

Living Stories at Çatalhöyük: Crafting Cavescares from Memory, Landscape, and Fire

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Master's Degrees by Examination and Dissertation

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Abstract

This research uses a phenomenological approach to explore oral storytelling within Çatalhöyük. This dissertation brings together the material culture of Çatalhöyük found within the archaeological record, with ethnographic examples within the literature, to draw together the relationship between caves and storytelling. I argue the Çatalhöyük homes to be places of purposeful storytelling through the crafting of caves, by setting Çatalhöyük within a wider context of Palaeolithic cave encounters. The research then considers thematically the factors which contribute to caves and storytelling, such as fire, material deposits and overall relationship to landscape. Auto-ethnographic research contributes to engaging with the layering of stories, the implementation of memory within caves and caves, and the crucial sensory environments necessary for effective storyscape places. In interpreting Çatalhöyük through the lens of oral storytelling, key insights are gained into the life, practices and intentions of the community living there.

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1. Introduction

With a background in religious studies and education I have always been drawn to expressions of humanity, and the ways people choose to connect through shared ideas. In studying religion I found stories deeply intriguing, as they were fundamental to religious foundation; at the centre of festivals, worship, community building and education. But storytelling has also been crucial throughout my own life; from childhood bedtime stories, ghost stories with friends, finding lone solace in my favourite book, and to telling my own children stories. They have acted as a comfort, a tool of expression, soul searching, and form a key part of my own education. Oral storytelling is of particular interest as it behaves differently to other forms of stories, it is more fluid, personal and offers insights into prehistory which might be otherwise forgotten or ignored.

My favourite story was created and told to me by my sister. It was of a girl named Emily who climbed a mountain in search of her lost sister, enlisting the help of animals along the way who would share magical items to aid the journey. I have since adapted the tale for my own children, presenting them as the journeying characters. Told verbally and never written down, the story changes each time in structure, tempo and tone, and it always left me with a fascination for oral storytelling.

When I first encountered Çatalhöyük I was struck by the stories which jump out at me within the archaeological record. This neolithic site is significant as it represents both unique facets of human expression, and a universal experience that humans all share: storytelling. I am interested in how interactions with landscape, caves, and fire at Çatalhöyük influenced the practice of oral storytelling. I demonstrate that the archaeological record at Çatalhöyük, alongside ethnographic evidence and palaeolithic cave art, can be read as indicating the purposeful crafting of places of storytelling.

Çatalhöyük is a Neolithic town dating from 7400-6000 BCE, located in Anatolia, modern day central Türkiye (Hodder, 2010, p. 2, see Figure 1). The Çatalhöyük site is the primary focus of my research due to the elaborate nature of the narrative wall art, the suggested connections of the site to cave emulation (Lewis-Williams, 2004), and the extensive use of cave materials which I will argue suggests a culture of storytelling and storied landscape.

Whilst I am unable to visit Çatalhöyük, the site has been extensively linked to Palaeolithic caves sites across Europe. I take a phenomenological approach, conducting my own auto-ethnography within British Caves to explore the sensory aspects of caves first hand. Furthermore, I conducted experimental archaeology; producing my own interpretation of a Çatalhöyük plaster wall relief and Çatalhöyük hand-prints, and interacting with them using fire in a British cave. Through crafting my own microcosm of a cavescape, I engaged with storied objects by firelight in an enclosed cave in order to gain insights through my own experiences.

This work brings together a diverse body of literature reviewing oral history, caves, and fire, with experimental archaeology in a comparable environment. Drawing upon the connection to caves, evidence of storytelling will be explored through material culture at the site; such as wall paintings, structural and textural wall features and story aid items. I also explore the ethnographic contexts of caves, rock art, storytelling and fire, with a goal of setting Çatalhöyük within a wider context.

I look at the significance of Çatalhöyük's wider landscape in the making of stories. How landscape inspired stories, as well as keeping stories alive within the memories of the communities living there. Ethnographic evidence is considered to present a variety of ontologies towards landscape which offer new perspectives on how the community may have engaged with and viewed areas of their landscape, such as caves and volcanoes.

Fire also plays an important role within this research as it impacts the sounds, sights, smells, feel and taste of the storytelling; creating a wholly interactive, multi-sensory experience. I explore how the objects and features encourage touch, the impact of smoke to the listener and story-teller, and the interaction of the flames on images on the walls. I also draw upon the role of fire within the stories in bringing people together, impacting their senses and bringing the stories to life. I argue it is a critical element which sparks a unique style of conversation and memory sharing.

I coined the terms 'cavescares' and 'storyscapes' to support this research. These terms build on Ingold's (1993, p. 153) '*taskscares*', which introduced the concept of temporality to the landscape through understanding landscape in relation to the patterns of activities and events which take place there. In this research storyscapes are defined as places crafted for the ideal conditions for storytelling. Humans create storyscapes to aid the telling of their stories, which

may be achieved in a variety of ways. This includes creating ideal sensory conditions in acoustics and lighting, as can be seen in modern day theatres and cinema, or by surrounding the listener with visual accompaniments, such as in museums and art galleries. Sometimes we even decide to surround ours with stories and create social rules of behaviour in storied spaces such as in libraries. Storyscapes are separate to caves but in the case of Çatalhöyük and the Palaeolithic, they are at times overlapping as caves often create the perfect conditions for storytelling.

I define a cavescape as a cave or cave-like place which, through interactions with human or non-human agents, transforms into a chosen place of activity through the layering of its increasing interactions. This definition encompasses the acoustics, the moisture, temperature, materials, the enclosure and the darkness which are complemented by features included within the caves due to human interaction such as rock art, fire and communication. Each feature contributes to the cavescape and its dynamism. I argue that caves too can reach beyond the cave, entering new crafted non-cave spaces, such as the Çatalhöyük homes. Crafting a non-cave cavescape, or *cavescaping*, I argue is achieved through emulating cave-like conditions, enhancing sensory experiences using caves conditions and through bringing the materials of the caves into the home to continue cocreation between caves and people. The features of the caves in conjunction with fire, allow for a unique set of conditions, which I argue the people of Çatalhöyük found essential to their storytelling practices.

2. Literature Review

2.1 Introduction

This literature review addresses the research question across three chapters; Oral Storytelling, Caves and, Storyscapes. Setting oral storytelling within a wider context within global practice is essential for a nuanced understanding of storytelling at Çatalhöyük. Through a range of oral storytelling literature, I illustrate the significance of storytelling and its place within communities with oral history traditions. As well as demonstrating key details about the desirability of skilled storytellers and who they may have been, environmental factors which may influence story subject matter, the role of landscape in storytelling and variations in ontologies which may influence how stories and landscape were perceived.

The next section discusses caves, cave emulation, and rock art; establishing the wider connection between activities in Çatalhöyük to the activities taking place in caves during the Palaeolithic. This is essential as it provides the context of why the people of Çatalhöyük may have undertaken specific crafting activities in relation to storytelling. Finally, I bring together literature on memory, objects and fire to demonstrate how storyscapes can be meaningfully and purposefully crafted.

2.2 Oral Storytelling

Telling stories is a universal part of the human experience, seen across time and locations, it is something all people have experience of participating in (Smith et al, 2017). Oral storytelling is a more than written story spoken aloud, it is a form of performed verbal art, which is co-created between the storyteller and listeners within a unique social context (Bauman, 1986). This brings together community through the performance of socially constructed and negotiated narratives, and invites listeners *into* the storied world (Ingold 1993, p. 153). Hodder and Pels (2010, p. 183) suggest that storytellers were predominantly elders (the older members of the community), as storytelling is a skill which can be developed over time and which may be improved with age and increased experience and practice, or as Wiessner (2014, p. 14029) notes “older people who had mastered the art... were frequently good storytellers “. Experience and verbal prowess, then, is what counts within this context. Storytelling may have created opportunities within the community for people to become teachers, guiding younger or less experienced members of the group, and maintaining or even

gaining social value as they age out of more physical pursuits. Ethnographic research carried out by Smith and colleagues (2017, p. 2) has shown clearly that “skilled storytellers are preferred social partners” above those with other potentially desirable skills, such as in hunting. Wiessner’s (2014, p. 1403) research supports this; stating that “Listeners, enthralled, soaked up knowledge of physical and social geography without bearing the costs of travel”, highlighting how skills in storytelling are greatly valued within groups which engage in oral storytelling traditions. As well as the importance of teaching and passing on stories, it is also essential to pass on the skills of storytelling to ensure the successful transfer of “guardianship capacities to another guardian in the next generation” (Pels, 2010, p. 239).

As interpreting oral storytelling relies heavily on ethnographic research (see Mahuika 2021; Wiessner, 2013), it is often subject to many of the pitfalls that come with this methodology. Mahuika (2021) examples one such issue with their first-hand perspective of being from the oral history community of Ngāti Porou, a Māori tribal community in Aotearoa, where oral histories remain significant today. Mahuika (2021, p. 5) asserts that when Ngāti Porou, or other, oral histories have been approached by western academics they are interpreted through a colonial lens which treats them more like fairytales wherein the information they present is read as “false, unreliable, or the puerile imaginings of the ‘other’”.

Searching for oral storytelling in the Neolithic, is challenging as by its very nature written accounts of stories are unavailable. However, their ethereal traces still remain within the archaeological record as “oral history is...evident in the people, art, traditions, [and] environments “ (Mahuika, 2021, p. 1). Connerton (1989, p. 76) asserts that stories “can lie around as artefacts and be consulted as required “ demonstrating that objects are not only useful means of informing modern interpretation of storytelling, but they may have been useful means of informing storytelling as multi-media aids. Considering the artifacts of Çatalhöyük through a storytelling lens allows for new interpretations of the objects as the crafted tools of storytelling. Therefore, as I argue in this dissertation, by exploring the archaeological record for what is left behind at Çatalhöyük the traces of storytelling can be found.

The objects and art of Çatalhöyük have been much debated in the literature with regards to gender (e.g. Hodder and Meskell, 2010; Lewis-Williams, 2004). This has, however, been “marred” (Govier, 2017, p. 68) by the heavily gendered original arguments of Mellaart and his

long since discredited ‘Bull God’ and ‘Mother Goddess’ interpretation (see Lewis-Williams, 2005, p. 88). Moreover, this work has often shed more light on the contemporary gendered attitudes of the archaeologists, rather than gaining an understanding of how gender was understood and engaged with within Çatalhöyük (Weismantel, 2013; see also Coltofaen-Arizancu, Gaydarska, and Matić, 2021).

Lewis-Williams (2005, p. 109) takes a binary approach to the distribution and medium of art in Çatalhöyük where male and female imagery is strictly delineated according to what he describes as “cosmological associations” operating within the culture. Hodder and Meskell (2010) take this further, viewing gender as a central theme to Çatalhöyük, particularly within their material and artistic expression. Hodder and Meskell (2010, p. 34) state that “maleness [is] a prime cultural signifier and the centrality of masculinity [is] a source of power and authority within the material and symbolic repertoire of the Turkish Neolithic.”

When viewing storytelling through the phallocentric narrative privileged by Hodder and Meskell (2010, p. 34), one must conclude that maleness was not only a key theme of storytelling but also a means to accessing power for the storytellers. I argue, however, that this is a deeply flawed interpretation of Çatalhöyük’s archaeological record, which falls prey to the same androcentric of interpretation as Mellaart. It must be acknowledged that as gender and sex are culturally situated (Butler, 1990), it is critical to breakdown contemporary concepts of gender to prevent an over-emphasis of our own interpretation of gender continuing to overly taint the interpretation of the past (see Coltofaen-Arizancu, Gaydarska, and Matić, 2021).

Govier (2017, p. 63), redressing androcentric interpretations at Çatalhöyük, states that “gender may have been a more fluid concept...it may take on a different form that is hard for contemporary audiences to recognise”. Weismantel (2013) also discusses how modern gendered assumptions impact interpretation at Çatalhöyük and advocates for an *ungendering* of prehistory. Weismantel’s (2013) paper points out that gendered biases often force unhelpful assumptions which lead to incorrect and damaging conclusions. For Weismantel (2013, p. 324) ungendering the archaeological record “doesn’t mean claiming that gender didn’t exist “ instead it is about “pulling apart biology and culture, and delinking aspects of gender and society that seem inseparable today”. One way of ungendering the past is to

remove an *a priori* view of binary gender and open up interpretation space for neutral and multiple genders.

With an ungendered lens, Weismantel (2013) breaks her evidence for potential gender neutrality at Çatalhöyük across three key strands of evidence; figurines, biomorphology, and burial data. In relation to figurines, Weismantel (2013, p. 323) highlights the work of Meskell (2000) whose figurine analysis “did not begin with a binary model” but used categories “developed from differences observed within the corpus of figurines itself”. This resulted in recognising that “a deliberate effort “ had been made by the crafters to takes a blurred approach to the boundaries of gender. This was a welcome and stark contrast to the previous models of organisation, which focused on binary gender models of ‘Male’ and ‘Female,’ resulting in figurines with visually ambiguous physical gender markers, being considered undeterminable due to questionable interpretations such as “clumsy workmanship” (Weismantel, 2013, p. 323).

Turning to burial data, Weismantel (2013, p. 324) uses Nakamura and Meskell (2009) who argued that the treatment of the dead at Çatalhöyük showed “very little evidence of socially assigned gender”. Adults of all sexes are buried in graves beneath the floors of the Çatalhöyük structures, with the bodies of all genders being “mixed together haphazardly or deliberately re-combined without regard to gender.” (Weismantel 2013, p. 324). Where differentiation can be seen in burials it is not between gender but between adults and infants. This may suggest that age was a point of significance within community more than gender. Weismantel’s (2013) final strand of evidence is that of the biomorphological data. Many sites globally have found gender to be “deeply inscribed onto the bones of the dead “ (Weismantel, 2013, p. 324); the physical impacts often presenting themselves on bone through the effects of differences in work, diet, daily activities and overall health. However, fascinatingly, this is not observed on the biological data from Çatalhöyük. Irrespective of determinations of skeletal sex, a binary pattern did not emerge with regards to gender. All adults appeared to perform “equally demanding physical work and ate the same abundant and varied diet.” (Weismantel, 2013, p. 324). Accepting Weismantel’s critique, an ungendered approach is key consideration to the way I approach storytelling at Çatalhöyük within this research and who their “custodians of memory “ (Connerton, 1989, p. 76), the storytellers, may have been.

When considering storytelling at Çatalhöyük, it is however essential to consider the wider landscape. Much of the literature in this area either adopts a phenomenological approach, predominately considering the impact of landscape upon human experience, or an ethnographic approach, which has sought out various ontologies of landscape.

Ingold (1993, p. 152) correctly argues that “the landscape tells – or rather is – a story.” Landscape is where stories are created and where both human and non-human memories are forged. Casey (1996, p. 23) asserts that “part of the power of place, [is] its very dynamism”, though his interpretation provides the landscape a very passive role, arguing that it is the human interactions with space which transforms it into places of significance, “onto which... culture and history can be inscribed.” This unfortunately does not recognise the agency and power of the landscape, both in influencing and inspiring stories, and drawing people to powerful locations.

Ingold (2016, p. 50) offers a more balanced argument than Casey (1996), suggesting that rather than a creation of landscape, it is place within the landscape that is created through interactions. For Ingold (2016), place within landscape is forged through a complex array of ‘lines’ (see Ingold, 1993; 2016) from the paths and activities of human and non-human agents, which layer the landscape with power, creating place. Place can, for Ingold (2016) increase in significance and power through increased interactions, including events within the landscape and stories. For people, the landscape becomes intertwined with the traditions of oral storytelling and expressions of communal memory (Cannon, 2021, p. 91). Places within the landscape, then, are “full of memories “ having the ability to “gather experiences and histories “ (Casey, 1996, p. 24). While phenomenology allows for an understanding of how landscape may become culturally embedded and experienced by humans it does not illuminate the very nature of the landscape or its active role in storytelling. Ethnographic research furthers these interpretations of landscape, to consider a more-than-human approach to storied landscape, through the exploration of a range of ontologies. This is particularly significant when trying to understand how the community of Çatalhöyük may have understood the landscape around them. This has been explored through the Ontological Turn and into New Animism.

It was Hallowell’s (see Harvey, 2017, p. 481-2) time spent with the Ojibwa community and his subsequent *other-than-human persons*’ consideration which marked the beginning of the ontological turn and still influences current discussions within animism. Mahuika (2021, p. 6-

7), for example, is clear that not all stories within the Ngāti Porou community centre around people, with one of the most significant focusing on mountain Hikurangi. The connection to the mountain within storytelling emphasised the landscape as alive, with a closeness to the mountain reengaging the community and “amplified” again and again in storytelling. Similarly during Obadia’s (2021, p. 222) research in the Himalayas, the living nature of the a particular mountain became clear during conversations with a Sherpa guide. What is interesting to note and is similar to what was experienced by Hallowell, was that just because some of the landscape is living, does not mean it is all living. With the next peak along being, “just a mountain like any other “ (Obadia, 2021, p. 222).

Schmitt et al (2014, p. 1) state that “a brief line of oral tradition, or even an eye portrayal, is perhaps more likely than tradition of a myth that detached itself from its inspiration in the physical world...many of the apparent details can be reasonably expected to become lost or obscured during a long period of oral tradition.” This indicates that remaining within the physical presence of the locations or settings of events, allows subsequent stories to be kept alive within the minds of the community long after eye witnesses are no longer present. While it is extremely helpful to acknowledge the role of eye witnesses and oral tradition in hunter-gatherer and neolithic communities, it is important to note that the strict binary distinction between oral accounts of ‘realism’ and myths is at best unhelpful and at worst a deep misunderstanding of the nature of oral storytelling which often seamlessly weave the mythological with the ‘real.’ Strict separation between myth and oral history is limiting; it does not recognise the various ontologies across different communities and is sadly rooted in colonialism (Gosselain, 2016). Concern for a loss of detail too seems misguided when considering the support of visual storytelling. For example, at Çatalhöyük the event of a volcanic eruption, seemingly depicted (Carter, 2011, p. 3; Barber, 2010; see §4.5; Figure 2), could be remembered and brought back to life, with each retelling prompted by the visual presence of the Hasan Dag Mountains (Figure 3) and the depictions and re-paintings on the walls.

2.3 Caves

Humans appear to be drawn to particular places within the landscape by what Brady (2021, p. 183) refers to as “a form of phenomenological gravity “ which can be seen in a propensity to repeatedly visit special places. This pull can be understood through the lens of Eliade’s *hierophanies*; his theory of specific locations holding an innate sacredness which could not be contained and would burst into the world drawing human attention (see Rennie, 2007, p. 82). Hierophanies constitute the revelation of the sacred as it is manifested within space (Reno, 1972, p. 154). Sacredness bursts into the landscape, breaking free from the mundanity of Durkheim’s *profane* (see Idinopulos, 2001, p. 9) spaces to reveal sacredness through ineffable and intrinsically special experiences. An example of this is the Auroura Borealis; a natural phenomenon occurring directly from landscape without the influence of human interaction but that inspires awe and subsequently stories within humans. I argue that the volcanic eruption of Hasan Dag, a cataclysmic event which saw people witness fire bursting into the sky from the mountains, would have been such an event for the people of Çatalhöyük. Whilst not all locations that pull human attention do so through large events that create communal flashbulb memories (Whitehouse and Hodder, 2010, p. 131), they all create feelings outside of the mundane. Otto (1917, cited in Nabuski, 2023, p. 83) characterised this as a feeling of the “numinous,” which could be a positive or negative feeling of “wholly other”.

Another of these areas of landscape seems to have been caves, which can be seen through interactions across the Upper-Palaeolithic in Europe, Antolia, and the Eastern Mediterranean. Lewis-Williams (2002 & 2005) work as an anthropologist in areas such as Southern Africa and in human interactions with caves has led to an extensive amount of ethnographic data and interpretation which has been applied to Palaeolithic and Neolithic eras. Lewis-Williams later 2004 paper, *Constructing a Cosmos*, draws together his earlier research and considers Çatalhöyük within that context. His phenomenological approach, centres heavily upon the commonality of experiences within cave settings, allowing for a cross-over of themes within his research. When considering the buildings of Çatalhöyük he was immediately struck by the “significance of deep limestone caves....” and the echoes of them to be found at Çatalhöyük (Lewis-Williams, 2004, p. 54). This was particularly clear in the way in which the building enforce embodiment within the homes through, “descent, limited light and the need to crawl through small openings between chambers [which] are akin to the experience of moving

through limestone caves “ (Lewis-Williams, 2004, p. 54, also see Lewis-Williams and Pearce, 2005 and figure 13). Other significant evidence that caves were meaningful in Çatalhöyük include the use of materials gathered from the Taurus Mountain area, such as Juniper wood, and materials from the mountains caves such as limestone, stalactite and obsidian (Lewis-Williams and Pearce, 2005, p. 105). Lewis-Williams (2004) goes further to assert that the structure of the buildings are akin to a tiered cosmos, evidencing a wider shamanistic belief and practice at Çatalhöyük. While ethnography has been particularly helpful within his research in establishing a wider connection to caves in Neolithic and Upper-Palaeolithic periods, I argue that extreme caution should be exercised attempting to transfer one community's ideas onto another, even with an evidencable pattern of similarities between sites.

Wentzel Van Huyssten (2010, p. 104) argues, “from a palaeoanthropological point of view, human uniqueness...emerges as a highly contextualized and embodied notion...[and] as materially manifested in the spectacularly painted cave walls of the Upper Palaeolithic.” Strong parallels can be seen between the themes of animal scenes in both periods and in a range of locations including Çatalhöyük (see Figure 4). The inner walls of the structures at Çatalhöyük were of “great significance “ (Lewis-Williams and Pearce, 2005, p. 110), being covered in imagery of humans, animals, and geometric patterns (Figure 5) which increased in complexity as inhabitants moved further within the rooms. Whilst the images likely offered visual and tactile representations of the stories being told, more important for the crafting of storyscapes was the process by which the images were created. Lewis-Williams and Pearce (2005, p. 111) state that, “[t]he act of making and remaking was as important as- or, perhaps, more important than- the finished image” with the walls of Çatalhöyük bearing a significant number of re-plasterings and re-paintings with images “similar to but not identical with those on earlier layers” (Lewis-Williams and Pearce, 2005, p. 111). This repeated crafting of the walls of Çatalhöyük played an important role in storytelling. I argue the palimpsest-esque walls of Çatalhöyük allowed the community to constantly renegotiate their images, their past, and the stories they shared. This demonstrates a repeated communal material entanglement in storytelling which was essential for *communitas* (see Govier, 2017; discussed in §4.4.1) at the site.

2.4 Objects of Memory

Stories and memories go hand in hand, when in search of stories, it is essential to begin with memory, and it is “material things...[that] stir memories, provoke thoughts, [and] conjure up actions “ (Keane, 2010, p. 194). Memory preservation through material objects has been a major factor of the literature of Çatalhöyük since Hodder began leading the ‘Çatalhöyük Research Project’ over 30 years ago. Hodder is clear that memory is within all layers of the Çatalhöyük. The buildings and their objects, place a major role on forging “social memory “ (Hodder and Cessford, 2004, p. 32). The material culture of Çatalhöyük is elaborate and significant to memory preservation. Key memories are socially negotiated, with objects crafted to help maintain the memories within society. Artefacts, such as figurines, are “objects that have significant metaphorical connotations with memories imbued within” (Govier, 2017, p. 56).

Hodder (2010) notes that social value was attributed to history within Çatalhöyük, and the social currency can be witnessed in the most elaborate structures. Hodder asserts that value is given to the amassing of history and “objects of memory” (Hodder and Meskell, 2010, p. 49-50) within what he refers to as *History Houses*. History Houses are marked out from other buildings due to the amount of special elaborate objects and imagery. Hodder and Pels (2010, p. 182) indicates that this is specifically history and not mythology, due to an emphasis on the role of individuals and not a “generic character of myth” within imagery and the uniqueness within houses. Wiessner (2014, p. 14029) argues that “story telling is so important for remembering” encouraging a sense of life within the objects of history and memory. Though storytelling was not solely reliant upon the gathered objects of memory within history houses, these do seem to have been of great importance and value.

Keane (2010, p. 188, p. 196) asserts that ‘religion’ can be evidenced through the marked and the absent. Marked items could include those featured as the subjects of art upon walls, reliefs and figurines. Whereas absent items, may include those hidden but not forgotten, such as the caches of obsidian found buried in many houses near the hearth (see figures 14 and 15), and in the dead beneath the floors. Nakamura (2010, p. 316) suggests that magic “seeks out” concealment in order to withhold its power. While it is uncertain if magic was present at Çatalhöyük, Nakamura’s (2010) interpretation acknowledges the powerful draw of special objects to hidden places. Places which were both hidden and in full view, secret and yet known

by all through repetition of placement across the buildings. I argue that the force Nakamura (2010, p. 316) sees in these areas is of stories. The Çatalhöyük houses themselves enforced an embodiment of memory within the home. Through bodily movement, the platforms which concealed the dead buried beneath the floors, acted as a physical representation of the coexisting invisible dead (Keane, 2010, p. 205). The platforms, created a need for repeated movement throughout the house in “a culturally specific” way, which through a “combination of cognitive and habit-memory” (Connerton, 1989, p. 88) created a physical embodied memory of the dead. Memory at Çatalhöyük seemed to rely on complex reminders of the hidden.

Bailey (2014, p. 32) argues that through miniaturisation in 3D objects, such as figurines “our understanding is enriched greatly if we think through the sense of touch.” It seems highly likely that figurines at Çatalhöyük (such as Figure 6) and other objects imbued with memory, were used through the physical engagement of touch in memory retrieval. This action would be of particular use in storytelling, especially when stories are understood as real to the people telling them, as their ontology, as opposed to being othered as unreliable “fairytale” (Mahuika, 2021, p. 1). Some acts and interactions with objects may have “become codified” over time, through repeated ritual actions over generations, no longer holding a, “specific link to a memory of events” (Hodder and Cessford, 2004, p. 32). This however made the shadows of the original memory no less present or important within Çatalhöyük society. Storytelling then, through ritual action and engagement with imbued objects could keep alive memories which may have otherwise been lost.

2.5 Fire

The social role of fire in Çatalhöyük society is an area which has largely been overlooked in academic research as it has primarily focused on issues of soot, smoke, and utilitarian function (as seen in Shillito et al, 2022 and Hodder, 2016; also see hearth experiment at Çatalhöyük in Figure 7). The research at Çatalhöyük predominately includes reconstructive, experimental archaeological methods, with an overwhelmingly essentialist or functionalist approach, such as Shillito et al’s (2022) research considering the practical impacts of structural choices, such as the potential negatives of poor visibility, poor ventilation and the impact of this upon health outcomes.

When considering the placement of art and the many re-plasterings in the Çatalhöyük houses, Hodder (2016) takes a firmly structuralist approach, placing blame on the dirt produced by fire for these deliberate choices within the home. Instead, I consider what fire does to art and people, and how it acts as a fundamental component to storytelling. Hodder offers that containing paintings to the northern walls and the hearth to the southern “made sense” (Hodder, 2016, p. 38, see example of Çatalhöyük home layout Figure 8) to keep art clean. He goes on to categorise spaces within the houses as ‘clean’ and ‘dirty’. Govier (2018, p. 75) helpfully questions “how stark the difference” between smoke residue on the walls could have been within an open room. Reconstructions of fire use within the Çatalhöyük structures suggested large amounts of smoke with extremely poor ventilation (Shillito et al, 2022, p. 1034 & 1042, also see depictions of fire and hearth at Çatalhöyük in Figures 9&10) suggesting that the difference may have been minimal. While Hodder’s binary ‘clean/dirty’ argument may initially appear useful through a modern lens, this blunt dichotomy fails to explore how a difference in cultural perception of the fire may impact how it was perceived within the cultural imagination of the community. The main issue then with these previous interpretations is in viewing smoke and soot as a problem to be solved. Instead of understanding “the original whiteness “ of the walls to be “rapidly threatened by the soot from the fires” (Bloch, 2010, p. 149), fire, smoke and soot should be viewed in an altogether more nuanced way. For example, Hodder’s interpretation fails to recognise the associations of the hearth in the southern ‘dirty’ area with birth, the sun and “with neonate and infant “ burials (Pels, 2010, p. 259) and how this may have impacted the understanding of fire. These key connections between the hearth suggest an interpretation that far from a binary existence of ‘clean’ and ‘dirty,’ fire and it’s smoke bi-products have to therefore be understood in a way which goes beyond ‘dirt’.

Pyne (2016, p. 1) argues that “fire became...integral to the ecology of ideas...[as] It could rework thought as it did metal or clay...fire had within [it] culture”. Just as access to fire let people do practical things it also allowed them time and place to develop complex thought. This links to Wiessner’s (2014) ethnographic research highlighting key themes and links within the conversations held within fire lit environments in modern anthropological studies. When considered against the archaeological evidence at Çatalhöyük, it presents the possibility of parallels of practice between the community of Çatalhöyük with other hunter-gatherer

communities utilising darkness, fire and narrative practices. Wiessner's (2014, p. 14028) study, considers the Ju/'hoansi society inhabiting northeast Namibia and northwest Botswana. Though Wiessner cautions that this research may not be "projected back to interpret the distant past" (Wiessner, 2014, p. 14032), she also concedes that "grounds to formulate questions and hypotheses regarding the impact of firelight on social and cultural evolution" can be explored. Wiessner (2014, p. 14028) astutely asks, "Does fire time simply extend the day or does it provide contexts for interactions of a different nature?" It is this sense that fire allows for an entirely different type of interaction than is available during natural daylight, which I explore.

Wiessner's (2014, p. 14029) results show a dramatic shift from storytelling in the daylight at 6% to "81% of lengthy conversations" at night (see figures 11&12), by the fire, "involving...people...devoted to stories; these stories were largely about known people and amusing, exciting, or endearing escapades." This creation of a stark shift from day to night talk allowed for the "evoking higher orders of theory of mind via the imagination" (Wiessner, 2014, p. 14027). It is this imagination which allows for the exploration of new ideas, the development of stories, religious and ritualistic behaviours, and the transference of cultural identity through repeated shared practice. Wiessner (2014, p. 14027) shows this is not isolated to Ju/'hoansi community, presenting a robust collection of ethnographic examples of other hunter-gatherer communities, concluding a "widespread human use of firelight for intimate conversation and...evening stories."

The role of fire's interaction with art at Çatalhöyük has not been largely explored. Needham (2022) captures the overarching similarities appearing in different times, locations, and contexts in pre-historic art in relation to fire. In doing so, he provides vital insights into the significance of these themes, materials, and most importantly the role of fire in the Upper Palaeolithic. When considering Needham et al's work 'Art by Firelight', the parallels between Palaeolithic art and the art of Çatalhöyük is striking. Needham (2022, p. 1) notes that in placing the engraved animal plaquettes close to the hearth, the "interaction of engraved stone and roving fire light made the engraved forms appear dynamic and alive". This animation of art and the interactivity through light may then allude to overall use.

Needham (2022, p. 18) notes that "cave art spaces necessitated a mastery of dynamic elements within their immediate contexts; darkness; light; art placement and space; perhaps

also sound". While this raises vital considerations on the environment's used to facilitate engagement with these art forms, I argue that Needham's work does not go far enough here. The primary focus of his research remains on the interaction with light, but the unique properties of the fire could be explored through each of these areas to provide a more comprehensive assessment of the sensory experiences of these interactions, for instance, in the sounds (enhanced within particular spaces) and smells of the fire. Marshall (2010, p. 54) helpfully notes that, "acoustic engagement and environmental sounds" affects "body and mind." Therefore considering the multi-sensory aspect of firelight engagement with art and its effect on those who participate with it, is of particular importance. Tringham (2010, p. 1) also stresses that when considering touch, we should do more than thinking of the fingers and skins, it should be viewed as a whole body experience. As such, the temperature change when entering the home, warmth of the fire on the body, pain from burns from the fire should all be taken into account as a full body experience.

3. Methodology

3.1 Introduction

In this research I utilise a mixed-methodology through a phenomenological lens, combining sensory and experimental archaeology with auto-ethnography, within a series of cave visits and replicating cavescape experiences. This approach challenges the inherent difficulties of understanding the experiences of Neolithic people, which has previously led many researchers to “have been sceptical about getting anywhere with uncovering ancient thought and have ignored what [they] cannot discover” (Wason, 2010, p. 270). Casey (1996, p. 18) argues that “to be in a place is to be in a position to perceive it,” therefore including visits to caves in person forms a central part of my research in order to engage with these critical places. The cave visits take place across four British caves, three of which had human activity during the Upper Palaeolithic. Wentzel Van Huyssteen (2010, p. 100) offers that for “any attempt to understand the Middle Eastern Neolithic, the Upper Palaeolithic in Western Europe will provide at least an initial, valuable background for understanding...the culture of Çatalhöyük”. This combined with an overarching phenomenological approach allows for the experiences of prehistoric people with landscape, structures and their material culture to be brought forward and better understood in modern life through material engagement (Govier, 2017, p. 25). Therefore visiting caves can demonstrate the connections between caves and Neolithic people and offer vital insights into the experiences of the people of Çatalhöyük, which will be applied through a robust literature review to storytelling and cavescares.

3.2 Limitations

A key limitation of my research is that I do not visit Çatalhöyük or the surrounding caves from the Taurus Mountains due to funding restrictions. The connection between Çatalhöyük structures and art with Upper Palaeolithic Caves allows for the visits to British caves to be an appropriate alternative. Future research would include visits to Çatalhöyük and include multiple participants.

3.3 Reflexive consideration

As I have opted to engaged with phenomenology and auto-ethnography, as well as sensory and experiential archaeological methods, it will be particularly poignant to identify how my own cultural understanding of self and identity are likely to affect the research. With an undergraduate degree in Religion and Education, which covered a broad range of religious identities and cultures, I have a strong respect towards the spectrum of belief and the understand the importance of de-colonisation within academia. Living in the UK from birth, from an upper working class/lower-middle class background, as a cis-woman, my own experiences may impact how I interpret literature particularly when discussing issues of gender and equality within society. As I intend to apply methods of experiential and sensory archaeology, my neurodiversity could impact my first hand experiences. I have been diagnosed with ADHD and can be very sensitive to changes in light, temperature, sound, smell, taste and texture. While I argue this could potentially be a benefit within my research, I acknowledge that my experiences may not be reflective of those without these particular sensory sensitivities.

3.4 Cave Visits

Five visits across four caves take place to aid this research, these include to:

- 1) Robin Hoods Cave: Creswell Craggs, Worksop, Nottinghamshire
- 2) The Church Hole: Creswell Craggs, Worksop, Nottinghamshire
- 3) Gough's Cave: Cheddar Gorge, Cheddar, Somerset
- 4) St. Robert's Cave: Knaresborough, North Yorkshire

Robin Hoods Cave and Church Hole are two limestone caves, located in Creswell Craggs Nottinghamshire, and were selected for inclusion within this research due to the significant artistic archaeological finds within them. The only known figurative portable art from the Palaeolithic in the UK was found in Robin Hoods Cave, whilst some of the most elaborate British Palaeolithic cave art is found in Church Hole Cave (Bahn, 2024, also see Clifford and Bahn, 2022, p. 142). This allowed me to experience caves selected by Palaeolithic people for the creation of cavespaces.

Gough's Cave, located within Cheddar Gorge Somerset, offered a different experience; enhancing the research by presenting a much more expansive limestone cave which showed qualities of cavescaping through natural phenomena as oppose to human.

Finally St. Roberts Cave was selected as it represented a more modern interpretation of a cavescape, which allowed for easy access outside of tours and ticketed times (unlike the other caves), making it more suitable for experimentation with art replicas and fire within the cave.

3.5 Phenomenology

Ingold (2011, p. 62) illustrates that through phenomenology "the material world can...be brought back to life in the dreams of theorists". Ingold's passion for this approach is clear and highlights the potential of this theoretical approach to connect modern people to places, objects and materials of the past. A phenomenological approach is therefore ideally suited to this research question, as it aims to outline human experiences within the "the world as faithfully as possible " (Tilley, 2021, p. xvi). As this research demonstrates the intertwining of the people of Çatalhöyük with landscape through interactions with cavescares and stories, phenomenology of landscape forms a critical part of this methodology. This allows for a nuanced understanding of the embodiment of place, and captures how the people of Çatalhöyük may have experienced cavescares through the act of "being-in-the-world" (Bender, 2002, p. s108).

Visits to the Creswell Cragg caves are only available within guided tours with movement directed and controlled. As such, the visit to Gough's Cave in Cheddar Gorge which is extremely large and mostly open access, offered the opportunity for free movement through the cave, which was vital to gaining a full embodied understanding of the cave place (Bender, 2002). Tilley's (2021, p. xvi) methodology has largely been phenomenological within his research, he warns that researchers employing phenomenology may "inevitably select out" areas of significance based upon their own "values and concerns." As such, I have extensively reflected upon the aspects of my own identity which could impact my interpretation within my Reflective Considerations above.

Phenomenology allows for an "interplay of both ecological creativity and cultural perception working together" (Marshall, 2010, p. 54), in doing so, this both acknowledges the role which researcher bias and culture may play, but also highlights the way in which it can be viewed

positively, not negatively. In considering the researchers own influences as a potential positivity, if viewed openly and with caution, phenomenology has the potential to be extremely affective in the study of ancient people and their relationship with landscape.

I oppose Hodder's (2024) argument that modern people cannot understand the experiences of Çatalhöyük people through phenomenology. He gives the example of not being able to interpret Çatalhöyük people's experiences with the walls, through the touching of Çatalhöyük walls by modern researchers. He argues this is due to the differing relationship to landscape, notably with caves. While it is important to acknowledge this criticism of phenomenology as a method, particularly as it pertains specifically to understanding the walls of the houses at Çatalhöyük, it is largely flawed and may be countered when applying a basis of research which includes engagement with caves by ancient people. Though differences of experience and culture, impact experiences and expression (Howes and Classen, 1991 cited in Govier, 2017, p. 40), there are undoubtedly commonalities within the over-arching human experience which cannot be ignored. To do so, in this case, would be to fail to attempt to gain a more nuanced understanding of the complex interconnected relationship between people, place and shared expression. Phenomenology through a focus on commonality within human experience allows for "a co-inspired form of active, mutual relating...that emerges from the unique, personal, even intimate relationships that take place between human and other than human beings, rather than...a worldview" (Whitehead, 2013, p. 100).

3.6 Sensory Auto-Ethnography

Traditional ethnography can be problematic when used in the pursuit of understanding experiences due to its colonialist roots and what Gosselain (2016) argues is a tendency to view modern hunter-gatherers as 'living fossils'. New approaches to ethnography however, which focus on the sensory participation of the researcher in auto-ethnographic practice through a phenomenological approach allow for the access of the experiences and memories of others which may otherwise be unreachable (Pink, 2015, p. 97-8). This can be achieved through establishing my own embodied experiences during my visits to the caves. This method of auto-ethnographic participation is particularly useful within this research in regard to understanding memory through place and sensory experiences, which I argue was key to storytelling.

Through active and mindful attempts to attune my own body's senses to empathise with the of the people of Çatalhöyük, I employ experimental archaeology in recreating the images of hand-prints and 3D reliefs (Figure 16) to place myself in a better position to understand and imagine their experiences (Pink, 2015, p. 46-7). This is critical in establishing the vital sensory conditions needed for the crafting of caves and storyscapes.

My field research and experimentations with fire and art are captured through photos and videos taken on my phone. This mixed-media approach allows for a more complete sensory profile of the caves and fire, supporting the multisensory aspects of movement, sound and light. Pink (2015) is extremely positive about the benefits of using of digital media in recording embodiment and sensory experience and activity. Photography and video allows the researcher to capture and share personal sensory experiences, but also aids analysis in offering the opportunity to critically evaluate aesthetic choices. This in turn informs the overall interpretation of the site, focusing on particular areas and the framing of images the researcher is drawn to particular sensory experiences they wish to share. These choices also represent the editing out of areas potentially deemed unimportant by the researcher, which means a form of modern interpretation and selectiveness has already taken place before the official interpretation begins.

While photos and videos of the caves will record visual and auditory aspect of the cave visits, they are unable to capture and replicate the full sensory experience, such as in touch, smell or temperature. Pink (2015, p. 123) acknowledges these concerns within the use of video in sensory research "would not adequately record non-visual modalities of sensory experience," she is however clear that these concerns are "largely misguided" and although represent a limitation of the media, do not warrant its exclusion. Finally this multi-media approach within this research allows for what Pink (2015, p. 97) coins the creations of an *Ethnographic Place* – a abstract place, co-created between myself as the researcher in the bringing together of sensory documentation interwoven with theory and reflection, and inviting the reader into this new conceptualised sensory place.

I employ elements of experimental archaeology (Sulzmann, 2019) by replicating a plaster relief object (Figure 16) and hand-prints (Figures 17&18). By crafting these objects and interacting with them within a cave, I am able to gain insights into the creation of caves and storyscapes, the sensory impact of enhancing place through crafting, and the effect this may have had upon

storytelling. Being able to engage with these objects through touch will be crucial to gain a full sensory experience of caves, particularly as the relief selected shows wear from touch and the image of hand-prints is the embodiment of touch. Bailey (2014, p. 27) argues that it is through touch and physical engagement with an object that researchers can gain a deeper way of knowing which allows for more nuanced interpretations possible than in traditional analyses.

4. Original Research

4.1 Research Introduction

In this chapter I discuss the research compiled in the form of visit notes, images, and videos, amassed during a series of cave visits conducted across August and September 2026. As well as exploring the overall sensory conditions of caves, which contributed to the storytelling places, I demonstrate evidence of modern caves and storyscapes through material deposits in caves, cave tour methods and modern graffiti. This is followed by a discussion which brings together wall art, animation, memory and landscape to craft the ideal caves with the ultimate conditions for storytelling.

4.2 Creswell Craggs: Robin Hood's Cave and Church Hole Cave

4.2.1 Introduction

I undertook two visits to the limestone caves at Creswell Craggs, the first to Robin Hood's Cave (Figure 19), a site on the southern side of Creswell Craggs. This cave has known human activity during the Palaeolithic and is the site where the only figurative portable art from the period, in the UK has been found. The second visit was to Church Hole Cave (Figure 20), located on the northern face of Creswell Craggs. In both Robin Hood's Cave and Church Hole Cave my experience was dramatically different to that of Palaeolithic people, due to the necessary precautions taken both for safety and the preservation of the caves. The caves in Creswell Craggs are restricted to the public by large barred gates locking them off outside of organised tours. Entry to both caves uses modern wooden stairs, with built platforms inside both caves as viewing panels. Within Robin Hood's Cave this included the introduction of a tunnel formed using dynamite to enter the larger second chamber of the cave. The most dramatic change to Church Hole Cave affecting how it is experienced is the lowered floor, done during Victorian excavations (Bahn, 2024, p. 30). Metal viewing platforms (Figure 21) have since been introduced, to allow the Palaeolithic art to be more easily visible. I was instructed not to touch the cave walls in either cave due to their preservation.

4.2.2 Robin Hood's Cave

What first struck me about Robin Hood's Cave was the drop in temperature, the inside of the cave felt significantly cooler than outside and visible moisture could be seen on the walls, with

drips readying themselves to fall from the cave ceiling (Figure 22). This led me to feeling slightly cold and uncomfortable, edging myself closer to my partner to stay warm. Within both caves there was artificial lighting which made it difficult to know how firelight would have interacted with the walls of the cave. In Robin Hood's Cave the guide lead an experiment, asking all visitors to direct their torches to the ceiling and move their fingers over the light to represent what flickering candle light in shells may have been light against the rock. Visitors were then asked to reduce the number of lights to fewer and fewer torches. This made the movement of light on the ceiling appear even more dramatic with the interactions between the moving light and the texture of the cave ceiling working together to look almost like water moving over a seabed (see Figure 23). Finally all lights were extinguished and I was able to experience the cave in darkness apart from the small bit of natural light entering from what would have been the original entrance to the chamber, up a slope. The darkness was all encompassing, I could not see anyone or anything around me, only the walls which had light on them.

4.2.3 Church Hole Cave

Church Hole Cave's Palaeolithic art (Bahn, 2024, p. 31) dates to approximately 11,000BCE, featuring at least 22 carvings. At first glance the images were difficult to see due to large amounts of deterioration over time. The majority of the images are within close proximity to the cave entrance which also contributed to their current condition. On spotting the images it became immediately clear they are everywhere, with some using a combination of natural features of the cave walls. This can be seen in figure 24, which shows the use a natural hole in the cave surface being used as the eye of a stag. Other natural cave features were enhanced with additional cuts to the walls surface (such as for the birds body, see figure 25) and with cuts independent of the walls features. Some of the most elusive and disputed art was featured at the back of the cave (see figure 26), which would have been accessible by crawling on the cave floor. These images have been argued to be birds or female imagery (Pike et al, 2005). These images were designed to be accessed at close range in dark conditions by fire. The curves of the lines, when interacting with fire, may have created instances of movement, through the animation of the art. This could have indicated dance between the bodies, similar to that seen in the Çatalhöyük relief of bodies (Figure 16). The lines also had the potential to be interacted with through touch, creating a wholly multi-sensory experience.

Movement can also be seen in Figure 27, which shows a bison image carved in to the wall from the additional lines above the back of the bison and above its head. These lines, similar to line movement seen in other animal cave imagery of the period (Figure 28, see Bahn, 2024, p. 110) could be a way of creating movement and an animation experience in the cave by firelight, similar to what Needham (2022) argued with the plaquettes imagery. There are also carvings which suggest depictions of memory within upon the cave wall, such as the Ibis (Figure 25). This has been argued (Clifford and Bahn, 2022, p. 142, also see Bahn, 2024, p. 32) to be an Ibis due to its distinctive shape. This would be of particular significance as the Ibis was not and still is not within the UK. This would indicate that people visiting the caves not only replicated what they were seeing around them but were creating images of things they remembered and had seen previously.

As well as featuring animals, and potentially dancing bodies, Church Hole Cave also features a number of triangular carvings believed to be representations of vulvas (Figure 29, see Pike et al, 2005). While it cannot be determined exactly what their connection was within this space, I argue that women were viewed as important within this cavescape. This cavescape was a Palaeolithic site of stories, crafted through its interactions with people drawn to the space. Women played an unknown role in this storyscape but one which was significant enough to be repeatedly inscribed upon the walls. Whether this was to mark women's contribution to stories, either as its subjects, keepers, narrators or benefactors, women's role was marked. In this instance the artists have chosen to tell us about gender and this should be considered when interpreting the space. When then considering the gendering of imagery at Çatalhöyük, where in a large number of cases, images or figurines are visually genderless, it should then be interpreted as being a deliberate choice to omit gender in those instances.

The relationship between these caves, tourism and prehistorical preservation has in its own way forged new cavescares within Creswell Craggs. The museumification of the caves through tours, barriers and rules of 'no touching,' have shifted their initial purpose though kept stories central to the caves. They retain their storyscape status, though now used within a more formulaic style of education. The tours invite visitors into the caves, which they have layered with physical equipment for access, sensory input through lighting and albeit more curated stories from tour guides. The request not to touch echoes feelings I have previously had within museums and galleries, and which laboured the point that only particularly people had access

to touch these walls. Perhaps my favourite interaction within the cavescape in Church Hole, is of Figure 24. It shows the carvings into the limestone walls of a stag, the majority of which dates to the Palaeolithic, apart from the lines directly below the head. These are believed to be modern cuttings made by children in the 1960s, giving what they believed to be a goat, a beard. This graffiti, adds to the image and story of the cave, keeping the image alive and the memories of the cave to the forefront.

4.3 Gough's Cave: Cheddar Gorge

Gough's Cave is significantly more extensive than the Creswell Cragg caves, allowing for a feeling of being truly cut-off from the world outside as I descended further and further into the caves. The Chimney (Figure 30), a vast dark, seemingly endless funnelled gap in the ceiling of the cave, brought the depth of the cave into sharp focus in my mind. It allowed me a sense of being in another world and was somewhat unsettling. The air was strangely still, yet the cave had a cold damp feeling. I found myself acclimatised to this within about 40 minutes and only noticed the stark temperature difference again on re-entering the natural light and warmth as I exited the cave.

Water is an ever changing state within Gough's Cave, coming in at different levels depending on weather conditions. As well as a dampness to the surfaces of the walls and floors which can be see and felt through touch (Figure 31), there was also a range of reflective water pools surrounding stalactite formations (Figure 32). Some of these were naturally occurring, while others were made more dramatic through artificial damming by Gough during his Victorian excavations; including an area he chose to name Aladdin's cave (Figure 33). When walking through the cave, I encountered a range of modern inclusions that alter the Palaeolithic experience of the cave, such as barriers, concreted floors and stairs, power cables and artificial lighting. All of these inclusions impact how the cave can be experienced and the impact on the overall sensory experience.

What was interesting was how I reacted to the level of noise created from the busy tourist environment. Being in the presence of others, I felt a sense of shared admiration, interest and appreciation for the site. Instead of being distracted by the noise, it added to the life of the cave and the shared sense of wonder. St. Pauls Chamber was a particularly striking example of this (Figure 34). Upon entering, I was awe struck, it was impossible not to immediately react

and to have my attention drawn to the vast and impressive rock formations. This can be heard within Figure 35, as I video myself travelling between chambers in 1970s made tunnels into St. Pauls Chamber. Myself and other visitors can be heard stopping mid-sentence upon entering the chamber and immediately vocally reacting, breathing out 'wow.' I felt a sense of quiet, different to the other areas of the cave, a 'specialness' in the naturally occurring features which created a fundamentally different experience to that of the rough, artificially formed tunnels created by excavation teams. I reflected upon my background entering religious and sacred places through my undergraduate degree in Religion and Education in how it impacted my interaction with the chamber. The cave had the same ineffability as religious spaces, a quality which through a taught social agreement or through the agency of the space impacts our behaviour, encourages a respect and quietness within the mind away from the monotony of daily essential tasks and distractions. Much like the crafted religious spaces that endeavour to create the same sense of awe and attention.

Gough chooses very interesting names for the different areas of the cave based on their appearance. These are highly evocative and capture something of the magic to be found within the caves, such as, the Chimney, Aladdin cave and St. Pauls Chamber. The language chosen communicates imbued messaging through a shared cultural memory, telling visitors so much about the space and what it meant to one who names it. St. Pauls is codified with associations of Christian religious buildings, worship, God and Christian organ music. For those with a shared cultural or religious knowledge, this then has the power to induce memories associated with each of these codified areas, such as Christian stories or memories which we may then associate with those places. For myself, visiting the chamber and seeing the name St. Pauls then gave the vastness of the space and shaping of the walls formations a new meaning. This unlocked a memory of being a young child sat in the pews of my Grandmother's church which seemed vast to me, and from my seat seeing the organ pipes and touching the wooden handle of the walking stick of the man which sat next to us, the smell of the slightly damp wooden pews, now entwined with the smell of dampness in the cave. Though my memory is unique to me, it was available by a shared knowledge of Christian spaces, triggered by Gough's very deliberate choice of name. When then thinking about how these may have been codified for the Çatalhöyük community, with their own names, stories, memories and associations, it is not unreasonable to assume that names might evoke the particular

meanings and associations of those who name it with others of the same cultural background, influencing and aiding story recollection through landscape.

Though there were no formal rules or requests not to touch any part of the walls within Gough's Cave, I choose to avoid touching any more obviously delicate areas such as stalactite and stalagmite formations. It is interesting that I felt a sense of what is and is not 'allowed' within the caves, without being instructed on this. This may have come from growing up within a society of 'not touching' past objects, with the past voices of respected adults or adults in positions of power, such as family and teachers, echoing in my sub-conscious that 'we don't touch!' What is clear is that 'not touching' is the opposite of how people wish to engage with cavescape often leaving material deposits. These deposits have the power to both enhance the cavescape through continuing to layer engagement and to form a collectiveness and sense of *communitas* though leaving a piece of ourselves behind.

Gough's Cave offered interesting examples of modern deliberate deposits in the form of coins. The deposits took two distinctive presentations, coins embedded high into the ceiling of the cave and those placed in swallow pools of water (Figure 36) amongst stalagmite formations. The embedded coins were placed during the Victorian excavation of the caves, placed in ceiling cracks to track any movement in the rock face if coins dropped from their position. Showing a very practical reason for material deposits. The coins in the shallow pools however, offer something very different. They show a desire to do ritual depositions in special places. These modern material deposits mirror what is seen within the Çatalhöyük homes. The desire to infuse the cavescape both in the past and present with items imbued with meaning and memory is deeply significant in understanding the purpose and formation of these places.

Nakamura (2010, p. 303) argued that the deposits within Çatalhöyük had a wishing quality to them, which evoked magical properties. This too was demonstrated with Gough's Cave, as the coins in the pools themselves are not of high value but they are common, easy to access and easy to replace. From wishing wells, to hoping for good luck, to love tokens, the pressing of pennies to form mementos, coin bending and depositing in protective or pilgrimage practices, coins have been a flexible item of use which has a long history of easy everyday transformation from the mundane to the ritual. We have unwritten rules about these items; you do not remove someone else's coins, adding a coin is not littering and it allows a part of you to remain. In a recent trip to Malham Cove, I found a tree stump filled with coin deposits, I felt a

strong pull to add my own coin to the tree (Figure 37). Upon adding my coin, I felt a sense of satisfaction, I'd be leaving a piece of myself and my journey there for future visits, and had contribution to a wider part of Malham Cove's story.

4.4 St. Robert's Cave

4.4.1 Visit One

I undertook two visits to St. Robert's Cave, one in the day time and one at dusk to perform my experiment. The first visit was to decide if this would be an appropriate site to engage with my crafted Çatalhöyük replicas. St. Robert's Cave is a small cave, located in Knaresborough, North Yorkshire. My initial visit to the cave showed a number of material deposits including candles, graffiti, hand prints, and a funeral order of service. The order of service (Figure 38) had been carefully placed against the wall of the cave with an assortment of tealights. It showed signs of being there for some time, with leaves and sediment on the paper. The hand print (Figure 39), created with pink paint against the cave wall, echoes to the images in Çatalhöyük (Figure 18). It therefore felt important to attempt to engage with the cave walls further through touch. This cave has open access, therefore visitors are not constrained by rules not to touch. Without this constraint, visitors do touch the walls, leave items behind, mark the walls, which I argue forms a community cavescape. The cave was extremely dark and I used my phone torch to see the space. This had been a limitation across all my cave visits until this point, the reliance on torches, phone lights and other forms of electrical lighting. As such, I decided a key element of the next visit would be the inclusion of light by fire alone. Candles were left in a number of areas within the cave (Figure 40), suggesting that something about the quality of fire was preferable to the more easily accessible artificial light options available. Something ineffable about caves draws humans to not only visit caves but to inscribe them and to co-create cavescape through multi-layered interactions. These interactions continually build the story of place (Ingold, 1993), through the negotiations of the cave and its human and non-human visitors who may choose to add or remove items and adapt the story of the cavescape and the stories they tell there.

The process of making and creating are a necessary prerequisite for the creation of what I have termed storyscapes, with crafting intrinsically linked to storytelling. Hodder (2010, p. 15)

argues that the levels of crafting within the house suggest a “complex world of myths and meanings that transcend everyday practice.” The people of Çatalhöyük found their storyscapes through interactions with and the creation of, caves and cave materials. A key stage of forming the perfect storyscape, was an enhancement of the social bonding within the group, collaborative crafting allowed for deep social and emotional connections in collectively working towards the perfect conditions. “making and creating with others can create powerful experiences that have the capacity to impact emotionally, socially, and importantly, sensorially on individuals and communities” Govier (2017, p. 18). Therefore in crafting storyscapes, they were also solidifying group dynamics. The continuous crafting and maintenance of the storyscape allowed opportunities for all members of the community to be involved in the co-creation of the storied space. With “symbols “ and I argue stories and memories, “continually reawakened by replasterings and sometimes repainting....” (Whitehouse and Hodder, 2010, p. 139).

Govier (2017, p. 24) asserts that “humans are not separate from the material world, but work within the material world”. Thus the gathering of socially critical materials, the crafting and recrafting of the storyscape, the building, tending and management of the fire and potentially even the enhancement of the scape all offered opportunities on a personal and communal level build the storyscape. Once formed, the stories could then be negotiated into memory preservation, narrative directions and alterations through this shared sense of *communitas* already formed and now solidified within the group. They were able to generate *communitas* through these bonding experiences forming the physical space to facilitate the conditions needed for an enhanced storytelling experience. This became ritualistic in nature, through its repetition and left an “emotional ‘residue’” (Govier, 2017, p. 136) with its participants.

Following my first visit, I began the process of crafting my own replicas from Çatalhöyük. I selected two key items with the goal of gaining further insights into the sensory role of objects in caves with fire and in overall storytelling practices. Firstly I selected handprints, inspired by the use of them in Çatalhöyük, St. Robert’s Cave and in Upper Palaeolithic Caves in Europe. I made the decision not to permanently mark the walls of this cave, not wishing to interfere with a cavescape which seemingly held significant meaning to many who visited and engaged with it. As such, I made a temporary mock-wall to bring with me to the cave on a white card print board. The bright whiteness of the board also had the benefit of allowing me

to replicate the bright whiteness of the plaster of the walls of Çatalhöyük. I selected a dark red acrylic paint to use in the place of ochre, aiming to replicate the overall effect, rather than replicating exact techniques or materials. Using the red acrylic paint, I pressed my hand into the paint, actively trying to avoid the centre of my palm, as this appears to have been done at Çatalhöyük (Figure 41). I then proceeded to print my hand across the board four times, experimenting with pressure and movement (see Figure 42 and Figure 43). The stark contrast between the white and red is immediately striking and the feel of leaving my handprints is deeply personal. It sparks the memory of making a handprint painting with my children in 2020 (Figure 44), a painting upon my wall which captures a moment in time, in which the making was as important as the result. We now occasionally look at the painting, with my children debating whose hand print is whose, and who has grown the most. In Çatalhöyük, it could have been the case that those who left their handprints upon the wall remembered these moments of making, the point in time and reminisced with one another about the stories attached to its making.

I then crafted a replica of the 3D plaster relief of bodies (Figure 45) using clay. I selected this object as I see it as an object of storytelling, added to the walls to be a tactile object to aid storytelling through touch and animation by firelight. While using an image for reference, I aimed to recreate the image while allowing for the natural differences that will appear in the hand making process outside of formal post-industrial manufacturing, which would not have taken place in Neolithic Çatalhöyük. Whitehouse and Hodder (2010, p. 133) note that while images were repainted after the walls had been replastered, they were not exact copies but showed minor differences. What became clear when manipulating the clay to forge the bodies was how intimate the image was, both in the closeness of the bodies in the relief and in the relationship between the crafter and the bodies. Adjusting the pressuring in my fingers to smooth over the parts of the body, giving more emphasis to the thighs and stomach, and more delicacy to the placement of arms and hands. Making insisted that I look deeply at the relief and notice more, including the faces looking at one another, and the careful building on the image to include layers of different levels which lend themselves to creating shadows and perspective. This process of crafting 3D images of people for the walls shows a sophisticated understanding of capturing light and shadow in Çatalhöyük, which suggest the people of

Çatalhöyük, knew how to craft objects which enhanced the space through dynamism in animation.

4.4.2 Visit Two

I chose to arrive at the cave for my second visit at dusk, with the aim of finding the cave in pitch black conditions and making the most of the night talk time (Wiessner, 2014). I entered the cave in darkness, feeling a mixture of excitement and a sense of the uncanny in a dark unfamiliar place. This feeling was alleviated upon seeing a candle already lit within the cave (Figure 46). This candle acted as a reminder of the relationship of other people with this cave. Hodder's (2024) idea that modern people do not have a relationship with caves appears more and more distant and unreliable during this visit. Although there was ash on the ground, evidencing potential fires which had been lit in this cave previously, I decided to keep this more controlled with the use of tealights. This did however mean that the full sensory experience of being close to a fire in an enclosed space could not be fully replicated. I therefore relied on my memory, thinking back to bonfires and firepits held on autumn and winter nights (Figure 47), the sparks that flew from them, the crackling sounds and the taste of jacket potatoes cooking inside them and marshmallows charred above them. Memories by the fire, brought to me the feeling of the soothing warmth facing towards the light, combined with the cold on the side of the body facing away, as I looked into the faces of those around me.

I set up the mock-wall with hand prints against a wall at the back of the cave, right next to the location of the pink hand print on the wall and lit a series of candles. What was immediately noticeable was how much light was omitted from each small candle, and how much this was improved by the whiteness of the board, with light reflecting back from it. The images of the hand prints too were crystal clear against the white board, as opposed to the pink on the murky cave walls, and appeared to reach out from the wall. I then placed my crafted 3D relief upon the wall (Figure 48), experimenting with both the number of lit candles and the positioning of candles. Then I experimented with background, first of all using the white wall background and then without (Figure 49). These changes impacted the shadows and heightened the 3D effect of the object. The closeness of the figures to each other within the object seemed enhanced, with the details of the clay showing more acutely to create a more accurate skin-like effect (Figure 50). I felt drawn to touch the objects, the sense of humanity

within the stories of the handprints and figurines brought alive by the fire, suggesting that the connect sensory conditions within the cavescape formed a critical role in the use of these storytelling tools.

4.5. Interpretation

The series of material deposits across all four caves suggest the continuation of crafting enriching active cavespaces. I draw from this three key conclusions; firstly that something about the nature of particular caves pulls humans to leave material deposits, secondly that the selected material through their properties tell a story both through how they behave sensorially and in their physical and cultural origin, and finally that material deposits play an extremely significant role in the crafting of place and in particular storyscapes.

Within Çatalhöyük, the chosen materials for depositions often included bright or colour rich materials such as bright shells or obsidian, and materials taken from caves such as Stalagmite, directly connecting the homes back to caves (Lewis-Williams, 2004, p. 33-34). The coins present in Gough's Cave too added something special in their visual quality, with some catching the light and reflecting, others changing colour over time so that you see the long tradition practiced and re-practiced in the water. Where many areas of the cave represent the past, something that is complete or finished, the drops at the edges of the stalactites and the coins represent something very different. A sense that the cavescape is still being formed through engagement and acts of ritual deposition. As with the names given within the cave which evocate cultural associations, so to do the coins. These objects of remembrance offer an active invitation to join in, to leave a part of yourself forever in the cave. Considering then what material deposits may have meant for the people of Çatalhöyük, it is important to remember that as with our coins, there may have been both practical and ritualistic reasons but also that these may not have conformed to a strict binary. They may have in many ways overlapped with each other and could have been objects of memory, which imbued with meaning aided the telling of stories and reignited the past.

A key difference been the coins of Cheddar Gorge and the materials used in Çatalhöyük was their place of origin. In many ways the selection of a manufactured human item (such as a coin) placed in the natural space of a cave, directly mirrors what is seen in Çatalhöyük or 'natural' cave originated materials being deposited in human manufactured spaces. This

speaks to that as Çatalhöyük people began to craft their cavescape within the homes, aside from replicating the overall cave experience, the qualities held by the cave materials themselves was of particular importance. The act of preserving the relationship to the caves through storytelling may have been a matter of priority within the community at Çatalhöyük, particularly as key resources, such as obsidian relied on a strong knowledge of the landscape. These materials allowed participants through their selection and object history, to leave a piece of themselves and their own story behind to enhance the story of the storyscape. From the selection of the correct item, the journey from origin to infusion within the cave, and the transformation of materials into becoming part of the cavescape, material deposits are imbued with meaning, increased with each engagement thereafter and increasing the cavescape storytelling capabilities.

Therefore as the coins in Gough's cave, held memory due to their human source, I argue that by engaging with cave materials in Çatalhöyük, participants may have been able to connect themselves back to earlier stories which originated at the materials source i.e. the caves. The materials source location and sensory properties being a key factor of their selection and use. The stories of the caves could then be embedded into the Çatalhöyük homes through the act of cavescaping through these physical connections from landscape infused within the home. In engaging with a figurine crafted from limestone for instance (e.g. Figure 6), the holder is able to activate memories of the materials source location through touch. Another example of this is the use of obsidian for the eyes of a plaster head relief in Building 132 at Çatalhöyük (Figures 51; 52). These materials transformed the home from a structure with arguably cave-like features into an active cavescape drawing directly on caves to enhance the telling of stories. The homes then sit within the wider context of the landscape, infused with memories and filled with objects to enhance and aid future storytelling.

As well as landscape materiality, the materiality of the humanity and in particular remembrance of the dead also appeared as a common feature of Cavescape used within storytelling. This relationality with remembrance of the dead, which can be seen in Cheddar Gorge, St. Roberts Cave and Çatalhöyük. St. Robert's Cave's had been selected as a leaving place for the inclusion of a funeral order of service (Figure 38) and the separate inclusion of a lit candle my second visit. While only the lighter can know why they left the candle lit, candles often have connotations with remembrance of lost love ones. Cheddar Gorge features a

replica of the Cheddar Man (the Palaeolithic remains of a man found in Gough's Cave), reconstructed to be in the same position that the skeleton was found in. In doing so, visitors are asked to remember that the Cheddar Man's presence within the cave is an important part of the cave's story and likewise the cave is an important part of his story. Which may well have also been the case in St. Roberts Cave for the person being remembered there. Entangling the lives of people within the caves may have acted as a way to imbue the caves with the memories and stories held within those people and places, which could then have been accessed again through sensory engagements within the crafted places.

The most emotive example of this within Çatalhöyük is perhaps that of a premature baby in the wall in the southern area of the home, near the hearth (Lewis-Williams and Pearce, 2005, p. 111). The baby was wrapped in a fine fabric and had placed with it a small piece of bright shell and a chip of obsidian. The baby along with the items, were then enclosed into a brick and placed within the wall, becoming part of the room (Lewis-Williams and Pearce, 2005, p. 111) I argue that in placing the baby within the walls they became a permanent part of the stories, with the items of the landscape connecting them to the world outside their cavescape. The inclusion of nature items of obsidian and shell, alluding to the important natural places which were or would have been significant within the child's life. In this way the walls were permeable portals to the outside world, accessed through the act of storytelling.

As with St. Robert's Cave's visible order of service and the deliberate visibility of the Cheddar man exhibit at Gough's Cave, the dead also did not stay contained within the walls or beneath platforms at Çatalhöyük. Human heads were retrieved once the flesh was decomposed, and entered into circulation within the home. Skulls in many ways are the ultimate object of memory, in being more-than-an-object having once held their own memories when alive, and also holding memories for those who knew the person, either personally or through their stories. Skulls are deeply emotive and personal, through touch they could be interacted with on a deep level. As can be seen in the case of the remains of a man found holding the plastered skull of a woman in building 42 (Whitehouse and Hodder, 2010, p. 129). Though their possible connection in life is unknown, it is clear that they had a strong connection in their resting place in death. The woman's story did not end with her death but continued until at least this final placement. Though it is tempting to consider skulls as set apart due to their humanness and connection to memory (Hodder and Meskell, 2010, p. 63), they should be considered within

the overall context of objects of memory within storytelling and as a key part of the storyscape.

As well as crafting and containing objects enriched with memory, for the caves to work effectively as storyscapes, they needed something more. This I found in the sensory aspects of the space, as ensuring the correct sensory conditions was critical to unlocking stories, focusing attention and ensuring repeated engagement. As may be expected, the visual aspects formed a significant part of this, this can be seen through the replication of images which denoted memory, such as the Ibis bird (Clifford and Bahn, 2022, p. 142, also see Bahn, 2024, p. 32, Figure 25) I encountered in Church Hole Cave. This can also be seen in the subject matter of Çatalhöyük wall art. One of the most intriguing examples of this appears to be of landscape (Carter, 2011). The painting, found in Shrine 14, Level VII, appears to show the double-peaked mountain of Hasan Dag, during a volcanic eruption (Carter, 2011, p. 3, Barber, 2010, also see Figures 2&3). The depiction of the volcanic eruption could signify the location in the form of a map, however for this to be an effective tool, verbal description and physical journeys would also be necessary. It does strongly suggest that narrative art was used as a tool to communicate key pieces of information. This may have been the practical geographical location or to depict the memories of the people who journeyed from the town. The eruption was estimated by geologists to have taken place in approximately 7500BCE, around 1500 years before the painting in Shrine 14. This painting therefore evidences the entanglement of landscapes with memory (Allerton, 2009, p. 3), a strong community relationship with the Konya Plain pre-dating the Çatalhöyük buildings and the ability of oral storytelling to allow an individual story to successfully survive and thrive for over approximately 1500 years (Barber, 2010, p. 343). Therefore the volcanic eruption image is an extremely significant piece of evidence in the archaeological record for oral storytelling. It suggests “particular sites in the landscape, including trees, mountains and rivers” (Allerton, 2009, p. 1) may have been embedded within spiritual realms and imbued with a mythological significance within the Çatalhöyük community.

The visual aspects of images could also be enhanced through the choices of materials used within the caves. The experiments within St. Roberts Cave clearly highlighted the brightening and reflective effects of white backgrounds to the visibility of the art. This shows the choices of materials used at Çatalhöyük in the act of crafting Caves, had a direct

impact on the effectiveness of the art work in storytelling. Maintaining bright white walls could improve visibility of the overall lightness of the room. I argue that instead of a concern for the cleanliness of the walls (Hodder, 2016), the purpose of the whiteness of the walls was far more significant. The brightness of the walls had agency for the people of Çatalhöyük, enhancing the brightness of the light, making the visual stories jump and come to life, inspiring engagement, and therefore playing a pivotal role in storytelling. A little light went a very long way particularly against the white of the board (Figure 48), they knew their materials and the effects they wanted to create. Juniper wood was used at Çatalhöyük, a fuel that was “good for duration, light-intensity and an absence of smoke” (Clifford and Bahn, 2022, p. 74). The contrast can be clearly seen in between the use of a white background and without, as it Figure 48 and 49. With Figure 49 more closely resembling what could be seen in Church Hole cave. This once again confirmed the significance of the white background to help the image stand out and allow the shadows cast on the wall from the relief to be more dramatic in appearance, showing a series of purposeful material choices made at Çatalhöyük to enhance the homes for storytelling.

The animation of art in Çatalhöyük is integral to understanding their use. Far from being static unnoticeable images they were vibrant dynamic images demanding of attention filling the walls with movement and life. However, my experimentations within St. Robert’s cave raised key questions about how this movement was achieved. While interactions with fire can achieve this much needed movement, the air inside the cave was static, much as it may have been within the Çatalhöyük homes. The small candle flames were therefore fairly controlled, without dramatic movement. Therefore acts of animating the art through fire may have involved intentionality from human participants. Within St. Robert’s cave, I managed to achieve this in two ways, firstly through the carrying of fire (see Figure 54), moving it to create movement within the light and shadows around the object, and secondly in using my breath to manipulate the flame. I did this by experimenting from gently blowing the flame to make it flicker and move the direction of smoke to blowing candles out. Figure 53, shows the interesting animation effects achieved using these methods. Interacting then with this object perfectly highlights Needham’s (Needham et al, 2022, p. 18) arguments of the animating effects of fire, as it is easy to imagine how through the collaboration of fire with the cavescape and human interactions, the bodies could begin to dance through the “shadows and lighting

“ bringing to life “the depth and dimensions of an object...[which] therefore, can create the illusion that an object may be moving “ (Needham et al 2022, p. 18). The dynamism of the fire became entangled with 3D textures and shaping of the bodies on the walls, producing playful interactions of light and shadows, acting together to co-create life upon the walls.

It is clear that a number of factors were necessary in the crafting of effective storyscapes at Çatalhöyük. They used a combination of techniques, ranging from enhancing sensory conditions through light play, smell and sound with the fire, to using complex artistic techniques in their art in dimension, subject matter and material choices to layer stories into the walls of the cavescape, and the harnessing of fire for animation effects.

4. Discussion

Overall, storytelling in Çatalhöyük required a unique set of conditions in order to enhance its effectiveness within society. The people of Çatalhöyük were skilled crafters with a strong knowledge of materials and the landscape which led them to make deliberate and purposeful decisions about crafting their surroundings.

Within Chapter 4, the repetition of themes, such as material deposits, artistic depiction of memory, evidence of animation and crafting sensory environments, can be seen across a variety of caves, and is also seen within Çatalhöyük, demonstrate the gravitational pull of particular places in landscapes suggested by Brady (2021). This is taken further within the research, however, in combination with other theories surrounding place (see Casey 1996, also Ingold 1993 and Tilley 1994) to argue that while particular places, in this instance caves, seem to draw people to them, it is through interactions that their significance and role can be increased or altered. Though comparison with British caves I have demonstrated the feasibility of the crafting of cavescape outside the caves in Çatalhöyük. I showed that this can be achieved by replicating specific cave-like conditions and utilising material deposits from caves, which through their connection to these places of significance could unlock memories and forge ideal storytelling conditions.

Ingold's (1993) phenomenology of landscape was deeply significant in influencing the key themes of this research. Ingold's approach to landscape and the building of place in the form of lines and layers of interaction and engagement formed the foundation of this research. My dissertation took this further to apply this approach and theory directly to caves. By exploring the entanglement of lines within a series of British caves, I demonstrated the existence of not just places within caves but repeated instances of cavescape. These cavescape when considered within the context of Çatalhöyük, evidence how interactions within landscape can move beyond its original landscape origin and into the material culture of Neolithic peoples.

Within Chapter 4 I have shown how cavescape have been used and continue to be used at areas for storytelling due to their sensory conditions. Storytelling too can be enhanced through the crafting specifically of storyscape, which I demonstrated through visual imagery, objects of memory, animation through fire and material deposits. I considered how the people

of Çatalhöyük may have harnessed their materials and objects to maintain stories and keep them alive within society. Which indicated the purposeful crafting of places for storytelling.

I have established a strong basis for cavescaping through cave visits, showing the presence of Palaeolithic cavescares and active cavescares still imbued with stories and storied objects. In doing so, I have taken Lewis-Williams (2004) argument of cave emulation at Çatalhöyük further, to argue that the homes did not just emulate caves, they were in fact cavescares. I have then demonstrated through the incorporation of fire, artistic techniques and material choices, how cavescares could become specifically storyscapes. Examining the role of memory and animation within the art of the caves in conjunction with the art of Çatalhöyük, I was able to take further the previous research of Needham (2022) and argue that fire did not just animate the art but was part of an overall storytelling purpose.

I have taken Hodder and Meskell's 2010, proposal of memory collecting in the form of history houses, as a form of social currency and have redefined this within a storytelling lens. I argue that Hodder was mistaken in attempting to separate the mythological with the historical, as this likely did not fit within the Çatalhöyük ontology. Hodder was correct that memory was critical and that objects imbued with memory were amassed. However my research outlined in Chapter 4 demonstrates that opposed to creating houses which could hold history, the people of Çatalhöyük crafted houses which acted as centres for storytelling. While this did include the inclusion of objects of memory, the objects, as well as the art and material deposits, their inclusion within the home transformed them. Within Hodder's approach the history houses held a collection of amassed objects, which could in theory but moved, broken up and changed. I however argue that once included within the Çatalhöyük homes, they are transformed to become a part of the cavescape, a new layer in the crafting of the overall storying of the home.

Wiessner's (2014) research showed the agency and impact of fire upon the community, and the significance of fire in storytelling conversations. This research has been applied to the community of Çatalhöyük and taken further to show that the role of fire was not accidental, it was a deliberate application of an essential storyscaping tool. Needham et al's 2022 research animating Palaeolithic art by fire, was then critical to understanding the sensory role of fire within storytelling. However my research within Chapter 4 demonstrated first of all that when considering fire, art and cavescares, the stillness of the air needs to be taken into account

with regards to animation. I argue instead that when storytelling with 3D art and fire within a cavescape, storytellers may have needed to act with the fire to increase movement, smoke or shadows. Further too to Needham's et al's 2022 work, which mainly focused upon the visual aspects, other sensory aspects of cavescares including such as sound, smell and temperature have been considered within storytelling in this work.

Lewis-Williams and Pearce (2005) in caves and Govier (2017) at Çatalhöyük, highlighted the significance of crafting, all taking the stance that the making was as important, if not more important than completed images. This argument and particularly the commonality of it been caves and Çatalhöyük has been extremely important within this research. While Lewis-Williams and Pearce, and Govier are correct in the importance of making in these contexts, my research takes this further. Firstly by arguing that cavescares are never complete but are always within an active form of layering and crafting. Finally, the continued crafting, layering and re-layering allowed for storytelling negotiation, memory reignition and community involvement in storytelling.

Bailey (2014) goes a long way to establish both the significance of understanding touch as a whole body experience and in the role of touch in understanding the objects of other cultures. My research takes Bailey's approach further demonstrating that through touch memories can be unlocked, both through an objects source and history, but also through its encoded story, but also that through touch, objects can be used as tools of storytelling within cavescares and specifically within Çatalhöyük. The 3D aspects of the cavescares being considered as they invite participants to engage with stories directly via touch. These sensory experiences within cavescares having the power to trigger and unlock memories.

Keane (2010) and Nakamura's (2010) arguments surrounding the socially marked significance of hidden objects has been useful in answering this dissertation question. Keane's argument for this evidencing religion, and Nakamura's argument for this evidencing magical practices, both elude to the crucial conclusion of marking and concealment revealing socially special objects. I however argue that these objects, as evidenced within Chapter 4, are direct tools for the preservation of memory to enhance storytelling.

Moving away from Hodder and Meskell's (2010) phallogentric narrative within Çatalhöyük and embracing Weismantel's (2013) arguments for the ungendering of Çatalhöyük led to an overall neutrality in the approach to gender within this research. Within Chapter 4, this approach allowed for key insights into who the storytellers and subjects of stories may have been, without the previous overemphasis on gender seen in Çatalhöyük research.

5. Conclusion

To conclude, I set out this research to explore the role of storytelling at Çatalhöyük and if the material culture within the home evidenced the purposeful crafting of places of storytelling. In order to answer this, I compiled a robust literature review, analysing research surrounding the themes of oral storytelling, caves and fire. Each theme was explored in relation to both wider contexts within pre-historic human practice and then specifically within the context of Çatalhöyük. I highlighted the significance of landscape and its materials within storytelling, and demonstrated the relationality between Palaeolithic cave culture and life at Çatalhöyük. In establishing the wider context of each of these areas I was able to demonstrate the role of crafting, caves, and fire within storytelling at Çatalhöyük. Following this, I undertook a series of visits to British caves which had connections to Palaeolithic human activity. Through my auto-ethnographic research and experimental archaeological methods I established the presence of caves and demonstrate the feasibility of purposefully crafted environments designed to emulate caves for the specific purpose of storytelling. I used a phenomenological approach during this research which allowed me to fully embrace the experiences of the caves: providing key insights into the sensory capabilities within unlocking and reigniting memories for the purpose of telling stories. Engaging with objects I had crafted by the fire in caves, I was able to demonstrate the interactive and multi-sensory nature of Çatalhöyük storytelling. In doing so, I have redefined the Çatalhöyük homes and their material culture within a new interpretation.

To further this research there are two key areas which I would recommend to expand the scope and provide new insights into this question. First of all, I would recommend conducting visits to the caves within the Taurus Mountains and repeating the experiments at Çatalhöyük. This would provide both a useful comparison to the original site visits but would also raise either supporting or conflicting ideas furthering the research. Secondly, I would recommend undertaking research which explored further the community aspect to storytelling at Çatalhöyük through widening participation within the experiments.

In choosing to participate in auto-ethnographic methods, I found this research awakened and restored many memories and stories for me. I time travelled, reimagining stories within my life through my interactions with caves which I hadn't considered in years. These

connections to stories and landscape form both a part of what makes us human and demonstrate the uniqueness which cultural situation provides. While not all oral stories centre on climbing a mountain with the help of enchanted animal friends in search of a lost sister, as my favourite story did, they do all speak to our connection to our world, community and past.

In exploring the storytelling culture of the people of Çatalhöyük through their relationship to caves, their homes, material culture and sensory experiences, I have illuminated a key part of Çatalhöyük life, which due to its oral nature could have otherwise been lost or forgotten.

Word Count: 16,428

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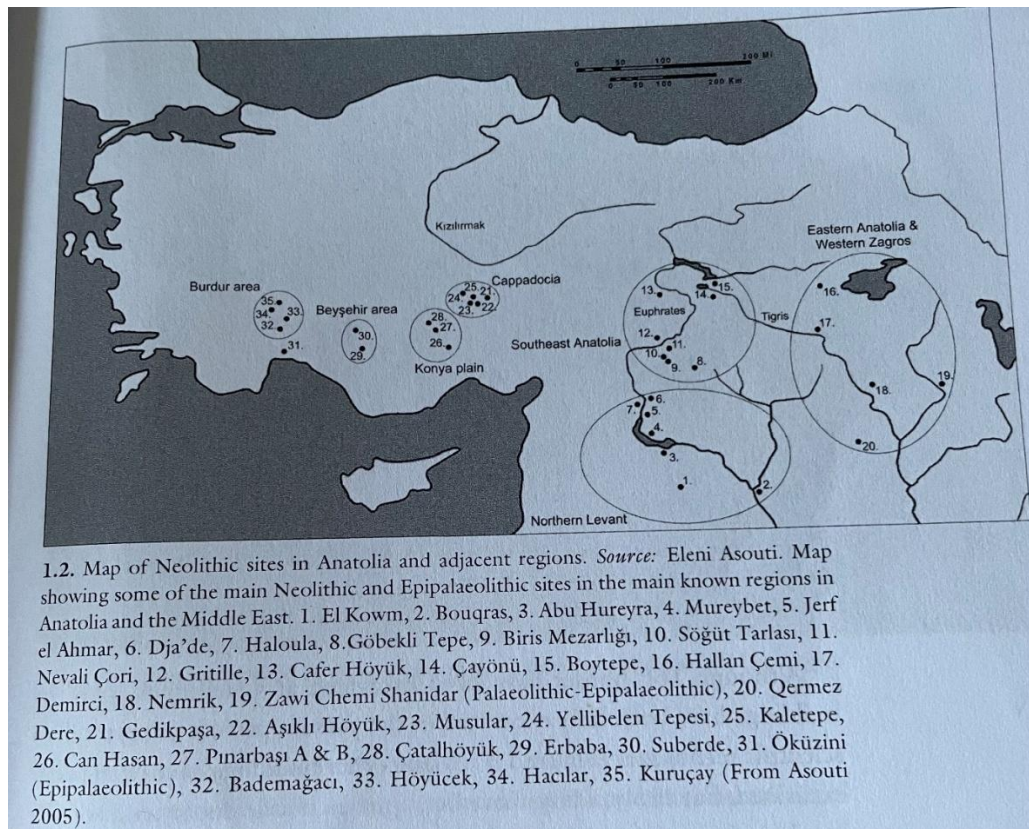
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Appendix



Source: Hodder, 2010: 5

Figure 1: Map of Neolithic Anatolia including Çatalhöyük (point 28)

“Religion in the Emergence of Civilization: Çatalhöyük as a Case Study”



Figure 2: Reconstruction of volcanic eruption image found on the wall of shrine 14, level VII

Source: Barber (2010) ‘Yet More Evidence from Çatalhöyük’ *Archaeological Institute of America; American journal of archaeology*, 114 (2), pp.343-345



Figure 3: Hasan Dagi mountain, Turkey

Source: Harvey 2014, Accessed: 11/9/2026 at:

[There She Blew! Volcanic Evidence Of The World's First Map : NPR](#)



Figure 4: Çatalhöyük wall painting from level III

Source: Kleiner, et al. 2009 via University of Buffalo Libraries, Accessed: 1/9/2026 at:

[Deer Hunt, from Catal Hoyuk · Digital Collections - University at Buffalo Libraries](#)



Figure 5: Geometric wall painting of Building 119 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2014: 9, Accessed: 10/8/2026 at: [Archive Report 2014 0.pdf](#)



Figure 6: Limestone Figurine 20736.x1 at Çatalhöyük

Source: Lynn Meskell via Çatalhöyük Research Project Archive 2016: 138, Accessed: 15/8/2026 at: [Archive Report 2016.pdf](#)



Figure 7: Experimentation with fire inside a reconstructed building

Source: Jason Quinlan, Accessed on: 9/9/2026 at: <http://www.Çatalhöyük.com/>



Figure 8: Illustrated reconstruction of a typical house layout at Çatalhöyük

Source: Kathryn Killackey, Accessed 9/9/2026 at: <http://www.Çatalhöyük.com/site/architecture>



Figure 9: 3D model of entrance to a house at Çatalhöyük

Source: Grant Cox, Accessed 9/9/2026 at: <http://www.Çatalhöyük.com/site/architecture>

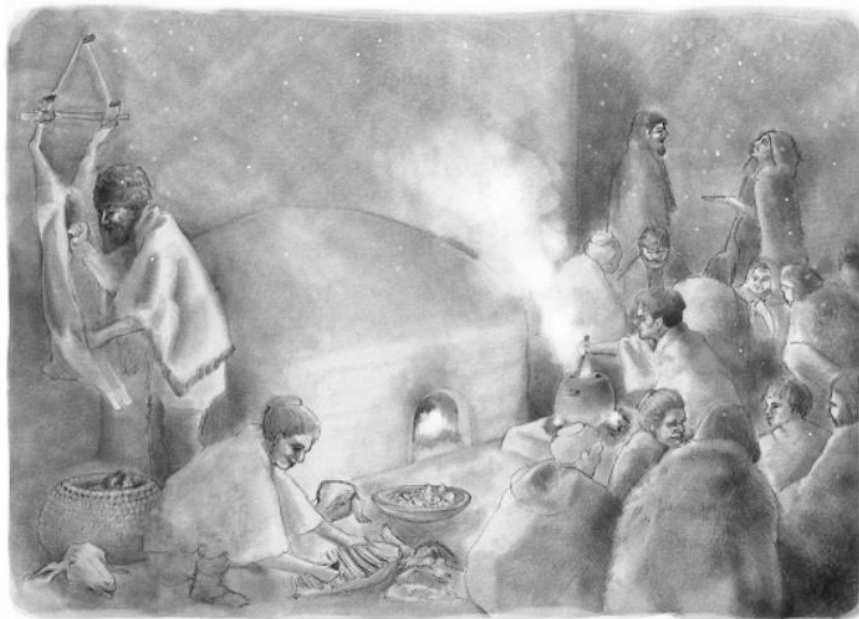


Figure 10: Illustrated reconstruction of activities within a house at Çatalhöyük

Source: Kathryn Killackey, Accessed on: 9/9/2026 at: <http://www.Çatalhöyük.com/site/life>

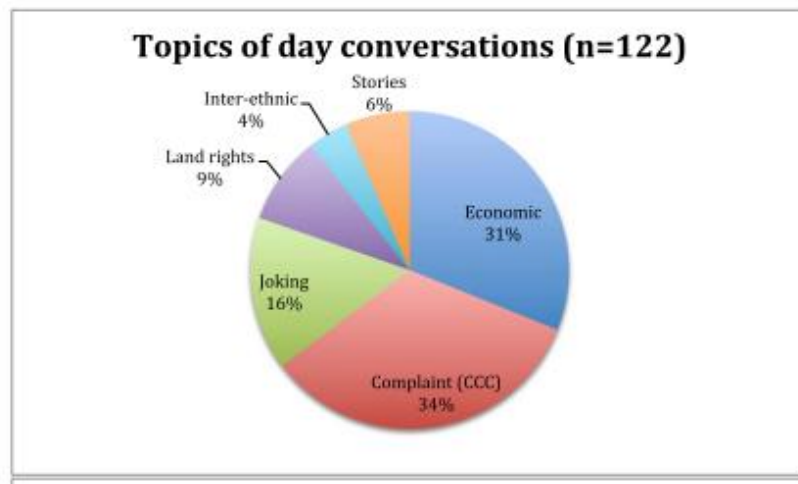


Figure 11: Chart Showing Topics of Daytime Conversation of Ju/'hoansi Bushmen

Source: Polly Wiessner (2014) 'Embers of society: Firelight talk among the Ju/'hoansi Bushmen' Proceedings of the National Academy of Sciences 111: 39, Page: 14029

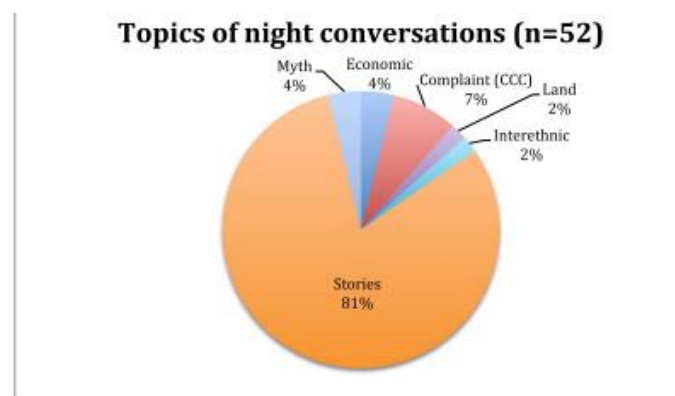


Figure 12: Chart Showing Topics of Night time Conversation of Ju/'hoansi Bushmen

Source: Polly Wiessner (2014) 'Embers of society: Firelight talk among the Ju/'hoansi Bushmen' Proceedings of the National Academy of Sciences 111: 39, Page: 14029



Figure 13: Crawl-hole connecting Building 139 and Building 5 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2017: 33, Accessed: 10/8/2026, at: [Archive Report 2017.pdf](#)



Figure 14: A large cache of unused obsidian found in Building 131 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2017: 10, Accessed: 10/8/2026, at: [Archive Report 2017.pdf](#)

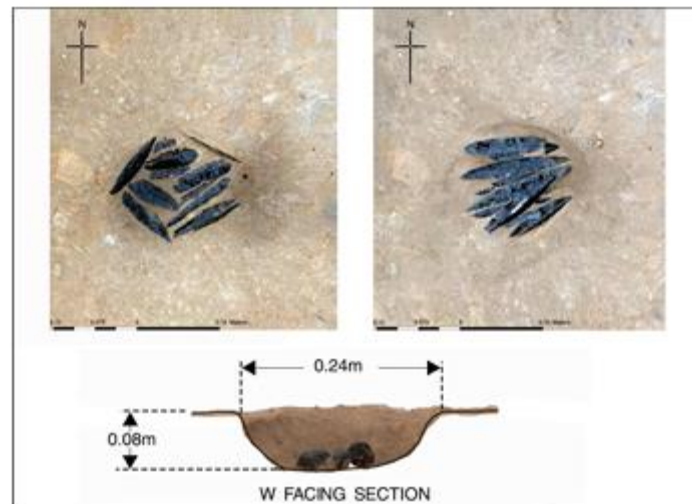


Figure 15: Obsidian cache F.8359 containing 21 blades at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2017: 41, Accessed: 10/8/2026, at: [Archive Report 2017.pdf](#)



Figure 16: 3D bodies relief from Çatalhöyük

Source: Unknown, Accessed: 10/9/2025, at:

[Finds from Çatalhöyük in the Museum of Anatolian Civilizations in Ankara | Turkish Archaeological News](#)



Figure 17: Continuous handprint motif in Building 77 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2012: 216, Accessed: 10/8/2026, at: [Microsoft Word - Archive Report 2012.docx](#)



Figure 18: Close up of handprint in Building 77 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2012: 16, Accessed: 10/8/2026, at: [Microsoft Word - Archive Report 2012.docx](#)



Figure 19: Entrance to Robin Hood's Cave, Creswell Craggs

Source: Emily Nixon, 2026

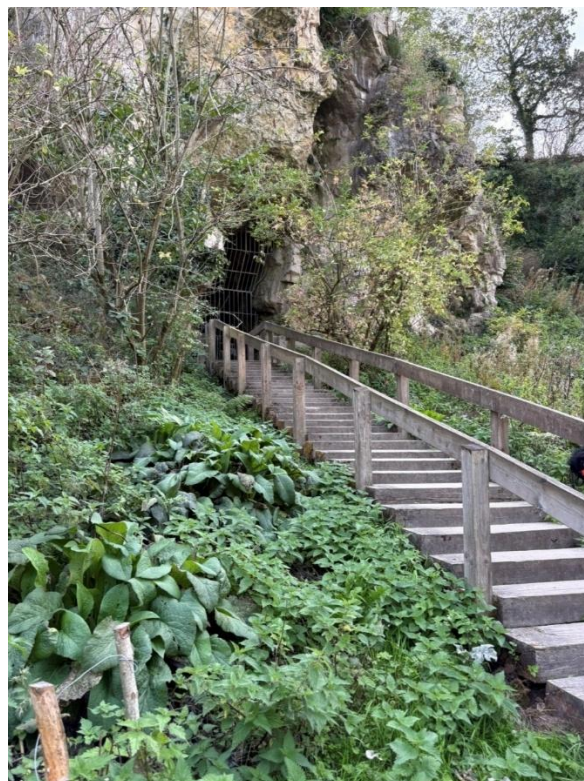


Figure 20: Entrance to Church Hole Cave, Creswell Craggs

Source: Emily Nixon, 2026



Figure 21: Church Hole Cave, Creswell Craggs, view from the platform looking out of the cave

Source: Emily Nixon, 2026



Figure 22: Moisture on the cave surface, Robin Hood's Cave, Creswell Craggs

Source: Emily Nixon, 2026

<https://youtube.com/shorts/kkmCP6hvVjU?si=zxg3WsNK5JNMLoL5>

Figure 23: Video of Robin Hood Cave ceiling during tour light experiment

Source: Emily Nixon, 2026

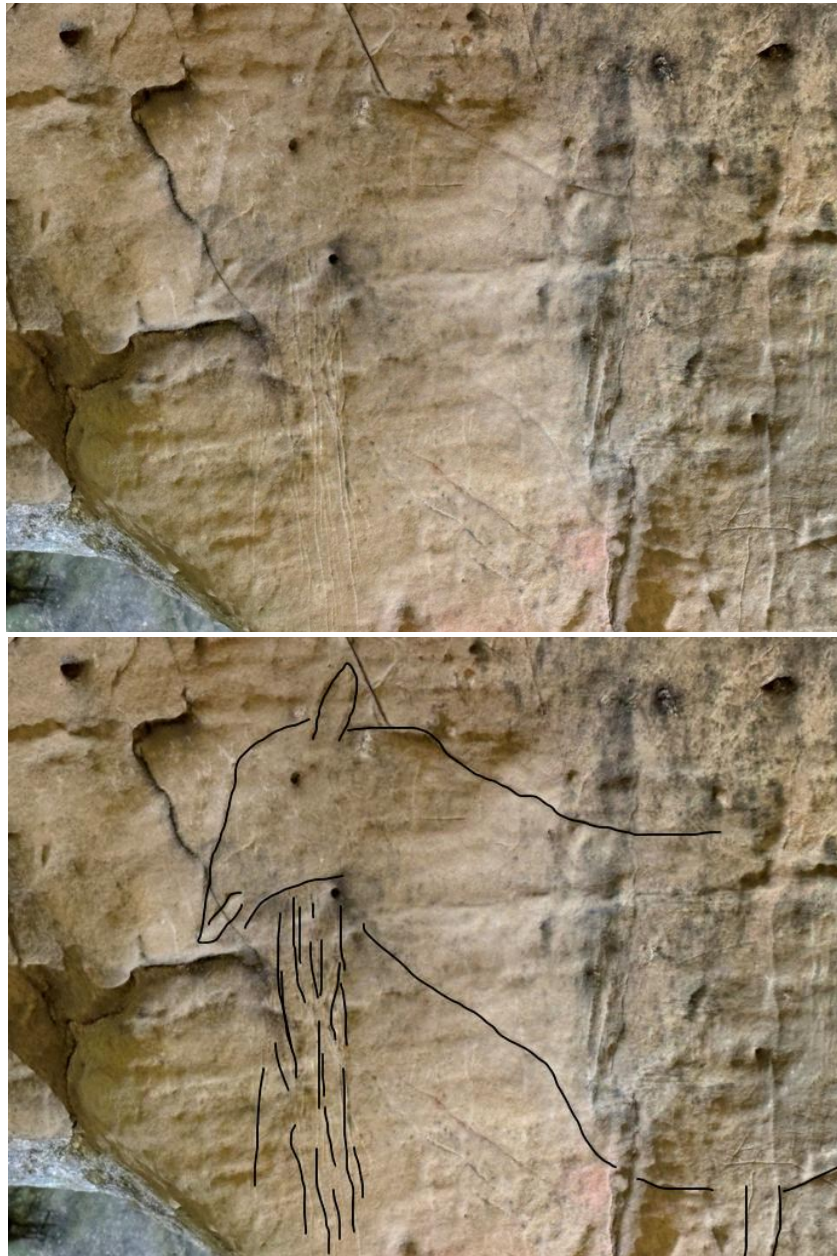


Figure 24: Stag carving, Church Hole Cave

Top image original, bottom image with line sketch

Source: Emily Nixon, 2026

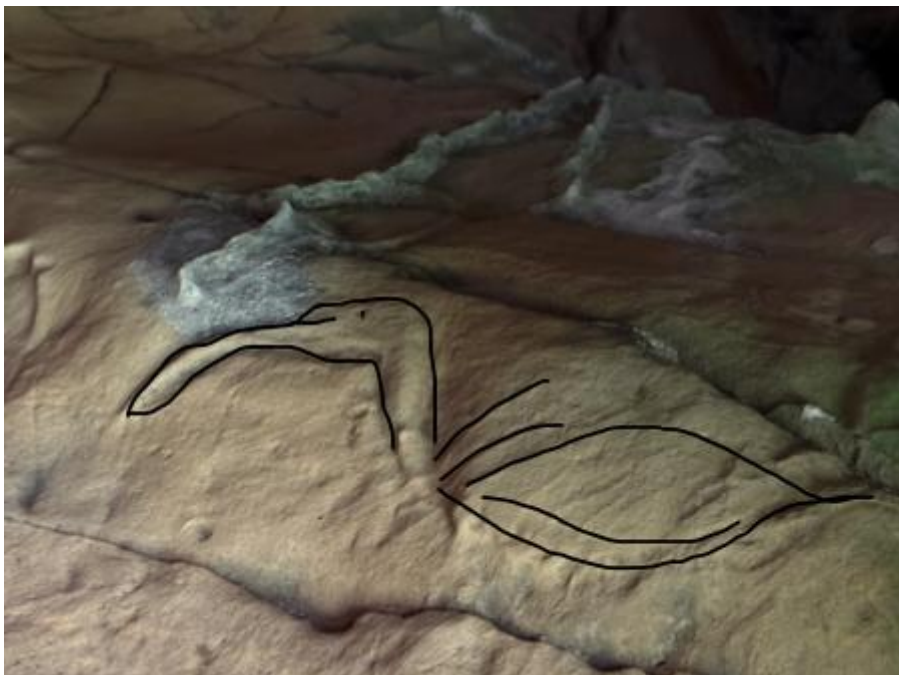


Figure 25: Ibis bird carving: Church Hole Cave

Top image original (flipped 180 degrees), bottom image with line sketch

Source: Emily Nixon, 2026

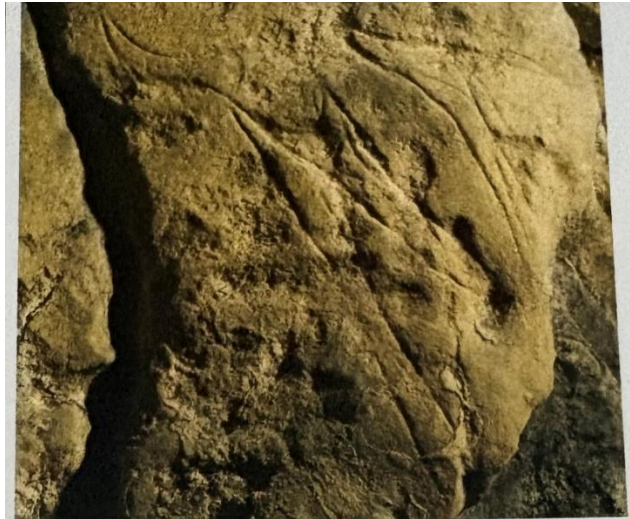


Figure 26: Stylised women or birds, Church Hole Cave

Source: Creswell Craggs Guidebook, 2026



Figure 27: Bison, Church Hole Cave

Top image original, bottom image line sketch

Source: Emily Nixon, 2026



Figure 28: Panel of Lions at Chauvet 2

Source: Bahn, 2024: 110

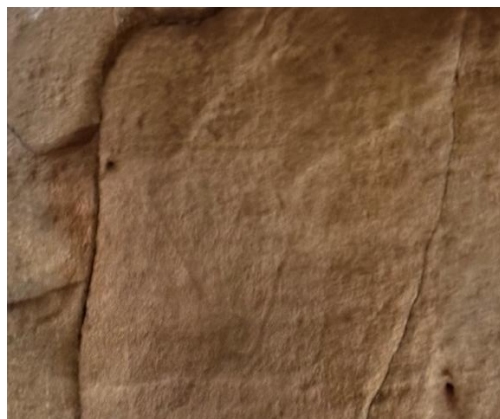


Figure 29: Vulva carving, Church Hole Cave
Top image original, bottom image line sketch

Source: Emily Nixon, 2026



Figure 30: The Chimney, Gough's Cave, Cheddar Gorge

Source: Emily Nixon, 2026



Figure 31: Damp cave surface, Gough's Cave, Cheddar Gorge

Source: Emily Nixon, 2026

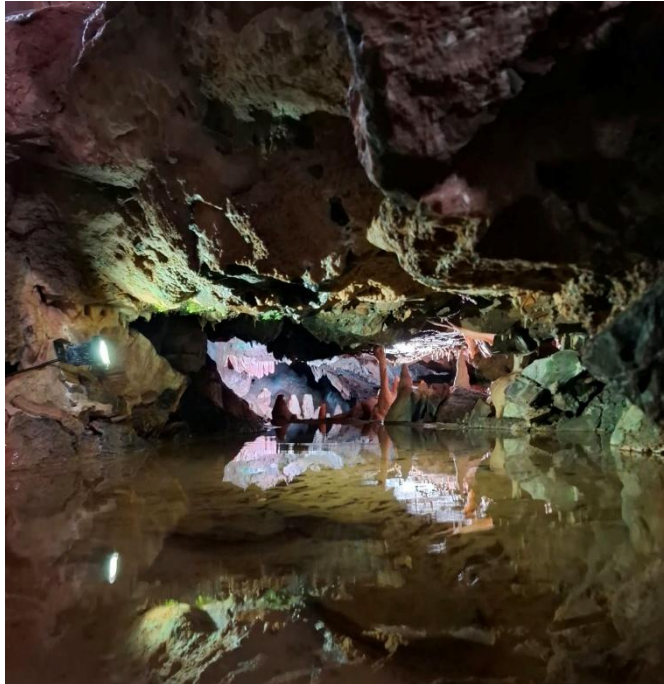


Figure 32: Stalactite formations and pools of water in Gough's Cave

Source: Emily Nixon, 2026



Figure 33: Aladdin's Cave, Gough's Cave

Source: Emily Nixon, 2026



Figure 34: St. Paul's Chamber, Gough's Cave

Source: Emily Nixon, 2026

<https://youtube.com/shorts/-v9jeY9srvU?si=jvW7BPgBjMC6xZvd>

Figure 35: Entering St. Paul's Chamber, Gough's Cave

Source: Emily Nixon, 2026



Figure 36: Coin deposits in Gough's Cave

Source: Emily Nixon, 2026



Figure 37: Coin tree stump, Malham Cove

Source: Emily Nixon, 2026



Figure 38: Funeral Order of Service, found at St. Robert's Cave

Details including name and date of birth have been blurred/covered to protect their identity

Source: Emily Nixon, 2026



Figure 39: Hand print, St Robert's Cave

Source: Emily Nixon, 2026



Figure 40: Candles in St. Robert's Cave

Source: Emily Nixon, 2026



Figure 41: Interactions with paint

Source: Emily Nixon, 2026

https://youtube.com/shorts/u-xgVvF_040?si=-Q3iDnmtB0NFg3sY

Figure 42: Hand printing

Source: Emily Nixon, 2026



Figure 43: Hand print created by Emily Nixon lit by candle

Source: Emily Nixon, 2026



Figure 44: Rainbow hand prints of Emily, Tom and Daniel Nixon from 2020

Source: Emily Nixon, 2026



Figure 45: 3D bodies replica crafted by Emily Nixon using air dry clay

Source: Emily Nixon, 2026

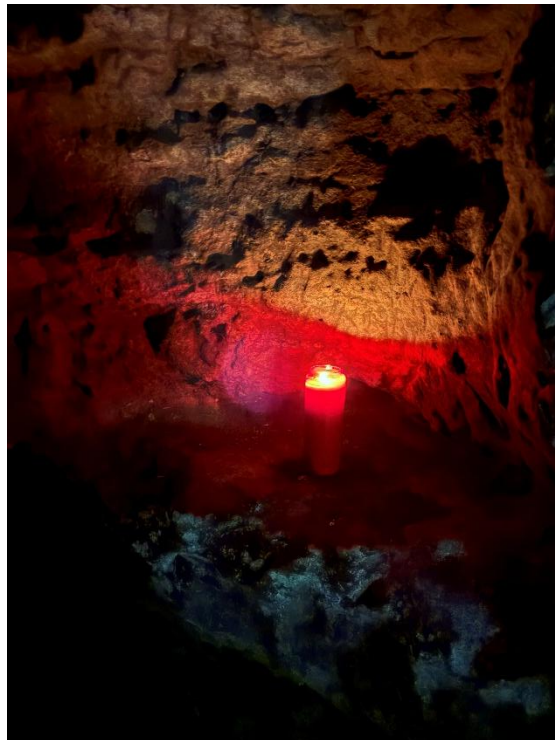


Figure 46: Lit Candle in St. Robert's Cave

Source: Emily Nixon, 2026

https://youtube.com/shorts/JACvC-ryPio?si=QYk_ggmKTvGQtWmW

Figure 47: Fire on a camping trip, September 2025

Source: Emily Nixon, 2026



Figure 48: Interactions with a mock cavescape in St. Roberts Cave

Source: Emily Nixon, 2026



Figure 49: 3D Bodies Replica in St. Roberts Cave

Source: Emily Nixon, 2026



Figure 50: Details of the skin in clay

Source: Emily Nixon, 2026



Figure 51: Plaster head 21666.x1 found in Building 132 at Çatalhöyük

Source: Jason Quinlan via Çatalhöyük Research Project Archive 2015: 275, Accessed: 10/8/2026, at: [Archive_Report_2015.pdf](#)



Figure 52: Close up of an obsidian eye in plaster head 21666.x1, Building 132 at Çatalhöyük

Source: Sean Doyle via Çatalhöyük Research Project Archive 2015: 283, Accessed: 10/8/2026, at: [Archive_Report_2015.pdf](#)

<https://youtube.com/shorts/hLcahihReig?si=HCl7TDzZvguKw3>

Figure 53: Experimenting blowing out candles, St. Roberts Cave

Source: Emily Nixon, 2026

<https://youtube.com/shorts/LOQ5wW9kmjU?si=eNdYLkm-WdOqGHyx>

Figure 54: Experimenting moving fire, St Robert's Cave

Source: Emily Nixon, 2026