991).

Here it seems timely to note that careful analysis of pigments at Çatalhöyük has revealed that further materials have been added to certain pigments; obsidian has been found in some samples of red pigments (Anderson *et al* 2014). The material was mixed in to create a reflective quality to the paint (Anderson *et al* 2014). Therefore, the complexity of a communities’ colour use, sensory profile, or ability to see certain colours, are not necessarily visible to the naked eye observing colour in the archaeological record. Micromorphological analysis has unveiled the glistening red paint, and thus revealed a unique creative practice which involved adding light-reflecting agents to red pigment (Anderson *et al* 2014). In anticipation of Chapter 5 *Interactions with Colourful, Brilliant Materials* and Chapter 6, *Making and Applying Colourful Substances*; next we examine how we can identify sensory profiles and profiling and locate sensory events through the analysis of the material residues of creative practices.

4.7.0. The Senses and Making

4.7.1. Shaping Senses

Whilst considering the senses in the archaeological record, some archaeologists have critiqued the archaeological discourse for being biased towards ocular engagement (see Hamilakis 2011, 2013; Day 2010; 2013; Croucher and Campbell 2009: 100). Jo Day (2010: 1) explains this archaeological predicament further:

“Visual acts are part and parcel of traditional archaeological practice, and have been instrumental in shaping the discipline as it now exists. The other unquantifiable senses of smell, taste, sound, and touch have been marginalised as unmeasurable ways of engaging with world, and therefore as unthinkable for archaeology, thus leading to a silent, odourless, disembodied and sense-less past”.

Hamilakis shares Day’s concerns, stating “what is often missing from these valuable and fascinating debates are the auditory, olfactory, and tactile engagements” (2013: 8). Diana Young’s findings at Uluru supports the idea that sensory perceptions - such as seeing colour - are more than simple physical acts (see section 4.6.3.). Sound ethnographer and anthropologist Tom Rice adds to this point by arguing that the senses are also culturally configured (Rice 2013: 6). Rice reminds us: “the senses are not only mechanistic receptors of information but are also mediators of social value” (2013: 6). Art Theorist John Berger outlines a similar position to sensory perception in his seminal text ‘Ways of Seeing’ where he argues that the way we see is culturally influenced and shaped by “what we know and what we believe” (Berger 1972: 8). Both Berger’s and Young’s works would sit comfortably in the realms of ‘anthropology of the senses’, as both present cases that indicate sensory perceptions are not simple receptors of information, but are influenced by socialization processes (see Rice 2013: 6). Berger argues his case by highlighting the historic-specific examples which demonstrate that ‘seeing’ has changed through the ages (1972). Berger remarks “[i]n the Middle Ages when men [and women] believed in the physical existence of Hell the sight of fire must have meant something different from what it means today” (1972: 8). Within the field of anthropology of the senses, it is argued that if the senses are socially conditioned to ascribe certain values, these experiences will vary historically and cross-culturally (Rice 2013: 6). Equally, Young, through her interactions with the Anangu women, provides an ethnographic example where sensory perceptions in the group she was a part of were

culturally nuanced, and by describing the complex and profound sensory engagement the women have with the changing chromatics of the landscape, Young marks her own engagement as different.

By acknowledging that sensory engagement can mediate social value, we can fine-tune our understandings of different communities and adapt our archaeological analysis accordingly. Fredrik Fahlander and Anna Kjellström echo this sentiment by arguing:

“[A] more promising perspective may be to explore the various ways in which people seek to manipulate the scope of sensory input: the gaze can be prohibited or encouraged, smell can be hidden or masked, taste manipulated or accelerated, the surface of an object can be made smooth or rough (2010: 6)”.

We have seen how the senses can be shaped during material engagement, and how individuals learn to encourage and respond to material transformations. We could think of the “manipulation” they talk about as an attempt to profile the senses. The next section examines the senses in archaeology and how we might locate sensorial proclivities and experiences in the archaeological record.

4.7.2. Sensorial Archaeology

Archaeological thought has already made clear movement towards the realms of a “sensory” archaeology (Hamilakis 2002, 2013; Day 2013). Phenomenological contributions have also incorporated touch, sight and sound into their archaeological interpretations (Tilley 1994; 2002, 2004, 2008). An edited volume by Fahlander & Kjellström (2010), *Making Sense of Things: Archaeologies of Sensory Perception*, brought together a selection of essays that were aimed to “widen our perspective” and offer a “broader range of sensory experiences” (2012: 10). Other authors that have attempted to broaden our sensory engagement with the past are Houston and Taube 2000; Houston, Stuart and Taube 2006; Goldhahn 2002; Morris 2004; Joyce 2008; Campbell and Hansson 2000; Butler and Purves 2014; Tilley 2007; Malafouris 2008; Croucher and Campbell 2009). The following section illustrates how Chris Tilley has thought about the senses in relation to interactions with prehistoric stone.

Tilley considered the materiality of stone and contrasted different stones used in temple construction at Malta to understand the ‘form’ and ‘quality’ of the temples’ (2004: 95). His approach compared the stone used at the beginning of the temple sequence and later on in order to show that, through careful analysis and interactions with the material, key changes in the type of material engagement the material afforded (and revealed) could be identified. The early building practices used coralline limestone, and Tilley notes how later on the material was still used as an ‘outer casing’ to the temple, although globigerina limestone was used inside (2004: 95). Tilley explains that coralline is a durable limestone, that resists weathering, but is also a difficult material to shape and form due to its ‘hard’ qualities (2004: 95). As the globigerina stone was shaped to make megaliths whereas the coralline was found as a megalith, Tilley argues that the former is a ‘cultural’ form whereas the latter is a ‘natural form’ (2004: 96). The distinction made is based upon the human fashioning of the material; it appears the more modeled, moulded, chipped, flaked, sanded and shaped the object the more it is likely to be deemed a ‘cultural’ form. But, it is proposed here that this classification represents a disconnect between form and action that renders ‘adaptation’ as synonymous with ‘cultural’.

Tilley’s approach, in essence, provides a cultural biography of the materiality of the temples, a key observation between the two stones being that: “[t]he coralline limestone came ready-made; the blocks of globigerina had to be produced” (2004: 97). Tilley argues that: “the form of an external façade, if made from the globigerina limestone, would look strikingly uniform and new” (2004: 97). Whilst Tilley’s observations demonstrate a sensitive approach to the materiality of the temple, through his recognition of the different use of stones, textures, colours - these are observations made by the archaeologists and could be argued to be culturally contingent. The difference between ‘new’ and ‘old’ is one example which may not have been applicable to Maltese temple builders. Similarly, the view that one stone looks ‘warm’ and the other ‘cool’ is likely to be culturally contingent, especially if Tilley is responding to the ‘warm honey’ colour of the warm stone and the “greys to whites to reds to blues” of the cold stone (2004: 95).

Tilley's exploration of the materiality of stone revealed several synergies with my approach to material interaction. Tilley, too, problematises the Cartesian cut (2004: 217), and specifically attempts to create an approach that: "transcends the 'subjective' and the 'objective' as these terms are normally understood" (2004: 220). Tilley acknowledges the 'agency of stones' (2004: 217) and argues that social identity "is therefore constituted through various forms of subject-to-subject and subject-to-object relations, giving it a transactional and performative character" (2004: 217). In many respects, Tilley's philosophical underpinnings are cutting-edge, especially when we consider his discussion was launched in 2004, but with early indications of his stance presented in his 1998 contribution. Co-constituted relations between persons and things are implied when Tilley states: "persons make things and things make persons" (2004: 217). He explains:

"We enter a landscape and create a subjective but culturally bound perception of it. We also interact with the materiality of place and the place interacts with us and affects the manner in which we perceive. Our vision of place, or sense of place, may change as the dynamic world is always changing. An objective bodily experience of place does not understand a place as a fixed and definite thing but rather as something fluid and flowing (Tilley 2004: 220)".

However, it is difficult to argue that Tilley equally applies his philosophical approach practically and provides any real interpretative contribution, or, some might argue, substantial conclusions (Fahlander and Kjellström 2010: 3). The aim of this thesis is to take aspects of the phenomenological tradition forward by offering practical methodologies to analyse material phenomena of the past. This is achieved through the careful analysis of unique forms of material engagement (that is to say, creative practice) at Çatalhöyük. To understand the potential impact making and creative practices have, the potentialities of the materials must be explored, along with the sensory implications the material processes reveal. Research into different forms of sensory engagement, and how these might be observed in the archaeological record, will be explored next.

4.7.3. Mixing Senses

Hamilakis is keen to incorporate the senses into our readings of the past, explaining how he wishes to move from “corporeality to sensoriality and from things to flow” (2013: 15). Nyberg states “no one has ever experienced the world through only one sense” (2010: 17); in response to this point I argue that there are a number of humans whose sensory engagement is varied, and, undoubtedly, there are those who experience the world through a single sense. However, Nyberg utilises the line of reasoning that argues that there is tension between the senses and how they “appear together” (2010: 17). By making this point, Nyberg problematises our contemporary tendency to stay within the parameters of the ‘Western’ five sense and unveils the synthetic experiences we generate when we address single senses separately. The senses are complex, and the cultural contingency mentioned lies not only in whether certain senses are prioritised over others, but also the relationships formed between the senses and how they emerge.

Nyberg argues that the anthropology of the senses can broaden contemporary understanding of the potentiality of the senses. Indeed, a useful example to consider on this matter is the work of anthropologist David Howes, who discusses the Shipibo-Conibo of Peru to illustrate “crossing the senses” (2006a: 76). He reveals instances where the senses are combined (2006a: 76). He explains that the “Shipibo-Conibo term *quiquin*, which means both aesthetic and appropriate, is used to refer to pleasant auditory and olfactory as well as visual sensations” (2006a: 76). Howes explains that an important part of a medicinal healing process is to place the patient in a *quiquin* environment (2006a: 76). A shaman diagnoses the patient whilst under the influence of *ayahuasca* (a hallucinogenic brew of plant vines and roots), and the illness is detected through the geometric patterning the shaman observes on the patients’ body and the “stench” of the evil spirits (2006a: 77). To address these issues, the Shaman “sings the design” of a healthy pattern that he receives from other-than-human entities (in this case the hummingbird spirit) and these designs “penetrate the patient’s body” (2006a: 77). The perfume of the event is interwoven into the experience, Howes notes:

“[W]hereas we perceive these designs as visual abstractions, the Shipibo-Conibo perceive them as matrices of intersensory perception, since these geometric designs are at the same time musical scores and perfume recipes. They resonate in each of the senses at once. They are not simply addressed to the eye (Howes 2006a: 77)”.

The multi-sensoriality described by Howes' description provides a flavour of the different sensory modalities that I would argue the archaeologist should be sensitive to in their interpretations.

Ethnographic research (such as Young 2010; Dransart 2016) reveals complex and culturally contingent relationships with colour, and these unique insights destabilise universalist approaches to colour. To develop this point I turn to the work of anthropologist Penelope Dransart (2016) who carried out extensive fieldwork in Isluga, Chile and has written about the special inter-sensory relationship between colour and sound in textiles produced in the area. Dransart describes how the weavers take great care to ensure that their colour palettes produce a "rich sounding contrast" (2016: paragraph 15). When the colours are used in fertility ceremonies for alpacas, llamas, and sheep, songs must accompany the application of ear tassels and neck pieces to the animals to ensure the colours take effect (Dransart 2016: paragraph 26). During her fieldwork, Dransart found that the weavers made a series of culturally-informed decisions during the process of making, and these were informed by the social mores surrounding appropriate colour use (2016: paragraph 5). Notably, the weavers responded to the colours 'prismatic refraction of light' and not the saturation of the individual colours (2016: para 4). Thus, the importance of the colour lies in its interaction with light and not simply its shade. Dransart notes that for the weavers of Isluga the colour yellow is dangerous, and yellow light "is not to be trusted" (2016, paragraph 27). Indeed, Dransart describes how certain stones linked to significant origin points for herd animals are socio-culturally important within the community and that these stones could be guarded in the home, as long as their "dangerous brilliance" was contained by a dark cloth (2016: paragraph 12). Shiny objects of saturated hues could bring sickness if they came into contact with the strong Chilean daylight (2016: paragraph 12). Thus, ethnographic analogy can help to reveal the multiple ways colours and light can become embedded with a variety of socio-cultural meanings, and indicates that interactions with colour should be culturally contextualised. I continue to demonstrate the complexities of colour use and sensitivity at Çatalhöyük in Chapter 5 and Chapter 6. Within the archaeological discourse there is still much work to be done here, not only in archaeological interpretation, but also in how such instances are recorded and shared.

4.7.4. Creative Practice, the Senses, and Matter

Hamilakis identifies some of the criticisms aimed at sensorial archaeology by acknowledging that it is hard to provide “concrete, material evidence for sensory interactions” (2013: 4). However, he also states that the senses are “embedded in matter”, and thus, there are “plenty of material evidential traces” (2013: 5-6). Hamilakis also re-frames the author of the archaeological text by fore-fronting his own sensorial engagement with spaces and things. Hamilakis includes personal reflections and narratives about his experiences. These pieces remind us to recognise that behind the archaeological interpretation there is a thinking, feeling individual, with a particular perspective, who enters the archaeological space already sensorially ‘activated’. Hamilakis robustly applies his approach to several archaeological scenarios. One example includes the analysis of the material remains of a feasting event found around the hearth of a Mycenaean sanctuary (2011: 214) at Agios Konstantinos in the Methana peninsula, analysing the remains as a ‘sensory event’ rather than a continuation of Greek religion (2011: 2014).

Hamilakis begins his interpretation with the ‘black-brown’ and ‘greyish-white’ bones of neonatal and juvenile pigs found around the hearth (2011: 214). Some of the bones have ‘filleting marks’. Here we imagine the slicing actions of a hand-held knife moving against the flesh of the animal. Hamilakis reasons that some of the pigs would have been eaten (due to the knife marks) whilst others are thrown onto the hearth and offered to other-than-human entities (2011: 14). Drinking vessels, limpet shells and figurines are also found in the ‘small space’ (2011: 16). We imagine the scene: the incorporation of intoxicating liquids; the salty and slimy texture of the sea foods as they pass through the lips into the mouth and down the throat into the body; the eye-watering smoke of animal bodies; the scent of burning pig fat occupying the enclosed space (2011: 16-17); and a space that due to its size afforded a limited participants in the festivities. Hamilakis argued that whilst events like these were not unusual, they would still disrupt the “temporality of the everyday” (2011: 217). The event is described as ‘sensorially strong’ due to the restricted access to the event. Hamilakis argues that they would have bonded through the experience (2011: 217).

Sensory profiles and underlying sensory sensitivities are revealed through the material remains of creative practices. By examining material engagement from the perspective of the makers, this thesis explores the sensory profiling that occurs during making and how the processes of material engagement reveal the senses in-action: imagine, for example, the feeling of fingers forming a bull out of clay. In his writing, Hamilakis argues “sensuous experience is always synaesthetic—it involves multiple sensory modalities working in unison” (2011: 210). This thesis similarly moves beyond the ‘Western’ narrative that clearly divides the senses into five unique categories and structures these hierarchically into vision and hearing as “high” and taste, smell and touch as “low” (Hamilakis 2011: 210). Hamilakis links this framework to the “Cartesian view of the world” (Hamilakis 2011: 210). These observations are important as it is argued that archaeological interpretation has tended towards ocularcentricism (Hamilakis 2011: 210). Thomas argues that archaeologists need to address this issue by creating “conceptual tools” that situate ocular engagement “in a more holistic form of dwelling” (2009: 10).

Thus, in response to the reality of this potential bias within the discourse, the senses are problematised in this chapter and revealed to be ‘culturally contingent’ and ‘mediators of social value’. During my analysis of creative practice at the Neolithic town, I include relevant ethnographic examples that demonstrate unique sensorial engagements. These are provided to challenge contemporary interpretations of the archaeological data and to provide unique insight into potential sensory modalities. These scenarios are also used to encourage multi-perspectivism on sensory potentiality. Thus, wall painting imagery is not interpreted as directly referencing specific and unique entities (e.g. an image of a phallus is not argued to demonstrate male dominance, *contra* Hodder and Meskell 2011); rather, the painting is considered as a ‘sensory event’ (Hamilakis 2011: 214) that can reveal a particular sensory modality of the practitioners. Julian Thomas similarly argues that the ocular sense dominates archaeological analysis and, as such, has become the “paradigm for all sensory experience” (2009: 10).

4.8.0. Conclusion

During this chapter I have outlined the term ‘creative practice’ as an appropriate term to use when discussing material engagements in the past. The focus of creative practice is the presentation of the perspective of the maker whilst in direct correspondence with materials and substances. This chapter explored creative practices that were carried out by both groups and individual makers, from making industrial products to teaching and learning how to make. By presenting a range of creative practices, the social complexities of material engagements were revealed to illustrate how social practices are negotiated during making.

‘Creative practice’ is a term that acknowledges the creative element but avoids the value-laden and culturally specific term ‘art’. Creative practice at Çatalhöyük spans a wide range of skills, talents, motives and meanings. Creative practice is thus used as an umbrella term for bead, figurine, plaster, and mudbrick making to name some of the few creative practices evidenced at the town. These acts tend not to be product-driven and solitary ventures, but shared creative and social endeavours often practised across the generations.

A by-product of the successful transmission of knowledge in the forge (in this case material transformation recognition skills) is the maker’s ability to recreate similar products. The products created in these commercial environments are mass-produced and ‘replicability’ is integral to this form of ‘industrial’ making. Whilst it is acknowledged that figurine-making in the Neolithic is far removed from the industrial ecologies evidenced in Mollona’s research, his work is nonetheless a timely reminder of how people learn to make and how dependencies between different entities can form through making together. The transmission of knowledge via material engagement creates transitional persons who are dependent on both their ability to recognise material change, and their employers’ willingness and ability to share knowledge of such transformations. ‘Doing’ things correctly impacts upon the apprentice’s ability to secure financial payment. A variant of this social pressure might also have been present in the Neolithic: paintings had to be painted in a certain way to invoke, appease or commemorate the other-than-human entities and beings (a similar argument is proposed in relation to house construction process, see Love 2013a: 265); zoomorphic figurines

were to be made and stabbed ‘correctly’ to incite favourable hunting magic (see section 2.6.0.).

In this chapter, I have also highlighted various types of relationships that develop between makers, particularly those who are learning to make. I have also argued that sensory engagement is embedded in material interactions, and explained that the senses can be profiled during making. Both Hamilakis and Day illustrate the multidimensionality of sensorial engagement with materials and how this is an area that has been neglected in archaeological interpretation. Hamilakis’ descriptions reminds the archaeologist to not just see the animal bones, shells and ash but smell the scent of cooking meat, to taste the salty sea food, and feel the smoke and steam emerging from the hearth. Following on from this point, we might also consider, as Fahlander does, how certain foods consumed by certain humans can result in cravings, and that cravings can dictate routes and contacts (2010: 35-51).

Vital materialisms is a theoretical approach that invites us to think about the smoke, heat and taste of the materials we engage with; but this is more than demonstrating a sensory awareness, it is about locating the influence things and “nonhuman forces” have on humans (Bennett 2010a: xiv). This chapter has focused on an anthropocentric approach to material engagement; I was keen to problematise the senses by showing that makers engage with materials in complex, adaptive and strategic ways and that the senses can be shaped during these interactions.

To counterbalance the evident anthropocentrism demonstrated in this chapter, the spirit of the vital materialist is adopted during the next chapter to present a “nonteleological” materialist approach to colourful matter (Bennett 2010a: x). The methodology of making is a useful tool when revealing the inconsistencies, accidents, unexpected and unintended results achieved during making that teleological approaches such as the *chaîne opératoire* fail to consider. The majority of the examples cited in the next chapter are drawn from the entire corpus of excavation reports recorded at Çatalhöyük. These examples emerged into the Neolithic material environment through procurement, transport and curation, evoking reactions and instigating particular material actions from individuals and groups at the settlement. Thus, a teleological

approach does not account for the vibrancy or capacities of materials in-phenomena. From pigments and speleothems to dolomitised limestone and obsidian, these materials were (and are) “forceful agents” (Bennett 2010a: x) inducing affect and effect in the humans that collaborated with them. The colourful materials of Çatalhöyük are considered next.

Chapter 5 ‘Intra-actions’ with Colourful, Brilliant Materials

5.1.0. Introduction

The remains of creative practices at Çatalhöyük indicate that colourful, brilliant matter shaped and informed different types of material engagements. From collecting colourful speleothems (Mellaart 1964: 78) to placing pure pigment in burials (Quinlan 2014: 176), colourful matter seems to have been embedded in a range of social practices. In this chapter, I synthesise the remains of several unique making events found at the Neolithic town. These include a bone pin found embedded in a lump of green pigment found in a burial context (Patton and Hager 2014: 231), a pink palette placed under a skull in B.77 (Doherty 2011: 92), and the placement of pink, white and yellow stalactites in a house closure process (Mellaart 1964: 75).

Unlike many other ‘naturally’ forming materials (such as clay, mud, reeds) which the makers interacted with to make figurines, bricks and baskets, the materials discussed herein are those that the people of Çatalhöyük either used as they were found; such as the speleothems (section 5.2.1.); or materials like obsidian whose reflective qualities were enhanced through fine polishing (section 5.2.3.), or cinnabar pigment, which was ground and washed to enhance its brightness and hue (section 5.6.1.). Sometimes, these materials are found with little human adaptation (see Figure 8 and 9). We could think of these phenomena as a ‘curatorial’ project, materials that were collected to be included in important social gestures such as burials and house closures perhaps due to their unique properties (such as texture, colour, scent).

We might consider how the properties, capacities and efficacies (see section 3.3.2.) of these materials captivated and enticed the people of Çatalhöyük to collaborate and form unique material expressions that would lie dormant for 9,000 years. These intra-actions are particularly pronounced in burials and house-closure events, when colourful and brilliant materials were brought into domestic settings and entangled in expressions relating to deceased members of the community; such as the two obsidian mirrors left in the burial of an individual and three skulls (Table 1, Obsidian 1 and 2), or the three obsidian blades left with an adult female (Table 1, Obsidian 3). They were also used as markers in what appears to be ‘ritual’ closure of buildings, such as the speleothems placed in the ‘Leopard Shrine’ (Mellaart 1964: 75; see section 5.2.1.). Perhaps these

material intra-actions were intended as the last expression in a space that was to have no future activity. A pink stone, a vivid yellow speleothem, a handful of green pigment; all were entangled in unique material expressions at the Neolithic town. These phenomena have been recognised by the archaeologists unearthing the site (see section 6.1.0.), and beckoned them to record their presence in reports (for example: Mellaart 1964: 94; Doherty 2011: 92; Burcu Tung, Excavation Diaries 09.07.2012).

Innovative approaches to colour-use in the past have begun to explore “the varied and complex ways in which past societies perceived, selected, transformed and used colours to transcend materiality” (Cole 2005: 78). This chapter explores colourful, textured matter, and the unique ways these materials were incorporated into expressive practices at Çatalhöyük. As discussed in section 2.6.2. Last (1998, 2005) has contributed to this discussion by considering the structured deposits at the town as assemblages and synthesising these data with the performance and installation work of Beuys. His analysis emphasised performativity and the cognitive processes behind these deposits. This discussion aims to add to his research by applying a more-than-human lens to these interactions. Matter shapes humans, and here we explore how other-than-human entities (like pigment) informed expressive events such as the burials at the town. This chapter will demonstrate how colourful, brilliant matter is a key access point to a range of sensuous experiences in the past.

5.2.0. Colourful, Brilliant Matter

5.2.1. Stalagmites and Stalactites

Here, we begin with the contextual information about the speleothems (stalactites or stalagmites formed through the solidification of water) taken from the excavation reports. Excavation Records currently contain 25 colourful speleothems that had been collected and subsequently curated and left inside the buildings at Çatalhöyük. It is argued that these objects of interest were collected from caves relatively far away, up to 100 km (Erdoğu *et al* 2013: 22), which may have taken 5 days to walk to on foot (calculated using Santley’s travel rates see section 2.7.2.). Contemporary researchers examining the caves gathered loose samples from the cave floor or took samples from areas in the cave that would not interfere with the “aesthetics of the cave” (Erdoğu *et al*

2013: 24). We might imagine the certain individuals from the Neolithic town, similarly collected or removed their speleothems from the floor, walls and ceiling of the cave.

During the Neolithic, the speleothems were brought back, presumably as objects of interest, and perhaps shown to other members of the community. Those who found the objects - perhaps through exploration, perhaps through exchange - clearly felt compelled to keep these things, or to stake ownership, and to bring the objects back to the settlement. During the 1963 excavations an assemblage of pink, white, and yellow stalactites and limestone concretions were found along with a black volcanic stone figurine, an anthropomorphic figurine, and figurines of humans sat on (and potentially riding) animals in the 'Leopard Shrine' (VIA, 44) (Mellaart 1964: 75-76, Fig. 29). Mellaart argued that it was the shape of the stalactites that placed them in the same value category as the iconic figurines whose deposit he argued appeared to be part of the house closure ritual due to the aforementioned assemblage, the presence of carbonised grains 'coating' one of the figurines, and their position on the platform in the building that was destroyed by fire (1964: 75). However, he also argued that the stalactites were precious because of their shape, commenting: "[m]any of these stalactites were selected for their resemblance to clusters of breasts" (1964: 78). This reading was used as further evidence of the Mother Goddess metanarrative as explained in Chapter 2. Now such items have been referred to as looking similar to "popcorn" (Figure 8). We might consider the two different ways the speleothems have been described in relation to my argument that ways of seeing are culturally informed (see section 4.6.0. and 4.7.0.). Compared to the stone figurine, the presence of colourful stalactites in such significant contexts has received little attention (Govier 2016: 147). The 2014 excavation report researcher Holly Moyes describes the colours of the speleothems as "pinkish" or "yellowish" and the sample she examined also included a 'modified stalactite figurine' U.10475.X2 (Moyes 2014: 218) which Moyes notes was 'closely associated' with the plastered skull (Figure 39) included in burial F.1517 (Moyes 2014: 218; I will discuss the plastered skull in section 6.3.4.). Rich intra-actions (such as collection, curation, shaping, depositing) might be detected from the re-contextualisation of these naturally forming pieces of speleothems that were broken-off from cave contexts and brought to Çatalhöyük. Moyes reminds us that speleothems are 'solid water' (Moyes 2014: 2011) and include stalagmite and stalagmite concretions. She describes how stalactites begin to grow like a 'straw' and that cumulative layers shape

around this inner straw much like tree rings (2014: 213). Over time the process leads to there being a naturally occurring hole in the inside of the object (2014: 216). Moyes found beads deposited inside one such hole; copper, stone, bone and shell beads were found in association with the stalactite U.20686.X7 (2014: 217). The placement of a colourful and shiny copper bead inside the colourful and textured stalactite is an interesting intra-action to consider.

Moyes argues that: “[s]peleothems represent a class of artefact that often goes unreported because they are not recognised by archaeologists. One reason is that they exhibit many different shapes and sizes that can be composed of numerous minerals (though they often consist of calcium carbonates or gypsum)” (2014: 211). Moyes states that speleothems are generally categorised by their morphological attributes rather than the structure of the minerals (2014: 211). Her study brings together 25 units and these include stalactite, flowstone, crystals, spar and concretion (Moyes 2014). Adding to the information provided in Mellaart’s reports, several photographs of the objects are included along with contextual information, and where possible, size and weight details. Some of the speleothems are both large and heavy, with one stalactite, U.11904, reported to be 11cm x 13cm in size, weighing 2.3kg. and another, U.11804 (Figure 9), at 8cm x 5cm x 2/3cm, and weighing 270g (Moyes 2014: 212). The former stalactite was found in B.52, had been burnt, and was closely associated with a boar skull (Moyes 2014: 213). Both were found in fill above a bin and the excavators suggest that they fell from the alcove above (Moyes 2014: 213). The weight of speleothem U.11904 is impressive; finding a piece of a similar size and weight would be difficult, and transporting the piece up to 100 km back to Çatalhöyük indicates that this was a desirable object.

The ‘Çatalhöyük Speleothem Project’ (2013) carried out research into the distance the speleothems had travelled by investigating caves within a 100 km radius of the town in an attempt to identify their source (Erdoğu *et al* 2013: 22). According to their report, all 25 speleothem samples were found in Levels I-VI and that speleothems are not found in assemblages before this date (Erdoğu *et al* 2013: 22). Through analysing the Rare Earth Elements, the project found that both the Hatçenini and İncikini caves were likely sources for the speleothems (2013: 29). Hatçenini is geographically located southwest of the town and is furthest away of all the caves analysed (over 100km); İncikini is

southeast and roughly 100 km away in distance (see Figure 6, Erdoğu *et al* 2013). Researchers found dogtooth spars that were ‘morphologically’ similar at İncikini and also Neolithic obsidian tools and buff coloured coarse pottery (Erdoğu *et al* 2013: 24). The Sizme cave is 60 km northwest of Çatalhöyük and closer than the other two caves. The researchers on the Speleothem Project only analysed one unit of evidence from the Sizme cave and found that the source was contaminated, noting that more samples would be needed to achieve a more “reliable interpretation” (Erdoğu *et al* 2013: 27). It is argued here that Sizme, due to the presence of cinnabar as well as speleothems, still remains a likely source for materials present at Çatalhöyük. The introduction of these material forms into the archaeological record reveals a particular interest in bringing colourful, naturally formed, light-refracting objects into domestic settings.

5.2.2. Domesticating Colourful, Brilliant Materials

From a vital materialist perspective (Bennett 2010a), speleothems are enticing materials that are quick to respond to environmental changes such as light and warmth. These objects become animated in light, and refract light too, with varying degrees of brightness (or ‘intensity’), and hues of colour (van Beynen 2001: 319). In this thesis, I emphasise the importance of material transformations and human-thing phenomena (section 1.3.0., 3.3.3., 3.5.4.); therefore, to understand what it is like to engage with light refracting materials, I experimented with handling quartz and obsidian (Appendix 5). I found that as well as interacting with light, the materials changed temperature when held in the hand - the stones warmed to my touch (Appendix 5). These attributes indicate that speleothems have dynamic properties - they are “lively matter” (Bennett 2010a: 122) - and are ready to interact and transform when in correspondence with other agents (such as light). If we imagine the speleothems in a house at Çatalhöyük we might appreciate that the beholder of such materials is reliant on other-than-human agents to activate the colourful quality of the objects; light shining, shadows casting, lightning flashes, daylight – like the setting sun on Uluru (see Diana Young’s research in section 4.6.3.). Once these objects are brought into domestic spaces, human agents might attempt to control the environment and the stimuli used to activate such materials (the role of light and darkness inside buildings is explored in section 7.2.2. and 7.2.3.). My use of the term ‘domestication’ is not intended to deny the material’s capacities, but within the context of the stalagmite-human-light-house phenomena there are certain

forces that inform the experience, and these have the potential to create power imbalances and different sorts of causality (Barad 2012: 54, 55; see section 3.3.2 and 3.3.3.). Thus, the retrieval and movement of the stalagmite from a cave to a dark house in a heavily populated Neolithic town created new capacities, one example being the potential for intra-actions with humans increased. The capacities of the Neolithic stalagmite are further demonstrated through my discussion of it here in this thesis - an unanticipated development of its original intended use.

Erdoğu *et al* (2013) highlights the work of Lewis-Williams who argues that by bringing the speleothems into the domestic spaces the community were creating parallels with the caves from which they were procured. Lewis-Williams notes that by moving these objects people brought “parts of a topographic underworld to their own built underworld” (Lewis-Williams 2004: 34). Whilst I am hesitant to use the culturally loaded term ‘underworld’ in relation to the caves and houses, it is clear that there are parallels between the two, as both offer dark enclosed spaces and contain speleothems. Indeed, if we follow Moyes assessment that one of the Çatalhöyük speleothems was placed in an alcove in the wall of a building (2014: 213), there might be further relationships between the internal architectural features of the buildings and the caves. The alcove might replicate the punctures or cracks in the cave wall and offer further experiential synergies between cave and house.

Despite these contextual and material rhythms there is a physical and ‘conceptual’ distance between the caves and the buildings at the Neolithic town (Lewis-Williams 2004: 34). In contrast to the wider set of agencies in-action at the caves I propose that the human agents, as creators of their built environment, had greater knowledge of the capacities of their built environment; such as the light entry points, human access points, and the presence of vermin inside the building. Therefore, I suggest that the houses offered human agents more control over their environment, and the presence of the speleothems inside the buildings could reflect a domestication-process where the objects and their intrinsic properties were incorporated by human agents. Tristan Carter, following Hodder, similarly argues that the burial of obsidian at the town was a method of domesticating ‘wild’ resources (2011: 9). Alternatively, the process could be described as an act of ‘curation’, as the objects were found, collected, and brought together with ‘made’ things (like figurines) in a manner that could be compared to a

curation process. Lynn Meskell has used the term ‘curating’ in reference to the human plastered skull that was left in a unique burial and the animal skulls that were often plastered (or ‘enfleshed’) and embedded in the walls of the elaborate houses (2008: 381). Meskell argues that the repetitive practice of embedding and curating demonstrates a concern for reliability and permanence (2008: 381). This notion might also apply to the curation of speleothems which, through their retrieval from the caves, became co-present at the town and perhaps more reliable (for more on ‘co-presence’ see section 1.3.3.). In the wider scheme of ‘world-building’, Meskell notes such practices create things that circulate within human domains creating permanence and durability (2008: 381-82).

5.2.3. Obsidian: “An Aesthetic of Brilliance”

From the vital materialist stance, it should be noted that as well as the speleothems, there are further examples of materials that have a special relationship with light at the Neolithic town, such as: sparkling red paint (section 6.5.2.), quartz, polished obsidian mirrors (see below for examples), and obsidian blades (for an example see Table 1, Obsidian 3). The emergence of sparkling, shimmering, and reflective material culture suggests that light-refracting materials were of particular interest to the inhabitants of Çatalhöyük and may indicate a further aspect of the sensory profiles in-action at the town.

Archaeologist Nicholas Saunders examines the role of obsidian in Mesoamerican cultures and discusses the special relationship the Mesoamericans had with obsidian, noting that obsidian held ‘polysemic qualities’ for the people. These qualities include: the iridescence and shimmer of the material; the symbolic value of the source; how the material was to be used and what it could be made into, and the relationships formed in order to acquire the material (2001: 222). For the Aztecs the obsidian mirror was entangled in notions of rulership and power (2001: 222). Thus complex cultural relationships can form with materials on the basis of their properties, and this point accentuates Bennett’s (2010a) argument for vibrant matter (section 3.2.4, 3.3.1 and 3.3.2.).

Saunders argues that the popularity of obsidian, and other similarly luminous materials, reveals an ‘aesthetic of brilliance’ (Saunders 2001: 232). He explains how obsidian has

a “tendency to fracture conchoidally and produce sharp prismatic blade from polyhedral cores”, and describes the material as a “peerless utility in a world without metal tools” (2001: 223). Thus, obsidian is a multifaceted material, and yet has certain tendencies (such as the conchoidal fractures), that create usefully sharp blades for human agents. According to Saunders, in the case of the Mesoamericans, it was the materials properties and attributes, in conjunction with the unique nature of the geological sources, that created an “enduring Mesoamerican aesthetic which saw the controllers of obsidian sources and the makers of obsidian blades connected to cosmic sources” (2001: 223-224). Saunders’ discussion provides a useful ethnohistorical example that outlines unique pan-cultural relationships with the material, and helps to sketch out some of the different ways unique cultures have engaged with the material. His discussion highlights some of the complex narratives intertwined with obsidian, and resonates with the vital materialist perspective because the capabilities and unique properties of the materials are considered, and his analysis also explores the possibility that the material can shape, provoke and inspire human agents.

Lucia Nixon draws attention to the lustre and sparkle of the materials as well as the sharpness that can be achieved when working with obsidian, Nixon notes that these worked materials reveal an aesthetic preference, a technical preference, and equally demonstrate the technical skill of the maker through specialised manufacture (2008: 259-260). The sharpness and brilliance of materials like obsidian can be determined, or at least informed, by human agents by cutting and polishing. Certain minerals sparkle more, partly because they have a higher light refracting potential, and partly because they have been finely polished (Imperial College London, 2013).

At Çatalhöyük, obsidian is often buried with human remains or in underground ‘hoards’ (Carter 2011: 8). Obsidian mirrors, such as the two examples shown in Table 1 (Obsidian 1 and 2), have been found at Çatalhöyük. During the Neolithic the obsidian mirrors were polished to a high finish and, even today, still reflect light and act as mirrors for those gazing at the smooth surface. Obsidian, in general, was very popular at the Neolithic town; indeed, ‘hoards’ of obsidian weighing up to 10kg in weight, or in one case containing 77 unique pieces, have been found buried in single buildings (Carter 2011: 8-9). Between 1995 and 1999 ten hoards were found in seven buildings,

and these hoards were situated in the area by the hearth where the residues of cooking and craft practices are often found (Carter 2011: 8).

According to Carter, the hoards contained obsidian ‘blanks’ - raw obsidian that was partially worked at the source and then further knapped at Çatalhöyük (2011: 5). The raw material was either retrieved by specialists at the town or procured from specialist workshops at the source (Carter 2011). Thus, the obsidian entered Çatalhöyük as a raw material and was kept in caches under the floor until it was needed, at which time it was shaped into spearheads and arrowheads inside the building by the pit and near the hearth (2011: 8). These obsidian blanks are interesting materials to consider in relation to the analysis of phenomena; as partially worked material, they are rich in potentiality, and key examples of the raw materials.

Some obsidian mirrors have a rounded back and sit comfortably in the hand (as demonstrated on the front of the 2012 report). Two complete obsidian mirrors, U.19447.X3 and U.19447.X4 (Figures 10 and 13), associated with burial F.3630, were found (Sp.77). U.19447.X3 is approximately 9cm in diameter and sub-conical in form and made from Nenzi Dağ obsidian whilst U.19447.X4 (Figure 13) is a flattened cone form, 8.5cm - 9cm in diameter, made from the same source of obsidian (Carter, 2012: 195-196). Both obsidian mirrors had pigment on them (Figures 11, 12 and 16). U.19447.X3 had red and blue pigment on the back; the blue is described in the excavation diaries as ‘azurite’, an “incredible ‘royal’ blue” (Burcu Tung, Excavation Diaries 09.07.2012). In burial F.3630, placed above the mirrors were ‘hackberries’ (fruit), seeds, shells, ochre pigment, and many beads (Numan Arslan, Excavation Diaries 8.07.2012). An excess of blue and green pigment was found in the burial (Tung 2012: 15). The two mirrors were found in association with three skulls and one individual (F.3684), and a clay figurine with pin-pricked eyes and ears was also found in association with the burials (U. 19447.H1).

Both the mirrors have “visible striae” across the surface of the mirror (Ashley Lingle, Excavation Database, U.19447.X4); these lines are focused in certain areas of the mirror, disrupting the otherwise smooth surface, and may have been intentional. The lines across the surface of U.19447.X4 are fine and may have been caused by a needle point, perhaps created in-conjunction with the burial, or from a craft activity prior to deposition. Bone pin needles have been found in conjunction with obsidian blades in the

burial of an adult female in B. 102 (Table 1, Obsidian 3). The bone tools and blades were found near the skull in the burial context, and the blades and points appear almost interlaced; the objects were held fast in a small pouch along with seeds (phytoliths) and a broken shell bead (Excavation Database, U.15621X2). The combination of prismatic, pressure flaked obsidian blades and bone pin tools is important as these are objects that can cut and penetrate human and animal skin, and need to be handled carefully. Equally, they are tools often associated with tattooing and scarification practices (Deter-Wolf 2013). Three bone pins and four obsidian blades make a comparatively extensive ‘toolkit’ for one individual (Deter-Wolf 2013: 1), and as there are examples of shells found with pigment embedded inside elsewhere, the addition of a single shell bead may add further evidence for the tools being associated with a process of body modification (this idea will be developed in section 5.4.0.). Obsidian is a particularly evocative material, with its deep dark colour, reflectivity, useful sharpness, and the dramatic experiential dimension of its source. However, there are other materials, such as a pink stone, whose presence in an important burial context also offers significant information about sensory engagement at the town; the pink palette is discussed next.

5.2.4. The Pink Palette

The pink palette U.19295 was located in B.77 (Figure 14) and its relationship with the pigment cinnabar provides an interesting example of two items that have travelled, probably along a similar route. The elderly female (Sk.19500), the pink palette, the cinnabar painted panels and the cinnabar pigment found in the grave fill of B.77 could be interpreted as an event. Due to the location of the palette in the room with cinnabar paint used on the wall and pigment in the grave fill itself, the two products may have even been procured by the same group of people, perhaps even individual Sk.19500, who was buried with the item, on the same trip. Cinnabar is a very bright red colour which, in modern day colours, we would associate this pigment with vermilion; the mineral emerges from the ore of mercury and naturally consists of mercury sulfide. According to the 2011 report, the pigment used to create the child handprints in B.77 was made using red ochre. However there are some panels in the building that are painted with a much darker and orange-red hue which has been attributed to cinnabar (Doherty 2011: 91). This is an important observation, as persons were using colour

spatially and not mixing pigments (I will expand my discussion of cinnabar in sections 5.3.3. and 5.5.3.).

There are flecks of cinnabar on the pale pink palette which was located in a grave fill in B.77; however these flecks are thought to have been introduced via the grave fill where a significant amount of cinnabar was present (U.19295). According to Doherty, the flecks do not seem to be a result of working cinnabar on the palette (Doherty 2011: 92). Having seen an example of a palette found at Çatalhöyük at the Konya Archaeological Museum (Figure 15), when pigment is worked on a palette the stain of colour is very obvious. The palette would have a noticeable coating of pigment, and I thus would argue if it was a 'working' palette, it would have been stained with much more pigment. Yet this should not discount the credibility of the piece being a palette since there are several examples of ceremonial palettes known in other cultures across time, particularly in Egypt from the late Predynastic and Early Dynastic periods (Stevenson 2009: 1). I use the aforementioned term 'working' to indicate that these palettes were 'used', specifically to work pigment, and perhaps also for symbolic or ritual purposes and that these aspects were embedded in the intra-action between human and material. Thus, working in this context takes on a multifaceted meaning, and is used to avoid the separation of functional and 'non-functional' palettes. Stevenson (2009) highlights the issue in relation to the 'magic slates' of Naqada I and II, she argues against Renger's (1996) interpretation that the miniature palettes have no functional purpose but only a symbolic one, and labels the distinction as arbitrary as the distinction is based on the size of the object (2009: 3-4). Her discussion highlights the problematic ascription of utilitarian and non-utilitarian labels and how this leads to a functional/symbolic dichotomy (Stevenson 2009: 4). Making paint can be a significant part of magic-making experiences (Lewis Williams 2002), and it is through the process of creation that the other-than-human entities can be accessed or appeased (for an ethnographic example see section 6.5.2.). Thus, in some instances the process of making the substance is as important as applying. Therefore, if the use-wear of the palette indicates a utilitarian purpose it does not necessarily mean that the object is not also ceremonial, magical or symbolic.

The analysis and interpretation of Egyptian palettes, both working and ceremonial, has yielded an extensive body of research (Köhler 2002; Kroeper 1996; O'Connor 2002;

Stevenson 2007); particularly in relation to the symbolic motifs found on ceremonial palettes, such as the Narmer palette, and the ideology it represents and relationship to the emergence of kingship (Stevenson 2009: 5). Examples of distinctively shaped Neolithic ‘flat stone’ working palettes made from mudstone have also been found at sites in Egypt (Stevenson 2009: 1); such as the Neolithic settlement El-Omari on the eastern bank of the Nile at the entrance to Wadi Hof and dated 4600-4200 BCE (Wilson 2012). Due to the simplicity of the pink palette from Çatalhöyük, particularly the lack of decoration, the literature on the flat stone palettes of Predynastic Egypt and ceremonial palettes of late Predynastic and Early Dynastic periods provides a useful body of research to consider. Specifically, the relationship between Egyptian palettes and cosmetics is important to note as there is a special relationship between bone tools and pigment at Çatalhöyük (see section 5.4.0), and I will later link these objects to a body painting and/or tattooing practice (section 5.4.2.).

Thus, palettes, pigments, bone tools, and bodies are interwoven material entities, that can be connected to transformative creative practices such as body painting or tattooing. Green pigment (malachite) is often found on Predynastic palettes (Stevenson 2009: 2), and it is the location of this phenomena (pigment on palette), in-conjunction with green pigment on the eyes of baked clay figurine heads at Mahasna, and traces of the mineral on the faces of individuals at Adaima, that have been correlated to argue that the palettes were used in the preparation of the pigment specifically for body painting (Stevenson 2009: 2). The process of locating related material phenomena to understand creative practices is a method I employ in this thesis. With these Egyptian examples in mind, I will now explore the context of the pink palette.

The pink palette was lying under the base of a single skull U.19500 at the southeast area of the northeast platform in B.77, the individual is believed to have been an older female (Hager *et al* 2011: 68-69). According to the 2011 site report, grave associations were limited in B.77 (Hager *et al* 2011: 68), and this point is perhaps a further indication of the significance of the pink palette. The palette itself is dolomitised limestone and the source is likely to be Sizme which is 30km north of Konya (Mellaart 1964: 114; Doherty 2011: 92; Govier 2016: 148). Sizme may have been the source for both the cinnabar pigment and the pink palette, and both of these are clearly connected to individual 19500.

The pink palette has a dark brown core and it is the outer 1-2mm which has been bleached pink, the excavator attributes the bleaching to interaction with the grave fill (Doherty 2011: 92). Elsewhere I have argued that there is a possibility that the palette may have been pink during the Neolithic, and that the object was potentially a by-product of a process that involved the procurement of cinnabar (Govier 2016: 148). My reasoning for this argument is that pinkish-white lime was found in association with the cinnabar and copper mine at Sizme after the Neolithic around 2500 B.C (Robinson 1927: 27, 33). A by-product of the mining process, particularly when heating the substance takes place, is pinkish-white lime. Thus, the dolomitised limestone may have been pink when it was originally retrieved and carried back from Sizme (Govier 2016: 148).

Had the palette been pink during the Neolithic period, either accidentally or intentionally bleached, then its value may have been a result of its pale pink colour which then also marked the palette as a unique and valuable item. Beyond the pink palette and pink speleothems, the colour pink emerges at different moments during the life of the town and may have been a colour of great importance for the community. For example, the inward facing pair of leopard sculptures in Shrine VII, 44 who were covered with (at least) seven specific patterns, each divided by a coat of white plaster. The original leopards, when they first emerged on the wall, were painted plain pink without any other decoration (Mellaart 1966: 177).

I argue that when one is working with pigment it inevitably becomes flecked on items close by; since Doherty thinks that the palette and pigment are from the same source, one might imagine these tools, in a room with cinnabar painted areas, were connected to the painting practice. The platform where these items were found (F.6051), included two plastered bucrania installations that had been designed so that they faced the inward northeast corner. B.77 contains a range of socially and culturally significant actions, and this can be ascertained from the material interactions within the building. The use of cinnabar in the wall paintings is less frequent than ochre (Çamurcuoğlu 2015: 151), thus B.77 features a rare material that was used with great intention. Equally, palettes are not usually found in burials, and the pink palette is currently a one-of-a-kind. The presence of cinnabar paintings on the walls, along with the cinnabar present in the burial, and the

pink palette, indicates that individual 19500 was entangled with a creative practice that involved cinnabar, perhaps even the procurement and/or production of the material.

5.3.0. Colourful Pigment

5.3.1. Pigments

Pigments are sources of colour that are often derived from minerals, though certain animal and plant matter can also produce pigment. Mineral based pigments can be traced to known geological sources in the surrounding area, and archaeologists can infer the likelihood of certain sources through known exchange routes, distance from the site, cultural preference for the landscape, or known relations with persons existing by the source. Of the pigments that can be identified, we can see that certain pigments (such as cinnabar) were harder to acquire than others due to distances from sources. Carter notes that the rarity of cinnabar along with its ‘interesting physical properties’ may connect the material to systems of value (Carter 2008: 122). A substance that has travelled further than other substances might be considered ‘special’ due to its movement, although it certainly illustrates a cultural preference for the item. Fayers-Kerr’s research carried out with the *Mun* of Ethiopia demonstrates the unique relationships that can form with substances such as pigment, clays, ash and dung and demonstrated instances where the pigment as an other-than-human entity needed to be acknowledged and appeased (2012). Her findings will be discussed in detail later in the chapter, but first we will explore pigment phenomena at the Neolithic town.

5.3.2. Blue and Green Pigment

Pure pigment is often found in burials at Çatalhöyük, the body and pigment evidently entangled in an important socio-cultural practice at the Neolithic town. In this section I utilise information located in the excavation reports (1960-66 and 1995-Present) to analyse burial practices that incorporate particular use of colour. Mellaart (1964: 94) observed green pigment used to paint ‘eyebrows’ onto a single skull and a bright blue pigment (one he anticipates is made from pounded azurite) similarly located on a skull but at the bottom of the neck and clavicles of more than ten individuals in Level VII-VI. Archaeological conservator Duygu Çamurcuoğlu examined six samples of blue pigment (these included: U.7597.XI; U.1007.S1; U7575.X19; U16308.X2) and all were found to

be azurite (2015: 147-48). It is worth considering that amongst some of the azurite samples there were also fragments of gypsum, quartz and feldspar (Çamurcuoğlu 2015: 47). Therefore, Mellaart is likely to be correct in his deduction that the blue pigment was indeed azurite.

Mellaart commented that there was a noticeable increase in beads (apatite) of the same colours in Levels V-IV (Mellaart 1964: 94). Furthermore, he noted that blue and green pigments were not used in the wall painting except for a 'cow' that was painted blue (1964: 94). This observation is important because it seems to suggest that there were socially-sanctioned ways of engaging with particular colours of paint and that these were upheld in the community. When pigment lumps are found they tend to be located in burial contexts (Quinlan 2014: 176). Interactions with blue and green colours appear particularly important (this matter will be explored in section 5.3.2. and 5.4.1). Recent work at the tell continues to suggest that blue pigment is unusual and that this extends to the burial contexts (Quinlan 2014: 242). Only three instances occurred, all in the upper levels of habitation - two adult females and one infant (Quinlan 2014: 242).

5.3.3. Cinnabar

Cinnabar is a naturally occurring deposit in Turkey and has been mined and used for millennia, thus, it is a vital material and an important resource that weaves through the history of Anatolia (Yildaz *et al* 1978). Deposits are found on sedimentary, igneous, and metamorphic rocks, however, in the Konya region ores tend to be hosted on limestone, and, a 1978 survey report of mercury deposits in Turkey states that the Konya ores have proved to be the best for mercury production (Yildaz *et al* 1978: 10). This observation is important as Çatalhöyük sits on the Konya plain. Cinnabar forms from warm (100° to 200°C) alkaline waters that contain enough sodium sulfide to "hold" mercury in a solution, these saturated waters precipitate cinnabar when they interact with ground water or through an oxidisation process in reaction to the wall rocks (Yildaz *et al* 1978: 13). Geothermal activity is needed to create cinnabar, thus, the ascending warm waters - containing sodium sulfide - coat the tunnels and passageways in the rocks (Yildaz *et al* 1978, 12). In Turkey cinnabar fills fractures or coats the walls of openings in host rocks like limestone, and other minerals such as calcite and quartz appear near the deposits (Yildaz *et al* 1978: 12). Thus, it is usual to find quartz in-conjunction with the cinnabar, and in the Turkish sources this relationship occurs both before and after cinnabar

deposition (Yildaz *et al* 1978: 10). The Sizme deposits also contain purple, white, and pale-blue fluorite in the cinnabar ores (Yildaz *et al* 1978: 10). The Ladik area hosts the Çirakman mine, the deposit adjoins the Sizme area, and at the Çirakman mine the deposits are described as “veinlets” and “clots” and appear in dolomitised and silicified marble (Yildaz *et al* 1978: 65). Thus, cinnabar sources appear to have a distinctive geological ‘thumb print’. The geology of the cinnabar in Turkey, particularly Sizme, is interesting, particularly as recent research has detected the presence of quartz in paint samples retrieved from Çatalhöyük (Çamurcuoğlu 2015: 141). Çamurcuoğlu proposes that this might be due to the geological source (the presence of quartz is to be expected) and that the minerals were not “washed and sieved thoroughly” before use (2015: 230). The purity of the ore and the different minerals present may equally impact on the purity of the paint, thus pigments with higher ratios of pure cinnabar may reflect the purity (and geological origin) of the ore rather than the skills of the individuals processing the materials. As a colourful substance, cinnabar will weave through this chapter, however I specifically return to cinnabar in section 5.5.3. where I consider the impact it has on human agents. In the next section I contextualise pigments in relation to other material culture found at Çatalhöyük to examine a unique creative practice that brings together the body and pigment.

5.4.0. Pigment and Bone Tool Phenomena

5.4.1. Green Pigment and Bone Tools

At Çatalhöyük there is an interesting relationship between pigment and small animal bone tools, this section will examine some of the key examples of this type of ‘phenomena’ at the town and argue that these materials and tools were used to make tattoos. Green pigment has been located in a burial context in B.60, where a pregnant female (Sk.13162) was found with her full-term baby (Sk.13163) in the birth canal (Patton and Hager 2014: 230). Green pigment and a rounded bone tool (Figure 17) made from a fox foot bone were placed by her right knee in the burial context (Patton and Hager 2014: 231, 242). It is suggested that these items would have been placed on top of the pregnant abdomen (Patton and Hager 2014: 242); as the inaugural burial in the building this was a significant event (Patton and Hager 2014: 240). There are several examples of bone tools and green pigment in burial contexts. B.3 also contained the

burial of an infant with green pigment and a bone tool (2014: 242), and Patton and Hager highlight that in the four examples of green pigment use in burials all were accompanied by a bone tool (2014: 242). It appears that green pigment was associated with a particular object; a tool that some have argued may have been used to perforate soft leather, fabric, beads and so on (Patton and Hager 2014). The intra-action of pigment and tool may indicate that the individual buried with the bone and pigment had a particular creative role in the community and that this was acknowledged in burial contexts; those who had used the tool to decorate and/or make leather items or perforate clay beads may have become identified with their creative practice and the tools of their craft. However, the addition of the tool in the burial of a baby contradicts this interpretation, since the individual would not have been able to use it; though it could be argued that craft practices may have been allocated at birth and dedicated in the burial event.

The tool and pigment may have also been used during the burial event. We might think of the different learning experiences these interactions created, in section 4.5.2. I presented Ingold's (2013: 109-111) 'telling by hand' argument, where knowledge is transmitted through material engagement (I will develop this point in relation to 'communities of practice' in Chapter 8). The 2001 excavation located a burial of a one year old individual similarly found in B.3 which also included a bone pin. However, the bone pin U.8184X4 (Table 2, Bone Tool 2) was revealingly found with its tip embedded in a lump of green pigment (Figure 18), and positioned under the cranial bones (Unit Sheet, 8184). We might think of these two materials as an intra-action as they emerged from the excavation not as independent objects, with fixed boundaries, but as intra-acting components of the phenomena (Barad 2003: 815).

Thinking with makers, the specific nature of the sharpened bone tool and pigment indicates engineer-like processes as the bone tool and pigment phenomena suggests a very specific project (section 4.3.2.). The archaeological evidence suggests that it was a project that was carried out in several different houses. For example, a shell (Figure 19) covered in red cinnabar and containing a 'chunk of yellow material' was also located under the cranium (Stevanovic and Tringham 2001). Yellow residue was also found under the left hip (Unit Sheet, 8184). The U.8184.X4 'pin' (Figure 18) is later mentioned in the 2003 Worked Bone archive report; it is described as being 'shaped like

a tiny oar' with the tip embedded in a shell containing blue-green pigment, the bone is thought to be a splinter of a large mammal long bone (Russell 2003).

U.8184.X4 is not alone, there is a second example of a similar tool mid-action - similarly dipped in blue pigment (U.16308.X2; Figure 20) - found in a burial context of individual 16308 which also included plaster beads. Whilst U.8184.X4 emerged from B. 3, U.16308.X2 emerged from B.102 - the latter building being situated immediately north of B.3. Both buildings are in the North area of the East mound and the close proximity of these two events indicates that the two material interactions took place in the same area of the neighbourhood and within living memory of the contemporary community.

Both U.8184.X4 and U.16308.X2 are very similar tools and were clearly placed in the burial directly after use; the powder pigment covers the tip of both tools and U. 16308.X2 was located with its tip directly in the substance. The bone tools are also shaped in a similar fashion - a long slim body with a pointed end. Both bone tools and pigment are likely to have been used for the same creative practice and part of that particular practice entailed the abandonment of still-useable tools in the burial context of both a child and an adult. The bone tool and pigment finds are examples of materials in-phenomena and the two entangled items may reveal a key Neolithic creative practice: body modification (an argument that I will develop below). Several examples of the pigment and bone pin phenomena have been found in burial contexts in B.60, B.114, B. 3, B.102, B.49, and B.77 (mainly in the North Area 4040).

The bone tool creates a very specific decoration - fine lines or small dots of pigment could be marked on the body of both the living and dead (see Figure 21 for an example). The marks could have been made by a 'ready made' object such as reed or stick. Instead, an animal's bone was carefully selected and crafted for the process. Çamurcuoğlu proposes that the pigment may have been used: "as facial or body paint, relating the specialty of these pigments with certain individuals or ritual events" (2015: 232). I will examine the relationship between the body and pigment in more detail in the next section.

5.4.2. Evidence of Neolithic Tattooing

In some communities (both past and present), such as the Steepe cultures of the Bronze Age (Shishlina *et al* 2013), or even the contemporary trend for ‘hand poked’ or ‘stick and poke’ tattoos in the UK and beyond, sharpened bone tools and pigment are used to tattoo the body. The location of the bone tool and pigment phenomena in burial contexts may indicate that people of Çatalhöyük also tattooed their bodies. During the tattooing process a sharpened bone tool (or blades/lithic flakes) is inserted (or hammered) into the skin and pigment rubbed directly into the open wound or embedded in the skin via the tip of the pointed tool (Womack 2010: 16; Shishlina *et al* 2013: 69-70; Deter-Wolf 2013: 16). Through this act pigment or charcoal ash colour becomes embedded in the skin. We are unlikely to find examples of tattooed skin at Çatalhöyük, however, there are a variety of ways we can deduce the practice from material remains and ethnographic analogy. Indeed, archaeologist Aaron Deter-Wolf argues that there are three main forms of archaeological evidence that can indicate tattoo practices; tattoos on human remains, iconographic representation and the tools used in the process (Deter-Wolf 2013: 15). Regarding the issue of tattoos on human remains, it is worth noting that contemporary research on ancient tattoos indicates that tattoos on the skin can be found on the bone beneath the tattooed area. Shishlina *et al* (2013), for example, discuss Bronze Age tattoos (2600 cal.BC.) where the drawings have transferred onto the bone after the disintegration of the skin (2013: 68). They also note that it is possible for drawings that are embedded in the skin to mark the bone during the tattoo-making process; certain areas of the body, such as the wrists, shins, fingers (phalangeal bones), and skull are particularly prone to this phenomena (Shishlina *et al* 2013: 70, 73; Zinkovsky and Petrenko 1987). Thus, these areas of the human remains may warrant further analysis at Çatalhöyük.

Some bone tools may have been used to pierce the flesh; perhaps the flesh of the dead body, the flesh of the individuals at the burial event, or both the living and dead as part of the burial event. Samadelli *et al* (2015) have argued that piercing the flesh may have been a medicinal process to alleviate pain; researchers examining the 61 tattoos found on ‘Ötzi’ the Tyrolean ‘iceman’ dated 5,300 years old, found that the tattoos were evident on joint areas where degeneration was occurring. These areas may have been painful for Ötzi and the technique of tattooing is hypothesised to have been used - similar to acupuncture procedures - to alleviate pain (Samadelli *et al* 2015). The connection between tattoos and healing is also raised in relation to the tattoos identified

in Bronze Age burials at Temrta III and Primorsky of the Caspian Sea maritime steppes and the Don Region. Researchers suggest that a tattoo found on the fractured leg of a male buried in Temrta III may be linked to a healing practice because it is located on the area of the fracture. They also note that the drawing depicts a snake, which they demonstrate, through ethnographic analogy, is an animal that has a history of use in healing practices, particularly in relation to the use of snake venom (Shishlina *et al* 2013: 67, 68, 71).

The presence of the bone tools in the burials signifies their role in the funerary process. Compared to the tips of some worked bone found in burial contexts, U.8184.X4 and U.16308.X2 are not as pointed, but the tips may have been broken whilst in use or intentionally broken before placement in the burial. It is worth noting that there are examples of bone tools whose use-wear indicates that they have been re-sharpened and ‘fixed’ and have been used to pierce leather and ‘other materials’ (Russell 2016: 126, 130). Examples of worked bone found nearby in Sp.279 Area 4040 are finely pointed and, had these items been found embedded in pigment, I would have argued that tattooing practices were being carried out at the Neolithic town. Bone tools U.12980.F3, U.13103.X1C, 13103.X14B, U.13167X12A (see Table 2 and 3) were also found in midden pits in Sp. 279; these worked bones have fine points ideal for perforation of the skin as well as soft leather and clay (Figure 22). However, whilst in circulation in the North area of the East mound, these bone pins did not end in a collaboration with pigment. Whether these bones were used to perforate the skin is debatable, however, they may have been used in another creative practice for a process that certainly evokes tattooing. Anthropomorphic figurines with perforations on the head region are discussed next.

There are some examples of anthropomorphic clay figurines (see Table 4) with numerous pin-prick holes on the head area (Meskell and Nakamura 2005); figurine U.5043.X1 and U.5021.D1 (both with marks on the scalp and ears) are examples of this type of decoration and both emerged from B.17 Level IX (Figure 23 and 24). The repeated puncturing on the flesh around the ears, onto the cheeks and on the top of the skull has been interpreted to indicate hair or decoration (Hamilton 2005; Meskell and Nakamura 2005: 177). The perforation of the scalp, cheeks and ears appears on several figurines, including: U.1664.X4 (Figure 25) from the 1996 excavations which has

punctured rows on the top and back of the head; U.2198.H1 found in 1997 with holes in the head region; and U.2739.H2 with perforations going across the head.

These perforations have been interpreted to have a functional use - to accommodate feathers and grasses that once in place would suggest hair or a head piece; illustrator John Swogger created a reconstruction of the figurine in response to the noticeable perforations on the anthropomorphic figurine U.5043.XI (Table 4, Figurine 3). His illustration shows feathers and grasses positioned inside the holes to give the appearance of a dramatic headpiece (Meskell and Nakamura 2005: 178).

Having explored the presence of pigment and bone tools in burials, and the ethnographic information about tattoo practices, the additional constructions of anthropomorphic figurines with perforations on the head - particularly forehead, cheek and scalp - could indicate that tattooing or scarification may have been practiced at Çatalhöyük. Using motifs described on the surface of the figurine to indicate human body modification and/or tattooing has been asserted elsewhere (such as Knapp and Meskell 1997; Bailey 2005: 162; Carter 2008; Broodbank 2000). Tattooing during the Neolithic is likely to involve the processes outlined earlier, however scarification would simply involve a sharp tool used to perforate the skin and encourage permanent markings on the skin through scar-tissue formation. There are several figurines that evidence perforation patterning on the face and head area. The examples that emerged during 1996, 1997 and 1999 seasons and those presented in the 2005 report would indicate that these tattoos or scarifications would occur around the ears near the cheeks and on the scalp of individuals (see Table 4).

The figurine U.5021.D1 (Table 4, Figurine 2) is described as anthropomorphic; the nostrils and eyes are clearly pin-pricked to demarcate the orifices; however, the same process has been used to create several pin-pricks on the outer area of the cheeks close to the ears. These too must indicate 'holes' in the skin and suggest scarification processes in particular or perhaps tattooing. In 2008 a further example was found, the clay head U.17804.H1 (Table 4, Figurine 1), measuring 9cm in height 6cm wide. It has four deep puncture marks going across the forehead - the piece is relatively big and the depth of the holes indicates a clear and purposeful creative action (Figures 26 and 27).

There are more pieces of archaeological evidence to support the idea that perforation of skin may have been practiced at the Neolithic town. A wall painting in Level III depicts a moving red individual holding a tool (shaped like a bow) in their right hand with a leopard skin falling lengthways (including the tail) across the groin area (Figure 28). Around the scalp a series of black dots appear to emanate from the head; this has been thought to represent the head piece made of the leopard skin. The dots around the scalp are reminiscent of the figurines that similarly have 'pin-pricking' across the same area, such as U.2739.H2 and U.5043.XI (Table 4, Figurine 6, Figurine 3). These dots are both smaller and a different shape to the spots depicted on the leopard skin loin cloth captured on the same image, which seems to bring in to question whether the two areas represent the same thing - the leopards spots.

The social connotations of the embodied relationship with pigment through the perforation of the body indicates the porosity of the boundary of the body, and the adaptation and transmutation of entities through these unique collaborations with pigment. Anthropologist Mari Womack (2010) explains that during Samoan rituals the tattooing process demonstrates the initiate's ability to endure "great pain" (Womack 2010: 16). By enduring the pain of the tattoo the individual acquires 'achieved' status (Womack 2010: 16). One might argue that it is the colour and pattern of the pigment embedded in the skin that recalls the tattooing event, and becomes a symbol of the achieved status. Equally, the presence of these items in burial contexts may indicate their use in the burial process. Womack's remarks regarding 'achieved status' could be relevant for Çatalhöyük; locating 'status' at the tell is difficult as every building seems to have a grain store and burials appear modestly uniform. Therefore, status may have been 'earned' in the community, and acknowledged and celebrated through colour on the body and pigment in the burial.

Archaeologist Louise Steel notes that such acts of personal adornment can be a form of expression that indicates "distinct social identities" (2013b: 59). Carter (2008) contends that the tools used in body modification should not be deemed 'passive' as they played a role in the 'political construct' of the social being (Carter 2008: 123-124). Carter (following Blacking 1977; Layton 1989; Gell 1993; Shilling 1993; Synott 1993), notes that "the body represents a fundamental medium through which a person might express kin, corporate identity, gender, personal experience, and status" (2008: 120). Thus, the

tools and materials represent ‘bodies of knowledge’ and are entangled with issues of procurement, ownership and manipulation (Carter 2008: 123).

On this matter, in this chapter it has been established that blue pigment is comparatively rare at the town; the two burials discussed earlier that included the blue pigment lump and bone tool may have been a remarkably generous gift from the community (or smaller group of individuals) to the interred individuals. The colourful burials - perhaps the bluer the burial - may have revealed the extent of the social loss for those who were present at the burial (cf. Mellaart 1964: 94, discussed further in section 5.4.3.).

At the town we have numerous examples where pigment - particularly red ochre - and the body are entangled in creatively realised expressions. However, it is suggested here that there is potential evidence to suggest that bone tools (often found in contexts with pigment) may have had a further function - to perforate the skin. The current practice of washing artefacts via the flotation system (the excavation database states materials are washed before being sent to specialists) means that we are reliant on the excavators responding to pigment on bone tools at the trowel’s edge - and the excavation diaries and reports (the presence of bone tools with pigments such as Table 2, Bone Tool 1 and 2) indicates that they do. Short of finding a mummified body with skin intact, there are other methods of locating pigment on skin. Inorganic paints, like cinnabar, blue azurite and red ochre would remain whilst the flesh decays (Andrews *et al* 2005: 277). Human remains specialists carrying out research at the tell state: “Red ochre, applied either to the skin or on a headband can survive on the bone, usually around the brow and face after the decay of soft tissues” (Andrews *et al* 2005: 277). Equally, there is archaeological evidence to support the possibility that during tissue decay drawings from the skin can be transferred to the bone (Shishlina *et al* 2013: 73). Therefore, when we see pigment in burials it is worth considering whether some pigments were placed on or embedded in the skin.

Tattooing cannot yet be positively confirmed at Çatalhöyük; however, what evidence does exist points towards a high likelihood for tattooing to have been practiced at key moments at the town. There are a number of objects that collectively are the makings of a ‘tattoo toolkit’ (Deter-Wolf 2013: 17), such as the sharpened bone tools, lithic flakes, pigments, the bone tool and pigment phenomena, and processing tools such as palettes. Equally, the perforated figurines offer process-related evidence through the act of

making that evidently involved pin-pricking the facial and head region. Both these examples and the figurine with red painted markings on the body (Figure 3), provide iconographic and cultural support for the practice. Continuing with pigments as process; the analysis of pigments placed and/or painted onto skeletal human remains is explored next.

5.4.3. Pigment in Burial Contexts

Mellaart suggested that colour-use may have represented members of different status groups by indicating that the green and blue pigment burials had more grave goods than the ochre burials; but he concedes that neither were particularly ‘luxurious’ or ‘princely’ (1964: 94). However, rather than examining the relationships between status groups and pigment use, I instead explore the unique interactions with colourful substances and contextualise pigments with other items located in the creative events.

Sometimes pigment is applied purposefully to the skeleton itself. The female 8598 (B. 114 Sp. 87) emerged with a brightly stained red cranium and vertebrae (Figure 29), with a neonate (Sk.8596) placed in a basket with a lid was found at her feet (Tung 2012: 20). The excavation report describes the individuals as “facing each other” and that the bones were “covered” in red ochre (Tung 2012: 20). The individual is tightly flexed and appears to be undisturbed. As her bones were uniformly covered in the red stain it seems likely that when the fleshy body was originally buried, a large amount of red ochre pigment was included across her body in the grave fill and over time these have stained the bones the red colour that now appears uniformly applied. The application of paint to a skeleton has also been located on a skull found in the 1960s excavations (Figure 30). The purposefully applied red paint indicates a clear moment when the painters applied the pigment to their dead kin. A female individual from EVI, 20 was also found with cinnabar painted across the surface of her skull (1964: 93). In Shrine EIX, I, a teenage girl was covered in red ochre except for her skull, which was coated with cinnabar paint (1964: 93). Another infant burial, U. 4406.X.1, found in B.6 Sp.163 Level VIII, with blue stone and bone bracelets was sprinkled with red ochre in the burial; the pigment was applied to the body and appears to be part of the burial process. These individual events suggest that pigment use in burial contexts was purposeful and distinctive interactions with pigment were in action. In the case of the individual found in EVI,20 the presence of two pigments on one body appears particularly significant,

and more research is needed on distinctive use of mineral pigments and whether a link can be made between movement between ‘ferric’ (local) and ‘allochthonous’ (non-local) materials. All these individual events demonstrate pigment-related phenomena that reveal the potentialities and restrictions of colour-use at the town.

5.5.0. Vital Materials: Pigment

5.5.1. Healing Pigment

There are several reasons why pigment was applied or dedicated to the body of the deceased. Once the individual has died the body goes through a series of transformations from the fleshy body to cold bones; members of the Neolithic community at the town would have been aware of these transformations as disturbances of burials appears to be a general practice (Boz and Hager 2014: 17). Certain contemporary communities associate paint (particularly body-painting) with medicinal practices. For example medical Anthropologist Fayers-Kerr has carried out research into the medicinal uses of pigment by the *Mun* community who live in southwest Ethiopia. According to Fayers-Kerr, body painting is practiced to treat and prevent illness (2012: 248). During her research she was told by the community “when one anoints with clay, disease will end, for disease is afraid of clay” (2012: 248). Importantly, Fayers-Kerr observed that the addition of clays on the body provided protection against the sun when out in the landscape working with the cattle (2012: 250). Equally, clays (along with ash and dung) played a vital role in healing processes, they were used as absorbent materials “that disperse malevolent forces that have gathered in the body” (2012: 250). Thus, body painting was more than an aesthetic venture, and instead the earth was used to clean, absorb and disguise (2012: 250).

Figurines with demonstrable body-painting have been located at the town, and the use of pigment and paint on the body appears to be practiced both on the living and the dead. A figurine found in Shrine VI A.61 (height 4.1 cm) has clear red pigment markings going across the body on the shins, shoulders, breasts and forearms (Figure 3). Figurine (12401.X7) was found in the “ashy area” of Sp.252 (Meskell and Nakamura 2005: 161); the figurine captures the female body transforming from living to dead as a partially enflashed female skeleton; the front of the figurine is fleshy and rotund, whilst the rear depicts a skeletal back and prominent hip bones and shoulder blades (Figure

31). The figurine may be of a pregnant female due to the addition of breasts and the presence of an umbilical hernia (Meskell and Nakamura 2005: 168). The body of the figurine (U.12401.X7) has evidence of plastering and painting, with red paint used on certain parts such as the wrists, neck and between the breasts (Meskell and Nakamura 2005: 168). In the context of the wall paintings there appears to be bodies painted in different colours; in both the wall painting of a stag hunt and the bull hunt both designs include red and black figures (Mellaart 1962). Evidently, at Çatalhöyük colour was used on both the living and dead, but it is the careful placement of colour - such as the green pigment on the pregnant belly of a female burial (see section 5.4.1.) or on the patterns placed across the living body that suggests momentary use of colour was incorporated into a range of social practices.

5.5.2. Relationships with Powerful Substances

All these interactions involve at least one agent touching pigment or being touched by pigment (for example, being touched by a hand covered in pigment). The application of pigment and paint in this way reveals a particular relationship with the substances, one that centres on an action which brings the colour close to human skin. Pigments are often made from different types of earth, and the source of the pigment could be as integral to its significance as the actual colour. Fayers-Kerr explains that in the case of the *Mun* community there is a blurring of persons, substance and place she refers to this as “consubstantiality” (2012: 275).

One of her observations included an instance when a man called Kuturameri took her to Horone and on arrival dipped his hands into the yellow-orange soil and rubbed the pigment into his scalp (2012: 272). Fayers-Kerr argued that the earthy substances call or ‘beckon’ (2012: 272) to persons, and the process of applying the colourful soil reacquaints the body with the area, thus “blurring the boundary between [the self] and the earth” (2012: 274). To explain this interaction further, Fayers-Kerr shared another experience, an occasion when she was taken by a young Juhai-Gunaseno man named Ulilu to Chollo. She noted that he had taken with him some black clay from a former visit and that this was “in case the clay in the river bed did not ‘recognise’ him” (2012: 276). Through conversations Fayers-Kerr found that the clay had the power to cause Ulilu an affliction; as a member of a ritual family who acted as custodians to the area, it was important to establish his relationship (2012: 276). In this scenario, we might think

of how the visit is informed by past relationships (retentions) and the desire to sustain good relationships for the future (protections).

5.5.3. The Toxic Pigment

The cinnabar pigment used at Çatalhöyük was procured and ground to create powder. Pigments have been found in burial contexts or mixed into paint and applied to surfaces in the *sui generis* houses (such as B.80, B77, B.49; discussed in Chapter 6); however, there is an example of a mineral ore currently on display at the Konya Museum (Figure 15). It is suggested here that the stone photographed on top of the palette is a raw mineral ore that could be either haematite or cinnabar. The existence of such objects indicates that pieces were taken from the source, were portable in size, and potentially worked on and transformed back at the town. It is worth imagining the trip to the sources, for example: cinnabar emerges in areas that have recently experienced volcanic activity or are located near hot springs (see section 5.3.3. for details of this process). Seeing the pigments, particularly the red ‘veins’ of cinnabar running through the rocks, must have been a fascinating sight to behold. Not only because of the aesthetics of the stark contrast of the cinnabar against the rock, but also because such sights were rare due to the environmental conditions involved in its formation. Therefore, cinnabar is not as abundant as red ochre (Carter 2008).

However, unlike ochre, cinnabar is a toxic material that can be extremely damaging to those who collaborate with the substance. Cinnabar is easy to grind, with a ‘Mohs hardness’⁸ of 2 to 2.5⁹ (Rapp 2009: 180), thus it can be collected and ground into pigment with relative ease. The mineral itself can refract light and is described as having a fine ‘luster’ (Bowen 1962: 31). Scientific research into the toxicity of cinnabar carried out by Chun-Fa Huang *et al* (2012) found that cinnabar is a neuro-toxic that can effect the auditory system. These studies were carried out on mice and the research found that both high and low level doses of mercury (via interactions with cinnabar) can cause “neurobehavioral abnormalities” and also that: “mercury could be transferred to the foetus through the placenta and to new born offspring through maternal milk” (Chun-Fa Huang *et al* 2012). Whilst we know through material engagements in

⁸ Mohs hardness is the scale used to measure the hardness of minerals. The scale was developed by Friedrich Mohs. <http://geology.com/minerals/cinnabar.shtml> accessed 24.11.15

⁹ These figures indicate that cinnabar is not a particularly hard mineral and can be easily ground. <http://geology.com/minerals/cinnabar.shtml> accessed 24.11.15

the archaeological record that cinnabar was used in burial contexts and in wall paintings (and perhaps also in body-painting practices) a major question arises as to whether these practices lead to ill-health due to mercury poisoning, and if so, how might this be detected within the archaeological record. Emslie *et al* (2015) investigated human remains from three Late Neolithic/Chalcolithic sites to detect “chronic mercury exposure” (2015). They explain that cinnabar could enter the body through application to skin, inhalation whilst grinding the pigments, and ingestion (accidental or deliberate). On this last point, cinnabar is still used in Chinese medicine today, and a study carried out by Liu *et al* 2008 argued that, when taken orally, cinnabar has a “relatively low level toxic potential” (Liu *et al* 2008: 810). Research into the pharmacological aspects of the mineral when consumed revealed that it has both sedative and ‘hypnotic effects’ (Liu *et al* 2008: 810). Heating the mineral, as seen in the mercury extraction process, releases poisonous vapours which: “can cause immediate effects, including death” (Emslie *et al* 2015).

Cinnabar need only be ‘overheated’ for mercury vapours to be released (Liu *et al* 2008: 810-12) - thus, heat application in the painting process needs to be carefully considered. Emslie *et al* reveal that research using bones as ‘biomarkers’ for mercury ‘exposure’ are rare - the mineral tends to collect first in soft tissue in the body. However, using data from postmortem contexts, they argue that “the levels of THg [mercury] we observed in archaeological human bone would correspond with levels at least 5–10 times higher in the corresponding soft tissues. A human bone with $>10 \mu\text{g/g}$ THg¹⁰ likely represents a severe and chronic exposure that affected health and mortality” (Emslie *et al* 2015, sec. 6, para. 3). Thus, where traces of mercury are found in the bone, the presence of mercury in the soft tissue of the body is anticipated to be much higher.

When attempting to piece together the kind of physical impact interactions with mercury can have on the body, we could look to research examining mercury poisoning in mining communities in the Andes from pre-Hispanic times in Huancavelica, Peru. The area was mined for 500 years, the mines closed 30 years ago, but small scale mining still continues (Lombardi *et al* 2012). During the colonial era in Huancavelica, production processes were particularly damaging to the health of the miners. In a bid to optimise production, workers were encouraged to open the doors and reload the ovens

¹⁰ This microgram unit indicates the amount of mercury in the bone. 1 microgram = 0.0000010 g.

before they had cooled down a consequence of this practice was exposure to potentially lethal levels of mercury vapours (Lombardi *et al* 2012). Symptoms of mercury poisoning include: “[w]eight loss, tremors, excessive salivation, ulcers of the mouth, restlessness, anaemia, and eventually severe depression” (Lombardi *et al* 2012). Liu *et al* reported: “Inhalation of mercury vapor produces acute corrosive bronchitis and interstitial pneumonitis and, if not fatal, may be associated with central nervous system effects such as tremor or increased excitability” (2008: 810-17).

Whilst we know that the painters of Çatalhöyük often used cinnabar, whether heat was used in the process is still inconclusive (Çamurcuoğlu 2015: 230). Nonetheless, repeated exposure to the toxin would yield certain symptoms and illnesses, and these would be amplified when applied directly to the skin or inhaled. As we have instances where the figurines have been painted with patterns made from paint (Figure 3 and 31) and we know that cinnabar was being used in the painting practice, it is likely that some of the residents, particularly those who interacted with the substance physically, may have become ill or otherwise negatively affected through their creative practice. Those responsible for grinding the cinnabar would be exposed to toxic dust as would those who placed the pure pigment in burials or slept in the buildings whilst the walls were painted with cinnabar. In Chapter 6 *Making and Applying Colourful Substances* I will discuss the *San* and their special paint *quang quang* which is a glistening red pigment, the paint made by mixing the ground pigment with animal blood and heating the mixture on a fire during a full moon. For now, the *San* are briefly mentioned primarily to spotlight their use of heat in the creation of paint; if the people of Çatalhöyük similarly incorporated heat into the process of making paint, many members of the community could become quite unwell (perhaps fatally).

5.6.0. Transmutation: Transforming Pigments

5.6.1 Heating Raw Materials

The presence of mercury sulfide (cinnabar), and the potential of the substance to transform dramatically when placed under immense heat (transforming to mercury), raises the question whether there are any indicators of heat being used in creative practices and if indeed there is metal present at the site. The excavation has yielded some examples of native copper being formed into items that would be worn on the

body. In 2003 “a solid and well made copper armlet encompassing the lower left humerus” of skeleton [7557] was found (excavation diary entry: Jon Sygrave 22.07.2003). The object was found in F.1202 - a mass burial in the north east area of the site believed to be late Neolithic or early Chalcolithic. Mellaart also identified a lead bead and pendant in level IX (Mellaart 1964: 111, 114). Examples of Neolithic copper have been found - including the copper bead which ‘fell out’ of a speleothem during Moyes examination. A key question regarding these objects is whether they were produced via smelting technologies.

Three copper-based objects have been retrieved from the town and considered in depth by Birch *et al* (2013); their discussion centres on extraction processes and whether mineral ores were smelted to attain these metals (Birch *et al* 2013: 307). The analysis of heat application is relevant to this argument as the adoption of a smelting process would indicate creative interactions between mineral ores and heat - a creative process that may have been applied to other minerals, including cinnabar. Currently, the method for differentiating between native and smelted copper is through the analysis of the trace elements also present in the metal finds to detect the purity of the metal (Birch *et al* 2013: 315). The three pieces analysed were found to contain a very high level of pure copper, “99.9 percent Cu” (Birch *et al* 2013: 315) and no cobalt, nickel, lead and so on; therefore, these pieces are made from native copper that has been crafted through hammering, rolling, and cutting (Birch *et al* 2013: 308). Heat may have been applied to ease rolling but no other substances were incorporated into the copper via heat. A “partially vitrified ore” has been found (Birch *et al* 2013: 308), the presence of a vitrification process indicates the material had experienced intense heat, although this is likely to have just occurred due to a suspected house-closure ritual that involved conflagration; researchers comment that if houses were intentionally burnt the ‘act of destruction and closure may not just mark the rebirth of a new building, but potentially the creation of new materials, too’ (Birch *et al* 2013: 315). Researchers note that there is an abundance of native copper sources in Anatolia (Birch *et al* 2013: 308-309); this begs the question why the material appears comparatively rarely during the occupation of the town.

Çamurcuoğlu (2015) researched different pigment samples from the town to establish whether processes in the production of pigments had altered during the history of

occupation; she suggests that there may be some instances where heat was applied to the pigments (2015: 230, 250). Table 6.3. and 6.4. in her thesis indicate that red ochre samples taken from B.47 and B.49 may have been treated with heat, though she argues that the evidence is not conclusive (2015: 230-231). Indeed, she identifies heat treatment of red ochres as an important area for future research (2015: 251).

Martin-Gil *et al* note that cinnabar blackens when exposed to light or to temperatures above 260 °C, but fine grinding and washing the pigment creates the bright orangey-red rather than brownish-red, thus the characteristics of the pigment located at Çatalhöyük can yield a wealth of information about former human-material interactions (Martin-Gil *et al* 1995: 761). The cinnabar pigment is prepared by grinding the substance, this is an important process in the production of the pigment as the grinding directly impacts on the quality of the colour. Regarding exposure to heat, it is possible to test whether pigments have been exposed to high temperatures by subjecting samples to heat and examining whether the thermal effects occur (Martin-Gil *et al* 1995: 759). As discussed in section 5.5.3. there are important repercussions for both individuals and community if cinnabar is heated; as not only the pigment is physically transformed during the process, but also the human entities who engage with it.

5.6.2. Transmutation

Anthropologist Michael Taussig notes that colour “makes one think of stories of transmutation of form into substance and of substance into flows” (2004: 26). Taussig’s reference to the act of ‘transmutation’ is a useful word to think through the role of pigment at Çatalhöyük. Pigment has the capacity to change surfaces and through its application and use the substance too is changed. Many of the examples outlined in this chapter have illustrated processes of transmutation, such as the bone tools and pigment phenomena that were used to alter surfaces, perhaps walls, skins, or bones. Also, the colourful light-refracting speleothems and obsidian. These materials are ‘lively matter’ that visually transform when in intra-action with light (Bennett 2010a: 122). The analysis of the processes, movements, and agencies provides examples of transforming materials, and it is through making and vital materialisms that the processes and potentialities of these material phenomena become clearer.

However, on the subject of transmutation, there is one final point regarding cinnabar pigment, and this is related to both the issue of transformation and inertia, as cinnabar can preserve bones (Martin-Gil *et al* 1995: 759; Brenner 2014: 317). Brenner explains the embalming effect red mercuric sulphide has on the skeleton, and notes the composition of cinnabar is similar to preparations used in technical embalming (Brenner 2014: 317). He refers to the work of Martin Gil *et al* (1995) at a Neolithic dolmenic burial 'La Velilla' in Osorno, Spain, where hundreds of kilograms of 'pulverized' red cinnabar was used in the burial of up to 100 individuals (Brenner 2014: 317; Martin-Gil *et al* 1995: 760-61). The mercuric content of cinnabar prevents fungi or microorganisms interacting with the bones (Martin-Gil *et al* 1995: 760), and due to the amount used in the La Velilla burial context, along with the fact it is an allochthonous mineral in the area, Martin-Gil *et al* argue it is possible that cinnabar was intentionally used to preserve the human remains (1995: 759). Thus, whilst the pigment visually transforms the human remains it also interrupts the flow of decay and holds the bones of the human body at a different rate of decomposition to untreated bones; this nuance reveals the potency of these vital materials to interrupt the processes of the body after death. Equally, the intentionality behind the use of cinnabar in burials in relation to preservation is worth further consideration.

Pigment, therefore, was a powerful material whose agency consistently emerges in a variety of phenomena at the town (such wall paintings, body paintings, burials, and dedications). Tools were made to aid the use of the pigment, and animal bones, for example, were shaped specifically to be used in conjunction with the substance. The analysis of unique intra-actions with pigments as processes rather than products indicates that pigment was a crucial expressive tool for the Neolithic community.

In section 3.3.2. I raised Karen Barad's question: [How does] matter make itself felt? (2003: 810). In the case of Çatalhöyük, colourful pigment matter was felt and seen, it touched and coloured the body and blurred the line between the living and dead, perhaps joining the two entities during the burial events. Colourful substances may have protected, some may even have preserved the skeletons (section 5.6.2.). Colourful pigment may have even provided a sedative, even hypnotic effect in those who interacted with the substance. It also acted as a visual marker - a heightened visual and

haptic experience that ended and closed when the burials were filled in and plastered over. The source of the cinnabar was a long distance away, and its appearance in the caves and areas of volcanic activity must have been a striking visual experience, especially if we consider that cinnabar coats the walls of areas where it first forms and is often accompanied by other minerals like quartz and fluorite (see section 5.3.3.). For the people of Çatalhöyük these were allochthonous materials, non-local materials that were brought from afar, and the procurement and emergence of cinnabar in a range of creative practices at the town suggests that this unique material was held in high esteem. The more time human agents work the cinnabar matter, the finer the powder, the brighter the colour, and the longer the exposure to the substance. The capacities of the material - healing, preserving, toxic, mind altering - highlight a particular orientation of the Çatalhöyük sensory profile; the vermilion colour of cinnabar was far more than a method of mark-making a surface. The orangey-red colour contemporary excavators observe, sometimes with the aid of a Munsell chart, is a single property of a multifaceted vital material.

5.7.0. Conclusion

This chapter has focused on the intricate ways pigment has been incorporated into creative practices at the town, the examples referenced in this chapter have focused on pigments that were collected, ground and then incorporated into an event. The opening chapter of my thesis presented the unique way I intended to approach material intra-action: agency and vitality were presented as cornerstones to the theoretical analysis of the material culture at Çatalhöyük. By presenting materials as processes and not products, some of the movements and actions of the agents of the past have been revealed.

Speleothems emerge during a particular phase in the occupation of the mound, from Level VI - Level I, and according to Hodder these levels are synthesised to 6500 BC - 6000 BC (Hodder 2016: 29). Speleothems are lively materials always ready to interact with light. At Çatalhöyük they emerge in very specific contexts, and the fact that there are currently 25 samples indicates that access to this type of material was limited and/or restricted. This may have been in part due to the accessibility of the sources of these

items (distances were discussed in section 5.2.1.). There also may have been growing restrictions regarding materials and use. The fact remains that bringing a light-refracting object into a place of darkness and, perhaps storing them in darkened areas such as an alcove/niche (Moyes 2014; section 5.2.1.), firstly mirrors the caves: the environment in which they were found (as Lewis-Williams suggests and I discussed section 5.2.2.), and secondly allows human agents to control the light-speleothem phenomena. Unlike the similar storing of obsidian in caches by the hearth, it is noteworthy that speleothems are so few in numbers, and yet some samples are particularly spectacular, such as U.11904 weighing 2.3kg (section 5.2.1). This was a limited resource, and we might consider that within the community speleothems were premium materials too, especially if we think of the examples Mellaart (1964) found and how there were central to the closure of the ‘Leopard Shrine’ (section 5.2.1.).

The inclusion of pigment and bone tool phenomena in burials mid-action indicates that these phenomena were used during the burial process. The pigment and bone tool may have been used to mark the skin either permanently or temporarily. This phenomena has been found in both adult and baby burials. Had these tools only been found in adult burials, it could have been argued that these were emblems of achieved status, however, the presence in a baby burial indicates that certain lineages were in-action and that persons may have been born into unique groups. Or certain roles were assigned at birth. Either way, these objects are tools that can mark the body, and therefore can be utilised in the expression of social differentiation. The cluster of examples located in the Area 4040 around Level G c.6500 BC indicate that these practices were flourishing during a time when potential ruptures in the community are indicated by a peak in population density, fertility and physical stress and disease (Hodder 2016: 33). With more people and perhaps greater strain on resources, this was a community under great pressure, and it is around this time material engagements with the tools of social differentiation such as the pigment and bone tool phenomena emerge.

The processes laid out in this chapter are different to those that will be explored in later chapters which focus on making (collisions between persons and substances); here the presence of ‘unadulterated’ matter in the archaeological record indicates some of the unique sensory and cultural proclivities of Çatalhöyük. Those members of the

community who had access to the buildings and the power to ‘close’ buildings chose to incorporate speleothems in the organisation and expression of this event (for more on ‘house closure’ events see section 1.4.3.). Speleothems, along with the repeated presence of obsidian, and the presence of red sparkling paint (which I discuss in section 6.5.2.), indicate that materials which interacted with light were highly desirable. The movement between ‘ferric’ and ‘allochthonous’ materials is particularly intriguing. Interactions with cinnabar and red ochre pigments would yield different effects on entities that engaged with them and it appears they were used distinctly. Thus, the people of Çatalhöyük had a sensory sensitivity to the colour red, and the subtle distinction between red ochre and cinnabar was clearly socially significant. We might remember the distinct way red ochre and cinnabar were used in a burial in EIX, I, where a teenage female who was covered in red ochre except for her skull, which was coated with cinnabar paint (1964: 93). Nonetheless, whilst colours and pigments were important, they were not hoarded and retained for other creative endeavours but (often) given to the dead.

At primary school in the UK we were taught the colours of the rainbow, red, orange, yellow and so on. We also had access to these colours in boxes of wax crayons. Through the analysis of pigments present in the archaeological data at the town and also the particular uses of these pigments, it would seem that for the people of Çatalhöyük, this rainbow would look slightly different. The red section would have at least two reds - a red-brown (ochre) and an orange-red (cinnabar) - and the orange-red would be less accessible than the red-brown. A further sparkly-red is likely to have been included. Unlike the endless supply of crayons at primary schools in the UK - a place where colour simply emerges for consumption - these colours would be intrinsically linked to a source which could be either persons (who have procured the substance) or a place. Undoubtedly there would be stories surrounding the procurement of these reds; thus, the actual sources of the Çatalhöyük colour spectrum has significant meaning as well as the colours themselves. Fayers-Kerr’s notion of consubstantiality and her research with the *Mun* asserts this point and the potentiality of meanings that could be ascribed to the source of the substance (2012: 275).

Colour may even have been used to distinguish individuals as part of certain groups. The example in B.77 includes a bone tool with yellow pigment, whereas B.3, B.102, and B.49 had the blue/green pigment and bone tool. B.49 included an infant burial with rich offerings; these included a copper tube necklace (U.17457), blue/green pigment and bone tool phenomena, and yellow pigment and shell. The examples I am particularly referencing here are those that were found specifically with the bone pin embedded in the pigment, although there are other examples where the bone tool and pigment are present in the burials, but not mid-action. The presence of this rich baby burial in the house is significant, particularly due to the addition of one of the few copper specimens, and the social differentiation these different grave goods imply. I will return to this topic in Chapter 8 where I will discuss social stratification, communities of practice, and egalitarianism.

Hamilakis argued that the senses are embedded in matter (2013: 5-6), but as we can see from the toxicity of cinnabar, the senses can be shaped and impaired by intra-actions with matter too. The fumes from painting with cinnabar could temporarily alter the senses of those engaged with the substance and long-term exposure could cause adverse health effects, such as hearing loss and tremors. Having explored the potential toxicity of cinnabar, it is also important to recognise that it can also act as a sedative and/or hypnotic (I will explore this point further in Chapter 6). The next chapter explores the wall painting practice as a process of making, and the sensorial experiences generated when making and applying colourful substances.

Chapter 6 Making and Applying Colourful Substances

6.1.0. Introduction

Engaging with colourful substances can be a sensorially activating experience, and it is these colourful events at Çatalhöyük that are unpicked and investigated in this chapter. The analysis of making highlights engagements between humans and substances, and it is argued here that colourful substances can yield sensuous experiences for human agents. Colourful substances, both pigment and fluid, encourage inter-sensorial responses from human agents. Colour can be seen, powder or fluid can be felt, and the smell of the substance can become more pronounced and nuanced when pigment is mixed with a fluid to create paint.

As explained in section 4.7.0., the senses are embedded in matter (Hamilakis 2013), sensory preferences can be detected from material residues, and it is possible to construct sensory profiles from the remains of material interactions. In this Chapter, I focus on colourful substances as their inherent properties are pronounced in the archaeological record. To explain this point, when researcher Colleen Morgan asked members of the excavation team what colours came to mind when they thought of Çatalhöyük they often replied ‘beige’ or ‘brown’ (Tringham 2012: 537). I too, when faced with the excavation, saw an endless mass of beige dust; a yellow-ochre coloured substance that worked its way over my shoes and up my trouser legs as I scuffled behind Mustafa Tokyağsun, who kindly guided me around the site. I contend that in a world of beige the sight of ground azurite blue pigment becomes a significant sign of definitive human and material engagement (Figure 32). It is for this very reason that colourful substances are considered here alongside the fact that colour regularly appears at Çatalhöyük. For the excavators at Çatalhöyük, the presence of colourful substances emerging beneath the trowel’s edge indicates a distinctive substance that needs to be recorded, and, as we saw in section 5.3.0. colourful pigments for the people of Çatalhöyük were a key component to many of their creative practices. Chapter 5 indicated that colours were used and valued in distinctive ways, and that cinnabar pigments and paints would have had a physical impact on the health and well-being of the individuals who collaborated with the substance. Thus, the analysis of specific intra-actions with colour suggests that certain colours were socially sanctioned and embedded

with socio-cultural meanings. With these thoughts in mind, let us explore the material remains of intra-actions with colourful substances at Çatalhöyük.

6.2.0. Mistake-making

6.2.1. Analysing a Neolithic Paint Spill

Considering that colourful substances were used to make some of the earliest and certainly the most extensive portfolio of wall paintings in the Neolithic, this chapter begins rather modestly with the consideration of U.20079, a paint-spill (Figure 33) on platform F.3440 at the foot of a geometric wall painting in B.80 (Figure 34). The painting is described as ‘geometric’ as it is predominately a red line painting of rectangles and vertical lines that appears pattern-like. The painting could also be described as ‘abstract’ as there is no reference to anything figurative, but geometric seems more appropriate as it brings to mind lines and angles, and these are the key thematic elements of the image. For the vital materialist, the evidence of this particular paint spill yields useful information about the painting practice at the Neolithic tell. Firstly, the paint-spill U.20079 is roughly 10cm in diameter, the size indicates that a reasonable amount of paint was mixed before painting. James Mellaart found freshwater mussel shells containing lumps of green and red pigment in the first year of excavation (Mellaart 1962: 56; Stevanovic and Tringham 2001 found a shell covered in cinnabar with a yellow substance inside), this might encourage us to imagine the painter mixing and using small amounts of paint - under a teaspoon at a time (Figure 19). However, the addition of large panels of painted red walls in B.59 (Figure 35) seems to contradict the delicacy implied by the mussel shell method; instead it is suggested here that reasonably large amounts of paint were mixed in advance, and the evidence of paint-spills (such as U.20079) are indicative of the amount of substance the painter had upon them at a single time. The spill indicates that the paint was held in a fixed form like a pot that could carry the fluid in the hand. An example of a Neolithic pot found at the site is currently on display at the Konya Museum and is provided here as an example of the kind of shape that these painting pots may have been (Figure 36; also see Mellaart 1967: Fig. 109-112). Figure 36 depicts an object that has the additional feature of a curved bottom - this design indicates that it was not a piece that would sit unaided on a surface but would instead sit comfortably in the hand.

The paint-spill is one of the few material interactions at the settlement that we can categorically state is a creative mistake by an agent in the past. Section 4.4.3.

highlighted Marchand's research into craftwork as problem-solving and revealed that making mistakes is an inherent part of any making experience. Here it is suggested that evidence of a paint-spill at Çatalhöyük is a 'rupture in the flow' of making (Marchand 2014: 1). Once mistakes are made, the maker has two options: to eliminate or integrate the error (Marchand 2014: 3). In the instance of the paint-spill in B.80 the stain was covered with plaster (U.20029).

In light of the paint spill we can refine our understanding of the painting practice at the town in terms of tools used to create the imagery. There are various tools that are found in association with pigment, and it is suggested here that tools such as the bone pin in pigment and the mussel shells with pigment are more likely to have been used in body-painting, figurine painting, bead painting, or adding final details on the wall paintings like the black dots on a leopard skin. However, larger, hand-held pots of paint were used when creating wall paintings like the one present in B.80. The paint spill creates a dynamic shift in the variety of gestures carried out by the painter, as it indicates that they carried a sizeable amount of paint on their person. The speed a brush can move across a surface when loaded with paint is different to the slow pensive 'dabbing' that might be achieved from the smaller amount of paint distributed onto the brush from a mussel shell pigment pot. As the painting practice seems to have certain restrictions, for example pottery should not be painted (Hodder 2016: 38), and wall paintings were only on show for a limited period of time, it seems likely that the painting practice was perhaps an activity that was accompanied by certain socio-cultural pressures. Paint was a limited resource with restricted use, a powerful and potentially esoteric substance, therefore the paint-spill must have created a moment of real tension when it occurred within the building.

6.3.0. Making with Plaster

6.3.1. Making Plaster

Before the paint-spill, the plaster had been applied to prepare the area for painting. Recipes for plasters and brick composition vary between buildings, both products of human endeavour would have been created outside of the domestic setting. It is suggested that extraction of lime rich marl and the heating process involved in making lime plaster occurred on the edge of the mound (Mills 2014: 152; Hodder 2012a: 304). The mudbricks would require the sun to dry and the noxious and potentially toxic gases released during the plaster-making process would have meant mixing the substance would have taken place outside. Thus, mudbricks could have been handled and left to dry with relative ease, but mixing the plaster would require ventilation and a certain distance between the body and the substance during the mixing process when the gases were released. Both practices are likely to be community projects as people would need to function as a team during such complex creative endeavours. We might consider how such engagements can inform group dynamics by creating the social bond or moments of joy (section 4.2.2. and 4.3.4.), they can also offer moments where sensory profiles can be adapted through the making process (section 4.6.2.). Creative practices can also generate and transmit different types of knowledge between practitioners (section 4.5.2.).

Plaster-making, for example, is a challenging process and coating house-size spaces with plaster would require several people. According to Gordon Thomas lime plaster-making is a complex process which “requires a specific cycle of manufacture” (2010: 117). The mixture of limestone and pure calcium carbonate needs to reach temperatures of 800-900 centigrade which creates a powder called quick lime (Thomas 2010: 17-18). When water is introduced to the powder and creates a violent chemical reaction which “gives off a tremendous amount heat and smell” (Thomas 2010: 118). Thus, whilst the stench of the gases is no longer present, it should be spotlighted and recorded as a key component and a sensorially stimulating aspect of the plaster-making experience.

The lime putty can be ‘slacked’ for weeks: when it is used and exposed to the air, water dries out of the product and carbon dioxide is reabsorbed; this process creates “a strong durable plaster with chemical characteristics and properties similar to the original limestone” (Thomas, 2010: 118). This is the process in which lime plaster is made, the inclusion of other materials such as animal hair or gravel could strengthen the lime

plaster (2010: 118), and it would be the addition of these materials that would indicate that there were different ‘recipes’ or compositions. Thomas notes that if calcination at the burning phase is not complete, then these products would be found in the plaster (Thomas 2010: 118). The subtle inconsistencies between the different plaster would not necessarily be overtly apparent to the viewer.

However, nuances in the contents of plaster and marl compositions have been identified at the Neolithic town (Matthews *et al* 1996; Hodder and Cessford 2004: 25; Çamurcuoğlu and Siddall 2016: 485). Other than the heat achieved during the making process (Thomas 2010: 118), there are several other reasons why the compositions of the plasters can differ under the microscope, for example the residues of the activities taking place in the building can become incorporated into or found on the plaster floors (Hodder and Cessford 2004: 25). Indeed, Hodder and Cessford argue that some of the materials found in plaster compositions are simply the “background noise” of construction processes, and do not necessarily reflect activities taking place inside the building (2004: 25). However, there appears to be a clear distinction between lime plaster use and marl; the latter is often used as the first layer, and then subsequent layers are the thinner, whiter lime plaster (Matthews 2005b: 366, Matthews *et al* 1996); Çamurcuoğlu and Siddall 2016). Once the plaster was made, it would be brought inside and applied to the walls. In section 2.6.1. I discussed the consistencies in plaster-making practices at Çatalhöyük and some of the pragmatic reasons behind the use of the substance, such as: plaster acts as a flame retardant (Ganis 2012), and plaster was used to fix walls due to potential cracking from the changing moisture levels of mudbricks (Hodder 2016). Joanne Clarke notes that plaster acts as an antiseptic, and thus seals and renews the internal structures of the house after a burial (2012: 7). She argues that plaster is a versatile material, whose “whiteness, purity, plasticity and antiseptis would have made it a natural choice for decorating” (2012: 7). I will return to plaster in section 7.2.1. and discuss the transformative properties of white plaster. Next I detail an experimental exercise (see section 1.8.2. for the reasoning behind this event) that provided an auto-ethnographic experience of making a plaster wall.

6.3.2. Making a Plaster Wall

Inspired by Marchand's approach to craftwork as problem-solving and his research into how apprentices learn with their mentors, I organised a collective making session in the practical workshop for the 'Interactions with the Environment' Level 4 anthropology module that I contribute to at the University of Wales: Trinity Saint David. The idea was to observe how the group engaged with 'making' (Marchand 2009, 2014, 2016; Ingold 2013) and how relationships emerged between substances and persons whilst creatively engaged. The students were asked to make a plaster wall and the object would then be painted. Whilst only some of the students had engaged with plaster before, all had used paint at one time in their lives. The students who made the wall covered a chipped wood board with 'modroc' (webbing charged with plaster). Thomas' research (discussed in section 6.3.1.) indicated that the process of making plaster is a complex chemical method that is likely to have taken place outside and to be made by a group of people. As the process releases noxious gasses and heat, this section was skipped and instead ready-made plaster-webbing, commercially available material called 'modroc', was used so that the application of plaster to a wall could be simulated by the group. The following section is an account of the making experience.

Conversations continued throughout the making process, with one student having had prior experience with the plaster and the others following her lead (Figure 37). The students knew that the wall would be covered in a pigment pattern and the majority thought a smoother surface would aid the painter. Through this participant experience, several key observations were made. The two groups that made two separate plastered walls became very protective of their work, with the larger group of five students developing a keen sense of ownership. When I proposed that someone else might paint on their wall once it had dried several members exclaimed their displeasure at the prospect of this; with one student saying: "I'm not happy with that, I want to finish what I've started" (Student A) and another commenting "I want to paint *my* wall" (Student B). As the wall progressed, one student commented on how they felt a: "responsibility to the others not to mess it up" (Student C); this was greeted with nods by two other members. The larger group of five were particularly aware of the second group (consisting of only two students) and became very competitive but also disheartened by the quality of the wall made by two students working together: they felt it was better as it was smoother (Figure 38). Three students contemplated whether the texture might

inspire the painter, with one student commenting “the texture might influence what’s drawn upon it” (Student D). Two older members were particularly aware of the value of the products being used; one commented that for proficient use of materials they would “want to use as little as possible for the greater effect” (Student C). This inspired a conversation about the financial value of the materials and the consideration of who was paying for the products, defining how carefully the product would be used. Increasingly, participants developed their own methods, with one student stating “we’ve all got our own techniques” (Student A).

The conversations emerged and flowed alongside the different events taking place on the plastered ‘wall’; the experience of making together brought people into conversation, usually with those to the side of them around the workshop table. The physical proximity of their bodies along with the proximity of the areas of plaster they were working on formed situated relationships. One student commented on the fact they felt that the process was “five times more about socialising than about making” (Student A). Plastering the wall was a productive community-orientated form of material engagement, conversations and chatting trailed alongside the movements of the maker’s hands and careful watch over their haptic engagement. The ‘competitive spirit’ that emerged during the process was surprising (even if it was a gentle form or teasing amongst the group), as was the students’ attachment to the product of their collective endeavor. It is a messy type of making that utilises the whole hand of the maker which is submerged in the thick white substance. We might imagine the plastering that occurred in B.80 (as with all the buildings) was carried out by multiple agents, perhaps the occupants of the building. The spirit that emerged during the process was comparable to the *communitas* and the “jossing” comment made by Turner. The task was relatively easy, and as all had the same material, the students worked together as a group and the jovial conversations that accompanied the making indicated that they were enjoying their activity.

6.3.3. Plastering at Çatalhöyük

Steve Mills, a sound researcher at Çatalhöyük, describes a similar scene when sharing his experience of re-plastering the experimental house at the site. He writes: “under

Mira's supervision, we replastered the west platform, oven and roof entrance and these tasks were replete with the interesting, and sometimes amusing, slopping and squelching sounds, followed by the harder work of polishing, with all accompanied by much banter" (2014: 17). As plastering occurred frequently in the buildings, we might imagine the easy 'chatting' that such creative endeavours yielded as makers interacted with plaster and surface.

The subtleties in the surface would be barely visible, but certainly pronounced when the hand glided across the surface. Other makers, like the students who were very aware of each others' handy-work, could tell if the surface was smooth through touch. B.80's excavators reported that there were between 10 and 20 layers of plaster coating the last painting in the building. According to Farid: "faint traces of red were revealed 5 layers in but the main design was exposed between 15-20 layers in" (Farid 2011b: 30). This observation suggests that once the painting was covered with a layer of paint the pattern may still have been faintly visible, and it would take several layers of plaster before the brilliant white of the lime-plaster adequately covered the wall. We could think of the wall in transition and how this would impact upon those who entered the space.

When the walls were built, the first layer of plaster to be applied was a thicker, greyer, marl (Matthews 2005b). This substance was more opaque than the finer white plaster that was used in subsequent layers. The mudbrick wall was covered quickly, in a single plastering event (U. 20029). The wall paintings, however, were clearly layered. In B.5 Matthews found c.450 'washes' of fine white plaster (2005b: 365). The method of creating fine layers that were used build-up to the white wall suggests that there would be a noticeable process of transition from the image (such as B.80's geometric patterning) and subsequent return to the solid white wall. To cover the painting the consecutive layers of plaster applied immediately after the painting event may have been applied daily. However, the approach taken to the paint spill indicates that the creative practitioners had the capacity to cover an event immediately. In the case of the wall paintings they chose to cover the image slowly by layering plaster. Each layer would need to be relatively dry, perhaps bone-dry, before further coats were applied for us to observe the discreet layers of plaster that we do see (for example, those observed by Matthews 2005b). Matthews (1998) located 70 layers of "thick white plaster" on a single wall (Meece 2006: 4). These were proposed to be a yearly 'thorough' re-

plastering (Meece 2006: 4). Thus, the creative practitioners could have covered the wall immediately, they had the technology to do so, but they instead preferred to white wash the wall slowly, perhaps letting memories of the painting event, as well as the event it captured, fade from view (I will return to this point in section 7.2.1.).

6.3.4. Applying Plaster to Skulls

B.42 housed the foundation burial that included the only plastered skull (U.11330) currently recorded at the excavation (Figure 39). The burial was of an adult female holding a plastered skull to her forehead, buried in a foetal-like position appearing to cradle the plastered skull. Hodder suggests that the individual whose skull was plastered was also female (2014: 17). According to Hodder the skull had been plastered and painted with red ochre several times (2014: 17; 2006: 148). Hodder suggests that the unique layering of plaster and pigment indicated that: “the skull had been kept and passed down over a period of time” (2014: 17). The areas on the skull where clay and plaster have been applied to re-structure or simulate facial muscle is a form of ‘enfleshing’. The practice of plastering and enfleshing the human skull is unusual at the town, although enfleshing animal skulls is a practice evidenced throughout the different generations. The latter will be discussed next.

Meskell and Nakamura describe the skeletal elements used in the wall features as being ‘embedded’; they mean this literally, and argue that “these plastered animal parts may also relate to real or mythic events and encounters with the wild, with powerful animals and equally powerful human hunters” (2005: 179). They see the plastered animal bones as objects that members of community used to ‘mediate’ through to the ancestors (2005: 179). Archaeologist Louise Steel has argued that the art object can play “an important mediatory role in the expression, creation and reaffirmation of social relations” (2013b: 55). Steel expands on the role of ancestors and discusses the invocation of ancestors in the development of archaeological narratives (2013b: 58-59). Whilst Steel’s discussion focuses on the Early-Middle Cypriot period (ca. 2025–1850 BC), her argument is particularly relevant to my discussion as she analyses a community experiencing rapid expansion (2013b). Certainly at around 6500 BC in Çatalhöyük there is a noticeable increase in fertility, disease and population density (Hodder 2016: 74), therefore, we could state that this was certainly a period of growth for the settlement. Steel notes that ancestor veneration is a “means of demonstrating rights of lineage” at times when the

ownership of land and resources are in contention (2013b: 59). Therefore, in response to the rise in competition for resources, ancestor veneration helps agents ensure “rights of succession” and legitimise their authority (2013b: 67).

Kuijt (2008) has discussed plastered skulls in the Near East and linked the practice to ritual knowledge and mortuary practices, he contends that the practice created intergenerational memories and structures of authority. The act of enfleshing the skulls reconstructed the body and could be linked to the regeneration of life, Kuijt notes that the creation of plastered skulls were moments when individuals were dismembered and certain aspects of their character memorialised in the form of collective memory (2008: 185). Kuijt proposes that: “representations of the human body such as plastered skulls or figurines served as tapestries on which to depict, modify, and contest social relations” (2008: 185). Such activities were part of socio-political processes that balanced the ‘individualising’ and community processes, and these in turn balanced “limited social differentiation” with opportunities for “community cohesion and shared membership” (2008: 185). Plastered skulls can be regarded in terms of ancestor veneration and lineages, but Kuijt notes that there are ethnographic examples, such as those evidenced in Guatemala (Reina 1962), that indicate the specific ‘acts, status, and identity’ of certain ancestors were unknown, thus, the physical remains of the dead were transformed into ‘collective ancestors’ (2008: 185).

In B.77 a calf skull (F.3093) installation was physically embedded above a niche on eastern side of the northern wall (Figure 7). During the original excavation, Mellaart commented that niches painted in red were ‘frequently’ found in shrine contexts (1966: 174). Eddisford suggests that the piece was made *in situ*, the skull was attached to the wall by a wooden peg, and brown clay (U.19285) was used to model the face of the calf (2011: 34). The analysis of the calf skull reveals the processes of making behind the piece. Different creative practices are captured in the layers of plaster, these include the addition of pigment and clay. These events are revealed through removing the layers of material intra-action. Before the calf skull was added to the wall area above the alcove, the rim of the niche had been painted with red ochre (F.6067). White plaster was applied between the skull and the wall, and after the skull had been attached it was covered in layers of white plaster except for a single coat of red paint (U.19286) before multiple layers of white plaster as time progressed (U.19077) (Eddisford 2011: 34). The

excavation database notes that there were between 40-70 layers of plaster removed from this area of the north wall in the north east corner. The addition of the red pigment to the calf skull was, according to the excavators, a one-off addition (Eddisford 2011).

Notably, above the niche there is also a handprint that forms part of a row that goes across the wall (U.19559) in B.77. However, the lifecycle of the handprints are different to the calf skull wall feature as the handprints showed evidence of fixing and mending, which suggests the life-span of the handprints may have been longer than the red painted calf skull. Alternatively, the suggested wear on the handprints may have occurred due to a different type of material engagement that they encouraged, such as touching, or perhaps the handprints were visible for longer period of time.

The addition of clay to the animal's skull may have been the same creative impetus for applying substances to the two plastered skulls found at the site. The plastering created a fleshy life-like model of the calf's head, and made the object more suggestive of the animal's living presence rather than its skull, which implicitly indicates the transition from living to dead. Though it must be noted that this act of 'enfleshing' is a suggested gesture rather than a careful re-modelling that included features such as eyes. The act of enfleshment sustains multiple layers of plaster, each offering fuller features. This contrasts with the use of pigment, which is a fleeting moment in the lifecycle of the wall painting, which might mean that the addition of pigment was used to commemorate. Plastering appears seasonal, but the application of paint is a socio-cultural marker in the passing of time. Boivin proposes the use of ethnoarchaeological studies to aid our understanding of "unfamiliar temporal rhythms and unexpected relationships between temporality and material culture" (2000: 385). She focuses on a sample taken from a wall in B.5 which evidences cyclical re-plastering of the wall, she describes the plastering habits of the creative practitioners in B.5 as 'fastidious' because the wall demonstrates a "distinctive and conspicuous cyclicity" (Boivin 2000: 380). Matthews (1998) analysis of the plaster wall revealed thin 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). I will return to this point in Chapter 8 when I discuss how different creative practices may indicate different communities of practice (section 8.2.2.). Now, I will continue with other examples of plaster and paint

phenomena at the settlement to outline some of the “patterns of difference that make a difference” in material engagement at the settlement (Barad 2012: 50; section 3.3.3.). B. 80 also indicates that individuals engaged with colourful red substances in distinctive ways, these are outlined next.

6.4.0. Making with Paint

6.4.1. Building 80 Wall Painting

The design of the wall painting in B.80 is spread across the east wall F.5014 and is divided into three horizontal panels which covered the whole of the bottom panel (Farid 2011b: 29). A similar design was found during Mellaart’s excavations in Shrine VIA.50 (Farid 2011b: 30). B.80 also had the red hand prints of a child that were covered by 30 layers of plaster and these were painted onto the southern wall near the hearth and are anticipated to be earlier than the abstract pattern design (Farid 2011b: 30). Peculiarly, B. 80’s north wall did not yield extensive wall paintings. The wall was removed by the excavation team as it had become compromised and was displaying cracks as well as a threatening lean inwards towards the interior of the building where excavators were working (Taylor 2012: 40). However the team were aware that the wall might have wall paintings and so investigated the wall before removal. The plaster layers revealed that the first layer was thicker and greyer than other layers, and this is thought to be the preparatory layer (Taylor 2012: 41). The eastern part of the wall had thinner layers and the excavator anticipated that this indicated less repairs. However, close to the niche and the wooden pillar imprint, the layers were slightly thicker and more compact (Taylor 2012: 41).

The lozenge-shaped patterns on B.80 require confident hand-eye coordination, and as we can see from the paint spill discussed earlier - paint stains. To move the paint in such a way as to form horizontal and vertical geometric shapes requires a steady hand. The paint brush must be appropriately loaded to ensure that the width of line is consistent (which we can see is of a consistent thickness in Figure 40). As the paint is used, the edges of the brush are depleted first and this narrows the width of the line that the brush-in-the-hand produces. The line starts to ‘sink-in’ in width, and the skill of the painter is to catch the line before it sinks too far, to replenish the brush with paint and to continue exactly in line with the former rupture in the flow. Figure 41 highlights two

areas on the wall painting that reveal ‘ruptures’ and ‘flows’. The rupture is described by a line that abruptly goes from thin to thick; this indicates that the paint brush has been re-loaded with paint, hence my use of the word rupture. The flows are lines where the same thickness is achieved, this is usually created by a single steady flowing movement by the painter.

There appears to be moments of compartmentalised conceptual order in B.80’s wall painting. When examining an area of the pattern closely, it appears the vertical lines are at the front of the image with the ‘brick’ or ‘lozenge’ patterns that are described on a 45 degree angle disappearing behind these horizontal swathes (this is particularly noticeable in the Figure 42). The ‘layering’ between these two patterns create different dimensions: a ‘front’ and a ‘back’ in the design, and the two spaces are accentuated by colour-use. Figure 42 shows two distinctive uses of red: the orange-red (which is likely to be cinnabar) features in the rear brick patterns whilst the darker red (ochre) marks the vertical and angular framework that seems to structure the painting.

6.4.2. Collective Painting

Figure 43 depicts a team member excavating the B.80 wall painting. We do not know if wall paintings were individual endeavors or collective experiences. However, the image depicts a particular physical interaction with the wall and we might imagine how a group of painters kneeled before the wall, like archaeologists with the same intense focus, work together collectively to aide in the emergence of the pattern. If so, several painters would need to synchronise their actions during the painting practice. The painters would need to finish and meet the lines made by others to bring the pattern together. Continuing another’s line is like finishing their sentence, and the same pressure needs to be applied to avoid an inconsistent thickness in line.

Trevor Marchand’s research, as discussed in section 4.4.3., argued that the craftsperson must have a ‘critical eye’ and ‘sense of touch’ seems apt here. But, imagine that the painter is not alone, and there are several people facing the wall: collectively ‘seeing’ the same pattern emerge, feeling the same flow of paint, even anticipating the same ruptures. Paint is a volatile medium; the viscosity of the substance means that it spreads

when not contained and will pour into nearby crevices and cracks - it stains and marks, leaving traces of its 'bodily' movements. Neolithic paint is described here as 'volatile' because of these properties: when ruptures emerge during an interaction with paint, it is hard to remove the traces - different mediums (in this case either marl or lime-based plaster) would need to be utilised to cover the spill, and this would likely happen after the paint spill had dried to prevent further cross-contamination (Figure 44). Wielding 'unruly' materials to aide the emergence of the intricate pattern seen above requires skill, patience, and focus.

6.4.3. The Experience of Collective Painting

Returning to the experiential and experimental exercise described in section 6.3.2. (making a plaster 'wall'), the same anthropological approach to making was used to create a collective painting experience with the students. The student painters were divided into two groups: a duo and a trio. The idea was to replicate the abstract image found in B.80 which I projected onto a screen for them to consider. Despite the remit, the students did not precisely reproduce the image, and instead took key elements and motifs and then let the material guide them (Figure 45). The students were given pigment powders to mix and then apply; this exercise was considered as preparation for painting on the plaster walls. Despite there being only the two ingredients of pigment and water to slacken the dry substance, several different consistencies were made. Early in the experience one student commented on a fellow painter's 'thicker' paint and stated "he's got it right" (Student F). The student responsible for the thicker paint was keen to assert that he was "not good at painting" (Student D) and later on in the workshop, when asked to provide a statement of the experience, commented that "it was like being back at primary school" (Student D). I asked the students how do they know when to re-load the paintbrush with more paint; one commented that it was both a visual and haptic experience "you see it gets fainter and can feel the liquid come off-it - it's not as smooth, you have to dip" (Student E). The wrong consistency of the paint was detrimental to success of the painting; the student who had formerly commented that her peer "had got it right" later decided that the thick paint was "too thick" as it required her to keep dipping her brush (Student F: Figure 46). The third member of the group preferred the thicker paint, observing that it was "more steady" and that it was not "pushing out as I move along"; he felt that he would "get better" as he became more

“familiar with the substance”. The experience of making the pattern inspired several observations, and initially one student thought the pattern could be a map. The second student thought that the painting was made to honour something; knowing that it was covered over with plaster suggested to them that this was something ‘esoteric’. Making the piece made us all realise that a great amount of work was involved and that the creator(s) must have had a clear idea of the design before they put paint to wall. When asked how the painting duo were organising the emergence of their pattern, one of them remarked “I’m trying to work *with* her pattern” whilst the other stated “I’m working *around* her pattern” (Student A). The subtle difference between these two creative actions centered on the distinction between whether their lines were touching or forming (Figure 47).

6.4.4. The Experience of Painting on the Plastered ‘Wall’

In the following session, students painted on the simulated Neolithic plaster wall. The two boards made in the previous session had slightly different textures, with the piece created by two students having a much smoother surface that was thought to better aid the painting process. Several new students joined the painters, and not all of those painting the walls had made the plaster walls, though some painted on the wall they had plastered. Unlike the former exercise, in this instance, materials were provided but no remit was set. Some of the painters from the last session joined into this painting experience too. The most notable aspect of the interaction with the wall was the shift from the chatting and socialising that had occurred during the plaster application process to silence. The students began decorating their wall, carefully drawn lines were initially painted, tentative first steps were made. Patterns slowly emerged, but without a clear remit it became apparent that the images were ‘doodles’, and as more lines and forms were applied to the image, a syntax of shared forms emerged. The smoother wall had one original plasterer and the student from the other wall, who had proclaimed that he wanted to paint his own wall. Despite his original protestations he seamlessly engaged with the ‘other’ wall. At the end of his painting experience he proclaimed that he wished he had started off his painting with a clearer idea of the final structure of the image. He admitted to being influenced by the painter by his side, and described how he ‘reacted’ and tried to ‘incorporate’ or ‘match’ his design to hers (Figure 48). He explained further that initially he had felt less ‘invested’ in the wall as he had not made

it, but was disappointed with his end result as he felt it did not demonstrate his ability or compliment the work of his fellow painter.

The process became increasingly expressionistic on the rougher wall, with students eventually flicking paint across the surface and culminating, finally, with two students making handprints on the wall. Keen to understand the bond the students had created not only with each other via the wall, but also, with the wall itself, they were asked: Who owns the wall? The resounding sentiment was that *they* owned the wall. They did not like the idea of the wall being sold, one commenting that it “should stay here, for us to enjoy” and that the painting would remind them of the day (Student G). The student continued this statement by saying that as she had marked the wall with her handprint it was a “piece” of her, so if anyone owned the wall, she said, “it’s *me*” (Student G).

From the pressures that one student felt because he had not matched the skill level of a fellow painter, to another student claiming ownership through the imprint of a hand, the experience had revealed a *mélange* of dynamics and affects in the group that emerged through the process. Painting required more concentration than plastering. It also required the painter to embrace an adaptive strategy, with the creative practice informed by other practitioners as they collectively marked the wall and the paint itself shaped this mark-making. There was a clear difference between the images created with the remit of replicating B.80 and those created freely. The latter emerged in conjunction with the collective practice, the former was more methodical as they tried to recreate the lozenges. Crucially, the pattern required a steady hand.

6.5.0. Sensorial Preferences at Çatalhöyük

6.5.1. Seeing: A Taboo

Before exploring the importance of haptic engagement in the wall painting practice, it is important to address the complex issue of ‘seeing’ at Çatalhöyük. Excavators noticed brush/tool marks across the painted surface of the handprint and believed the handprint had been subsequently painted-in (House 2010: 36). It is thought that the wall paintings were often covered quite quickly, so the addition of painted marks on the handprint indicates that once the handprint had been made, painters made additional adjustments

to the hand with a paintbrush (Figure 49). One argument for ‘over-painting’ might be that the people had been touching this area of the painting and causing the paint to break down and rub off, and this meant that the section needed to be painted again during its use-life. Equally, Mellaart in his preliminary excavation report commented that the great bull painting hunting scene in the Shrine building in Level III that there were “traces of over painting” (1962: 63). These comments by the excavators are important as they indicate that the painters were fixing and repairing their work. Due to the limited time such images were on display before they were plastered, the wear of the painting and the fact that some paintings indicate that they were fixed, suggests that touching the painting might have been part of the process.

Seeing the wall paintings may have been of taboo status at Çatalhöyük (Govier 2016: 150). The absence of visual representations of eyes suggests that ocular engagement was complicated (Govier 2016: 151), and perhaps a potent expression of agency (Gell 1998: 116). Mellaart, noted that the Level III ‘hunting scenes’ portrayed heads and noses but eyes were not indicated (1962: 62). Decapitation, in general, is a motif that emerges in the visual culture at the settlement, from the headless ‘harlequin’ man of the hunting scenes (Mellaart 1962: 62) to the vulture shrine iconography that depicts large birds hovering over decapitated human forms. Thus, iconographically, eyes rarely feature in the representations at the town. Meskell discusses ‘headlessness’ at the Neolithic town, and highlights figurines with severed heads and wall paintings that depict decapitated bodies, she notes that “the fixation upon headlessness remained an enduring concern [at Çatalhöyük]” (2008: 379). I propose that the evident ‘headlessness’ may be connected to the potency of ocular engagement with material substances, which may have been an agentive act (Gell 1998).

Gell discusses “witnessing as agency” and explains the idea through the example of ‘darshan’, which is when the Hindu deities reveal themselves as a blessing: the “gift of appearance” (1998: 116). Gell argues that seeing the Hindu deity is not a passive action, but rather the reception of darshan is dependent on the agent “taking” darshan by “seeing” (1998: 116). He synthesises the idea with Stella Kramrisch’s notion of “‘seeing’ as a transitive form of agency” (1998: 116). Kramrisch writes: “while the eye touches the object the vitality that pulsates in it is communicated” (1976: 136 cited in Gell 1998: 116). Seeing is presented as a relationship, as seeing the deity is both

simultaneous and contingent on reciprocation. Therefore, rather than comprehending the relationship in dualistic terms of active and passive, we can understand looking as either a “transitive form” of agency, and indeed one of the many ways that our agency is manifested (1998: 116). The discussion becomes much simpler when viewed from Karen Barad’s (2003, 2007, 2012) agential realist approach that dispels things as unique entities, and instead argues the primary epistemological unit are intra-acting components which she describes as phenomena, as outlined earlier in section 3.3.3., and referred to throughout the thesis. Therefore, when applied to the darshan context, agency emerges from a phenomena which is a configuration of a person witnessing a darshan icon. Barad’s notion works well here, as Gell and Kramrisch’s notion that one ‘takes’ by looking seems to re-enforce an anthropocentrically conceived notion of material agency. I argue that it is this type of ‘looking’ was in-action at the Neolithic tell; that looking and seeing in certain contexts within the *sui generis* houses was a potent agentive act that was perhaps rooted in creating magical experiences or communicating with other-than-human entities (see section 7.4.3. and 7.5.2.). The following section outlines an ethnographic example that reveals the potency of painting on surfaces.

6.5.2. Making Paint ‘Glisten’

Recent scientific tests on red ochre taken from wall paintings at the Neolithic town revealed that along with the hematite and clay that is present in ochre, ground obsidian was also found and it is suggested that it may have been incorporated to increase the “reflective quality” of the paint (Anderson *et al* 2014). The addition of the ground obsidian demonstrates the complexity of the painting practice and the advanced methodology of making paint. The addition of obsidian incorporates a further complex intra-action between paint and light to alter surfaces within the spaces. The addition of sparkling areas on the wall evidences a particular form of ocular engagement and indicates a particular sensorial sensitivity to colour and refracted light.

Lewis-Williams (2002) investigated the Southern African *San* Rock Art and discussed the complex socio-cultural process behind making pigment. The *San* similarly create a glistening paint, and the paint is called *quang quang*. Lewis-Williams’ research

identified that making the glistening paint was a shared social experience that was embedded with significant cultural meaning. To expand his understanding Lewis-Williams utilised research carried out by Mapote in the 1930s, he discussed *quang quang* and explained that the *San* particularly liked the red glistening paint which was believed to provide protection from lightning. The pigment was located in the basalt mountains and the trip to acquire the pigment was considered a pilgrimage (Lewis-Williams 2002). Using the paint was primarily a ceremonial process and involved the women in the community heating the pigment at full moon until it was red hot. It was later ground between two stones and mixed with the blood of a hunted animal (Lewis-Williams 2002). The processes of the *San* reveal the multiple forms of agencies involved in both the procurement of the pigment and the creation of the paint. The pigment was culturally significant because it was believed to carry a powerful agency which could be harnessed by the community through the ceremonial act of making paint. For the *San* community, art was not simply a means of representing reality, but a way of enhancing a person's agency. When we look at creative practices outside of the Western historic-specific discourse, we begin to see our understanding of art expand beyond skill and imagination, and instead we realise that painting could be a means of harnessing other-than-human powers.

The stories shared by the *San* indicate that pigment is not just a medium of expression, but a means of communicating with other worlds. Through discussions with members of the *San* peoples, Lewis-Williams found that when applied to the rock face, the paint allow “the acquisition of supernatural potency” (Lewis-Williams 1994: 283). Touching the painting was equally important, one of Lewis-Williams sources reporting “if a ‘good’ person placed his or her hand on a depiction of an eland, the potency locked up in the painting would flow into that person, thus giving him or her special powers” (Lewis-Williams 2013: 132). Both these points indicate that in some communities the act of painting goes beyond mere representation and becomes a medium of communication to spirits, and a transitory place which can allow movement between the human and spiritual realms. We might recall Hodder (after Miller 2010) observed that: “[s]piritual and other forms of presence, almost by definition, need things to exist and flow through” (2012: 32). The sensitivity applied to interactions with substances in both the instances of the *San* and *Mun* are examples of co-constituted

relationships with other-than-human beings who are or emerge through substances that must be acknowledged and appeased or other worlds that can be invoked through the application of the substance.

Due to the narrative content of some of the wall paintings, particularly Shrine F, V1 which contained a hunt scenes that stretched across the west, north and east walls (photographs and artist reconstructions are shared in the 1966 excavation report), we might consider that similar procedures were involved in the procurement of the cinnabar pigment. Whether the pigment was made through the combination of mineral with animal blood will be evident from analysis of the paint. Archaeological conservator Çamurcuoğlu conducted experimental research into potential paint binders used at Catalhöyük, she tried mixing pigment with eggs, water, milk and rabbit skin glue (2015: 236). Out of the organic binders she tested, only water created the tool marks that are sometimes visible on the wall paintings (section 6.5.1.). However, Çamurcuoğlu found that paint made using water had “poor durability”, therefore a stronger binder is likely to have been used in the Neolithic paintings that we see today (2015: 236). Certainly hunting scenes depict animals being teased and baited by human beings (see Hodder and Meskell 2011: 237; Mellaart 1965: Plate LIV). These images might capture the event where blood was collected from the animal. The momentary appearance of the paint in the life cycle of the walls also indicates that the paintings may have been associated with the appearance of certain natural phenomena such as lambing, full moons, lightning or cultural-specific commemorations for events such as birth or death. As the walls are usually plastered, it appears that the paintings are the exception. Once the image is painted it is then covered by plaster only to emerge again after several layers of plaster on the same wall; this is a pattern we see continually in walls that feature a wall painting event.

Mellaart was struck by the repeated covering of the wall paintings with plaster, commenting that: “one has a feeling that all paintings had a magic potency which eventually had to be preserved or hidden, after it had served its purpose” (Mellaart 1962: 65). The relationship between the *San* and *quang quang* indicates that in some communities the act of painting is more than representation and is instead a medium of communication to spirits - but also the application of paint creates the emergence of a transitory place which allows movement between the human and spiritual realms.

Mellaart, during the third excavation season, wrote: “the idea of touching the deity is evidently the same, and considered beneficial to the worshipper” (Mellaart 1964: 66). The archaeologist argues that the presence of child handprints on zoomorphic wall features indicates the significance of touch. The handprints evident in B.77 (and elsewhere) would require the painter to dip the palm in the paint, scrape off residual excess from the sides of the hand to prevent dripping before pressing the hand - coated in pigment - to the plastered wall. If we examine the processes of painting we can see that the images were places of both haptic and ocular engagement.

6.5.3. Touching to See

Thus, ‘touch’ appears an important form of material engagement and is likely to have been part of the Çatalhöyükian ‘way of seeing’. Evidence ascertained from instances of material engagement reveal that seeing and touching were entangled sensorial practices. The use-wear evident on the Çatalhöyük paintings is difficult to detect, for when excavators are revealing wall paintings they are responding to the bolder sections of pigment. If touch was important to the Çatalhöyük way of ‘seeing’, the more potent areas would be worn away during use. Therefore, the faded parts of the design maybe as relevant for our understanding as the boldly painted areas. The combination of the ocularly focused engagement of colour as featured in the creative practice of painting, and haptic centred engagement through the creative practice of engraving and sculpting the wall features suggests that feeling and seeing were sensorially entwined at Çatalhöyük.

The wall painting in B.80 extends to the lower indentation of the second horizontal panel, the continuation of the design onto the underneath side of the rim is an interesting feature as it would be very difficult to see from a standing position (Figure 50; Farid 2011b: 29; Govier 2016: 151). Farid (2011b: 29) proposed that the painting would be visible to those who were squatting in front of the painting or lying beneath (Govier 2016: 151). Elsewhere I have argued that due to the limited light within the building, ‘seeing’ in the conventional sense that it is used in modern Western culture today may have been limited, thus the visibility of the lower indentation may have been reduced (Govier 2016: 151). Here I suggest a further possibility, that the paintings were intended for a wide range of heights; thus, the patterns on the indentation may have been at viewing height for children. This argument fits into the wider set of painting practices

that indicate both adults and children engaged with the wall painting practice and associated events. The next section presents the archaeological evidence to support this interpretation.

6.5.4. Intergenerational Mediums

The idea that children could be connected to the painting practice is not surprising, particularly since we have found a decoration of a child's handprints in B.80 near the oven F.5041 and under 30 layers of plaster (Farid 2011b: 30-31). Mellaart (1963) also found the handprints of children. A second "baby-sized" four-fingered handprint (U. 21737) was unearthed in B.80 during the 2015 excavation, the red handprint was found on a plaster layer of a platform/bench feature inside the building near the wall painting. In the 1963 excavation, handprints were found painted on the zoomorphic wall features in Shrine VII, 23; Mellaart writes how: "the figure was covered with white plaster and on this we found a child's hand painted in red just on the breast. Such hands were found in the previous season on animal heads (Shrine EVI, 7 and 8)" (Mellaart 1964: 66). Similarly, a wall painting on the North wall of EV, 15 was covered in fifty-seven children's handprints (Mellaart 1963: Plate XVIII). Therefore, we might infer that pigment was an intergenerational medium, and if painting practices were associated with burial rites then this action was again intergenerational. If certain imagery is related to shamanistic practices - as such icons as handprints can be (Pearson 2002: 116; Clottes and Lewis-Williams 1998) - then this was also an intergenerational practice. If the handprints are demonstrative of a single act of agency by a child, or are part of a process where others would then touch the child's handprint; the child plays an integral role in the act. Thus, painting, the burial practices, and potentially shamanic activities, were carried out inter-generationally. The presence of pigment in burials of all generations (particularly babies and women) and the presence of sub-adult handprints indicates that pigment and paint were intergenerational mediums of expression.

6.6.0. A Shift in Sensory Engagement

6.6.1. Analysing the Handprints as Phenomena

The handprint is an icon we see occurring in multiple cultures over vast periods of time (Pearson 2002: 116; Manhire *et al* 1983: 32; Clottes and Lewis-Williams 1998); some

of the earliest images known are of inverse handprints and handprints (such as those found at the Cave of El Castillo, Spain, and Chauvet-Pont-d'Arc Cave, France; see Guthrie (2005) for examples). The tactile engagement between substance and body is a creative action that occurs when paint is applied to palm and pressed against a surface to leave a clear mark of the self. The numerous sensory receptors at the end of our fingers, and in our hands in general, makes this a very sensitive part of the body. The addition of a slippery coating of the fluid paint momentarily transforms the surface of the hand: the finger tips and thumbs become more mobile and glide over the surface a little faster than they would normally. Handprints are an empowering gesture as the visual replication of an individual's hand announces their presence and, in the case of Çatalhöyük, marks their importance in the community through their evidential key role in an important communal event. The touching of walls with painted palms indicates a particular sensorial sensitivity to touching and feeling paint and, also, a multi-sensorial making experience when the image invoked both ocular and haptic sensory engagement.

6.6.2. The Painted Hand Icon

However, there are also examples of painted hand icon that have clearly not been made by pressing an individual hand against the wall; instead they have been painted with a brush. To demonstrate the nuances between the different hand icons we could compare the handprint that features as a wall painting in B.77 (Figure 49) and a recent painted hand icon located in B.80 during the 2015 excavation season (Figure 51). The latter hand motif is a feature that, in addition to the abstract wall painting, is strikingly similar to a building revealed during the Mellaart excavations which portrayed multiples of the same hand motif (see 1967: pl.XVIII[b]). The motif mimics the hand by capturing the hole in the middle where the mid part of the palm, indented as it is, does not touch the wall. There are five digits, but the thumb does not emerge at the usual place, and instead a fifth 'finger' emerges from alongside the other four on the top edge of the palm (Figure 51). The painted hand icon is reminiscent of the human handprints but is not a handprint. Unlike a handprint - which only an individual can impress - the painted hand motif, like the abstract brick patterns on the wall nearby, can be painted collectively. Devoid of the unique creases of the skin, the print, length, twist of the fingers, and the outstretched thumb, the motif becomes mechanized and reproducible. In the case of B. 80, the hand sizes become variable - some become bigger and less human, perhaps

claw- or paw-like. By making this key change in their creative practice, the age and sex of the individual(s) making the print are no longer discernible to the archaeologist.

The distinction between the different hand icons is related to the processes involved in the emergence of the hands, and this seems to correlate with geo-spatial location in the mound. The painted hand appears in the South Area Levels VIA and VIB, whereas the distinctive handprints in B.77 emerge in the North Area 4040 in Level G. In the South Area during the Mellaart excavation, all hand imagery that I have examined from his publications were the claw or paw-like hand. This type of hand stylistically captures all the digits emerging from the top of the hand and a large negative space where the palm would normally be located. These hands sometimes have four digits, and sometimes the bottom of the palm is angled into a triangle, but the method of making these images all involve painting with a tool such as a brush and not utilising the hand itself.

The hand icon in B.80 is a classic example of the painted hand type, and should there be any concern about my data being from the Mellaart excavation, thus reliant on reproductions, we need only look at the contemporary excavation that has clearly revealed an example of this type of painted hand in addition to an actual handprints found in B.77 (U.19078; see Table 5. Hand 4). Having seen two handprints conserved from B.77 in person at the Konya Museum, I can confirm that they are clearly the handprints of an outstretched hand and made from pressing a hand against the wall whilst covered in ochre. The paintbrush marks on certain areas of these handprints, which have been noted by the excavators, is clearly part of fixing or touching-up the painted image and not solely used to make the original image. B.80 hand icon has clearly been painted; a human hand would not produce this type of mark that is a stylised impression of a hand. B.80 is in the South Area but B.77 is in the North Area in the 4040 neighbourhood. These two buildings are very important for my discussion. I would argue that the B.80 painted hand is contextually usual in the South Area, and according to data retrieved from the Mellaart excavations buildings, specifically VI.B.8, VII.8 (B20), VIA.63, VIB15, EVIB8, AVI4, and VIB10, all contained painted hand examples. Again, all of these buildings are in the South Area. Six of these buildings are in Level VIA and VIB, with one example occurring in Level VII (B.20). Therefore,

there is a cluster of activity relating to the painted hand method in the South Area Levels VIB and VIA 6500 BC - 6400 BC.

However, there is one further mark-making method found in B.49 in the North Area. Like B.77 and B.80, B.49 has also been excavated during the contemporary excavation, and the hand imagery in this building has emerged around the sides of a platform (see Table: 5, Hand: 4, 2, and 1). The B.49 hands are described as stenciled on a red background (Figure 52; Table 5, Hand 1). These marks appear to be very similar to those observed by Mellaart in E VIB 8 (see Table: 5, Hand 6), but different to the handprint and painted hands in B.80 (Table: 5, Hand 2) and B.77 (Table 5, Hand 4). The mark-making involved in the production of these hands is not as transparent, and it is debatable whether stenciling is really in-action in these two cases. Certainly the hand may have been placed against the wall and pigment painted with a tool around the hand to produce a stenciled hand. However, the division between the fingerprints of the handprints in B.49 is clearly articulated to the palm, and this is likely to have been painted by brush afterwards. Therefore, the creative practice involves elements of processes used in both B.80 and B.77. B.49 is a type of transition between the two, where the hand is becoming more human-like and less paw/claw-like, but still using a tool in the application of the paint. On this point, the B.49 painted hand imagery is also recorded in E VIB 8, and repetition of this gesture in these two spaces offers not only a relationship in creative practices but also a bridge between both the North and South excavation areas/neighbourhoods. I will return to the hand icons in section 8.3.0., and argue that these different methods could represent different ‘communities of practice’ (Lave and Wenger 1991; Wenger 1998, 2012; section 8.2.2.).

In this section I have discussed the different types of material engagement involved in creating the paw/claw-like hand and the handprint, and emphasised that in the creation of the handprint there is an increase in sensory experience involved in covering a hand in substance and pressing the palm against the wall. The northeast walls at the Neolithic town were important areas within the houses, as it is in these areas that we tend to find platforms, burials, wall paintings and bucrania. For an individual to have creative access to this particular wall, and in many respects to claim it through the imprint of their unique handprint, is an important socio-creative gesture. I argue that this type of

handprint announced an individual's presence and reveals their central role in a communal event. This point is accentuated when we think about how handprints can sometimes be interpreted to reveal the sex and age of the creator, whereas the painted hands cannot; it is a unique and personal gesture.

Whilst making the handprint, the wall is touched through the sensory-loaded hands, and if this area of the walls were important vehicles to access other worlds or appease greater entities, then in the case of B.77 this was achieved through a single individual who could place their hand on the wall. This contrasts with many hand-related gestures caught in the South Area that were always painted gestures. A further point on this matter is the fact that the B.77 gesture is repeated along the wall with several handprints leading to the niche, whereas B.80 contains a single painted hand image on a platform. A painting tool (such as a brush) was used to make the claw/paw like hand, therefore, a sensorial barrier formed between the individual and the wall. If wall paintings were thought of as places of transformation - perhaps access to other worlds, opportunities to appease greater entities, or aids to telling communal tales - access to the wall during the time of the painted hand motif may have been restricted.

It could be argued that some of the creative practices evident in B.80 are inconsistent with the evidence of similar practices found elsewhere at the town. B.80's maverick image (Figure 53) is described in the excavation report as a floral/spiral motif and was noted as being unusual by Field Director Shahina Farid (Farid 2011b: 30). Farid commented that the image was "not a usual Çatal design and quite a contrast to the central panel" (Farid 2011b: 30). The design is situated across the north post emplacement F.3429 and is linked to the continuation of the abstract wall painting on the east wall (Farid 2011b: 31). However, the floral design seems much more free, with only a loose design suggested in the application of the paint. The image appears to be a doodle, a rough drawing carried out by an individual painter much like the images my students produced on the simulated plaster wall. The appearance of the doodle is significant as it evidences a shift in the relationship with the paint (like the painted claw/paw handprint): the structured appearance of painted patterns and motifs seen elsewhere seems to be inverted in the casual scrawling evident in this design. B.80 is a unique space in which the creative practices, in some respects, seem to be pushing the social

boundaries of human interactions with paint. B.80 was created and maintained during Level VIA (South O) (Farid 2008: 20) which is calibrated to 6500-6400 BC (Hodder 2014a: 4), a time of heightened stress levels at the settlement (see section 2.3.1.).

In section 4.5.2. I discussed tacit knowledge and Ingold's (2013) argument that humans correspond through material interaction. I also described how creative practices could be considered a moment where knowledge is expressed and shared through touching materials. Thus, the intersensory experience generated during the handprint changes dramatically between the different methods of making, and indicates an important shift in the knowledge expressed and shared at the making events. The handprints made using the hand are quicker to create than stenciled or painted designs, thus the immediacy of the image differs between the two types of material engagement. Equally, the risk of altered states of consciousness (such as hallucinations) or negative health impacts (such as those described in section 5.5.3.) are reduced when creating a cinnabar painting with a brush or tool instead of the hand itself. By revealing different forms of sensory engagement with materials we can build a clearer understanding of the systems of value. I develop this argument in the next chapter by contextualising idiosyncrasies in creative practice with the environment in which they took place, and relating these aspects to social dynamics and tensions at the settlement.

6.7.0. Conclusion

Former studies of the wall paintings have tended to focus on 'reading' the symbolic content of the final image, and these images have been used to locate key themes and 'prime cultural signifiers' (Hodder and Meskell 2011: 37). Through these symbols the character of the Anatolian Neolithic has been defined, and visual representations of hunting scenes capturing ithyphallic animals have been interpreted to reveal a preoccupation with 'maleness' and masculinity (section 2.5.2.). The problems behind these essentialist readings of gender were discussed in the literature review (Chapter 2). Rather than searching symbols for meanings, this thesis takes a holistic approach to the processes of making that produced these images to explore new information about the individuals living at the Neolithic settlement. Indeed, on this matter, if we accept that the senses are mediators of social value and can be profiled during making, then these

“receptors” are culturally contingent. Therefore, a further analytical step needs to be addressed before we attempt to interpret symbols (should this be a desired approach). As we have seen in this chapter there are a variety of material intra-actions at the Neolithic town that indicate unique sensory preferences, these include a (comparatively) heightened sensitivity to shades of red and touch entwined with ocular engagement with painted surfaces. Thus, the sensory profile of the community needs to be considered before we explore the actual meanings of material engagement for the community.

This chapter surveyed making and intra-acting with colourful substances. The creative practice focused on here entailed the adaptation of pigment powders to make paint, and made colour fluid and viscous. The transformation of the substance from dry powder to wet fluid opened up new ways for agents to interact with the colour and surface.

Colourful substances were applied to bodies, figurines, walls, and the dead but rarely to pottery. The previous chapter explored the procurement and curation of colourful materials to understand particular relationships unfolding at the settlement. The colourful pigments, stones and concretions evidently shaped and informed a variety of social practices and now yield useful information about the sensory worlds of the community. This chapter explored the different agencies that can be gathered from the wall painting practices, such as: making paint, applying paint, spilling paint, and even *mistake-making!*

This chapter revealed these intricate processes from the remains of material intra-actions evident in the archaeological record at Çatalhöyük. These Neolithic events were contextualised with contemporary ethnographic accounts of painting and plastering from the perspectives of a group of makers. These perspectives helped to tease out some of the processes that took place before the archaeological product - the wall painting, figurine, handprint and so on. In keeping with Marchand and Ingold, the practice of making was incorporated into my analysis, and an ethnography of wall painting was provided. We could think of this addition to the methodology as ‘practice-led’ research.

By moving beyond symbolic readings of the wall paintings (Mellaart 1963, 1963, 1965, 1966; Hodder and Meskell 2011; De Jesus 1985; see section 2.5.2 and 2.5.3.) my analysis demonstrated a new approach to this particular type of material

‘phenomena’ (Barad 2003; section 3.3.3.). The different processes of making revealed particular sensorial sensitivities - from the creation of sparkling paint to having to ‘fix’ the painted hand icon. I argue piecing together creative practices deepens our understanding of the different types of sensorial engagement actioned at the town. The adoption of a holistic ‘thinking through making’ approach to making events revealed several unique agencies. The consideration of these unique processes suggests that interpretations that focus on literal translations of symbols are only addressing a single part of a much more complex whole. Archaeological products are the result of past processes, and analysis of these material intra-actions can reveal how the community engaged with their environment on a physical, practical, emotional and sensorial level. An example of this can be seen in the investigation of the processes used in the creation of the hand motif. The difference between the inter-sensorial experience of ocular and haptic engagement in the creation of the handprint and the painted hand might indicate a sensorial shift and re-shaping of the social sensory profile. During the time of the painted claw/paw like hand the wall is a place that is mediated through the addition of a tool, and the embodied experience of the handprint that centre’s on a tactile engagement with the wall is not felt through the individual’s sensory-heavy fingertips during mark-making.

In this chapter, I have made a distinction between the painted hand, the hand print, and the stencilled hand. This distinction only became apparent through the analysis of the creative practice as a phenomena, and in turn yielded vital information regarding the processes involved in the production of these two distinctive material interactions. From the data retrieved, I argue that at the town it is unusual to see these different methods of creating the hand image in the same painting event. In Chapter 8 I will correlate these different types of mark-making with ‘communities of practice’ and relate these socio-creative events to social organisation.

Both the calf skull in B.77 and the wall painting and handprints in B.80 reveal that wall paintings, or moments of applied colour such as handprints, were unique and momentary occurrences rather than regular instances in the biography of the wall. Walls were more often plastered than they were painted. The idiosyncrasies of the creative practice indicate that engagements with paint appear to be regulated within the

community. However, B.80 evidences a series of events that breach these regulations. The clumsy paint spill, the irregular ‘expressionistic’ motif, the wall painting on the ‘wrong’ wall. The painting practice in B.80 seems ‘maverick’, to use the excavators original quip on seeing the floral painting.

The next chapter introduces the *sui generis* houses (this term is explained in section 1.5.2.) and presents them as places of transformation. By exploring the key properties and capacities of these highly decorative spaces we will be able to deduce some of the sensory experiences that took place, and build a sensory profile from exaggerated or preferred forms of material engagement evidenced in the archaeological record. Chapter 7 demonstrates, through the addition of contemporary creative practices and artworks, that data from the *sui generis* houses at the Neolithic town suggests that these were key places of stimulation for the human body.

Chapter 7 Making and Entering Colourful Experiences

7.1.0. Introduction

The thesis began with the question: What role did creative practice play in social life at the Neolithic tell Çatalhöyük, and what evidence is there to suggest that making informed the maintenance of the social bond. In Chapters 5 and 6 I examined creative practices at the settlement and established that it was possible to identify a variety of phenomena from material residues of making events. The analysis of unique ‘intra-actions’ (Barad 2003) with colourful, brilliant matter indicated that the people of Çatalhöyük were sensitive to the colour red, and engaged with the different shades of red in particular and culturally complex ways (section 5.4.3.). The procurement and curation of sparkling materials revealed a further dimension to the types of materials that were attractive to individuals at the settlement (section 5.2.0.). The presence of pigments in burials implies the interment of the body was a colourful event, and colour may have been used to articulate particular lineages, groups, statuses and so on (section 5.4.3.). Thus, colourful pigments were meaningful vital materials, entangled in a unique system of value (Croucher 2012: 246). The presence of pigment and bone tools in burials indicates a further potential creative practice, one that was part of the burial process, and in Chapter 5 I proposed that these tools were used to transform the surface of the skin either permanently or cosmetically. All these material intra-actions symbolise moments when Neolithic individuals or groups had the opportunity to visually articulate social differentiation.

The different techniques employed to make the hand icon (section 6.6.0.) revealed further distinctions between houses, and an important by-product of the different making techniques is the generation of different material experiences. Whilst the distinction between those who used the hand and those who used a tool to create a cinnabar hand icon could be compared to the differences between the crafting of the bricoleur or the engineer (section 4.3.2., 4.3.3.), the sensorial experience during the event may have been dramatically different; with those whose hands were covered in the bright red cinnabar fluid entering a potentially sedated or hypnotic state, and perhaps further on in life experiencing a range of illnesses relating to interactions with this vital material (section 5.5.3.). Thus, social differentiation was not only a symbolic activity, but also embedded in the sensory experience of the individual.

In tandem with social differentiation is the maintenance of the social bond (outlined in section 4.2.2.), and creative practices inform both these types of social formation. I contend that the *sui generis* houses (see section 1.5.2.) were transformational zones of social negotiation that formed and informed social relations in the town. To understand the transformational impact that these spaces had on social dynamics, we should first examine the tensions and pressures that are evident from creative events in the space. In section 4.7.0. I argued that the senses are receptors and mediators of social value, they are formed and informed by material interaction, and expressed through material gesture. The senses, after all, are embedded in matter (Hamilakis 2013: 5-6). As discussed in section 2.6.1., the built environment at the town is dramatically consistent; however, the additional embellishments in the *sui generis* houses encouraged certain properties and capacities of materials and these enhanced and altered the experience of those who accessed that space. I argue that these spaces actively encouraged ‘lively matter’ to flourish, which in turn informed activities carried out inside these unique buildings. In this chapter, I will investigate how the unique houses became ‘activated’ to create sensorially stimulating experiences through vital materials such as paint, pigment, light and darkness, and consider the social impact of these transformational spaces.

A mélange of stimuli were on offer in the *sui generis* houses, and this chapter seeks to understand the sensory profiles embedded in the built environment. I argue that the *sui generis* houses were carefully configured spaces intentionally made to have a strong sensory impact upon those who entered. On this matter it seems particularly relevant to draw from the practices of contemporary experiential artists who collaborate with vital materials to manipulate and adapt spaces to create experiences. Adding to this discussion is contemporary anthropological research that offers insight into auditory engagements; this research is highlighted to avoid the presentation of a purely ocularcentric approach to materiality (see section 4.7.1. for further discussion of this matter). Creative events are unique configurations of matter; constellations of activities in constant tension with social space. Therefore they will resonate or impact upon other co-present and co-constituting agents. It is now time to outline how these activities played out in social space.

7.2.0. Exploring the Ambience Inside the Houses

7.2.1. Wall Paintings: Fading and Re-Appearing

The ambience inside the houses was dependent on the creative practices that were in action on the day. Those who entered the space would be faced with a range of potentialities. Importantly, it should be noted that the walls were areas of transformation. Sometimes painted, but often plastered, these creative practices would set the tone of the activities inside the house and might demarcate them as transitory or activated spaces. Between the white plastered wall and a wall that captured a complete wall painting were several stages of transmutation that would capture the images disappearing through layers of plaster.

Çamurcuoğlu conducted a series of experiments that explored making and applying plaster and created paint with different pigments and binders (2015: 213). Çamurcuoğlu found that when she covered the painted image with a layer of plaster (thus, replicating the Çatalhöyük painting practice) the colour leaked (or ‘bled’) into the new layer of plaster (2015: 213). During her experiment the plaster became a pinkish tone due to the red ochre paint below (2015: 213). Çamurcuoğlu found that the amount of binder and time between the painting and plastering impacted upon the degree of bleeding (2015: 213). She notes Matthews’ (2005b) observation that the paintings were on show for a relatively brief duration, and proposes that this length of time may have been enough to seal the paint before the next layer of plaster or the layers of grease and soot from inhabitation of the house may have sealed the painting (2015: 213). Çamurcuoğlu proposes two other possibilities: that the paintings bled into the next layer of plaster and this motivated subsequent painting to fix the image or thick layers of plaster were applied between to avoid bleeding, which became less problematic when marl (with plant matter) was applied, and followed by a thin layer of fine plaster (2015: 213). The latter is less likely as wall painting walls tend to have an initial thick layer of marl followed by thin layers of thinner white lime plaster (Matthews 2005b, Matthews *et al* 1996); Çamurcuoğlu and Siddall 2016).

As discussed in section 6.3.3. faint traces of B.80’s wall painting were revealed after 5 layers of plaster and the full design was only made visible between 15 and 20 layers (Farid 2011b: 30). This observation along with the evidence of tool marks and

‘fixing’ (discussed in section 6.5.3.), suggest that once painted the Neolithic wall painting could not be returned to a plain white wall through a single application of white lime plaster. Colour may have seeped through the plaster, or perhaps still been visible (though muted) after a single layer of plaster, and it would take several layers of plaster to remove the design in its entirety from the wall. Thus, the wall painting practice was a process of transmutation; the visually stark design, when freshly painted, would slowly fade with each layer of plaster. Whether the fading of the image reflected the fading memory of the wall painting and associated events, or the fading potency of the agency invoked during the painting practice, is debatable. Nonetheless, the re-appearance of a wall painting after the previous painting had faded from view and returned to white, would create, to quote Hamiliakis, a ‘sensorially strong’ event (2012: 217).

7.2.2. The Body in the Dark

The *sui generis* houses, especially when painted, became increasingly stimulating areas. The wall paintings often describe delicate lines and forms which often depict patterns or animals and persons. Colours such as mauve, orange, pink and red have been recorded (Mellaart 1962: 58), although these are depicted in areas that can be gloomy and smokey. The interactive work carried out by artist Eva Bosch (2008, 2012) in the experimental house indicated the level of darkness inside, my experience inside the building similarly indicated that interiors was gloomy (Figure 5). Bosch (2012) also drew attention to the piercing ray of light that enters through the rooftop and moves during the day. The architectural remains of the structures themselves also indicate that the internal spaces were dark, and my experience of the experimental house at the excavation also suggested that the natural light inside the buildings was relatively gloomy (section 2.7.1.). Therefore, there are several strands of evidence that suggest that the internal environments, despite a range of decoration and embellishment, were relatively dark places.

However, the limited light inside the buildings may have been intentional. From a sensorial perspective it could be argued that the darkness was deliberately formed through the architectural design of the space. The gloomy light inside the buildings could be a reflection of a sensory preference and add a further dimension to our understanding of sensory profiles at the settlement. The darkness, combined with the panoramic visual stimulus, both sculptural and colourful, would have created a dynamic

and stimulating change from buildings that were not permitted these embellishments. This factor would become further emphasised by the presence of paint on the walls and pigment during a burial procedure. These features in-action in the unique houses indicate that they may have created heightened sensorial experiences for those who entered. To explore this possibility further, the ideas of contemporary artists who alter spaces to create artworks is explored next. Revealingly, three of their techniques emerge in the *sui generis* houses: darkness, panorama and augmentation.

Experiential artists make environments that are intended to encourage particular sensorial responses from those who enter the space. Artist Luc Courchesne uses darkness as an art medium in his practice, which he describes as a “wonderful device” that invites the visitor’s imagination to fill the space and bring together the experience as a whole (2002: 8; Govier 2016: 150). Courchesne also uses augmentation and panorama to manipulate the space and create an experience (2002). The artist argues that: “there is a threshold when augmented reality becomes really augmented and redefines the experience of space” (Courchesne 2002: 8). Augmentation can be detected in spaces and places where we can observe the fantastical.

At the Neolithic town we can see different forms of augmentation in-action, a key example being the wall paintings that capture hunting scenes (see the ‘hunting scene’ shrine A III. 1, Mellaart 1967: Fig. 71). The stags and bulls in these unique scenes are often far larger than the humans they interact with. One painting captures an image of a large bull painted in red (Mellaart 1965: Plate LIV). The size of the bull not only dwarfs the viewer, but also the tiny humans that are depicted dancing around the animal. In the context of this depiction, space has been augmented. This image is doubly deceiving as not only is the augmentation of the bull creating a fantastical image - the scale of bull to human - within the narrative of the image, but equally the image makes us, the viewer in the real world engaging with the fictional world of the image much smaller than the bull, made to feel the magnificence of the bull.

A similar sense of augmentation must have emerged when the horns of wild bulls were brought into domestic spaces and made into installations, thus persons were able to engage with them in close contact. The bull’s horns were permanently fixed in some of the *sui generis* houses, and offered haptic engagement with the most dangerous part of the bull’s body, a further reiteration of the iconography depicted in the hunting scenes

described above, and a sensory interplay that adds further support to the importance of touch at the settlement (as outline in section 6.5.3.).

7.2.3. Light and Darkness at Çatalhöyük

Ganis notes that outside the buildings, the light would have reflected from the white plastered walls in the brilliant sunshine, and that this may have been startling during the summer months when the sun's rays "are perpendicular" (2012: 131). She also argues that the rays into the main room may have been "relatively strong" (Ganis 2012: 131). The bright light reflected off the external walls must have emphasised the darkness in the room, and would have made the transition between external day-lit space to the darkness of inside visually difficult. The change in conditions would be demanding on the eye, and it would take several moments to readjust between the two spaces.

During the summer the town would be basked in sunlight, and there would have been a real need for a shaded safe space out of the sun's glare. When we consider darkness from an anthropological stance we realise that darkness means different things to different cultures; there is rarely a need for a dark, shaded space in, for example, Scotland. However, in Turkey, a dark space would provide shade at the height of the midday summer heat; in these cases darkness would provide comfort and would be something coveted. Darkness is presented here as a culturally relative term, and if we consider the ethnographic material found at places that suffer from extreme heat we might consider that the people of Çatalhöyük may have responded to darkness in a positive and welcoming manner. Their choice of architectural design indicates that they chose to make spaces without windows and where very little natural light would penetrate.

The plastered alcoves may have held lighting fixtures of some sort, which may have provided enough light to see the images. The 2011 report revealed that B.77 yielded an 'enigmatic feature', described by the excavator as "a tall skinny bin-like structure built out of pise-like material, F.3613, and repeatedly plastered with white marl on the inside and outside" (Eddisford 2011: 36). According to the report another such feature was also found in B.49 (F. 1656), similar in form, size (0.4m wide and approx. 1m high) and construction. This second feature had also been repeatedly plastered both inside and outside with white marl (Eddisford 2011: 36). Both features were positioned at the

northeast corner of the northwest platform on the northern wall (Eddisford 2011: 36). Remarkably, Eddisford suggests that: “if the feature was not used for storage it may have been a lighting installation, containing some form of flame for light” (2011: 36). He also notes that not only would the feature dramatically light up the northern wall but it would also emphasise the incisions on the decorated panel, U.19546 and U.19049, which he argues might be associated with the potential light source F.3613 due to their physical proximity (2011: 36). The tall thin bin may not have provided enough light to reveal all of the imagery contained on the walls, but it would certainly provide light in this area of the room. Currently, these light features are unusual, but given the scale of the excavation we may find other examples. There are other features, such as niches (such as F.6063, B.77), that may have held a light source, and these were permanent architectural elements.

It is difficult to account for the role of the ‘niche’ that we sometimes see in buildings. In one example it has been suggested that the speleothems may have been positioned there too (Moyes 2014: 213). Light fixtures that housed small flames may have been usefully positioned in the alcoves and niches to perhaps provide additional light. Above the niche in B.77 was the calf skull which was covered in clay and plaster: had a light source been on the ledge of the niche the skull would have been dramatically lit up. Mellaart proposed a similar suggestion during his discussion of a niche in EVI, 10, and two niches found in EVI, 1 and 2 (1963: 70). Eddisford’s lighting fixture would certainly have added light to that area in the building. However, there are additional environmental conditions to consider within the building, such as the heat and smoke from the hearth, which could impact on sensory engagement within the building, particularly visibility.

7.2.4. Smokey Interiors

Our current understanding of the buildings at Çatalhöyük indicate that they were entered through the rooftop. A wooden ladder was positioned by the hearth along the southern wall. If the hearth were alight, then individuals entering and leaving the building would be accompanied by the smoke of the fire. The draw of the fire would influence the environment within the building; the draw changes from season to season and is dependent on wind velocity and pressure inside and outside of the building. What was being cooked that day and what materials were being burnt would inform the

degree and type (colour, smell) of smoke in the building; all these things would alter the experience of entering and leaving the building. Jones (2012: 91-94) argues that smokey interiors at Neolithic Orkney similarly impacted upon the experiential dimensions of the interiors of houses. He argues that the smokey interiors would impact upon visibility within buildings and encourage tactile engagement with the space, he notes that firelight and smoke would have impacted 'people's appreciation of the dynamics of materials' (2012: 91, 94).

Smoke is a difficult substance for humans, it gets in the eyes, and when we inhale smoke we tend to cough. Smoke inhalation was part of daily living at the Neolithic town, and evidence of the damage caused due to engagement with this vital material has been found in the lungs of the inhabitants via bone analysis (Birch 2005: 593; Andrews *et al* 2005: 277). Andrews *et al* explains that during life, smoke accumulates in the lungs and then as the lungs decay after death, the residues deposit on the ribs and vertebrae (2005: 277). The cacophony of coughing from the different residents as they entered and left the building, or the residue of smoke in the lungs late at night after a day of inhalation, can only be imagined (Hodder 2005b). In response to the smoke the body produces phlegm, lung capacity is reduced which can cause wheezing, and there is an increased risk of respiratory infections (Fitzjohn 2000: 12; Thomas *et al* 2014).

The vitality of the smoke as an agent is important to recognise here in a discussion of vital materialisms active in the building, especially when trying to understand how these agents informed the experience of the space. Smoke can be damaging, particularly when routinely inhaled in small enclosed buildings. 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 and offers a 'disease demography' that interweaves cooking at the hearth and the likelihood of disease (Fitzjohn 2000: 10-14).

Using animal dung or wood as fuel can cause problematic air pollution, and through the analysis of middens and hearths both inside and outside of buildings it has been established that these were the two major fuel sources at the Neolithic town (Hodder 2016: 32; Bogaard *et al* 2014). To explain the impact burning this type of fuel in domestic buildings has on individuals, 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 smokey 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” (Fitzjohn 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 these Neolithic human bodies. This reminds us we should not underestimate how collaborations with these materials informed the day-to-day workings and movement of humans who existed with smoke.

Bosch (2008, 2012) investigated light, dust and smoke within the experimental house. She captured the changing atmosphere within the building and demonstrated how the space could be altered through collaborating with light and smoke (Bosch 2008). The artist documented her experiments through film and we can see how she was able to build up a hazy atmosphere within the building by simulating the natural light inside (by covering the contemporary entry point) and encouraging smoke (Bosch 2008). The smoke is a multidimensional material and has multiple capacities; smoke can be seen, smelt and felt. There would clearly be an ambient difference between internal and external spaces. Simply entering the space would instigate a chain of physical changes to human bodies.

7.3.0 Experiential Dimensions

7.3.1. Sonic Panorama

We might also consider the manipulation of panoramic sound to explore the potential of other stimuli inside the building. Installation artist Janet Cardiff created a piece titled *Forty Part Motet* (2001). The artwork consists of forty loud speakers mounted on stands which are placed in the shape of large oval. There are also amplifiers and a playback computer installed behind the scenes. Each speaker represents a voice, and the spectator's attention is roused when the speakers begin to chatter, laugh, cough and slowly come into existence - each speaker has an individual sequence. The viewers look around themselves unsure as to whether there are new people in the room. This moment of confusion destabilises the viewers, who are put on edge. Of course this is intentional to make the viewers alert and awaken their senses. Soon after the song begins, there is rhythm and uniformity in the voices; pattern and order in the sound. A *motet* is sung

without an accompaniment and captures several voices in a harmonious composition; the words are sometimes inspired by a religious text (Pesce 1997: 12-13). Had the speakers been singers in person, the viewers might have noticed the twitching eye of the baritone or the flushed cheeks of the soprano, and this would distract their attention from the purity of the sculpture of sound the artist is creating. This type of engagement simulates the experiences of those positioned either outside or inside the buildings at Çatalhöyük: they can hear voices and action from their neighbours on the opposite side of the wall but do not have the full sensorial experience of seeing or touching the interwoven activities embedded in the events.

7.3.2 Sounds at Çatalhöyük

Aural engagement at the Neolithic town has been explored and analysed by Steve Mills (2014) in his book *Auditory archaeology: understanding sounds and hearing in the past*. He considers the sounds present inside the experimental house at the site. He explains the premise behind his study as follows:

“Cultural acoustics is the study of how we experience and engage with architectural spaces through sounds and listening and how the properties of those spaces can be designed to manipulate sound (through aural architecture) in ways that affect our auditory spatial awareness and emotions (Mills 2014: 42)”.

During one chapter he describes a soundscape at the Neolithic town, the following extract providing insight into the types of sounds he heard on site:

“It is early morning and from on the roof of the replica house the dawn chorus is vibrant, especially the contribution of sparrows. It can also be heard from inside the house (2014: 17)”.

The dawn chorus is one feature of Mill’s soundscape that is likely to have also been present during the Neolithic. The Çatalhöyük research project hosts an extensive Neolithic avian eggshell database; over 940 units have yielded eggshell; the database contains thousands of fragments (Best *et al* 2015: 111). Ducks, geese, seagulls, spoonbills, storks, and crane are all listed as possible types of birds that the humans at Çatalhöyük were interacting with, due to the presence of these types of eggshell in middens, burials and dumps at the town (Best *et al* 2015: 111-113). Cross-species and inter-species relationships with birds are indicated through creative practices at various moments in the biography of the town too. They range from the early ‘vulture’ wall

paintings excavated by Mellaart where winged creatures hover over decapitated humans, to the presence of bird wings in building closures. During the 2015 excavation two bird wings “from a large bird” were found (2015: 136). The wings were found with obsidian and flint tools, worked stones, worked bones, fragments of a horn core and situated close to a naked, headless and foot-less rotund figurine (Excavation Report 2015: 136). Çatalhöyük was an avian-human landscape and the sound of the dawn chorus heard from the experimental house today are, I would argue, an authentic prehistoric phenomenon.

The soundscape within the building is structured by the shifting sounds outside; the dawn chorus is a particular phenomena that can momentarily dominate soundscapes. Mills describes how sounds give ‘presence’ to ‘unseen sources’ (2014: 17). The walls of the buildings visually hide those inside from the outside world; but their voices and activities will travel aurally beyond the wall. The same is true of the outside, were the voices and activities beyond the wall will be heard. In his introduction, Mills describes hearing the bells rising up from the nearby village Küçükköy to the experimental house by the mound. His observations highlight the aural sensorial landscape both within and beyond the building. If we imagine some of the events that took place inside the buildings such as the burials or paintings, perhaps other members of the community would only know of the event through sound (perhaps smell too). As the space can only accommodate a few individuals, the actions within the building become exclusive with the full multi-sensorial impact afforded to only those with access. Similarly, would such events require quiet from outside as a form of acknowledgement; we might imagine the possibility that the day-to-day routines were halted so that they could listen to the events that were taking place inside. The events might work around the dawn chorus or perhaps carry on regardless, and drown out the sound.

Mills argues that: “sentient bodies are knowledgeable about their surroundings through engagement involving the whole body, the contents and configuration of their surroundings and cultural and historical contingency” (2014: 20). He acknowledges that ecologically the past environment has now changed; however the aim is to understand how best to “attend to the archaeological record” to aid our understanding of how individuals from the past engaged with their environment (2014: 20). I argue that contemporary ethnographic research carried out in densely populated areas will help aid

our understanding by revealing some of the characteristics of large numbers of people living closely together.

The sounds of day-to-day living would inevitably ricochet around the buildings; the best contemporary ethnographic example to support this argument is Tom Rice's soundscape of the Govindpuri Slums (2015). The recording of the 'densely packed ramshackle homes' reminds us of how voices carry through the walls and along the streets: talking, singing, laughing, can be heard as are the sounds of people playing games or children providing running commentaries. These are the sounds that happen when a community live close together. In the recording, urban researcher Tripta Chandola describes the outside of the 'slum settlement' as the 'skin' and that as you move inside the slum it becomes denser (in terms of both architectural structures and population) and poorer. Rice notes: "because you can't see far, sounds become more prominent" (2015). At the Govindpuri Slums there are small lanes between the buildings, and this is often where the people gather. Chandola asserts that the 'density of the [slum's] structure [makes] the sound travel rather easily'. The area is described as "porous", allowing sound to travel. In the Govindpuri Slums, the daily arrival of water becomes a moment of 'rhythmic activity in the streets'; noise in Dehli, an informant remarks, is not 'noisy' but 'vibrant' (Rice 2015). Another informant comments: "we can easily listen to each and every conversation because it is a very congested area" (Rice 2015). The sounds of the tightly packed spaces of the Govindpuri Slums are informed by both the architectural structure and the rhythms of life.

The soundscapes of Çatalhöyük are likely to have been similarly vibrant. The archaeological evidence indicates a variety of activities, particularly making, and these would cause sounds to emanate from, or around, the buildings. By thinking through and with sound we can build a richer understanding of day-to-day living at the Neolithic town. Subtle differences such as the sounds of painting and plastering compared to the sounds of obsidian knapping demonstrate different sensory engagements with materials and how others would know or engage with these types of making. The value of these idiosyncrasies and subtleties should not be underestimated. Indeed, the analysis of the potentiality of sound and the 'contents and configurations' of the surroundings call for alternative methods of data collection. Cutting-edge research carried out by a sound artist showing how soundscapes can be drawn is explored next.

Recording sounds, or examining soundscapes and sculptures, are not the only ways of thinking about or acknowledging sound. Indeed, on this matter, the work of artist Helmet Lemke is presented to demonstrate the innovative sensory engagement and recording methods that are available to those who wish to capture and think about sound. Lemke creates sound drawings using lines and words to depict the different sounds he finds as he experiences an environment. His research has taken him to Lapland, Switzerland, Greenland, Iceland and Scotland where he listened and tried to archive sound (Lemke and Haywood 2008: 6). The work I refer to here is his 2004 book *Über den Hörwert* ('about the value to listen'). This body of work is particularly useful for the sensorial turn in archaeology as it re-imagines the artist as "interpreter" rather than creator (2004: 28). His drawings offer an inter-sensorial (ocular and aural) approach to interpreting and capturing sound.

As archaeologists, when we see the residues of creative events, we too, as part of our interpretation of the archaeological dataset, could hypothesise sounds and create sound drawings. These would be informed by experiences of listening in experimental approaches to archaeology, such as the sounds of making that played out during making the experimental house at the site, and identifying and interpreting the residues of the creative events evidenced in the archaeological dataset.

In one extract in the book, Lemke travels to northern Finland where he walks snowy, deserted landscapes. During the journey he makes notes, creates sound drawings, and sometimes records sounds. One extract, taken from 9 March 2004, explains how his walking sticks are "exploding all present sounds" in the landscape (Lemke and Haywood 2008: 14). He remarks: "to hear is to stop", and to understand and interpret the sound he draws as it "makes little sense" to record as "it's too quiet" (2008: 14). There are several ways his methods could be utilised in archaeological interpretation. Firstly, Lemke argues that sound offers a valuable medium to interpret "physical and social landscapes" (Lemke and Haywood 2008: 28). Secondly, he argues that sound can be "sourced from naturally occurring interactions of the elements with the physical features of the landscape" (2008: 28). These two points certainly echo sentiments outlined by archaeologist Chris Tilley in reference to experiencing the landscape (1998), but they seem to ground sound as a valid source that is available for interpretation. Therefore, to understand making events in the past, we can conjoin the experimental,

the experiential, the material, and empirical to offer multi-sensory configurations of Neolithic creative events.

On this matter, and inspired by Lemke, I provide an example of a sound drawing that is informed by the archaeological record at Çatalhöyük (Appendix 6). The drawing focuses on the archaeological residues that reveal elements of day-to-day to living from that period. It comprises the following: people walking on the roofs; people entering the building through the rooftop; their weight causing the wooden ladders to squeak slightly as they descend. There is also the sound of wood burning and crackling; mixing substances in wooden bowls; sheep bleating outside; and people talking next-door. It seems to be an ageless soundscape.

7.3.3. Panoramic Stimuli

Building on the sensorial stimulants outlined above, it is recognised that both panoramic visual stimulus, and darkness, can impact on the physicality of the body, particularly the functionality of the eyes (Tweed *et al* 1998). The eyes function differently when engaging in a panoramic setting compared to a “head-fixed” gaze (Tweed *et al* 1998). The gaze directs the movement of the body through space (*ibid*). According to their research, the eye can move vertically, horizontally, and torsionally. When objects of interest become visible in the periphery of our vision, the primary aim is for the eye to reach the target as quickly as possible, with the head following this movement (Tweed *et al* 1998: 1363-4). This leads to strain being placed on the torsional eye muscles, the ones that allow the eye to twist, the brain forfeits these muscles in the process of seeing the target. Tweed *et al* write: "The eye swivels rapidly to the visual target and locks on, whereas the head reorients itself more slowly" (1998: 1363-4), and this leads to the eye being momentarily suspended in space whilst the head readjusts. Tweed *et al* describe the eye as being 'poised' and ready to act on the next target of interest (1998: 1365). Therefore, the eyes would become strained in these embellished environments.

Whilst the pointed tips of the bucrania often protrude into the space, there are also the uneven platforms, architectural fixtures and voids in the walls (niches) to consider. The combination of all these elements appear to be more permanent features inside the elaborate houses and history houses. However, the addition of colourful paintings, sometimes stretching across two walls, and onto the wall fixtures or around niches,

would convert the space to a sensorially ‘active’ place. The science of the gaze illustrates that we are actively looking and reacting to subjects, or in this case ‘targets’ of interest, and significantly the gaze can direct the movement of the head and body around the space.

The architectural restriction of light inside the buildings could be a deliberate attempt to restrict certain senses and encourage others. As discussed in Chapter 3.13, sensorial engagements can be intentionally limited or restricted (Fahlander and Kjellström 2010: 6). Indeed, Tom Rice (2015) notes that in situations where one sense is restricted, others can become more active. Research into the gaze established that the eye will react to stimulus on the periphery of vision and create certain strains on the eye as the head follows the gaze to receive the stimulus. How the eyes and body function in darker areas when surrounded by visual stimulus indicates that these were spaces that could create a ‘heightened’ experience for those entering. The *sui generis* houses have noticeably elaborate interiors (section 1.5.2.). The individual buildings host bucrania and wall features that would mark them as unique within the community. There was clearly restricted access to bull horns, and therefore the addition of these features within the space would mark the space as unique or special. The addition of colourful patterns and paintings on the walls would add a further layer of sensory stimulus in the building, and as this was restricted to certain moments in the biography of the building, we could describe the addition of the wall painting as a moment when the space became activated. Some areas would be light and others dark due to lighting fixtures and the dark shadows where light could not reach. The bucrania would protrude into certain areas of the space.

In consideration of these findings, I argue that when an individual entered an ‘active’ house, and became surrounded by abstract colourful markings and textures, they entered into a heightened sensory state. I have explained elsewhere that these spaces, when activated by paint, inverted the domestic (Govier 2016). I argued that the momentary application of colour re-negotiates the domestic and demarcates the internal operations within the building as transformational (Govier 2016). To emphasise this point I synthesised the artwork *Seizure* (2008) by Roger Hiorns with the *sui generis* houses (Govier 2016: 145). Hiorns sprayed 75,000 litres of liquid copper sulphate into an abandoned council flat in Southwark, London (Govier 2016: 145). The liquid converted

the interior of the space with a vivid blue crystalline growth; from the bath tub, to the walls and ceilings. Entering the flat became an immersive experience. Like Hiorns artwork *Seizure*, the transformation within the *sui generis* houses only becomes apparent when completely inside. The presence of the wall paintings would create a similar tension that would clearly re-contextualise the interiors into a space-in-transformation and alter the perception of activities within the space (Govier 2016: 145).

7.4.0. The Social Impact of Material Transformations

7.4.1. Transforming Agents

Louise Steel explains that witnessing material transformation can be a magical experience for those who are uninitiated into the act (2013b: 160). Steel refers to Mary Helm's argument and notes "skilled crafting provides an interface between the known physical world and other distant or supernatural realms" (Steel 2013a: 160). Steel explains that the source of the materials and the process of crafting can be entangled with the cosmological belief system (Steel 2013a: 160). She explains further that when the materials used in the production are sourced from distant locations narratives can develop which entangle materials with "seemingly mythical realms" (2013a: 160). These elements, in addition to the magical experience of witnessing the physical transformation of the substances during making, and the special and perhaps "taboo" status of the tools used in the process of transformation, imbue the act with a "mystical aura" (2013a: 160). In section 7.4.3. I will consider the potential relationship between certain creative practices and ritual and magic.

Whilst we often see rhythms in imagery, the variety in the portfolio of imagery created at the town indicates that the wall paintings were key areas of innovation and created a conceptual and physical space for a creative action that could yield unprecedented iconography. Therefore, there seems to be an increased likelihood that painting was a creative practice that was not explicitly codified. One proviso is included in this statement: that there are rhythms on certain walls and in certain areas, and certain imagery can be repeated within several layers of plaster later. Certain wall features can, also, be repeated through house generations too, as can be observed in Mellaart's schematic table of decorations in major shrines (Mellaart 1967: 102-103).

Nonetheless, we can observe quite dramatic shifts in image content and types of painting practice between houses. The hunting scenes clearly have a strong narrative content, and they depict animals and humans interacting. These images appear formulaic in the style that they are painted and how the human figure is represented. There is clearly a way of portraying the body that is shared in the hunting scenes, and the standardization of this process could reflect a type of ‘corporeal politic’ (Bailey 2005: 200), where the repeated representation of a unique interpretation of the body demonstrates a “shared conception of what a person was and should look like” (Bailey 2005: 118, 199). However, the analysis of the hand prints and paintings of hands in section 6.6.0. revealed a distinction in the type of material engagement such creative practices afforded. One method allowed the body to come into direct contact with a regulated substance (the B.77 examples). The creation of different types of lines were also unpacked in section 6.4.1. where the ruptures and flows in making were explored. Added to this point are the findings outlined in section 5.5.3., which demonstrated the impact cinnabar has on the body, especially when consumed or the vapours of heated cinnabar inhaled (it can act as a sedative or hypnotic). Therefore, an individual with a hand coated in the substance might be experiencing an altered state of consciousness.

7.4.2. From Domestic to Active

I contend that the patterns created on walls during painting events transformed the house from the domestic to an ‘active’ space. As all houses at the town appear to have been inhabited and accommodated domestic activities, it seems reasonable to state that these were domestic spaces (Matthews 2005b; Farid 2007; Düring 2007). However, as explained in section 1.5.2. the *sui generis* houses (such as the history houses and elaborate/large houses) contained bucrania, wall paintings, animal installations and more burials than other buildings. Therefore, there is a slight tension in my argument that the *sui generis* houses transformed from domestic to active because there are distinctive architectural features embedded in the structure of the building. The inclusion of these animal skulls and sculptures would uniquely and permanently demarcate the space during the life course of the building as a unique space, whether the inhabitants viewed these spaces as historical buildings steeped in tradition or places of ritual and religion, such as shrines, is debatable. In addition to addressing this tension,

my use of the term 'active' needs to be explained: the remaining pages of this chapter will clarify these issues.

The two aforementioned points are important as they are integral to a key argument where I link the *sui generis* houses to social differentiation and argue that unlike most of the creative practices that I have examined at the town, it was these spaces, when active, that created social opportunities to challenge or test social organisation. On this matter, it is useful to think of Bishop's commentary on participatory arts and her statement that Boal "developed an influential mode of theatrical therapy geared towards social change" (2012: 105). The activated *sui generis* house allowed unprecedented mark-makings to emerge, and on some occasions, offered certain individuals an opportunity to play an integral role in the production of the events (as seen in B.77 handprints), therefore, there was not a clear blueprint for the events and this created a socio-creative space for new gestures and meanings. With regard to the notion of 'activated' spaces, I argue that the application of paint to the surface of the sculptures and wall features is a key factor in the process of activation. The transmutation of the surface through the addition of colour momentarily transforms the environment to a space with great potential.

7.4.3. Ritual and Magic

Articulating the difference between ritual and magic is imperative to this discussion. I argue that an activated space is a magical one. Archaeologists Nakamura and Pels (who have both worked at the tell for several field excavation seasons) argue the term ritual has often been used instead of 'magical' when discussing prehistory (2014: 189). They explain:

"The figure of "magic" thus grows new teeth in this material turn, since it may allow us to situate it within embodied practices that work to actualize an intended desire or outcome, rather than see it as a faulty logic or system of beliefs. Since many such practices leave a material trace, magic becomes a possible subject of archaeological inquiry (Nakamura and Pels 2014: 188)".

This suggests an element of auto-ethnographic empirical narcissism involved in the rejection of the term 'magic', and that this is rooted in the dismissal of magic and magical experiences because they are deemed 'a faulty logic'. Nakamura and Pels call for thinking "from the material" to accommodate a new materialist approach to magic

(2014: 188). Their argument similarly draws from several of the key inspirations for this thesis, including Gell (1998), Mauss and Taussig. It is particularly their discussion of Taussig that is focused upon here. They explain Taussig argues that a key component of understanding magic is that it is a performative action (2014: 194). The materials Nakamura and Pels analyse are those that involve “both common and uncommon materials (obsidian, flint, speleothem, antler, pigment, figurine materials) clustered in seemingly nonrandom combinations, deposited in specific places” (Nakamura and Pels 2014: 191). They argue that certain “material entailments of human intervention [are] aimed at the transcendent nonhuman world” (2014: 195). This point resonates deeply with my argument, as I suspect that activated houses created transcendent moments.

On the matter of the embedded wall fixtures in the elaborate houses, the researchers’ argue that the bucrania and other animal installations are part of normative religious or spiritual action at the town, and importantly distinguish these as ritualised practices (Nakamura and Pels 2014: 196). These creative practices are separated from the material actions that appear (to a degree) counter-normative or perhaps involve “a more discrete material register” that traverses both the normal and extraordinary (Nakamura and Pels 2014: 196). It is these creative practices that I similarly have responded to and have featured in many of the discussions in this thesis, such as the pink palette, the scattering of blue azurite pigment, and colourful speleothems. These creative gestures are not as common as bucrania, for example, and so appear to be rich sources of new sensory information.

In addition to creating a conceptual space for material engagement to be linked to abstract entities, Nakamura and Pels propose a clear distinction in the intentions behind certain creative practices and link these to temporal distinctions between surfaces and boundaries, and ideas surrounding revelation and concealment (2014: 197). They use the word “horizon” much like I use “transmutation” to indicate “a transition between two things”, but more specifically and archaeologically, they use the term to delineate the processes that are beginnings and ends in themselves. Accordingly, ‘horizons’ are creative events that include the makeup layers (those layers that make up the form of the bench) and foundation layers (those layers that create the foundations of the building) - processes that were never “surfaces” (2014: 197). These horizons are described as “liminal transitory spaces” that remain apart and unseen from those conducting day-to-

day life in the house (2014: 197). According to their argument, “actions across surfaces [...] enable a kind of past to future movement” (2014: 197) whereas marking horizons “serve to fix or mark a particular moment that will recede into the past” (2014: 197). They suggest these two actions might have been aimed at different audiences: those activities that took place on surfaces were for human audiences, and those which are horizons were for a more “abstracted audience” such as spirits and ancestors (2014: 197-198).

Nakamura and Pels’ discussion is particularly interesting as they have responded to the creative practices that are complex and nuanced. They recognise that these actions are more than ritualised events and instead could be potent magical expressions. From the perspective of a researcher who rejects the Cartesian cut and a thesis with the core intention to identify phenomena rather than units, the distinction between a surface and horizon seems at odds with the flowing and emerging events that have been the focus of my argument. I argue that both of these activities are performative; even the creation of a horizon is embodied and performed. Therefore, both of these processes of making are uniformly considered as creative events.

Nonetheless, in keeping with Nakamura and Pels, it is anticipated that certain creative gestures activated spaces in very much “magical” ways. The conceptual leap needed to address the connotations of using creative practices to access other-than-human entities is a chasm I do not cross in this research. However, I have cited several ethnographic examples that illustrate the breadth and variety of how materials such as paint, light and sound can be entwined with values, meanings and even be used to invoke other-than-human entities (see section 4.7.3.). Such as the *San* who describe how the painted surface can allow supernatural forces to flow to those who touch the image (as discussed in section 6.5.2.). The essence of this thesis is the acknowledgement of the potentiality of materials and to socially contextualise the implications of these actions in relation to community dynamics and tensions. To this end, I will address the social connotations of the activated houses by proposing a theoretical position that illustrates how Nakamura and Pels’ surfaces and horizons as creative processes relate to social organisation at the Neolithic town.

These moments were integral to social formation as the dynamics and tensions that emerge during these scenarios can shape and inform social relationships, as can the

emotions and actions expressed during making. Unlike other creative practices where there are rhythms in movement and making, the curve and fall of a line can create the emergence of a unique and unprecedented pattern, and I argue that these unique actions, as they emerged, had the potential to challenge social organisation. Michel Foucault (1967, 1984) offered a concept that links unique constructions of place and social organisation through material order; his explanation of ‘heterotopias’ is discussed next to address what activated houses mean for the community cohesion.

7.5.0. Negotiating the Social Through the Material

7.5.1. Heterotopic Spaces

Foucault wrote about heterotopias in his 1967 work, *Of Other Spaces, Heterotopias*. The lecture was published posthumously in the 1984 French journal *Architecture/Mouvement/Continuité*. Foucault describes the heterotopia as a space “all the other real sites that can be found in the culture, are simultaneously represented, contested and inverted” (Foucault 1984: 3). By doing so, Foucault identifies a force that creates the impetus for change within a culture which is an enactment. Thus a heterotopia is an enacted utopia: an ideal no-place in a some-place. The key principle is that the heterotopia either “exposes every real space” by creating a space that is other and in direct contrast to the external spaces (1984: 8). A heterotopia is a site that is not easily accessible and has an element of exclusivity (1984: 7). The heterotopia reacts and responds to the culture in which it is positioned by simultaneously commenting on several other sites (1984: 6). Heterotopias are spatiotemporally discrete and could be regarded as a ‘slice of time’ (1984: 6).

There are three forces that are in tension in the heterotopic space. Firstly, there is the culturally contingent notion of a ‘utopia’; secondly there is an understanding of a ‘normal’ space that might be considered the ‘everyday’ and where daily regulated living practices take place; and finally there is the heterotopia. The latter is the ‘other space’, one which creates tension with both the everyday and the utopic. So it is these three tensions that are considered when analysing the space. Some have interpreted heterotopias to be about destroying cultural order, and this is mainly due to the following comment Foucault made in his book *The Order of Things*:

“Heterotopias are disturbing, probably because they secretly undermine language, because they make it impossible to name this and that, because they shatter or tangle common names, because they destroy ‘syntax’ in advance, and not only the syntax with which we construct sentences but also that less apparent syntax which causes words and things (next to and also opposite one another) to ‘hold together’ (Foucault 2005 [1970]: XIX)”.

I argue that Foucault uses the notion of syntax as a metaphor for order in society. The root of the word syntax is the greek *suntaxis* sun meaning ‘together’ and *tassein* ‘arrange’. Foucault seems to suggest that humans make sense of the world in a logical manner through the metaphor of a well formed sentence. Accordingly, heterotopias undermine syntax because they join together things that would not usually be joined in our own understanding of the world. Therefore, heterotopias destroy syntax, and so destroy order. If we apply this metaphor to his concept of space, we see that a heterotopia is a space that defies the cultural order by joining together things in a new order. Importantly, following on from Foucault’s use of grammar as an analogy for the heterotopias: we should not imagine illogical sentences of single letters; in heterotopias, there are still fully-formed words, it is just the order in which they are presented defies the collective cognitive order of what is known. In this sense, the heterotopia contests the sites external to itself by providing new order rather than disorder; therefore, there will be a rhythmical familiarity rather than a repetition of the cultural norms, structures, regulatory regimes.

A key aspect of the heterotopia is that the space simultaneously represents, contests and inverts all other real sites that can be found in the culture. In the discussion, Foucault uses the word *inversés*, which has been translated differently to mean ‘inverted’ or ‘overturned’; these two words have very different connotations. To invert is to put upside down, or in the opposite position, arrangement or order whereas overturned is to tip, abolish, invalidate or turn around. Therefore, it seems ‘to invert’ is to change, but ‘to overturn’ is to destroy. It would seem that the latter presents the heterotopia as an actant with the ability destroy and renew culture. I argue that ‘overturn’ does not quite tie into Foucault’s overall concept as the purpose of the heterotopia is to expose real space rather than to extinguish it. By using the mirror as an analogy for the heterotopia, Foucault identifies the mirror as utopic in the sense that it is a “placeless place” whilst simultaneously existing in reality and “exerts a sort of counteraction on the position that

I occupy” (1984: 4). On this matter, sociologist Kevin Hetherington highlights the work of Louis Marin (1984) who examines the origins of the word ‘utopia’ (1997: VIII). Marin notes that Thomas Moore conceived of the word by collapsing together two words of greek origin: *eu-topia* which means good place and *ou-topia* which means no-place (1997: VIII). In his study of utopias, Marin divides the words back into the two separate notions, like Moore, and considers the space between them; it is in this space that Hetherington locates Foucault’s notion of the heterotopia (1997: VIII).

Hetherington’s interpretation of the concept is particularly relevant as he emphasises that heterotopias are always sources of contrast and tension rather than a single self-contained unit of space. He specifically states that they “reveal the process of social ordering to be [...] a process rather than a thing” (1997: IX). Hetherington also notes that heterotopias are not simply places that are ‘different’; rather, they are spaces where there is a relationship between difference and a new social order. Therefore being ‘different’ is not enough to qualify a space as heterotopic, as a heterotopia is a place where “new modes of social encounter and exchange could prevail” (1997: 143). Hetherington’s argument offers a useful point to apply to the activated *sui generis* houses. I argue that certain material expressions in these houses were potent agentive acts that emerged at key moments during the life-cycle of the building; I develop this argument in the next section.

7.5.2. The ‘Activated’ House

The use of paint in the houses appears regulated, and pre-6500 BC there appears to be a code of acceptable practice, such as the articulation of the appropriate wall to paint on, and the shared understanding that the images were to be covered with layers of plaster, sometimes soon after, and especially when a building was ‘closed’ (as outlined in section 2.6.1.). During painting events, new forms of painted gesture and expression could (though did not always) emerge (such as the ‘doodle’ F.3429 described in section 6.6.2.). These processes contrasted with the regularity of many creative practices across the town that were shared and evidently rhythmic. The appearance of wall paintings or areas of colour - like the calf’s skull discussed in section 6.3.4. which was covered with a single coat of red during its life-cycle (U. 19286) - ruptured the flow of day-to-day life (or, following Hamilakis (2011: 217), the ‘temporality of the everyday’, see section 4.7.4). Like the handprints in B.77, these material gestures were important moments

when unique individuals gained access to a culturally significant space: the north wall. We might contrast the emergence and repetition of the painted claw/paw hand and the handprints and note that these types of making events are important moments for social relations to be re-negotiated, and new sensory modes of engagement to be generated. After all, “social relations are mediated rather than absolutely given or abstracted” (Nakamura and Pels 2014: 191). Thus, the *sui generis* houses were physically demarcated as spaces of great potentiality, and the material gestures within the space indicate that certain areas were transformed by painted gestures at key moments during the life-cycle of the building. These moments contrast with the patterns of other creative practices at the town (outlined in section 2.6.1.). I argue that the creative practices evident in the *sui generis* houses demonstrate that they were spaces with the capacity to transform from the domestic to the active, and by doing so became momentary spaces that inverted normative practices and created tension with the communities’ regulated, systematic and shared creative practices. These instances offered opportunities for new forms of expression, and may have incorporated altered states of consciousness and been rooted in magical beliefs. Thus, the activated house becomes a momentary heterotopia; a slice of time, an inversion of the normative day-to-day activities, and, if we follow Foucault’s proposition, a place where challenges to social organisation can emerge.

7.6.0. Conclusion

The ambience inside the *sui generis* houses clearly informed the production and reception of creative practices within the space. The analysis of key houses at the town indicated that light was restricted inside the building, and yet these were highly embellished and carefully curated spaces. These factors do not support ocular-focused ways of ‘seeing’. Darkness affects sensory engagement, and in this chapter it was proposed that the gloomy ambience inside the building was deliberately cultivated. To develop this argument, the ideas and artworks of contemporary experiential artists were presented, and it was revealed that some artists use darkness as a tool to create experiences. The consideration of augmentation, panorama and how the eye works when confronted with panoramic stimulus indicates that activated houses were multi-sensorial experiences. Whether darkness was consciously used as a tool to manipulate the experiences of those who entered the buildings is open to debate, though it does

seem that the ambience inside the building was fitting for the community who continued to make similar houses as the generations progressed.

The agencies and capacities that were in-action inside the building were outlined. Vital materials and substances, such as light and smoke, were integral to the Neolithic activities that took place inside the *sui generis* houses, though it is important to acknowledge that these lively agents were in-action in *all* buildings at the site. By analysing the smokey interiors, I spotlight the vitality of these materials and their capacities to impact on those who coexist in the space. By doing so, creative practices are contextualised with co-present (and co-constituting) agents in the building. The chapter detailed a holistic, perhaps even ecological, approach to creative action taking place in constructed environments.

Whilst there may have been pragmatic reasons behind creating dark spaces, the existence of these gloomy interiors indicates a cultural preference for the darkness, and this observation adds to our understanding of the sensory profile of the community. Through the analysis of creative practices, and now experiences, we have pieced together Neolithic senses at unique moments in the archaeological dataset. Sensorial vignettes, both Neolithic and contemporary, have been provided to demonstrate how the residues of material engagement can yield sensory information. To structure and develop the argument for the analysis of phenomena in the archaeological record material residues (empirical data) were synthesised with data formulated from ethnographic research and experimental archaeology. This chapter demonstrated a particular method of thinking through material engagements, one that is anchored to contemporary research at the site, but draws together new ways of understanding the senses in the past. Vital materials were correlated with the senses that they invoked, and new methods of finding and detailing these data were provided in the form of a sound drawing.

The temporary appearance of the wall paintings inverted the domestic environment. Paint and pigment were used to transform the space. However, it must be noted that access to these experiences would be limited due to physical space of the buildings. Wall paintings, burials and the painted animal installations emerged at key moments, and the processes behind these material engagements indicates that some of these materials and processes were regulated. Indeed, the restricted access to paint and

bucrania suggests that they were socially sanctioned materials. These two factors have important consequences for our understanding of the egalitarian settlement.

During the thesis I have asserted that the senses are mediators of social value and that they are embedded in matter. These two points offer a clear link between making and social formation. If we agree that sensory proclivities can be ascertained from the creative practices evident in the archaeological record, then we must accept that these data contain detailed information about socially embedded change. This type of information can reveal changing dynamics and tensions of a Prehistoric community as it moves through time. Chapter 8 considers the social dynamics evident at the town, and illustrates how creative practices were a crucial part of community formation at Çatalhöyük.

Chapter 8 Socio-Creativity and Social Organisation at Çatalhöyük

8.1.0. Introduction

In this thesis I have discussed creative practices and making events at Çatalhöyük and have identified key nuances in methods of making, different types of material engagement, and the sensuous experiences they created (chapters 5, 6 and 7). In section 2.3.1. I explained that traditionally Çatalhöyük is considered egalitarian, however, my analysis of the material culture in the preceding three chapters has revealed several instances where the creative practices indicate social differentiation. These practices include: restricted access to certain materials (for example, pigments in burials, section 5.4.3.) and restricted access to multi-sensory experiences (introduced in 7.1.0. and outlined below). The discussion of bone tools, pigments and pin-pricked figurines also suggested that human bodies were decorated - either cosmetically or permanently - and these decorations could be used to articulate different groups at the settlement (section 5.4.0.). A key issue remains: what do the idiosyncrasies in certain creative practices tell us about the social bond and social organisation at the Neolithic settlement. In this chapter, I will present contrasting creative practices as evidence of unique ‘communities of practice’ (Lave and Wenger 1991; Wenger 1998, 2012) and relate the differences between these social entities to the wider egalitarian social order. By synthesising the act of making with social organisation, and addressing whether these actions contest the settlement’s egalitarian status, I will offer a way of thinking about the relationship between creative practices and the social order at the Neolithic settlement.

8.2.0. Cultural Transmission and Social Order

8.2.1. Expressive Movements

There are certain making methods that are socially acceptable, culturally contingent, and taught through socio-creative events that involve agents working matter together (see sections 4.4.3., 4.5.5., 4.6.1.). Certain creative practices, such as plaster-making (section 6.3.0.), entail unique movements and sensuous engagement with materials. Chapter 4 argued that during making events cultural knowledge is created, shared, and transmitted. This section builds on these observations by considering the expressive nature of making.

In her article on embodiment and community, Rebecca Norris argues that there is a “grammar of the body” and that this can be observed in ritual and dance performances (2001: 116). She argues that the impression of witnessing a living human being in-action is more powerful than seeing an image, and the former can impact upon the “emotional and experiential life” (Norris 2001: 121). By comparing the body-in-action to words and images the communicatory and expressive aspects of movement are highlighted, and Norris emphasises that certain movements are learnt and therefore culturally contingent (2001: 113).

Norris particularly focuses on dance and argues that the body is perceived in a culturally contingent manner, with important distinctions to be made between those who dance and those who watch the dance (2001: 116). She writes: “[a] feeling is communicated to me through the posture and/or words of another because that feeling is an authentic product of body experience and culture” (Norris 2001: 116). This insight supports the idea that the movements of the body during making can share and transmit cultural knowledge, and this approach to the body in dance can also be applied to the body during making events. Making is also a form of thinking, an opportunity for the maker to think through and with substances. For example, when making a figurine, the focus of the energy is primarily in the movement of fingers, thumbs, nails, and palms. All these parts become mobile, synchronised and physically engaged with the substance. These actions are carried out in the thoughtful gaze of the creator who thinks through their movements and these are embodied experiences. During making, the methods require bodily thinking, and it is these rhythms of bodily movements that Norris describes as the “moving intelligence of the body” (2001: 113).

The vitality of materials should also be considered. Whilst making the body moves and makes shapes and forms that correspond with the substance in-phenomena (Barad 2003, 2007, 2012; section 3.3.3.). The material’s properties and capacities also inform the making event and the agency that emerges from the enactment. When people make, materials and forces enter into correspondence, and these expressive gestures can transmit knowledge (Ingold 2013; section 4.5.2.). The maker haptically engages with materials and substances, and both shape and form new entities. For example, the malleability of clay means it can be rolled and pressed between the fingers; the substance collaborates well with the heat and dexterity of human bodies. Like human

flesh, clay yields to sharp bone tools (see section 5.4.0.). However, clay transforms during such interactions, it loses moisture, and as it dries it becomes less malleable and more brittle. Other substances such as wood - which will not yield to the same pressure as clay - might splinter and perforate the skin. Particularly skilled practitioners often anticipate future transformations, and it is their ability to work with the clay by identifying and anticipating potentialities that aids and reflects their abilities as a producer (see section 4.4.3.). Therefore, there is a dynamic between matter (the material's properties and capacities, section 3.3.2.), discourse (the cultural-specific movements of the creative practice), and action (the cultural knowledge transmitted during the correspondence between maker and material, section 4.5.2.) (see Marshall and Alberti 2014: 26).

Barad contends that: “material phenomena are inseparable from the apparatuses of bodily production: matter emerges out of and includes as part of its being the ongoing reconfiguring of boundaries” (2003: 822). I understand Barad's (2003) use of regulatory practices to simply indicate culturally accepted and practiced ways of doing. Thus, the cultural-specific movements (discussed above) are ‘regulatory practices’ within a community that shape and inform the process of making. These regulated practices are linked to authority, and it may be useful to think of these as the code of practice in the social world ‘already in action’ (Butler 2004; section 3.2.4). Thus, in tension with the ‘doings’ (the actions during the making event) are the *ways* of doing, and these ways of doing could be correlated with Connerton's notion of ‘incorporated practices’ - the non-inscribed practices that are transmitted and encoded in the repetition of gestures or habitual bodily practices (Connerton 1989: 68). According to Barad, the body as material “plays an active role in the workings of power” and she contends that the regulatory practices in action are “fully implicated in the dynamics of intra-activity” (Barad 2003: 809, 822). Matter, as a participating agent, shapes actions and plays a co-constitutive role in the materialization process (Barad 2003: 822). If we are to understand the agency and causality that emerges from the enactment, the process of materialization should also be considered along with the regulatory practices (Barad 2003: 821-822; Marshall and Alberti 2014: 26-27).

In relation to Çatalhöyük, site-wide regulatory practices include the uniformity in house-making practices, the repetition of everyday social practices like grinding grain,

and spatial delineation within the buildings like the uniform positioning of the hearth (for more on rhythms in building practices, see section 2.6.1.). Hodder refers to these as social and spatial codes because they are material interactions exercised “site-wide” (2016: 38). The rhythmic nature of certain creative practices at the settlement indicates that there were certain groups of individuals who regularly engaged with shared activities; these groups could be analysed as a social unit using the ‘communities of practice’ concept (Eckert 2006: 1), which I will outline in the next section.

8.2.2. Communities of Practice

‘Communities of practice’ (Lave and Wenger 1991; Wenger 1998, 2012) is a useful construct to consider in the discussion of creative practices because it refers to a group of individuals who actively practise an activity together. Within the field of anthropology communities of practice is used to consider a variety of social issues, such as: the reasons why members choose to take part in certain practices, the impact the engagement has on participants, and the relationship formed between the group and the larger social order (Eckert 2006: 1). Rather than groupings such as class or gender and other categories such as co-residence, the communities of practice concept originates from a social theory of learning, and thus offers insight into mechanisms of social transformation, such as sense-making, knowledge transmission, and identity construction (Eckert 2006). Communities of practice could be described as “situations of co-participation”, and these can be formal or informal (Smith 2003). Lave and Wenger’s initial introduction to the concept highlighted the “social nature of human learning” (Wenger 2012: 1). Communities of practice can cover a variety of activities and individuals can be a part several different groups (Smith 2003).

I ascribe to a definition of communities of practice where learning is not necessarily the central motivation for the group being and practising together. According to Eckert (2006) both a crack house and a book club can be considered a community of practice, therefore the learning that takes place in these situations can be an unintentional (or ‘implicit’, Reber 1967, 1989) by-product of a practice. If agents are coming together specifically to learn, then collaborative learning theory might be a more fitting pedagogical model to employ, as it similarly contends that learning is inherently social and an active constructive process (Leigh-Smith and Macgregor 1992).

Wenger (1998) proposes that communities of practice are joint enterprises, and have a set of communal resources such as styles, vocabulary, and routines which have developed within the group over time (Smith 2003). As the community of practice could be interpreted as a social entity (Smith 2003), it is a useful social unit of analysis (Wenger 2012: 1). Unlike ‘corporate groups’ which are usually used to identify groups such as lineages, sodalities, neighborhoods, networks (Wright 2014), communities of practice spotlights embodied activities and material gestures and can yield information about how domestic groups (which I refer to here as ‘households’) in the Neolithic were collaborating with materials in distinctive and expressive ways. On this matter, archaeologist Barbara Mills noted that the history house idea at Çatalhöyük could be considered in relation to communities of practice because it represents a network of people and things who are linked into “some form of community” through daily or temporally marked rituals (2014: 163).

In a community of practice all individuals have agency, however, a key criticism of the concept is that it fails to acknowledge the external and contextual role of institutional, political, and cultural power, and how these external forces influence and shape communities of practice (Wenger 2012: 5, 8; see Roberts 2006). Wenger argues that the theory allows space for human agency by framing the practices not as the outcomes of power but responses to it (2012: 9). The ‘external forces’ critique becomes less problematic if we consider Barad’s (2003, 2007, 2012) agential realist approach where agency emerges as an enactment, and bodies, matter and structure are co-constituted; therefore the causality changes because the ‘ontological gap’ between bodies and structure is removed (Marshall and Alberti 2014: 25-26), and both agency and structure emerge together in practice (see section 3.3.3.). Equally, the critique was aimed at the application of the concept in a hierarchical social system, a key element of the communities of practice concept is that groups have a horizontal distribution of power (Wenger 2012: 13). Wenger uses the term ‘horizontal accountability’ to describe the distribution of power between mutually accountable participants (Wenger 2012: 13), and this factor resonates with the terms of an egalitarian social system, which I will outline next.

8.3.0. Communities of Practice and Egalitarianism

8.3.1. Active Egalitarianism

Anthropologist James Woodburn argues that equality in egalitarian communities is always in tension with the potential for individuals or groups to try to assert more power, acquire more wealth, or claim more status (1982: 432). Thus, egalitarianism is not an accidental form of social organisation but often actively asserted by individuals (Woodburn 1982: 431). Woodburn contends “equality is repeatedly acted out, publicly demonstrated, in opposition to possible inequality” (1982: 432). Due to the existence of storage facilities within households at Çatalhöyük, in addition to the differentiation between the number of food production tools found in houses (like unbroken querns, see below), and the ‘delayed-return system’ that farming inevitably creates (Woodburn 1982: 432), there was the constant potential for opportunistic individuals or groups to assert more power than their neighbours (Hodder and Cessford 2004: 20).

I will now draw together some examples of material culture in the Area 4040 discussed in this thesis to highlight discrepancies between making methodologies and material wealth found in key houses to understand social differentiation in the area. B.49 and B.77 are in the same area (4040) and inhabited around the same time (Level ?G. and G.), and yet they cultivated a distinctive way of producing the handprints (see Table 5.). Thus, the activities at the two households may indicate two different communities of practice. In Chapter 5 I argued that colourful, brilliant materials were particularly desirable at the settlement, thus, the presence of a rare copper tube necklace (both colourful and shiny) in a rich baby burial (U.17457) in B.49 is likely to have been a very valuable object. Both B.77 and B.49 contained the bone tool and pigment phenomena in burial contexts, along with other houses in the neighbourhood such as B.52 and B.3. Therefore, there are rhythms between the houses but wall paintings indicate different methods of making, and the burials contain unique assemblages.

At the time of its closure, B.77 contained a host of powerful material gestures (handprints, pigments, and plastered animal skulls including bucrania), and a seemingly disproportionate amount of valuable food-processing tools, many of which were unbroken and some of which were relatively new (Wright 2014). B.77 also housed an

unusually high number of tools such as six axes and four diabase axes (Wright 2014), which may have doubled as weapons. Wright notes that 20 houses were investigated and only 18 unbroken querns were found, however, B.77 contained 12 (67%) of the total number (2014: 21). Wright debates whether these objects were private household property or under the control of the household, nonetheless, B.77 clearly had the tools to process a large (and potentially disproportionate) amount of grain (2014: 13).

A key problem lies in whether the evidence of material and methodological social differentiation at the settlement indicates unbalanced social positions. Can creative practices tell us something about the ‘forces’ that dynamically informed the emergence of these phenomena (Barad 2003: 822)? If egalitarianism was to remain the *modus operandi* in a Neolithic settlement like Çatalhöyük, equality would need to be vigilantly and repeatedly appraised by the inhabitants. In some respects, the nuances in the making methodologies of the hand icon (discussed in section 6.6.0.) could reflect different households asserting their egalitarian status by presenting themselves as a distinct community of practice. Differentiation between creative practices might not simply reflect the development of unbalanced social positions, but instead suggest tension between competing households and the active re-assertion of egalitarian status through the unique forms of creative expression. A second approach to the issue of differentiation in creative practices is the possibility that households were esoteric centers of learning, this possibility is discussed next.

8.3.2. Knowledge, Communities of Practice, and the Social Bond

Different making methods may indicate that the knowledge formed through the creative practices was contained within the community of practice and did not penetrate the walls between houses (examples of different making methodologies can be found in section 6.6.0.). Therefore, the physical boundary between households was also a cognitive and sensorial boundary. This point can be connected to communities of practice and how knowledge transmission can be ‘sticky’ or ‘leaky’ (Brown and Duguid 1991; Hoadley 2012). Both types of knowledge transmission can be identified through synergies in creative practices (Brown and Duguid 1991; Hoadley 2012). Certain aspects of knowledge can reside in a group but can fail to transmit beyond the network of those who engage with the activity directly, this is described as ‘sticky’ knowledge

because it does not transmit beyond the practitioners (Hoadley 2012: 289). ‘Leaky’ knowledge spreads freely and widely (Hoadley 2012: 289). At the Neolithic town the concept of plastering could be described as ‘leaky’ knowledge, whilst aspects of the wall painting practice could be described as ‘sticky’. Hoadley notes: “the practice is important because it identifies knowledge with something people ‘do’ as part of their culture, profession, or avocations” (2012: 289). Thus, at specific moments in the history of the settlement, certain individuals “do” handprints, but the fact that they are creating these motifs using very different practices might indicate a rupture in the flow of knowledge between households. If we follow Wenger and describe a practice as a ‘property’ of a community (Wenger 2012: 2), then the knowledge of creating hand icons was a property that was either rejected by certain groups or one that was not shared between groups. Wendrich contends that communities of practice use embodied communication and the development of microstyles might reflect knowledge and cultural transmission (2013: 258-259). Thus, differentiation in creative practices indicates different communities of practice, and might reflect a knowledge transfer or a cultural transmission problem between households. Following Fletcher (2005), ruptures in the flow of knowledge between groups can create intolerable interactions (see section 2.3.1.). Alternatively, differentiation between making practices may indicate households actively asserting egalitarian rights. I propose that the wider implications of both these cases include: discontentment with the contemporary community situation, and/or ruptures in the transmission of knowledge between households.

The activated *sui generis* houses (discussed in section 7.5.2.) offered an important opportunity for knowledge to be shared between the community of practice who engaged with the space. Access to the event was physically restricted due to the size of the houses, for example, B.77 is considered a large house, and yet measures approximately 5m x 7m and this includes storage areas (Taylor *et al* 2014: 129). Therefore, both the size and accessibility of the households at Çatalhöyük curtailed the size of groups that could experience the multi-sensory events together, thus, co-presence at important junctures within the life-cycle of the houses - such as burials, structured deposits, wall painting and wall feature painting events - was always capped. Due to the momentary and fleeting appearance of painted walls and features - such as the calf skull wall feature in B.77 which was painted in a single coat of red (F.3093; discussed in

section 6.3.4.) - these important events could be described as unique. However, they were only experienced by comparatively small groups of individuals at the settlement. Co-presence is an important aspect to consider due to the experiential dimensions of the activated houses and the impact they had on the senses (see Chapter 7). Limited groups of individuals had access to the multi-sensory experiences, and this might create discrepancies in how individuals mediated social value (via the senses, see section 4.7.0.). Additionally, the heightened sensory experiences are likely to induce emotional bonds and ties amongst co-present individuals - key factors in community formation (Harris 2014a; see section 1.3.3.).

Thus, making events created different social and sensorial experiences amongst co-residents at the settlement. One important aspect to consider is the potential for these moments to create a 'social bond' between practitioners. In section 4.2.2. I discussed Hirschi's (1969) social bonding theory and Bishop's (2012) discussion of participatory artworks and the creation of the social bond. If we follow Hirschi (1969) and think about social bonding in terms of attachment, belief, commitment, and involvement, creating isolated and sensorially rich experiences - like the experiences generated in the *sui generis* houses - would inevitably inform individuals perspectives and sentiments on these matters and potentially create different levels of attachment, belief, and so on between groups. Settlement-wide, rhythmic, creative practices like plastering, making mudbricks, basket-making, bead-making, figurine-making, and so on, were activities that entailed co-presence and may have enhanced the social bond and encouraged feelings akin to *communitas* (Turner 2012, see section 4.3.4.). When thinking of these activities I recall the plaster-making experience outlined in section 6.3.2., and think about the conversations that took place, the close proximity of bodies, the light the plaster reflected, and the way plaster would splatter and coat the hands of the humans who interacted with the substance.

Thus, the knowledge generated from the wall painting practice was embedded in an event that was co-constituted with vital materials (like cinnabar), and there were those who participated in these multi-sensorial experiences and those who did not have access to the authentic experience, or the cultural knowledge that was transferred during the event. Therefore, I contend that the creative practices at the settlement indicate that within the egalitarian community knowledge was not transparently shared, and not all

individuals at the settlement were afforded access to significant, multi-sensory events. These factors might reflect a degree of social differentiation/stratification; however, as I will discuss next, this may not be detrimental to the settlement's egalitarian status.

8.4.0. Egalitarianism and Creative Practice

8.4.1. The Value of Equality

Egalitarianism is a complex social system and egalitarian communities can value equality in several different ways (Moss 2009). To explain this point further, philosopher Jeremy Moss (2009) describes Parfait's distinction between telic and deontic egalitarianism, telic egalitarians value equality intrinsically whereas deontic egalitarians value equality for instrumental reasons like unfairness or injustice; for example, it would be unfair for a resource to be shared unequally between individuals who have identical claims to it (Moss 2009: 1). Thus, inequality is a moral issue because it produces the 'wrong way' (Moss 2009: 1). Woodburn's (1982) ethnographic survey of egalitarian communities (both delayed-return and immediate-return system) provides examples that synthesise with telic and deontic categories. Deontic egalitarianism is displayed by certain communities in Papua New Guinea where equality is sustained through equal exchange, thus individuals assert their equality through their ability to meet the demands of the exchange system, and not because they are intrinsically entitled to it; this is a form of competitive egalitarianism (Woodburn 1982: 446). Whereas for the !Kung equality is "an automatic entitlement that does not have to be validated" (Woodburn 1982: 446), thus this form of egalitarianism could be described as telic.

When synthesising these categories with the Çatalhöyük dataset, an important example to consider is the baby burials in the Area 4040, Level I, which suggest that during this period at the settlement not all were born equal. Whilst some individuals were buried in individual contexts with shells, beads, bone tools and pigment, there were others who were not offered these items, for example the two baby burials (U.10384 and U.10388) who were found in a sequence of middens in Sp.279 in the 4040 (Level I). If treatment of the dead reflects inequalities in power, prestige and wealth in life - and I refer to the latter in terms of its relevant construction at the settlement, which could have been

conceived of in a number of ways: health, ‘embodied wealth’, or material wealth, and so on (see Wright 2014) - then the communities at the settlement might ascribe to a form of deontic egalitarianism, where equality is valued for instrumental reasons. In the case of the baby burials in Sp.279, these terms were not met. Furthermore, the presence of different generations, particularly babies, in burial contexts within the houses, and the evidence of children’s handprints in the wall painting practice might indicate that children had the capacity to have equal claims to power and prestige due to their co-present role in these important contexts (further examples discussed in section 6.5.4.), and this may be linked to ascribed rather than achieved status.

8.4.2. Sociopolitical ‘Leveling’ Techniques

Overt expressions of power in communities who ascribe value to equality are likely to be met with a variety of behaviours, such as equal displays of power, chastisement, or even retribution by other co-habitants or groups (Boehm 1993). Boehm discusses sociopolitical ‘leveling’ techniques employed in egalitarian societies such as public opinion, criticism, ridicule, disobedience, and even extreme sanctions such as execution (1993: 230). On this matter, Wengrow and Graeber note psychological leveling strategies such as moral censure and ostracism, but also “complex institutional arrangements to limit or subvert the exercise of power” (2015: 3). Wengrow and Graeber contend that human social systems (or ‘political repertoires’) are inherently complex with a range of strategies available to avoid domination (2015: 3). Some of the phenomena I have examined in this thesis reveal a spectrum of material gestures and changing value systems. For example, bone tool and pigment phenomena and bone tools were clearly used by a certain community of practice at the settlement in burial contexts, and the Area 4040 hosted several examples (Table 2: Bone Tool 1, 2, and 3), but in Sp.279 a number of these tools were left in a series of middens (Table 2: Bone Tool 4, 5, 6, 7, 8). The disposal of the tools, along with the baby burials, make Sp.279 an area that contains a series of actions that contradict activities elsewhere.

Following Boehm (1993) it is important to remember that in an egalitarian community expressions of power would be constantly appraised by vigilant co-present individuals. The prolonged assertion of an individual or a particular group’s authority would challenge the social system and potentially contest social values and/or aspects of the

social organisation, and this might lead to the deployment of leveling techniques, such as those described above. Sp.279 could indicate a significant rupture in the Area 4040, and the rejection or censure of a particular social entity that we can observe in the archaeological record as a community of practice, through the disposal of high-status tools and the markedly impoverished burial of (perhaps associated) individuals in a waste area (U.10384 and U.10388). The relationship between disposal practices in Sp. 279 and creative practices in buildings in the surrounding area, such as the burial (Sk. 13162) in B.60 (described in section 5.4.1) reveals a significant change in practice and the associated value system, or an important shift in power dynamics in the area.

8.4.3. Vital Materials and understanding Communities

In this chapter I have established that the idiosyncrasies between creative practices indicate unique communities of practice (section 8.3.0.), and I have debated whether these different ways of doing compromise the settlements current egalitarian status (section 8.4.0.). A key issue remains: what role did vital materials play in the maintenance of egalitarianism and can the analysis of vital materialisms be useful when discussing social structure? Following Barad, social structure (or ‘regulatory practices’) are ‘implicated’ in the emergence of the phenomena (Barad 2003: 809, 822; section 8.2.1.), and materials (both human and non-human) vie, compete, dominate and yield, during the materialization process. Not all materials are born equal, and as demonstrated in my discussion of red pigments, certain materials have the capacity to damage and alter human sensory capacities and organs (section 5.5.3.). There are ‘corporeal consequences’ to these interactions that are directly related to the ‘physico-chemical parameters’ of the human:material interaction (Attala 2017: 130). Thus, the comparative analysis of making events can aid contemporary constructions of Neolithic lives. Sp.279 evidences a series of co-constitutive acts where the material remains indicate that ridding bodies and tools in this manner was a ‘conceivable act’ in the social context of the day - this could be framed as a ‘historical situation’ (Butler 1988: 521, 525). In such scenarios, the material acts as an informant, and affords the archaeologist the opportunity to navigate their way through the materialization processes of prehistoric phenomena; yielding tacit information about the process of emergence (or ‘doings’) through time. How these events relate to community organisation is an area of study

still in its infancy, but the changing dynamics of phenomena during the spatiotemporality of the mound evidenced in this research indicates shifting possibilities, where alliances with materials were formed and shared by some, and broken and abandoned by others. Despite their abandonment, vital materials remain, like the carbon on the ribs of the Çatalhöyük inhabitant (section 7.2.4.), to reveal their co-constitutive role in the emergence of life. The dynamics between social organisation, materials, and action remain an important area of study. In this thesis I have established a theoretical position for a vital materialist approach to archaeological phenomena, and demonstrated some of the key ways vital materials informed the emergence of life at Çatalhöyük; going forward, the co-constitutive role materials played in social organisation is an area that requires further investigation.

8.5.0. Conclusion

In this thesis, I argue that Çatalhöyük emerged as a multi-generational, well-populated, and considerably impressive site because the community had a vibrant creative practice. The number of mudbricks and volume of plaster at the settlement reveals a particular and pronounced dedication to the processes of making. Mud and lime are cloying, congealing, transforming materials that, it is argued here, were foundational to community cohesion at the town. The fixing, mending and refreshing of internal buildings renewed and re-asserted the practitioners' commitment to the area.

Material engagements are embodied interactions that create shared bodily rhythms between community practitioners. The act of making yields material reconfigurations and sensorial responses; but making, doing, and experiencing with others creates shared knowledge that is sensual, cognitive, and musculo-skeletal. During making events, humans and materials are co-constituting life-matter, and the processes of materialization evidence the interplay between matter, discourse and action (see section 8.2.1.). I argue that the products of creative endeavours do not simply reflect a corporeal politic, as outlined by Bailey (2005), but instead, the co-production of such things are moments when ways-of-being are negotiated, reproduced and sometimes rejected.

This approach highlights how socio-creativity was a key component and regulator of community cohesion during the Neolithic, and how rhythms in creative practice can reveal social dynamics and tensions. The archaeological record at the town reveals a

variety of creative practices, some routine and sometimes systematic, other's unprecedented and ephemeral. Communities of practice, as an analytical construct, can help us to decipher dynamics in value, power, and prestige over time. Creative practices are presented as integral to social organisation, and socio-creativity fundamental to the Çatalhöyük lifeway.

Chapter 9 Conclusion

9.1.0. Introduction

In the thesis I have explored the archaeological remains of a series of unique making events at Çatalhöyük. I argued these were the remains of creative practices and presented as the products of humans and materials in-phenomena (section 3.3.3). In chapters 3 and 4, I outlined the theoretical and methodological approach adopted in this thesis. In Chapter 5 I applied this approach to a Neolithic case study through the examination of engagements with colourful and/or brilliant materials. In Chapter 6 I moved onto the materials that individuals formed, and were informed by. Chapter 7 focused on making and entering the *sui generis* houses at the Neolithic town. Contemporary experiential art acted as a guide through the activated houses and revealed some of the multi-sensory dimensions of the interior spaces. During the analysis it was argued that these spaces, when active, were sensorially stimulating environments that encouraged particular effects in the body (section 7.2.0. and 7.3.0.). Through these discussions I have demonstrated the archaeological evidence that suggests the people of Çatalhöyük were avid makers with unique, distinctive, and shared creative practices (for an overview of creative practices, see section 2.7.2.).

The *sui generis* houses were areas of transformation and sensorially activating places (as explained in section 7.5.0.). The word ‘ritual’ has been specifically avoided during this discussion as it structures these experiences into a routine which implicitly suggests that these moments were controlled and regulated (Boivin 2000: 382). Such a reading would not synthesise with my interpretation, as I argue that the creative practices evident in the *sui generis* houses reveal distinctive, heterotopic moments in a social world of routine (section 7.5.0.). The methodologies used to create the wall paintings (section 6.4.1.), the sporadic use of single coats of paint on wall features (section 6.3.4.), the incessant covering of former creative actions (section 7.2.1.), the addition of paint to some bodies and offering of pigment to other’s (sections 5.4.1. and 5.4.3.); all these gestures tie into the idea that in a town of routine and rhythm (section 2.6.1.), the *sui generis* houses were centre’s of social negotiation for Neolithic social lives (section 7.5.0., 8.3.0. and 8.4.0.).

Socio-creativity offers a different way to examine and understand how individuals and communities self-organise and negotiate community lifeways, and in doing so are able to achieve monumental feats like the creation of the complex network of residences that we see at Çatalhöyük (section 4.2.0., 4.3.4., and Chapter 8). Hodder (2016: 60) argues that hunting was the key element of the social system at Çatalhöyük; my analysis of making at the settlement indicates that creative practice directly informed the social system (Chapter 8). I will summarise my findings in the next section.

9.2.0. A Socio-Creative Approach

9.2.1. Creative Practice and the Neolithic Lifeway

During the Neolithic, creative practice was a social opportunity, a moment where synergies could occur between unique entities via shared action and/or communal engagement. During creative events, more than products were made: social relationships were re-negotiated and expressed through material interactions. The senses - as mediators of social values (Rice 2013) - acted as access points to these data (Chapter 4). When examining the Neolithic, it is hard to detect how social order and community cohesion was created and sustained in early farming communities, particularly at Çatalhöyük where ranking, public space, and the centralisation of power are not visible in the archaeological record (Hodder and Cessford 2004). Çatalhöyük stands out as a community with a vibrant creative practice, and people at the town routinely worked together to make things (section 2.7.2.). It is argued here that making was a key social tenet to creating community cohesion in the Neolithic period, and that people came together to create shared structures and seasonal/socially informed events that directly informed social order and the social bond (8.3.2.).

My analysis has revealed that certain creative practices transformed the *sui generis* houses, and I argue that the use of materials that were socially sanctioned would create a heightened sensory experience for both the makers and those witnessing the making performance (section 5.4.3., 7.2.2., 7.4.0.). In contrast to the usual domestic environments at the town, these spaces, when painted, or when pigment and other colourful materials were brought inside to be used in burial contexts, were areas of transformation (Chapter 7). Therefore, there is a tension between the socio-creative

actions of creative practices that were routinely carried out at the town with openly accessible materials like clay, and those processes that utilised regulated materials and produced new and innovative lines, forms, patterns, and narratives. I have argued that the tensions between different creative practices and the associated social differentiation they indicate could be understood as the activities of different communities of practice (section 8.2.2. and 8.3.1.), and proposed that the nuances in these practices might reveal growing tensions or competing social entities (section 8.3.0. and 8.4.0.). I linked this directly to a form of active egalitarianism (section 8.3.1.), and argued that making events that suggest social differentiation do not necessarily contradict an egalitarian lifeway, and may indicate unique groups actively asserting their status as equals through a range of social leveling techniques (sections 8.4.0.).

On this matter, we might reflect on the opacity of the processes of production and consider the connotations of creative practices that created new and unique imagery, particularly in relation to communities of practice (section 8.3.2.). The transformations of the walls via the application of colourful substances were transitory moments in the biography of the house (section 7.2.1.). The limited access to these spaces and the fact that these occur in specific locations within the building suggests that the wall painting events may have been the product of relatively esoteric processes, using regulated materials, inside buildings with restricted access. I argue that these activities have heterotopic qualities and may have acted as moments where social systems were re-evaluated and negotiated (7.5.1.).

9.3.0. My Contribution

9.3.1. My Contribution to the Çatalhöyük Discourse

My thesis articulates an anthropological approach to making in order to comprehend how creative practices informed and shaped the sensory alignment of individuals and the wider community at the settlement. The sensorial examples I have raised compliment Ruth Tringham's work at the Neolithic town. Her interest in the senses and approach to sensuous engagement with materials (discussed in section 2.7.4.) resonates with my own. By drawing together research strands in making (such as Marchand 2010; 2014; 2016 and Ingold 2013) I have articulated a theoretical basis that adds further weight to the sensory approach and how people learn during making. This fits well

within the context of the thesis because it presents knowledge as process-driven and emergent, rather than fixed and product-like. By exploring unique phenomena in the archaeological record I have unpacked sensorially rich material intra-actions and indicated how the senses can be observed from residues of these activities. These phenomena include: substances that mark and/or heal the body (section 5.4.2. and 5.5.1.); engagements with hypnotic and impairing substances (section 5.5.3.); the inter-sensory experience of seeing and touching with substances (section 6.5.0.); the experience of panoramic sensory stimulus (section 7.3.3.); the experience of being in the dark (section 7.2.2.); immersive soundscapes (section 7.3.0.); and living in smokey interiors (section 7.2.4.). The senses can be taken for granted, and there is a step often missed in our analysis where the sensory profiles evident from the material engagement are not considered before the iconography or imagery is ‘read’ (Howes and Classen 1991). Additional lenses are required, new movements and gestures must be felt or imagined, different tastes and cravings must be acknowledged (Hamilakis 2011, 2013, see section 4.7.0.); otherwise the archaeological record will only ever be a mirror that will reassert the researcher’s notions, values, and beliefs (Howes and Classen 1991).

There are several aspects of my research that could be applied to other Neolithic sites. In particular, the assertion of socio-creativity as a key tenet of egalitarian Neolithic communities should have repercussions in research being conducted in social organisation during this period. By exploring participatory art and making I have emphasised how material engagement can shape and inform the body and how the senses are embedded in matter (sections 4.6.1., 4.6.2.). My understanding of the senses and how they are shaped during making indicates that there are several social tensions active whilst making, key supporting examples for this position include: how makers are taught material transformations and socialised into seeing the ‘right’ red (Mollona 2005, section 4.6.1.), and even taught to feel the right methods of making (see Wendrich 2013, section 4.6.2.). Also, there is Butler’s (2004) reminder that people are born into social worlds that are already in action, and therefore it is important that we attend to the fact that wherever we enter the archaeological record it will never be “neutral” social space (for more on the issue of ‘passive, malleable space’, see section 3.2.4.).

My work regarding creative practices may be useful for researchers examining Neolithic communities that have elaborate creative practices but little indication of social organisation. The analysis of the methodologies of making and different forms of material engagement can aid our comprehension of social systems that are difficult to locate. Equally, those examining the Neolithic as a pan-cultural phenomena may find my focus on creative practice a useful point to incorporate into their interpretations, particularly those interested in social formation and understanding the importance of socio-creativity within these communities. The methodology of making has much to offer those interested in how dynamics and tensions emerge during material engagement, and how these inform community formation and organisation (such as: the social bond, section 4.2.2.; *communitas*, section 4.3.4.; communities of practice, section 8.2.2.; material expressions of active egalitarianism section, 8.3.0.; heterotopic spaces of social negotiation, section 7.5.0.). Creative practices have the potential to yield very specific information about a community that is empirically grounded in the analysis of exact phenomena of the past - archaeological examples of phenomena examined in this thesis include: ‘pigment and bone tool’ phenomena (section 5.4.0.) and ‘hand icon’ phenomena (section 6.6.0.). Locating a community’s preference for a certain material, and seeing how several persons - potentially across generations and between different areas at the settlement - interact with these materials can deepen our understanding of changing values and meanings (for more on changing or different values at Çatalhöyük, see section 8.4.1.).

The addition of this type of data enhances our understanding of the variety of methods we might employ to understand that social workings of egalitarian communities from archaeological remains. For example, in this thesis I have addressed: different ways of valuing equality (section 8.4.1), social ‘leveling’ techniques (section 8.4.2.), and negotiating social order through material engagement (section 7.5.0). The identification and analysis of phenomena is a new way to think through the social implications of material gesture and interaction. I have broadened contemporary understandings of making (such as Hodder 2016) by arguing that these interactions are access points to community values and how these social values are mediated and expressed through material gesture. By doing so I have reframed making as a socio-creative event and highlighted the social impact such gestures have on community dynamics and tensions.

My arguments have asserted that making is a useful avenue for archaeological analysis, and a crucial tool to aid our comprehension of a community's sensory profile. By presenting this work, I have provided further research and analysis to support the sensorial-turn in archaeology, and a robust theoretically informed methodology that supports Hamilakis' assertion that the senses are embedded in matter (see section 4.7.0.).

My work has emphasised that the communities at Çatalhöyük had a sensory sensitivity to red pigments and different shades of red (burials and shades of red, section 5.4.3.; glistening red paint, section 6.5.2.; brilliance, section 5.2.2 and 5.2.3.). If we examine the contemporary branding of the site we can see that both the website and literature has used a shade of red ochre on beige as part of the visualisation of the Neolithic town. The distinction between the branding for a contemporary audience and the archaeological evidence that indicates a sensitivity to shades of red is a revealing insight into the distinctive sensory profiles in action (Howes and Classen 1991). I suspect if we were able to inform a Neolithic resident at the town that we represent their community with their favourite shade of red; the resident might ask: *which shade of red, where was the pigment from, and what process did you use to make it?*

9.3.2. My Contribution to Archaeological Theory

A key source of originality in the thesis is my interpretation of Gell's (1998) notion of the artist's oeuvre (section 3.5.2.). I have added a further theoretical layer to the extension of agency from persons to things by ascribing to Barad's agential realist approach (section 3.3.3.). This approach was only made possible through carrying out a literature review that examined creative practices, and it was interpretations of the Neolithic figurines that revealed how easily arguments formed on the basis of de-contextualised objects could be destabilised. Equally, the review also revealed the meta-narratives that have been systematically produced in response to symbolic representations of body parts, and this provided me with the conviction that there was a clear need for a counterpoint to these arguments and challenging the analysis of solitary archaeological units due to the approach being inherently flawed (for more on body 'parts' see section 2.5.2.). To this end, Barad's rejection of the Cartesian cut became

foundational to the thesis, and, if we reflect on Gell's final chapter in *Art and Agency* in particular, this very well might have been the direction Gell would have taken material agency (to quote Gell (1998: 245), "Duchamp's oeuvre consists of a single distributed object", thus the entity he is envisaging is a series of enactments). Therefore, it has been my intention to not only defend Gell, but to expand the territory already claimed by material agency, and this is achieved through the presentation of Barad's phenomena (things 'in-phenomena', section 3.3.3.). When Gell (1998: 250) states the artist Duchamp is still rattling around today after death through the products of his creativity, he made a very important observation by offering a relational conceptualisation of agency embedded in the creative productivity of a lifetime. The synthesis of Barad (2003) and Gell (1998) is a key epistemological move presented in my thesis, and rides the surf of a wave of theory inspired by the philosophy of Deleuze and Guattari (2005 [1980]) and also Delanda (2006). Jane Bennett and the New Materialists are key theorists for today's archaeology, and this thesis contributes to the New Materialist turn. However, I argue a clear distinction must be made between those who ascribe to the notion that things are unique entities and those who understand things as intra-actions (Barad 2003) - both are valuable routes of inquiry that can only enhance archaeological interpretations. This is a philosophical point that offers a clear and useful point of departure between researchers. My stance on this matter is a departure from Witmore's outline for a New Materialist approach, which focuses on the symmetrical relationships between humans and things and placing things in the centre of archaeological analysis (2014: 206). In section 3.3.3. I argued that his analysis sustained the Cartesian cut.

The power of things is a useful place to begin a discussion that aims further than the "life-matter binary" (Bennett 2010a: 20). However, my discussions have been tempered by the desire not to slip into "thingification", a term used by Barad to elucidate the objectification of relations into things and unique entities (2003: 812). I argue that Witmore's presentation of New Materialisms errs in this domain (sections 3.5.7. and 3.6.2.). Thing-power has also been a concept that I have tried to create tension with, as I align my stance with Bennett, who argues that the term over-emphasises the "thingness or fixed stability of materiality" (2010a: 20). Bennett, instead, highlights vibrant materials by outlining "a materiality that is as much force as entity, as much energy as matter, as much intensity as extension" (2010a: 20). Hence, during my argument I have

aimed to emphasise vital materials by thinking through human and material intra-actions in the past and allowing conceptual space for the properties and capacities of matter (Delanda 2006). This includes the analysis of what these materials can “do” to humans, and particularly how they shaped and informed unique human lives. To do this I have drawn attention to the impact certain material interactions can have, be it the drowsiness or hypnotic changes caused in humans through inhaling heated cinnabar fumes (section 5.5.3.), or the presence of phlegm in lungs caused by breathing in the smoke of burning animal dung (section 7.2.4.). These vital materials played a part in the shaping the emergence of Neolithic bodies.

I offer here a final note on collaborating with vital materials such as smoke, cinnabar and other potentially lethal agents: in a thesis that has predominately focused on creative practices and pigment, it may seem strange that smoke has routinely emerged during my discussion. However, in terms of archaeological analysis, pigment and carbon - the residues of smoke - are often observed together in the burials and are key markers that the excavator often responds to ocularly and then records. Indeed, in the excavation diaries, excavators will often record distinctive changes in colour. Pigment and residues of carbon are often found on and around certain areas of the skeleton. Clearly there is a physical relationship between these vital substances that manifests in and on Neolithic bodies at Çatalhöyük. These substances are the residues and intimacies of intra-actions, and their presence epitomises the futility of the life-matter binary. To quote Bennett: “[it is a] oxymoronic truism that the human is not exclusively human, that we are made up of its” (Bennett 2010a: 113). It is interesting to reflect on how some of these “its” are culturally contingent and directly related to our material engagements. In the case of the residents of Çatalhöyük, carbon “its” accumulated inside the lungs and made the basic act of breathing a little harder.

I have asserted the use of ‘vital materials’ and ‘vital materialisms’ throughout the thesis. Bennett coined the term and uses it in both *Vibrant Matter* and an article of the same year which she describes as a vitalist “stopover” on the route to “new materialism” (2010b). She states: “vital materialists do not claim that there are no differences between humans and bones, only that there is no necessity to describe these differences in a way that places humans at the ontological center or hierarchical

apex” (Bennett 2010a: 11). Delanda is a clear influence and she quotes the philosopher’s statement that: “matter’s inherent creativity needs to be fully incorporated into our new materialist philosophies” (Bennett 2010a: 7). My contribution in this thesis was to take a sensory approach to material engagement and to consider, in-conjunction with activities of the making event, the capacities of materials during the phenomena.

9.4.0. Suggestions for future research

The analysis of creative practices and material engagement at the Neolithic town has led to a series of questions that require further research. By examining the processes of the material emergence and the dynamics and tensions of material gesture several patterns have emerged. The following lines of inquiry are a few examples of further research that would support and develop the arguments I have presented in this thesis and aid our understanding of life at Çatalhöyük.

9.4.1. Heat treatment applied to pigments

Further investigation into whether heat was applied to pigments is required. This point intersects several of my analyses: if heat was applied to cinnabar, then we might conclude that altered states of consciousness were experienced during making and applying paint. Equally, Nakamura and Pels query whether all red ochre was indeed the local red ochre or instead was a yellow-brown ochre that became red through the application of heat (2014: 205). If heat treatment is detected, they argue that the “transformative properties” of the material may have been significant (Nakamura and Pels 2014: 205). Çamurcuoğlu (2015) has carried out research into whether heat was applied to the pigments and found some interesting results, but she deemed them inconclusive. Therefore, I propose there is good reason to continue with this line of inquiry and to collectively assert whether it is possible to conclusively state heat was used in making paint. On this matter, a quick note on the presence of manganese. Some organic pigments change into manganese therefore, where we find manganese in the archaeological record at the Neolithic town, there is the possibility that it was formerly a colourful pigment. Data regarding the presence of manganese needs exploration as to whether there is further potential for analysis. This data will articulate the original

Neolithic palette of colours and indicate whether colour was a transformative category entwined with further agencies.

9.4.2. Whether pigment was embedded in or placed on the body

Andrews *et al* (2005) explain that if red ochre was on the body or on a head band that was around the skull, the red pigment would show on the skulls itself. I have discussed the possibility of tattooing taking place at the tell, and have argued that pigment was a socio-creative practice used to delineate social differentiation. Currently we observe scatterings of pigment in burial contexts, such as the green pigment that was placed on the abdomen of the pregnant female (discussed in section 5.4.1.). It would be interesting to detect whether pigment was formed in any pattern on the body. Regarding pigment lumps, it would be interesting to explore whether such materials had been consumed, such as the use of cinnabar in contemporary Chinese medicine. Such evidence would conclusively assert that painting practices incorporated altered states of consciousness and offer an opportunity to consider the possibility of Neolithic medicinal practices.

9.4.3. An in-depth study of unique mark-making processes

During my discussion of tattooing, I synthesised figurines with incised dots on the face and forehead with the pigment and bone pin phenomena. The figurines I particularly referenced emerged from both the North and South Areas, and present a cluster of activity in B.17 and B.2 South Area Level K (Level IX c.6800 BC) and B.1 and B.77 in the North Area Level G (Level VIA/B c.6500 BC). Therefore, there are examples of this type of figurine that was made using a similar creative practice in both areas and at two different phases in the occupation of the mound. Further indications of these types of mark-makings, and where they appear in the history of the mound, will help to build a better picture of whether these examples represent pockets of activities unique to these phases or whether examples of this type of creative practice can be located throughout the history of the mound. My research also highlighted the differences in mark-making methodologies employed in creating the hand icon. The data I analysed indicated three distinct methods of making, and it would be useful to investigate further examples to see whether these practices can be linked to changing trends in making or unique communities of practice. The data I considered indicated that using the hand itself to

make the mark was relatively unusual, and I think the transition between claw/paw-like hand to human hand is a significant change in material engagement and socially sanctioned interactions with materials. A database that presents different methods of mark-making; including marks on bone tools, such as Table 3, Bone Tool 7, and the striae (section 5.2.3.) across the obsidian mirrors, would be an excellent resource to aid the development of socio-creative analysis and locating changing community dynamics at Çatalhöyük.

9.5.0. Closing Thoughts

The archeological remains at Çatalhöyük reveal a magnificent Neolithic community and a complex, co-ordinated, and creative social world. Çatalhöyük has reframed our understanding of complex societies during this period, and evidences a community with a very distinctive way of being. The presence of the town in the Konya Plain adds to the wealth of activity happening in this area. The sheer volume of day-to-day data produced across generations of inhabitants makes Çatalhöyük a remarkable and invaluable source. The ability to explore a community of such great age with the aid of contemporary technology, and to be able to offer this data to a global audience via the internet, is a privilege of existing in today's generation. Multivocality is caught in the spatiotemporality of the mound, the agents of the past are embedded in their material intra-actions and gestures. All this is held fast in a tell that has weathered thousands of years to show contemporary communities who are at critical stages in their emergence, a different way of being.

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11.0.0. Figures



Figure 1. Map, selected Neolithic sites in Anatolia. Source: Eloise Govier (after Digitizing Early Farming Cultures, [online] Available at: <<https://defc.acdh.oeaw.ac.at/geolocation/site/show/>> accessed 12.3.18; Tringham and Stevanovic (2012) Figure 1.2).



Figure 2. Figurine unearthed during the 2016 excavation. Source: Çatalhöyük Research Project.



Figure 3. Painted figurine, from Shrine VIA. 61 (see Mellaart 1967: 182).

Source:

<<http://www.turkishodyssey.com/turkey/history/anatolia-until-alexander-the-great>> accessed 8.6.17



Figure 4. Clay stamp seal. U.11652.X1.

Source: Çatalhöyük Research Project.



Figure 5. Experimental house, interior. Çatalhöyük Research Project.
Source: Eloise Govier.



Figure 6. Experimental house, wall painting. Çatalhöyük Research Project.
Source: Eloise Govier.



Figure 7. Plastered wall feature, B.77.
Source: Çatalhöyük Research Project.



Figure 8. Speleothems. U.19442.
Source: Çatalhöyük Research Project.



Figure 9. Speleothems. U.11804.
Source: Çatalhöyük Research Project.

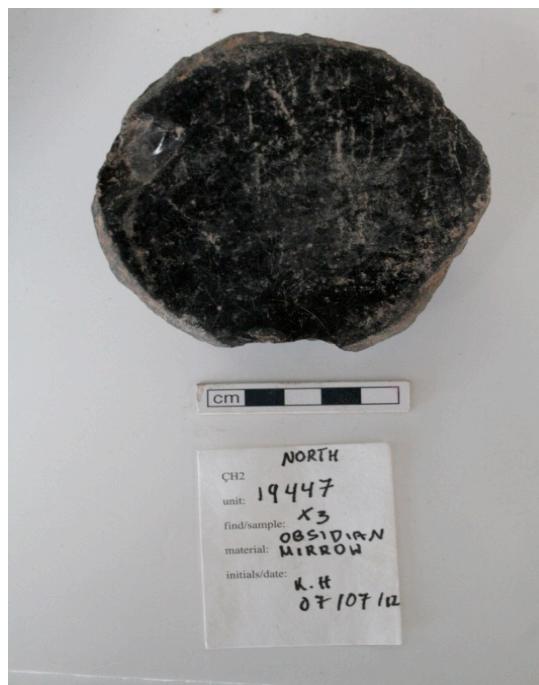


Figure 10. Obsidian Mirror. Unit 19447.X3.
Source: Çatalhöyük Research Project.



Figure 11. Pigment on Obsidian mirror microscope photo (magnification 3). Unit 19447X3.
Source: Jason Quinlan, Çatalhöyük Research Project.



Figure 12. Pigment on Obsidian mirror microscope photo (magnification 2). Unit 19447X3.
Source: Jason Quinlan, Çatalhöyük Research Project.



Figure 13. Obsidian mirror. Unit 19445X4.
Source: Çatalhöyük Research Project.



Figure 14. The 'Pink Palette', Unit 19295.
Source: Çatalhöyük Research Project.



Figure 15. Palette, (no unit number). Çatalhöyük section at the Konya Archaeological Museum, Konya. Source: Eloise Govier.



Figure 16. Pigment on Obsidian mirror microscope photo (magnification 1). Unit 19447X4. Source: Jason Quinlan, Çatalhöyük Research Project.



Figure 17. Fox bone tool, Unit 13147.X1. Located with Sk.13162. Source: Çatalhöyük Research Project.



Figure 18. Pigment and bone tool phenomena. Unit 8184X4. Source: Jason Quinlan, Çatalhöyük Research Project.



Figure 19. Shell with pigment residue. Unit 8184X3. Source: Çatalhöyük Research Project.



Figure 20. Pigment and bone tool phenomena.
Unit 16308.X2. Source: Duygu Çamurcuoğlu,
Çatalhöyük Research Project.

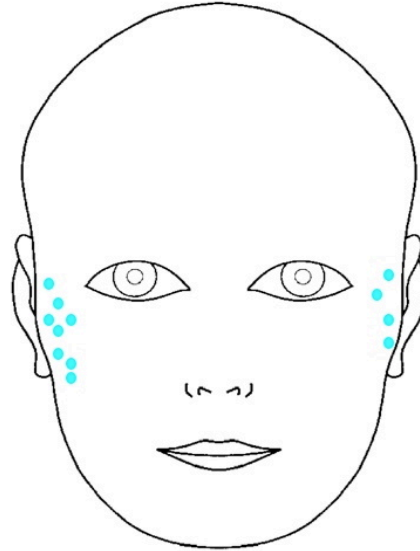


Figure 21. Example of face-painting using 8184.X4
Bone tool and Pigment, referencing the perforation
marks found on Figurine 5021.D1.
Source: Eloise Govier.



Figure 22. Bone Tool. Unit 13103.X1C. Source: Çatalhöyük Research Project.



Figure 23. Perforated figurine head. Unit 5021.D1. Source: Çatalhöyük Research Project



Figure 24. Figurine. Unit 5043.X1. Source: Çatalhöyük Research Project



Figure 25. Figurine head with perforations. Unit 1664.X4.
Source: Çatalhöyük Research Project.



Figure 26. Figurine head with perforations.
Unit 17804.H1. Source: Çatalhöyük Research Project.



Figure 27. Figurine head with perforations.
Unit 17804.H1. Source: Çatalhöyük Research Project.

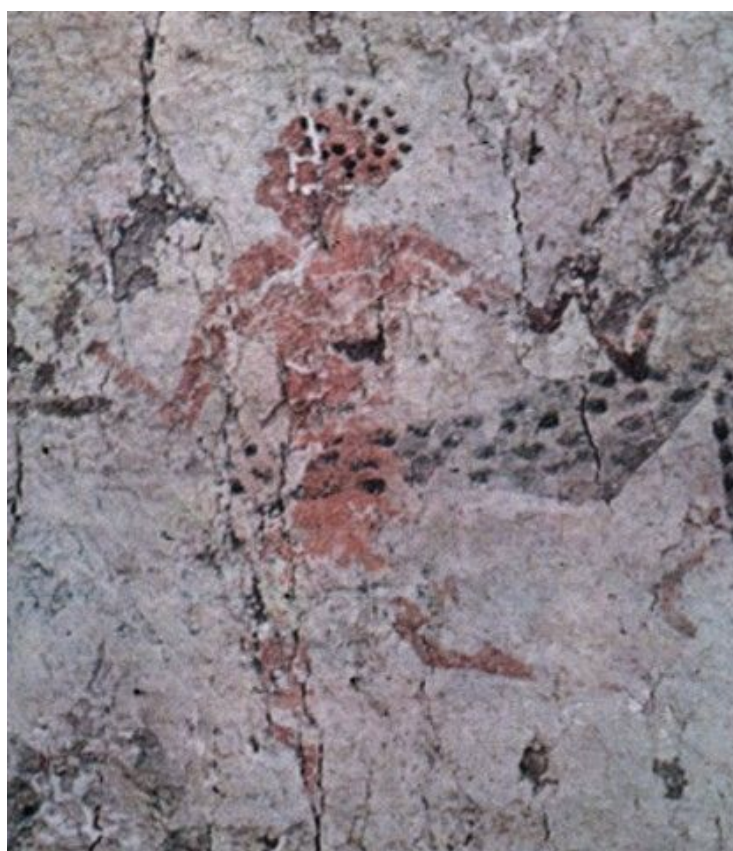


Figure 28. Wall painting in Level III, James Mellaart.
Source: Çatalhöyük Research Project.



Figure 29. Burial, Sk.8598 (F.3629). Building 114, North Area BACH.?G. Level VI/VII. Database notes the orange clay aggregate.
Source: Çatalhöyük Research Project.



Figure 30. Cinnabar painted skull. Source: Çatalhöyük Research Project.



Figure 31. Figurine with skeleton design on the rear.
Unit 12401.X7. Source: Çatalhöyük Research Project.



Figure 32. Beads and blue pigment, Unit 7575X13.
Source: Çatalhöyük Research Project.



Figure 33. Neolithic paint spill, U.20079.
Source: Çatalhöyük Research Project.



Figure 34. Paint spill Unit 20079, on platform F.3440, pictured in relation to B.80 wall painting. Source: Çatalhöyük Research Project.



Figure 35. Painted red wall panel, Area 4040, Çatalhöyük Research Project. Source: Eloise Govier.



Figure 36. Neolithic pot, Çatalhöyük Research Project. Konya Archaeological Museum. Source: Eloise Govier.



Figure 37. Plastering the 'wall', experimental exercise. Source: Eloise Govier.



Figure 38. Plastering the 'wall', experimental exercise.
Source: Eloise Govier.



Figure 39. Plastered skull, Unit 11330. Source: Jason Quinlan,
Çatalhöyük Research Project.



Figure 40. The 'flow' of the line on the B.80 wall painting.
Source: Çatalhöyük Research Project. The yellow line
has been added by the author.



Figure 41. Ruptures and flows in the wall painting,
B.80 wall painting. Source: Çatalhöyük Research Project.
The blue circles have been added by the author.



Figure 42. Layering of patterns and different shades of red, B.80 wall painting. Source: Çatalhöyük Research Project. The yellow lines have been added by the author.



Figure 43. An archaeologist at work, Çatalhöyük Research Project. Source: Çatalhöyük Research Project.



Figure 44. B.80 wall painting. Source: Çatalhöyük Research Project.



Figure 45. Painting the 'wall', experimental exercise. Source: Eloise Govier.



Figure 46. Working with paint, experimental exercise.
Source: Eloise Govier.



Figure 47. Making lines, experimental exercise.
Source: Eloise Govier



Figure 48. Emerging patterns, experimental exercise.
Source: Eloise Govier.



Figure 49. Handprints, U.19078, from B.77.
Source: Dorthe Nistad, Çatalhöyük Research Project.



Figure 50. Painting on the indentation of the wall, B. 80. Source: Çatalhöyük Research Project.



Figure 51. Painted claw/paw like handprint, B.80. Source: Çatalhöyük Research Project.



Figure 52. Stenciled/drawn hands, U.16666, B.49. Source: Çatalhöyük Research Project.



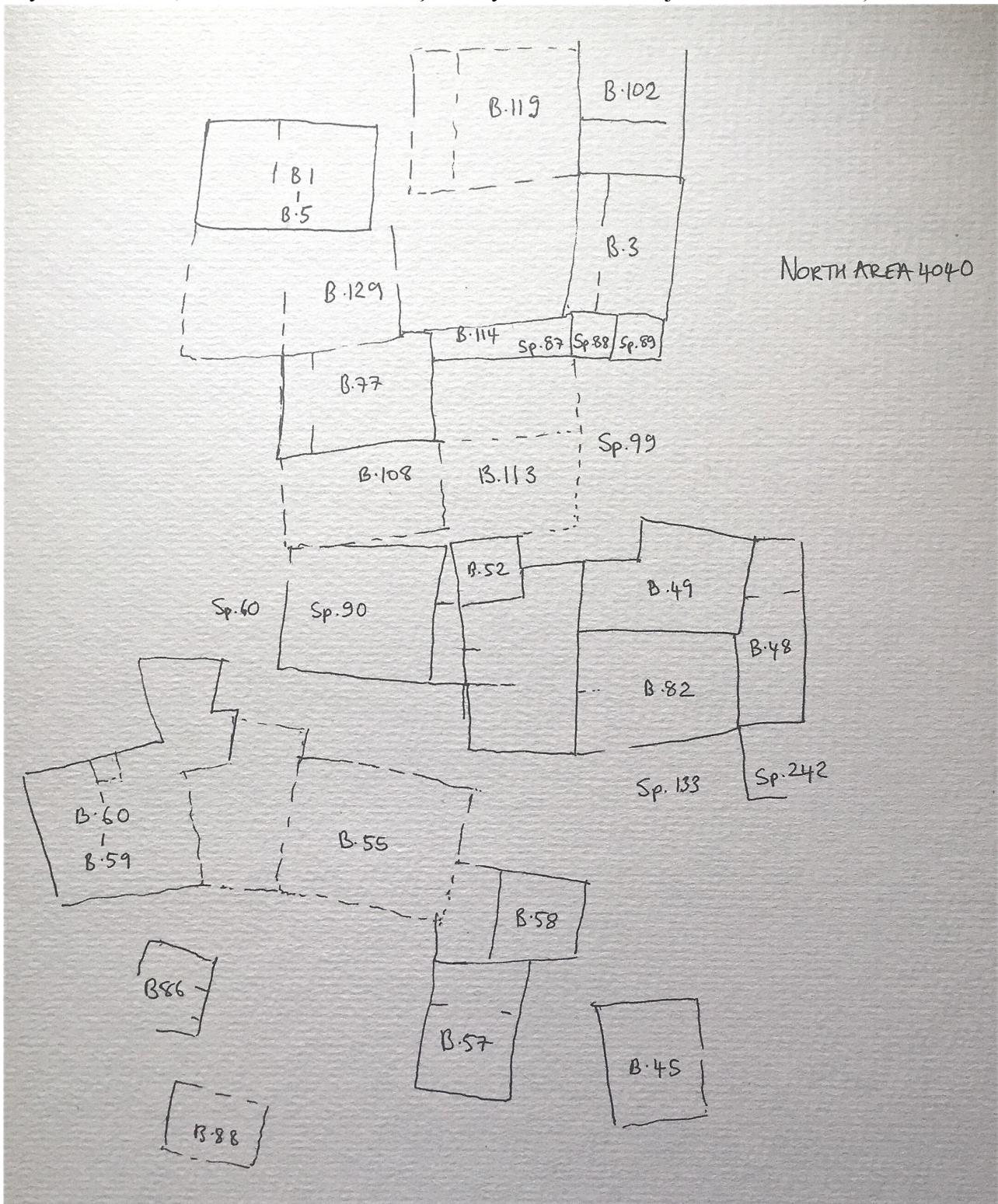
Figure 53. 'Maverick' wall painting, F.3429.
Source: Çatalhöyük Research Project.

12.0.0. Appendixes

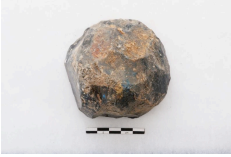
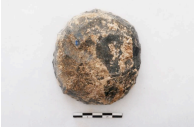


Appendix 1. Anatolia and Near East chronology. After Wright (2014: Table 1). The starting date for Çatalhöyük is 7300 calibrated BC (Cessford 2001) or 7100 BC using the Bayesian chronological model (Bayliss *et al* 2015; discussed in section 1.5.1).

LEVANTINE TERMINOLOGY	LEVANTINE DATES CALIBRATED BC	EARLY CENTRAL ANATOLIA (ECA)	ECA DATES CALIBRATED BC	Çatalhöyük EAST MOUND SOUTH AREA	Çatalhöyük EAST MOUND AREA 4040
PPNB - MIDDLE	8460-7560	ECA II	9000-7000		
PPNB - LATE	7560-6940			PRE-XII (G)	
				XII-XI (H-I)	
PPNC	6940-6400	ECA III	7000-6000	X-IX (J-K)	F-G
				VIII-VIA (L-O)	
LATE NEOLITHIC	6400-6000			V-III (P-T)	H-J






Appendix 2. Drawing of buildings in the North Area (using data from: Farid 2008, Wright 2014, Taylor *et al* 2015, Hodder 2014a and the Çatalhöyük Research Project online database).








Appendix 3. Table 1. Lithics: Obsidian and Chipped Stone (information gathered from Çatalhöyük Research Project).

				
Obsidian Number	1	2	3	4
Unit	19447.X3	19447.X4	15621.X2, 15621.X7 (obsidian blades), and 15671	10840
Space Feature	77	77	17	112
Location Area	3630	3630	2843	1702
Level	B.129 NORTH SCRAPE.Unstratified Neolithic.	B.129 NORTH SCRAPE.Unstratified Neolithic.	B.102 AREA 4040 SCRAPE.?G	B.50 Level VII (Carter 2011: 7) (Database: SOUTH.?M)
Year	2012	2012	2007	2004
Size	8.81cm x 8.71cm x 5.43cm; 434g. (Database entry).	Weight 379g	X7A 10.21 x 1.4 x 0.31cm. X7B 8.24 x 1.23 x 0.28cm. X2A 7.24 x 0.91 x 0.27cm. X2B 9.02 x 1.62 x 0.2cm.	14.5cm long (Carter 2011: 7)
Material Context	Obsidian The centre has “multi-directional striae” (Database entry).Conservationist (Ashley Lingle) notes: “X3 had three samples taken: a blue pigment, a red pigment, and yellow plaster”. Azurite, ocher and marl plaster (conservation record). Found NW of F.3630, three skulls and one individual. F.3684.	Obsidian Burial. Polished surface with “visible striae” on surface and particularly in the centre (Database entry). Found in SE of F.3630, three skulls and one individual. F.3684. Clay figurine with pin-pricked eyes and ears/head 19447.H1.	Obsidian blades. Female burial, near skull 4 fine prismatic, pressure flaked, obsidian blades. Small shell bead broken in two). Phytoliths included with blades, they are believed to have been held in a small pouch. Tentatively assigned to Level VII-VI (Carter 2011: 7).	Chert blade, Burial 1072. Large adult male containing lamb (U.10839), a worked bird bone (Ulna - wing) (U. 10840) and bone point, a large 14.5cm chert blade (behind left scapula), red pigment sprinkled over body (Carter 2011: 7). White substance was found across the chest (Project Database). Beads (10829). Bone points X2, X3 (U. 10842).The blade evidences use-wear. Burial also contains salts/phytoliths/ dark grey clay particles U. 10842). Behind the neck a gold brown substance that may be organic residue.
Photo Credit	Jason Quinlan, Çatalhöyük Research Project.	Jason Quinlan, Çatalhöyük Research Project.	Jason Quinlan, Çatalhöyük Research Project.	Çatalhöyük Research Project.





Appendix 3. Table 2. Pigment and/or Bone Tool. Information gathered from Çatalhöyük Research Project.

					
Bone Tool Number	1	2	3	4	5
Unit	16308X2	8184.X4	13147.X1	13167X12	13167X12
Space	17	86	278	279	279
Location	B.102	B.3	B.60	External	External
Area	NE Corner 4040	BACH	AREA 4040	AREA 4040	AREA 4040
Level	SCRAPE.?G	BACH.?G / N VIB	Level H	Level I	Level I
Year	2007	2001	2006	2006	2006
Material	Animal bone and pigment lump.	Animal bone and pigment lump.	Animal bone.	Animal bone.	Animal bone.
Context	Burial context Sk.16308. North of skeleton surrounded by phytoliths (perhaps pouch) and plaster beads. Three primary burials and a number of disarticulated skulls. The other two articulated burials wore beaded bracelets.	1 year old burial Sk.8184 in a basket. Dark-coloured beads around right humerus light-colour beads around l. humerus. Shell with red pigment stain and clump of yellow material found under cranium. Pigment and embedded bone tip found near head with wood fragment. Yellow ocher under pelvis and hip. Phytoliths around skull.	Burial context Sk.13162. Pigment and animal bone. 'Motherbaby'.	Worked bone tools. Shells. Midden.	Worked bone tools. Shells. Midden.
Photo Credit	Duygu Çamurcuoğlu, Çatalhöyük Research Project.	Jason Quinlan, Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.

Appendix 3. Table 3. Bone Tools. Information gathered from Çatalhöyük Research Project

					
Bone Tool Number	6	7	8	9	10
Unit	13103.X1C	12980.F3	12980	15621X3	13103.X14B
Space	External	External	External	17	External
Location	Sp.279	Sp.279	Sp.279	B.102	Sp.279
Area	AREA 4040	AREA 4040	AREA 4040	4040	AREA 4040I
Level	4040 I	4040 I	4040I	SCRAPE.?G	Level I
Year	2006	2006	2006	2007	2006
Material	Animal bone	Animal bone	Animal bone	bone needles.	Animal bone
Context	Midden layer.	Midden. Two baby burials in this Sp. U.2031.	Midden. Two baby burials in this Sp. U.2031.	Found near skull, with 2 fragments of a shell bead (X4), 2 pieces of obsidian (X2 and X7), phytoliths. Made from Ovis (sheep) metatarsal III and IV. See obsidian blades Table	Midden: Bone, pot, obsidian, occasional worked bone.
Photo Credit	Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.	Jason Quinlan, Çatalhöyük Research Project.	Çatalhöyük Research Project.

Appendix 3. Table 4. Perforated Figurines. Information gathered from Çatalhöyük Research Project.

					No photo available	No photo available
Figurine Number	1	2	3	4	5	6
Unit	17804.H1	5021.D1	5043X1	1664X4	2198.H1	2739.H2
Space	439	170	170	116	187	115
Location	n/a external	B.17	B.17	B.2	B.1	n/a external
Area	TP/N	SOUTH/K	SOUTH/K	SOUTH/K	NORTH? G.	SOUTH?L.
Level	N? VIB?	IX	IX	IX	VII-VI	VIII/L
Year	2 008	1 999 (1963)	1 999 (1963)	1 996 (1963)	1 997	1 997
Size	H 9.1cm x Diameter 6cm	D. 3-3.5CM (from photo no measurements)	D. c. 4-5cm	(max) H. 2.18CM xW. 1.69cm x Thickness 1.18	H2.94 cm x W1.19	(max) H.4.92 cm xW.5.32
Material	Clay	Clay	Clay	Clay	Clay	Plaster
Markings	4 puncture marks across the head.	Puncture marks on ears and head.	Puncture marks on head/ scalp/ear regions.	Punctures on top of head in rows and on back.	Intricate puncture marks on head.	Puncture marks head/ hair
Treatment	Broken at neck. Ring/ Cap around head.	Broken at neck. Head only.	Broken at neck. 2 parts.	Broken, only head, neck and upper left chest remain.	Leg and face missing, broken through head.	Broken into 2 pieces
Context	External midden. pottery, shell, obsidian, flint, and a huge amount of big animal bones mainly cattle. Feasting activity.	Ashy, charcoal deposit.	Orange fire installation material.	Dump in an abandoned building. Small eastern room to B.2. With 1664.X2 lumps of marl, shaped into figurines, coated in red paint, broken.	Ashy leveling fill; midden.	Midden area directly below Sp. 105. Sp. 115 partly overlies B.2 and underlies B.40. Fill included skeleton 285.
Photo Credit	Jason Quinlan, Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.	The Stanford Figurines project sent me the photo to examine.	The Stanford Figurines project sent me the photo to examine.

Appendix 3. Table 5. Hand Icons. Information gathered from Çatalhöyük Research Project.

Hand Number	1	2	3	4	5	6
Unit	16666	21789	21737	19078+19559	n/a	n/a
Space	100	135	135	336	n/a	n/a
Location	B.49	B.80	B.80	3094	AV14	East wall of EVIB, 8
Feature	1651	7410	3400	4040	n/a	n/a
Area	4040	SOUTH	SOUTH	B.77	AVI 4	SOUTH
Level	4040.G	VIA/SOUTH.O	SOUTH.O	4040 EAST MOUND	SOUTH/MELLAART	Vlb
Year	2008	2015	2015	2010-2013	1960s	1960s
Material	Red paint on layer of course white plaster sealed by layer of thin white plaster.	Red paint on plaster	Red paint on white plaster. Baby-sized painted hand print with only four fingers.	Red paint handprint below the the calf installation.	Red paint on white plaster.	Paint on plaster.
Context	Five 'stencilled' white hand motif on the south face side of the platform. The east face was painted red but no handprints. Excavators note orange and black flecks representing one further painting event.	Five red painted handprints on platform. With red/orange and white stripe pattern on south-facing edge.	Plaster layer on a bench/platform feature (F. 3400) in B. 80	There are a total of 11 handprints on north wall, 3 on the east wall (2013). The first two hands to be revealed (U. 19078) had a lighter shade of red painted on the little fingers and a circular pattern on the palm.	Painted in red on wall in building.	Negative hands painted on a panel below a "honeycomb" painting. Original drawing shows at least 15 hand motifs.
Photo Credit	Jason Quinlan, Çatalhöyük Research Project.	Çatalhöyük Research Project.	Çatalhöyük Research Project.	Photograph taken by author. Çatalhöyük Research Project, at the Konya Archaeological Museum.	Artist illustration after Mellaart (1963b: Plate VIIb).	Artist illustration after Mellaart (1963b).

Appendix 4. Copy of email sent to students for permission to include quotes in thesis.

“Hello Everyone,

I hope your studies are going well. You may remember our collective making sessions back in Semester 1 last year for the Interactions with the Environment course (2015-2016). During those session we kept notes describing our activities with the view that they might feed into an auto-ethnography on making.

During the wall plastering and painting sessions and the painting on paper session, lots of interesting thoughts and ideas were expressed, and I would like to include some of the notes I made during these two experiences as brief case studies in the my PhD thesis.

My PhD uses contemporary art practices to understand residues of making in the past.

The themes that emerged during our conversations that I am particularly interested in are: the value of the wall, who owns the wall, how we negotiated painting around/with each-other, and what happened when we co-created with paint. Retrospectively, these sessions provide a really interesting example of collective making.

I will of course refer to everyone anonymously e.g. “Student A. commented...”

Could those of you who would not like to (potentially) be quoted please email me on e.govier@uwtsd.ac.uk.

Equally, if you have any further ideas, or questions, please feel free to get in contact.

Many Thanks,

Eloise Govier”

Appendix 5.

Handling quartz and obsidian. The stones warmed to the touch, especially the smooth surface of the obsidian. Both materials interacted with the light; the obsidian had a soft, deep luster.



Handling quartz. Source: Eloise Govier.



Handling quartz. Source: Eloise Govier.

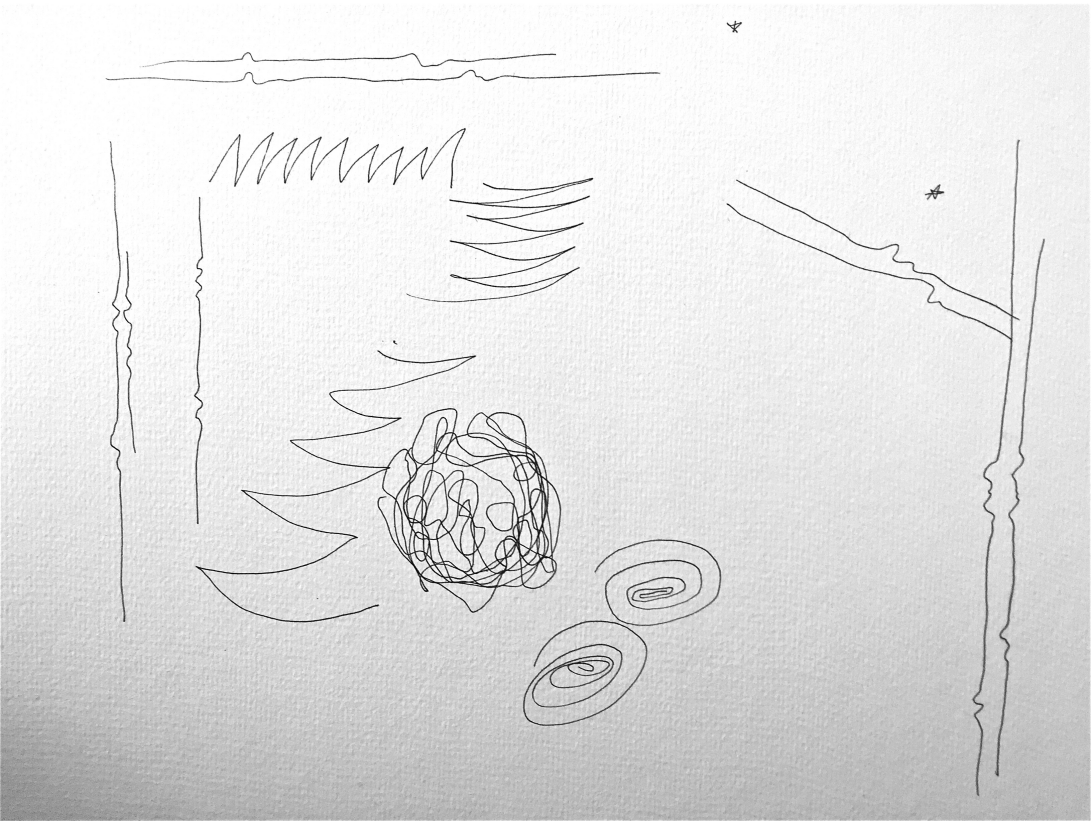


Handling obsidian. Source: Eloise Govier.



Handling obsidian. Source: Eloise Govier.

Appendix 6. Sound drawing: Inside a Neolithic house at Çatalhöyük. Method inspired by Helmut Lemke (Lemke and Haywood 2008).



Source: Eloise Govier

