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**University of Southampton**

Faculty of Arts and Humanities

Department of Archaeology

**The Changing Portrayal of Neanderthals in the Museum. Separating Them  
and Us.**

Volume 1 of 1

By

**Jade Beresford.**

**ORCID ID 0009-0001-1996X**

Thesis for the Degree of Doctor of Philosophy

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# University of Southampton

## Abstract

Faculty of Arts and Humanities

Archaeology

Thesis for the degree of Doctor of Philosophy

The Changing Portrayal of Neanderthals in the Museum. Separating ‘Them’ and ‘Us’.

By

Jade Beresford

Over the last century our portrayal of *Homo neanderthalensis* has changed radically. They were initially conceptualised as primitive savages, dim-witted and brutish cavemen, understood either as a missing link in the evolution of our own species, *Homo sapiens* (modern humans), or an evolutionary dead-end (Moser 1992; Drell 2000; Madison 2021). Although Neanderthals have moved between animality and humanness (Corbey 2005), and in and out of the direct lineage of human origins, the prevailing view considered them as a primitive prototype of our own species. However, modern Neanderthals are visually reconstructed and recognised as essentially human (Peeters and Zwart 2020).

This thesis highlights how technological innovations in ancient DNA (paleogenetics), and archaeological discoveries are providing new and exciting windows onto the past, but questions whether these new relationships and findings are reflected in the context of the museum and hyperrealism (Peeters and Zwart 2020). In this scientific journey of rediscovery, it has become abundantly clear that the assumed modern human-Neanderthal boundary so clear cut when evolutionary studies began, is breaking down (Finlayson 2019: xi). It is increasingly difficult to pinpoint what the difference between Neanderthals and AMHs is and yet there remains a persistent quest for a minimal difference which separates ‘them’ from ‘us’ (Peeters and Zwart 2020).

The archaeology of Neanderthals therefore remains in a philosophical crisis, charged with creating a narrative that centres on the dualistic construction of ‘them’ and ‘us’, and slow modernity, which ultimately perpetuates the great divide at the centre of cartesian philosophy between nature and culture (Peeters and Zwart 2020). This thesis argues a dualistic style of thinking (modernity) and the progressive tendencies of the evolutionary museum are no longer tenable and can no longer encompass the complexity of new data, techniques and interpretations available to archaeologists and the museum (Crellin and Harris 2020).



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## **Research Thesis: Declaration of Authorship**

Print Name: Jade Beresford

Title of Thesis: The Changing Portrayal of Neanderthals. Separating Them and Us.

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in the candidature for a research degree at this university.
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this university or any other institution, this has been clearly stated.
3. Where I have consulted the published works of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
5. I have acknowledged all main sources of help.
6. Where the thesis is on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.
7. None of this work has been published before submission.

Signature..... Date 17<sup>th</sup> of January 2025.....

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## Definition and Abbreviations.

### Museums

NHM.....	Natural History Museum
NMW.....	National Museum of Wales
St. Fagan's.....	Museum of Welsh Life and Industries

### Other Abbreviations

YA.....	Years Ago
AMH.....	Anatomically Modern Humans
A.....	Australopithecus
H.....	Homo Genus
P.....	Paranthropus
VR.....	Virtual Reality
aDNA.....	Ancient DNA

## Chapter One. The Changing Portrayal of Neanderthals.

### 1.1. Introduction.

This thesis focuses on the representation of Neanderthals in museums, in particular the effects of the new trend for hyperrealist models. It provides an evaluation of the representation and presentation of Neanderthals in two museums in the UK. The analysis suggests that archaeologists and the museum have become so seduced by the humanness of these new models that they have failed to critically interrogate the underlying theoretical frameworks of hyperrealism, particularly in relation to the repeated focus on specific fossils and restrictive scenarios. This visual approach continues to perpetuate a very specific type of Neanderthal that reinforces a monolithic interpretation of different Neanderthal populations and worlds across time and space. This thesis highlights the lack of representation of Neanderthals as social beings with social worlds that overlap and intersect with those of early modern humans and the Denisovans. This thesis concludes that the portrayal of Neanderthals in museums has changed radically over the past decade but, museums have fallen short in the de-construction of the progressive tendency to depict the hominisation process as a universal celebration of progress (Gamble in Moser 1998).

### 1.2. Reconstructing Neanderthals.

Neanderthals have been with us since our understanding of human origins began. In fact, they played a significant role in determining the deep antiquity of man. They were the first recognised hominin species we came across, unknown before the mid nineteenth century. Since then, our knowledge and perception of Neanderthal history has shifted dramatically. We are in a moment when not only what is known but what is also knowable about Neanderthals changes from year to year (Crossland 2020: 76; Wragg Sykes 2020). Most recently due to the sequencing of the Neanderthal genome and technological innovations including new dating

and analytical techniques. We are providing answers to questions once deemed unknowable, particularly aspects of Neanderthal culture that are challenging many of the misconceptions surrounding their bodies, environments and behaviours. Modern humans and Neanderthals have always and continue to be, entwined, distinct and separate entities on parallel lines of evolution. Over the last century the portrayal of *Homo neanderthalensis* has changed radically. They were initially conceptualised as primitive savages, dim-witted and brutish cavemen, understood either as a missing link in the evolution of our own species, *Homo sapiens* (modern humans) or an evolutionary dead-end (Moser 1992; Drell 2000; Madison 2021). Although Neanderthals have moved between animality and humanness and in and out of the direct lineage of human origins, the prevailing view considers them as a primitive prototype of our own species (Corbey 2005).

Victorian assumptions and prejudices ensured that the classical visual schema used to depict our evolutionary cousins did not change when they were archaeologically discovered during the nineteenth century, rather it appears '*the archaeological data was crammed into the appropriate historical headgear*' (Gamble in Moser 1998). This research suggests this practice continues today in the museum despite an avalanche of archaeological data and scientific techniques to the contrary. It appears that the Neanderthals remain our lesser evolutionary cousins, representing the last stop en route to civilisation and the advent of humanity – modern humans.

This thesis explores how technological innovations, scientific techniques and archaeological discoveries are providing new and exciting windows onto the past (Peeters and Zwart 2020). In this scientific journey of rediscovery, it has become abundantly clear that the assumed modern human-Neanderthal boundary, so clear cut when evolutionary studies began, is

breaking down (Finlayson 2019: xi). It is increasingly difficult to pinpoint what the difference between Neanderthals and contemporary modern humans is and yet there remains a persistent quest for a minimal difference which separates ‘them’ from ‘us’ (Peeters and Zwart 2020). Therefore, this research assesses whether these new archaeological possibilities and/or scientific discoveries are reflected in the context of the contemporary museum display.

### 1.3. The Power and Significance of the Image.

*‘Viewing Prehistory is only possible because we have been taught how to look and learn’*  
(Gamble in Moser 1998).

Images are of persuasive power, fundamental instruments in our understanding of human origins and evolution since they illuminate ancient life which is not otherwise visually documented (Currie 2019). Images are particularly important in the reconstruction of the prehistoric past, because they have the power to effortlessly bridge the vast conceptual and theoretical gap between the past and the present. They facilitate the viewing of vanished and unknowable worlds, beings, animals and materials in a way that text cannot (Wragg Sykes 2020). Reconstructions are a valuable tool for understanding and visualising the past. While archaeological evidence is often incomplete and takes many different forms ranging from fossils, bones, stone tools to the results of chemical analysis, reconstructions fill in the gaps, allowing for a more complete picture of places, people, objects and animals which have made the Palaeolithic world so vibrant. Reconstructions also enable an understanding of the history of an object, place or hominin, compressing the centuries or millennia between the past and present into a cohesive narrative (Schlager and Wittwer-Backofen 2015). This thesis critically deconstructs this cohesive, but progressive narrative suggesting that in the context of the evolutionary museum it continues to define what the Neanderthal are and what they are not.

Images can have a profound impact upon the archaeological interpretation and public perception of the protagonist mover in human evolution. The use of images to recreate the Palaeolithic world and our hominin ancestors is wholly dependent upon archaeological and scientific theory since we have no written records or sculptures of the Neanderthals. How our ancestors looked, behaved, thought and lived is therefore a subjective matter of interpretation (Giles 2016: 413).

This is of particular importance in the context of Neanderthals because our ancient ancestors were visually created, long before they were scientifically discovered, and by extension so too were the expected social norms, identity of Neanderthals and narrative of evolution (Moser 1998: 2; Stockowski 1997: 251). When the first (scientifically accepted) Neanderthal 1, was discovered in 1856 a whole array of possibilities, pasts beyond memory opened, but that array was itself conditioned by the prevailing views of the time, which, in turn have conditioned our understanding and portrayal of Neanderthals, even today. A great deal more is knowable about the Neanderthals now, but there is still debate over the degree of humanity which should be afforded to them. This thesis questions whether these new developments and advancements are reflected in the context of the museum and the representational modality of hyperrealism.

For many years images served to reinforce negative ancestor stereotypes, primitive and gender-coded iconographies, ultimately perpetuating the classic Neanderthal caricature that we have come to know and love so well. The problem lies in the misconception that many think they know the Neanderthals. Since their initial discovery in Neander, Germany in 1856 we have often only considered Neanderthals having first cast ourselves as the main protagonists in the narrative of human evolution (Madison 2016, 2020, 2021). Therefore, the museum must treat such images and displays critically and explore how reconstructions of

the past and past peoples have the potential to be even more problematic than the terms that we employ and the text that we write (although this is also a problem) (Molyneaux 1997).

*‘Reconstructions are not merely visual summaries of theories, they are instead arguments in themselves, drawing together archaeological, scientific, anatomical and palaeoecological evidence to articulate and communicate theories pertaining to human evolution’* (Zilhman 1997: 76).

There is now a huge body of research that acknowledges and actively investigates the relationship between visual language (iconic vocabularies) and archaeological knowledge production in relation to the dissemination of a traditional iconography for depicting human origins, which is both sticky and dangerous (Moser and Gamble 1997; Moser 1999; Moser and Smiles 2005). It is commonly understood that the power of reconstruction stems from *‘the way they have been woven from the iconic vocabulary of a distinctive and sticky visual language’*, rather than their subject matter or accuracy (Gamble in Moser 1998: X).

Therefore, this analysis will attempt to unravel the complex ontological and theoretical frameworks within, rather than provide an evaluation of the archaeological and/or scientific accuracy of the image or museum exhibit (Lidchi 1997: 151-222).

This thesis rests on the assumption that images are *not* mere reflections of the modern condition, but rather that they have contributed to the construction and dissemination of *‘the conditioning to which our imagination and reasoning is subject’* (Stockowski 1997: 251). In this approach, images are considered as active and sophisticated mediums for the articulation and communication of archaeological meaning. Reconstructions are understood as hypotheses rather than objective illustrations which exploit the power of visual language to



perpetuate a unilinear narrative (Drell 2000; Stockowski 2002; Sommer 2006; Schlager and Wittwer-Backofen 2015). Indeed, visualisation also possesses the capacity to create, maintain and challenge disciplinary trends and working assumptions, which text does not but this is often not reflected in the context of the museum. (Vujakovic 2013: 4-6). It is this ‘capacity’ of images which this thesis explores throughout.

#### 1.4. Representing Human Origins in the Museum.

The representation of human origins is one of the most pervasive and established practices in the western consumption of an ancient past. Indeed, one of the key issues concerning the portrayal of Neanderthals and human antiquity is that we have come to know it so well, through its popular and academic manifestations. European interest in representing ‘the other’ as a potent and dangerous category began in the classical period with the empires of Greece and Rome and their preoccupation with peoples who lived beyond the frontier (Moser 1998). The creation of ‘the other’ was revived and reformulated in the late Medieval period, with the creation of the primitive savage in the portrayal of the ancient Picts, comparable in savagery to the New World Indians; a concept which grew in popularity with the rise of modern science in the eighteenth and nineteenth centuries, when human antiquities from a different geological epoch were beginning to be recognised as such. This conceptualisation of ‘the other’ was inspired by exploratory travel to the ‘old world’. And an iconography of human origins was effectively created in which ancient man in a state of primitiveness among stone tools and extinct beasts reigned supreme. This iconography, or display canon was indeed, promptly endorsed and transmitted throughout popular and academic media, including films, cartoons and the museum (Moser 1997, 1998, 2006). Crucially this iconography was created before the establishment of phylogeny as a scientific discipline and even before the scientific discovery of human antiquity itself.

In considering how the evolutionary principles of classification and exhibition developed in the new museums of natural history, my specific focus here will be how these developments affected museums in Britain. Although these intellectual developments both affected and involved museums internationally, their initial influence appears greatest in the UK (Bennett 2004: 1-33). Here I will briefly discuss the archetypical 'evolutionary museum', that of the Natural History Museum in London and the National Museum of Wales in Cardiff and the ordering of space, time and things. A crucial part of this analysis is the use of 'classificatory' exhibition practices, those that continue to play a key role in the making of 'prehistory', these 'pasts beyond memory' visible and knowable today (Bennett 2004: 1-33). This approach to the hominisation process provides new rules for the classification and combination of objects. As a result, our imagination, understanding and future conceptual frameworks for depicting human antiquity and the hominisation process, remain conditioned by the established classification and exhibition practices which have changed very little (Bennett 2004: 1-33). This analysis demonstrates that the specific combination of objects, and 'things' perpetuates a specific narrative of slow modernity through the ages. Starting with simple technologies and primitive peoples and leading towards complex societies and modern humans. This thesis analyses new and innovative ways of challenging the core-periphery model of human origins research and the repeated use of highly restrictive scenarios in the portrayal of our ancient ancestors.

Modern science is rewriting and retelling the story of the Neanderthals and recent discoveries and technological advances in ancient DNA (aDNA hereafter) have pulled this species closer to us. However, archaeology, palaeoanthropology and museology as visual disciplines have fallen dramatically short when deconstructing human (AMHs) centrality and superiority. By

focussing on the radical dis-juncture of human antiquity from natural history, this thesis will illuminate new and innovative ways of re-presenting and re-thinking Neanderthals, dualisms, gender, materials and matter in the creation of ‘affective biographies’.

### 1.5. The March of Progress and the Familiar Narrative of Unilinear Progression.

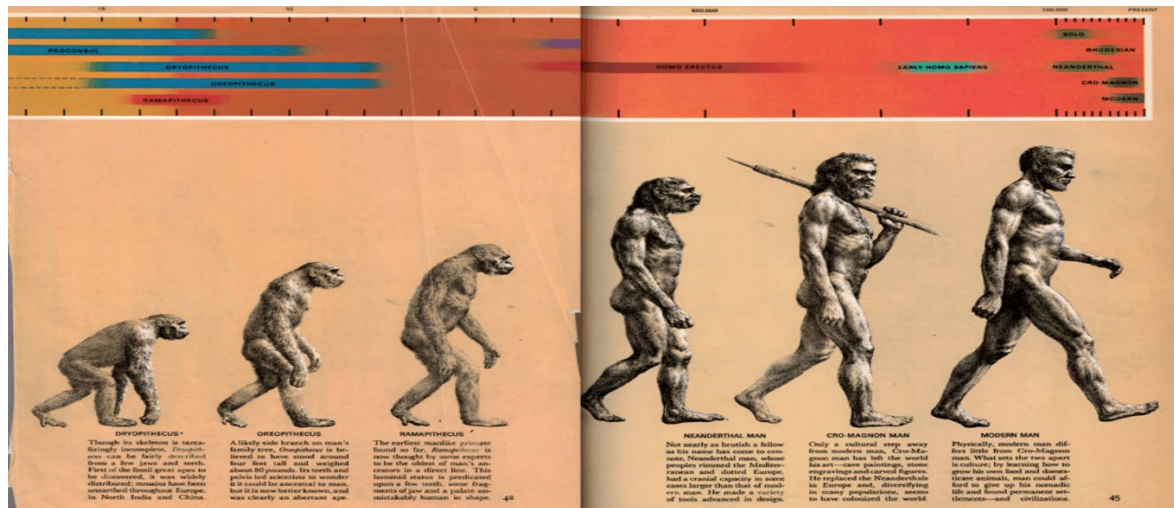


Figure 1: The abbreviated version of the march of progress set the conceptual standard for depicting evolution as a direct and linear route through time. This illustration is one of the most famous of all time, yet it represents an erroneous image. The power of this image lies in its simplicity and ability to convey complex ideas about human evolution to individuals without any prior evolutionary knowledge. Countless memes of this approach have invaded popular culture, the museum and thus public consciousness (Gould 1997). Image taken from <https://sites.wustl.edu/prosper/on-the-origins-of-the-march-of-progress/>. Accessed on 01/10/2023).

The iconography of ‘The March of Progress’ is epitomised by the line-up of apes evolving into a white European male. The fallacy here is that evolution equates to progress, an error inherited from Herbert Spencer and his belief in universal progression, combined with the unfortunate ambiguity of the phrase ‘survival of the fittest’. ‘Fittest’ has a connotation of ‘best’ and about ‘best’ there hangs a moral flavour (Huxley 1894). This conceptualisation of the hominisation process has resulted in a core-periphery model of human evolution that centres on human exceptionalism (Gould 1995a, 1995b). Human exceptionalism is understood within this thesis as the belief that humans are unique and distinct from other humanities and animals because modern humans have a fundamental moral value that sets them apart from the natural world because they are conceptualised as superior to it. This idea

is ancient and dangerous; it represents the cornerstone of evolutionary research, providing the foundation for the complex, and often inconsistent relationships between modern humans, other humanities and animals. Human exceptionalism is intimately linked to anthropocentrism and speciesism (Mylius 2018). In the context of palaeoanthropology, normative anthropocentrism has made assumptions and assertions about the superiority of *H. sapiens*, its capabilities, the primacy of its values and its position in the universe (Mylius 2018). For the purposes of this study, the discriminatory feature is the conceptual framework of behavioural modernity and the sapiens paradox (Mellars and Stringer 1989; Renfrew 1996; McBrearty and Brooks 2000; Bar-Yosef 1998, 2002; DErrico 2003; Tattersall 2008; DErrico et al 2009; DErrico and Henshilwood 2011; DErrico and Stringer 2011).

A key concern here, is the conceptual framework of ‘behavioural modernity’, which I suggest perpetuates the ‘myth’ of the sapiens paradox and the ‘reality’ of human exceptionalism in the representation of human origins which thus far has facilitated an inter-disciplinary neglect of ‘the other’ and the marginalisation of Neanderthals in models of evolution. The problem lies in the conviction that some technologies and cultural practices are considered as ‘behaviourally modern’, and these behavioural traits can be contrasted against archaic behaviours and ancestors. Traditionally, behavioural modernity is used to classify a set of behavioural practices, for example, complex hearths, specialised tools, social organisation, trade networks, abstract thinking in the form of art (drawings/figurines) and burial, that is exclusively associated with the appearance and rise of anatomically modern humans (AMHs hereafter) in the context of the European Upper Palaeolithic. Within this schema, AMHs (*H. sapiens*) belong to a culturally advanced race - the Cro-Magnons - with their upright posture and enlarged brain capacity, as well as sophisticated lithic industries and symbolic expression, who seem to mark the advent of ‘true humanity’ (Sommer 2007: 16).

This thesis dismantles the concept of ‘behavioural modernity’ utilised as a suite of universal behavioural and cognitive traits to distinguish modern humans from the other humanities, hominins and primates (Ravi 1998). Archaeologically, several empirical traits have been used as indicators (indirect traces) of behavioural modernity. While these are often debated, a few are agreed upon in the context of human origins. Some examples of these behaviours include abstract thought and planning; trade and exchange; the exploitation of a variety of subsistence strategies including large and small game, marine resources and plants; using bone material for tools and the creation of composite tools; the transportation of raw materials (resources); blade technology, hearths, diversity, standardisation; regional variation and finally co-operative and symbolic behaviours (art, ornamentation and burial) (Renfrew 1996; D’Errico 2003; Garofoli 2016; Finlayson 2019). This thesis challenges the notion of behavioural modernity centred on the supposed cognitive revolution occurring c. 40-50,000ya with the sudden appearance of our own species *H. sapiens* in Europe (McBreathy and Brooks 2000: 453-563). Recent research in the past two decades has provided several lines of evidence to the contrary: paleoanthropological evidence suggests that the roots of modern anatomy date back to some 200,000 years ago in the African Middle Stone Age and artefacts traditionally associated with the Upper Palaeolithic of Europe (most notably the use of red ochre and perforated shell beads) appear across several African sites dating to approximately 100,000 years ago, these recent discoveries have sparked a reconsideration of the initial convictions of ‘behavioural modernity’.

To complicate this matter further, the Neanderthals present a perplexing picture: artefacts and behaviours comparable with those in modern human African and European Cro-Magnon sites, like pierced shell-beads (Zilhao 2007, 2012; Zilhao et al 2010), raptor talons with

potentially symbolic and emotional value (Morin and Laroulandie 2012) or the non-functional removal of feathers from birds, presumably for body ornamentation and decoration are not given the same status (Peresani et al 2011; Finlayson et al 2012). Neanderthals were previously conceptualised as dim-witted evolutionary dead-enders, who looked and behaved completely differently to us. This view seems to have been revised in recent years, since the advent of palaeogenetics, (that utilises the methodology of genetics to study early humans and other ancient populations), which demonstrated the survival of Neanderthal DNA in modern populations outside of Africa, highlighting our continued connectedness and interwoven histories. This thesis assesses whether these new discoveries and/or perspectives are reflected in the context of the museum and hyperrealism. It demonstrates that the museum (natural history) continues to operate within a conceptual framework of division, categorisation and separation of ‘them’ (Neanderthals) from ‘us’ (modern humans). Following Shea (2011) who demonstrates behavioural modernity has no further value to human origins research, this thesis demonstrates that exhibitions/galleries focussed on human ‘behavioural variability’ would move Palaeolithic archaeology closer to a more productive interrogation and understanding of human evolution (Shea 2011: 1-7).

To illustrate this point visually, or at a glance in the context of the museum and archaeological representation, Melanie Wiber concludes that illustrations/exhibitions of human evolution all share a common and familiar plot. *‘The arduous journey is a common feature of many of them, the harsh struggle for survival is another... human biological and social evolution has been a great journey one that has taken us from a species of animal- like dependence on nature to a human level of independence through culture’* (Wiber 1997). This common plot is visually emphasised by the hyperrealistic sculptures located at Pôle International de la Préhistoire, France, that showcase an adult *H. sapiens* male and a

Neanderthal adult male side by side in the central space. A comparative analysis of these two models demonstrates that palaeoanthropology (in France) continues to perpetuate the traditional narrative of separating ‘them’ from ‘us’, by associating ‘them’ with functional matters of survival and ‘us’ with symbolic behaviours. Furthermore, these sequential stages of human development place males at the centre of archaeological investigation and representation, representing a core-periphery model of human origins and the androcentric construction of females and their role and contribution to human evolution. The narrative of human evolution, told over, begins with bipedalism, followed by larger brain size and capacity which facilitates a functional interpretation of the Middle Palaeolithic that centres on making stone tools, the production of fire, hunting and combat with wild and extinct beasts (Moser and Gamble 1997; Moser 1998; Wragg Sykes 2020). The narrative ends with the supposed ‘cognitive revolution’ of the Upper Palaeolithic, and the exclusive association of symbolic behaviours and complex cognitive thought process to modern humans (Renfrew 1996, 2008; Gamble 2011).



Figure 2: ‘Hyperrealistic Model of a Modern Adult Male’ created by the famous French palaeoartist Elizabeth Daynes. The figure is sitting down after his arduous journey engaging in the highly regarded symbolic behaviour of mixing pigments for colouring, in the process of creating ‘art’. The reconstruction reinforces two major misconceptions. Firstly, behavioural modernity is reserved to modern man and secondly, that prehistoric art was created by males and for the pleasure of males. Figure 3: ‘A Neanderthal Adult Male’ created by Elizabeth Daynes. He is standing in an upright and commanding position, holding a spear in one hand and a dead hare in the other. To further reinforce this progressive narrative the Neanderthal is standing upright but the modern human is sitting leisurely engaged in complex behaviours after already completing his arduous journey (Author in 2016).

From a human origin’s perspective, the ordering of things, time and space is understood as a didactic ‘celebration of the laws of unilineal progression’ (Gamble in Moser 1998). The story told over, is that our ancestors gradually adopted the cultural traits (toolmaking, hunting, burial and art), that elevated them to a human status, independently through culture (Wiber 1997). The typological ordering of objects, behaviours, and scenarios into a linear sequence has two main consequences. First, the creation of a common artefactual and ordering grammar, which makes it theoretically possible to reassemble museum collections using the same principles of a common grammar across all museum types (Bennett 2010: 65). The universal grammar of things remains unchallenged and unhindered, despite an avalanche of theoretical criticisms, archaeological discoveries to the contrary and the use of hyperrealism



as a new technology of representation. Second, these stages of development are cumulative and irreversible, demonstrating nature takes no leaps and reinforces a directional and hierarchal narrative of human origins (Bennett 2010: 66). I suggest that this ‘familiar plot’ remains a consistent and dangerous feature in the evolutionary museum.

From a constructivist viewpoint, prehistory simply represents the separation of ‘them’ from ‘us’ (TAG 2017, Session: Histories for Prehistory: Narrative, Scale and the Particular). This is understood (within this thesis) as a conceptual consequence of the enlightenment and the theoretical framework of modernity, that created ‘the infamous other’ (Fabian 1983). History, and thus the advent of written language represents for many the beginning of ‘true’ civilisation, (Renfrew 1996). With no (perceived) language of their own, prehistoric peoples were visually created and ascribed with a primitive iconography in the reconstruction of evolutionary models and Palaeolithic archaeologies. Here, the conceptual framework of modernity laid the foundation for evolutionary inequality across race, gender, age and class (Stockowski 1997: 349-262). Therefore, this thesis concludes hyperrealism alone is insufficient to successfully re-imagine the Neanderthals, their world, bodies, behavioural and cognitive capabilities. What is needed is a re-imagining of their portrayals and a re-conceptualisation of their variability and adaptability in a dynamic and symmetrical world (Dobres 1992; Witmore 2008; Ceder 2021). Crucially, we must abandon the view that the study and visualisation of human evolution is a celebration of progress (Gamble in Moser 1998: XXIV). This approach centralises human participation (males) and reinforces the application of human exceptionalism and colonial ideologies in the museum. This thesis argues that in order to divorce palaeoarchaeology from these theoretical problems and ideological constructs we must first divorce Neanderthals from the context of natural history. Arguably, the situation will not change if the museum continues to place Neanderthals within

a Lamarckian evolutionary framework and iconographies of extinction (Tattersall and Schwartz 1999).

#### 1.6. Research Focus. Neanderthals and Hyperrealism.

The revised focus of this study will centre on Neanderthals and the ‘new’ display strategy of hyperrealism in the context of the museum. The museum is an important and authoritative medium of knowledge. Within this environment, the power of experience increases ‘the importance of seeing, and not just reading’ about the past (Bennett 2010). These life-size, stand-alone (although not exclusively), hyperrealistic sculptures (living dead manikins) form a major feature in the rebranding of modern Neanderthals. They bring our ancestors to life through artistic interpretation and forensic reconstruction. Hyperrealism in the representation of Neanderthals, their behaviours and vanished worlds, presents assemblages of data, theory and visual spectacle as apparent known truths, whose conservatism reinforces the dangerous notion that concepts of human evolution can be divorced, even naturalised from modern culture and gender politics (Moser 2003: 9). The problem occurs when the image and/or display is presented and publicly consumed as an objective visual databank, immune from critical analysis and void of an epistemological purpose and meaning (Moser 2003). Images are all too often understood as objective representations, unproblematic reconstructions of what we already know (after Moser 1997; Moser and Gamble 1997; Moser and Smiles 2005: 5; Molyneaux 1997). The portrayal of Neanderthals as ‘other’ across a multiplicity of visual modalities and exhibition practices, I argue, indicates that the virtual structure and abstract machinery (Victorian ideals and modernity) used to define them as distinct and separate to modern humans, remains operative in the museum (Sommer 2006).

This thesis asks two key questions in relation to hyperrealism. Firstly, it questions whether hyperrealism as a visual movement is an ‘accurate’ reflection of the current scientific and archaeological data available to archaeologists, truly representing an ‘objective’ scientific truth, or if it is merely a smuggler of the truth? Secondly, this thesis questions whether hyperrealism alone is sufficient to re-write the Neanderthal story from one of ‘otherness’, to an inter-connected and entangled history of co-evolution? This research suggests that at present many hyperrealistic reconstructions rest on two problematic theoretical assumptions. Firstly, they are presented in the authoritative context of the museum as scientific ‘truth’, strengthened by the association of hyperrealism and forensic reconstruction as part of the scientific process, objectifying the portrayal of Neanderthals. Secondly, the visualisation of highly formulaic and gender-specific behaviours and activities in the reconstruction of our prehistoric past remains a persistent and dangerous problem (For a historical overview see Fedigan 1986, 1997; Gero 1991; Gifford-Gonzalez 1993; Moser 1993; Scott 1994; Hurcombe 1995; Conkey 1997; Hager 1997; Wylie 1997; Gilchrist 1999; Zihlman 1998, 2012). Although these concepts were challenged over two decades ago, it appears a visual competency and drive for change is still lacking (James 2005, 2009). This thesis proposes that the museum has become so distracted by the potential of this new visual trend that it has failed to critically interrogate the underlying interpretative framework, that of binary oppositions (Cartesian philosophy) and slow and behavioural modernity at the heart of our displays on human origins (Foley 2014).

This thesis draws on the methodologies of three major movements. Firstly, I draw on postmodernism as a philosophical movement that emphasises the diversity of hominin experience and *intra action*, by exploring a multiplicity of perspectives to challenge the grand meta-narrative of unilinear progression through the ages (Note 2011: 61-86). Postmodernism

rejects concepts of objectivity and the notion of universal truths which I argue have maintained a monolithic representation of Neanderthals, lacking variability. Secondly, I draw upon posthumanism to decentralise the placement of humans above other life forms and hominin histories. Posthumanism rejects the dichotomous foundation of modernity and the ‘humanist ideal of man as the allegedly universal measure of all things’ and highlights how ‘the other’ operates as a hierarchal structuring principle of contemporary western society (Shea 2011). Finally, I draw on feminist critiques of science and archaeology that challenge the socially constructed nature of gender relations to dismantle notions of secondary sexual difference in the context of human origins and Palaeolithic archaeology (Wylie 1997: 29-51; Gilchrist 1999).

### 1.7. Aims and Objectives.

The primary objective of this thesis is to question the prevalent and often exclusive focus on the representation of human origins and Palaeolithic archaeologies as the separation of ‘them’ from ‘us’ (Cartmill 1990: 173-192). This is not simply an issue of the arbitrary distinction between modern humans and Neanderthals (which is being constantly redefined and reformulated) but rather the dualistic construction of ‘human and nonhuman’ (Peeters and Zwart 2020). The research seeks to expose long standing hidden assumptions and cultural conventions in the representation and interpretation of Palaeolithic archaeology, through a detailed analysis of the restrictive behaviours and formulaic scenarios that are continually applied to our stone age ancestors. The central case studies of the Natural History Museum, London and St. Fagan’s Museum of Welsh life, Cardiff, provide a timely opportunity to investigate the changing portrayal of Neanderthals since the galleries are newly installed and are the only two museums in Britain and Wales to display recently commissioned hyperrealistic models of Neanderthals. The idea here is to assess whether or not they are

conceptualised as human or afforded a role and contribution in the co-evolution of our own species. The purpose of this analysis is to reveal and critically interrogate, new and potentially pioneering ways of challenging the traditional Neanderthal caricature and highly standardised ways of representing human antiquity and evolution (Madison 2021; Moser 2003; Moser and Smiles 2005). The ‘Wales Is’ gallery offers a unique opportunity to reframe how we think about Neanderthals and their role and contribution to human origins. The case study allows us to critically reflect upon the performative engagement and knowledge making capacity of the museum in the creation of a meaningful and relatable Palaeolithic (Hooper-Greenhill 1992; Macdonald 2006; Bennett 2010).

The primary aim of this research is to critically deconstruct the singular and directional, grand meta-narrative of unilinear progression and the familiar plot of prehistory (the march of progress) in an evolutionary context (Bennett 2010). This thesis challenges the traditional iconography of ancestor/gender stereotyping and argues archaeologists must first dismantle the theoretical frameworks of dualisms, slow and behavioural modernity and the restrictive scenarios we continue to re-apply to the portrayal of Neanderthals (Moser 2003). Instead, archaeologists should explore ‘behavioural variability’, by investigating the diverse and complex environments they lived in, and their dynamic social behaviours to reveal potentially pioneering ways of challenging the highly standardised scenarios used to represent the Neanderthals and the Late Pleistocene, particularly in relation to gender-coded iconographies (Shea 2011). The aim of this thesis is to re-cast Neanderthals as social beings within an interconnected and enmeshed world of variability and co-evolution in line with current archaeological data, that is reflective of new scientific findings and perspectives (Dunbar et al 2014; Gamble in Moser 1998). I argue throughout this thesis that Neanderthal discourse provides a vantage point to successfully dismantle the dichotomy of ‘them’ versus ‘us’. It

provides the opportune moment to successfully dismantle Cartesian philosophy, which is founded upon dualisms, where the world is made up of bounded and opposing categorisations/entities such as nature/culture, same/other, male/female, body/mind to name a few. These categories of division have predominately served to restrict the archaeological possibilities and portrayal of Neanderthals to the same, but other (Wiber 1994, 1997).

To summarise this thesis has three key aims; (1) to challenge the primitive and gendered iconographies for depicting the other in human antiquity, that both archaeology as a discipline and the museum exhibition has tended to perpetuate. The aim here is to highlight how the conceptualisation of the iconic vocabulary outlined by Moser and Gamble (1997), facilitates the re-(re)presentation of highly restrictive and formulaic scenarios for depicting the sequential and unilinear progressive development of acquired biological and social characteristics over time. These include the cave, fire, hunting, combat with wild and extinct beasts, burial and early cave art (Moser 1993, 1998; Moser and Gamble 1997). This suite of scenes remains the visual standard for depicting human origins. This thesis will demonstrate that despite the recent explosion of new archaeological data, scientific techniques and visual modalities (hyperrealism) to the contrary the sequence of key evolutionary behaviours in the context of natural history has changed very little.

(2) The second aim is to explore the key visual movement towards scientific reconstruction (namely stand-alone wax work models), referred to here as hyperrealism, a phenomenon which gained huge popularity during the 1990's with the arrival of television programmes such as 'Meet the Ancestors' (Richards 1999). Hyperrealism has been presented as the solution in the revised portrayal of Neanderthals but is this move sufficient to re-write the Neanderthal story from primitive savages to essentially humans (Peeters and Zwart 2020)?

This thesis argues that superficially hyperrealism has challenged the primitive iconographies of the late nineteenth and early twentieth centuries, based on physical characteristics.

However, it tells us very little about how our ancient ancestors lived, engaged and experienced their world. What is needed in the context of the museum is an archaeological approach founded on emotionality and relationships, (an affective turn) viewed through an affective and theatrical lens, rather than a scientific and objective lens (Varutti 2022: 61-75).

This research suggests, following Gamble (2011) that the stark division between ‘them’ and ‘us’ is still operational today. The difference, however, no longer lies in their physical or emotional appearance, rather, the distinction is more subtle, perhaps even subconscious in the museum, since the difference (inferiority) lies in their mental and symbolic capabilities.

Although the Neanderthals have been brought closer to us, they remain our lesser evolutionary cousins and *H. sapiens* remain the pinnacle of evolution, reinforcing the foundational concept of human exceptionalism in evolutionary studies.

(3) The third aim is to develop a critical practice relevant to museums, drawing from new and innovative exhibition strategies that challenge ancestor stereotyping and the progressive tendencies of slow modernity in the context of the museum (Bennett 2010). This research aims to encourage new ‘readings’ of Neanderthal collections, gender and identity by researchers, curators and visitors. To pose new questions and explore the complex life histories of the individuals we seek to understand and produce a nuanced tapestry, rather than singular narrative of Neanderthal life (Wolpoff 2004). This will be achieved by assessing new and innovative display and exhibition design strategies that offer a unique opportunity to reframe how we think about identity, matter, substance and materials (Gell 1992; Barad 2003, 2012; Fowler 2004; Ingold 2007; Harris and Sorensen 2010; DeLanda 2016). I will draw upon relational ontologies to critically deconstruct the theoretical frameworks of slow and

behavioural modernity towards an affective turn in museum studies and archaeological theory.

### 1.8. Scope and Remit.

The search for our ancestors (and consequently ourselves) is at the forefront of scientific investigation and public imagination, disseminated to a hungry audience through a variety of different technologies of representation including scientific literature, popular publications, the media, the internet and finally; the focus of this study - the museum (Champion 1997: 213; Molyneaux 1997: 1-9; Moser 1998; James 2005: 1189-1202; Bayless 2022).

Several visual threads including popular media such as films including the 1966 epic ‘One Million Years BC’ which pitted humans against dinosaurs in a battle for survival, and in 2008, ‘10, 000BC’, saw humans taming mammoths to build pyramids. Jean. M. Auel’s (author of the 1980’s ‘Earth’s Children’ Series), ‘Clan of the Cave Bear’ in 1986, provides viewers with a more realistic version of Neanderthal life and the comic tradition (E.T. Reed’s ‘Prehistoric Peeps’ and the iconic ‘Flintstones’) have all significantly contributed to the sticky and dangerous caveman stereotype and maintained a primitive schema, (visual kitbag) for representing primitiveness in a myriad of ways (Depaolo 2000: 418-438). However, this thesis will focus primarily on the representation of Neanderthals in the context of the museum. This is not to deny the significant role played by other means of visual communication, (particularly popular culture) in the creation of a visual and artefactual iconic vocabulary, for depicting human origins. All are equally worthy of investigation but, the rationale here is to provide an enclosed and comparable context, to reveal the intrinsic and detailed changes between the representation of Neanderthals in the late nineteenth century, and the modern portrayal of a twenty-first century Neanderthal (Wragg Sykes 2020).

Previous studies have focussed on pictorial and illustrative drawings of hominins throughout



antiquity (Moser and Gamble 1997; Moser 1993, 1998) or modern illustrations of hominin ancestors (Moser 1997, 1998; Hurcombe 1995; Zilhman 1997) and finally the museum diorama (Gifford-Gonzalez 1993; Moser 1999, 2005). In this analysis I attempt to combine these approaches by examining modern museum displays including the use of iconic vocabularies, hyperrealism and exhibitory practices (artefactual grammar).

An analysis of the museum gallery provides me with the opportunity to critically assess different modalities of representation – visual (images and hyperrealism) and exhibition practices (the ordering of things within the gallery space, archaeological props and display furniture) utilised in the representation of our early ancestors. These include three-dimensional anatomical reproductions of the original skeletal material, (on very rare occasions the original fossils are on display); two-dimensional pictorial illustrations of Palaeolithic life ways; life-size habitat dioramas; the miniature diorama; digital media; interactive displays and audio-videos of experimental archaeology. Although these elements will be briefly discussed, the focus of this study assesses the new visual modality of hyperrealism and whether these modern looking Neanderthals reflect the avalanche of new archaeological discoveries and scientific data currently available to archaeologists and the museum. They remain the most striking, commanding, memorable and costly form of display, often forming the centrepiece of the exhibition (Moser 2003, 2006). For these reasons their effectiveness in challenging the preconceived modern human/Neanderthal boundary and highly standardised ways of representing the past will be analysed in detail throughout this research (Moser 1999).

A museological approach allows me to consider not only the power of perceptual reinforcement but also the effect of display practices utilised by museums to convey a sense

of ‘organised evolutionary walking’, through the chronological and progressive ordering of ‘things’, in an enclosed and comparable context (Bennett 1995, 2004). The emphasis throughout this thesis is Great Britain nevertheless, time and again museums on the European continent will be of relevance. Exemplary practices and approaches that challenge the traditional portrayals of Neanderthals are examined to illuminate alternative strategies that question the imbalanced focus on modern humans, their activities and characteristics, to critically consider instead what else our ancient *kindred* might have been doing and suggests new ways forward to incorporate these ‘doings’ into a meaningful and challenging vocabulary for human evolution (Wragg Sykes 2020).

A major movement in museum studies has focussed on the active participation and engagement of visitors in the process of knowledge-making in the context of the museum (Mason 2006: 27). Although this thesis acknowledges the visitor as a crucial and active participant in the process of knowledge making, I focus instead on the role of visual mechanisms and ordering practices in the construction of archaeological knowledge and cohesive narratives. Furthermore, this study does not comprise a comprehensive catalogue of reconstructions, or museums which house Palaeolithic collections. Instead, this thesis assesses carefully selected examples that both epitomise and challenge the traditional and primitive iconography.

### 1.9. Structure of the Thesis.

The first part of this thesis critically explores how images have been utilised in the construction and reinforcement of the Neanderthals as ‘other’, representing a mere caricature, or a minor appendix in the evolutionary history of ‘us’ - modern humans (For a historical overview see Hammond 1982; Spencer 1984; Moser 1992; Trinkaus and Shipman 1993;

Drell 2000; Zilhão 2001; Sommer 2006; Madison 2021). When addressing contemporary museum displays and the use of hyperrealism, I argue greater critical appraisal is still needed in the anthropocentric and androcentric construction of our ancient ancestors (Williams 2009: 170). The importance of this topic lies in its legacy for understanding contemporary humanity and the evolution of ‘the other’ and ‘ourselves’, which has major social and political consequences in contemporary society (Moser 2003).

The literature review chapter provides an analysis of the primitive iconographies, seminal motifs and restrictive scenarios used to depict Palaeolithic archaeology and human evolution. A series of visual traditions and images dating between the nineteenth and twentieth centuries are analysed in terms of their symbolic content and the meanings they convey (Moser 1998). Many reconstructions can be immediately judged as inaccurate and misleading, but they provide an invaluable window into what *was* thought in the past and allows me to critically consider how earlier paradigms framed that knowledge. They remain a key medium and methodological tool in the critical analysis of archaeological knowledge production (Moser and Smiles 2005: 1-9).

Re-branding the Neanderthals provides a summary of the latest archaeological and scientific data that has arguably facilitated a Neanderthal turn in archaeology. This chapter highlights how technological innovations in aDNA (paleogenetics), and high-definition archaeology at the trowels edge is providing new and exciting narratives about the past, but questions whether these new relationships and findings are reflected in the context of the museum and hyperrealism (Crellin and Harris 2020, 2021; Wragg Sykes 2020). This chapter essentially builds an argument for the humanity of Neanderthals based on the critical evaluation of the current available archaeological literature for and against. This analysis highlights the

changing portrayal of Neanderthal life histories and their role and contribution to modern populations. It paints the picture of a twenty-first century Neanderthal who were social beings with social worlds and complex relationships.

The methodology chapter develops a bespoke research design to assess the representation of Neanderthals in the museum, in particular the effect of the new trend for hyperrealistic models. The museological analysis provided supports the primary aims and objectives of this thesis to critically de-construct the epistemological function of the museum exhibition through a critical analysis of the different display types and exhibition practices utilised in the context of human evolution and Neanderthals (Giles 2006: 279-316). My thesis addresses whether the museum exhibition and the visual modality of hyperrealism is an accurate reflection of the current scientific and archaeological material available to archaeologists. The aim of this analysis is to challenge the idea that (new) technologies of representation are enough to re-write the Neanderthal story. This thesis argues the museum has become so seduced by the compelling life-like reconstructions of ‘modern looking’ Neanderthals that it has failed to scrutinise the fundamental tenants and assumptions which maintain their firm grasp on the understanding of our ancestors. The story of evolution remains focussed on the gradual accumulation of behaviourally modern traits en route to the pinnacle of civilisation – modern humans (Moser 1992, 1993, 1998, 2003).

In chapters five and six, I combine observational methods of museum exhibition design analysis and primary oral interview data to assess the changing portrayal of Neanderthals in the context of natural history (NHM, London and NMW, Cardiff) and human history (St. Fagan’s). Included in this analysis are a variety of different visual technologies and exhibition practices to assess the presence of the visual and artefactual ‘kitbag’ used to portray ‘the

other', Neanderthals, nature, women and animals (Moser 1998). These case studies explore whether major paradigm shifts in archaeological theory since the 1990's (including feminist critique of science, new materialism and posthumanism) have been implemented in strategic or subconscious ways within contemporary exhibits, or if the visual language for depicting 'the other' and human evolution remains unchallenged. Throughout this analysis I will demonstrate the persuasive power of an iconic visual language and its resilience to transformation (Moser and Smiles 2005: 2).

Chapter seven outlines the disciplinary trends and assumptions identified within this museological analysis. It critically considers whether the rise of hyperrealism as a new technology of representation successfully challenges or perpetuates the traditional primitive and gender-coded iconographies of human origins (Moser and Gamble 1997; Gifford-Gonzalez 1993). This chapter will demonstrate that the representation of gender and secondary sexual difference has been successfully challenged in the context of the temporary exhibit and hyperrealism, but it remains a persistent and dangerous problem within the context of the permanent gallery (Wiber 1994, 1997; Fedigan 1986, 1997; Moser 1993; Conkey 1997; Gilchrist 1999; Zihlmann 1998, 2012).

Chapter eight looks beyond the materials gathered in the case studies and the conclusions drawn from them, to focus on practices and projects which explore the investigation and representation of multiple and dynamic life histories in the context of the museum, which implicitly or explicitly challenge the traditional narrative of Neanderthals and human evolution. This chapter provides a comparative analysis between the permanent exhibition titled 'The Stairway of Evolution' and the temporary special exhibition titled 'Neanderthals' at Moesgaard museum, Denmark. It is interesting to note that the examples provided are

European museums (for example, France, Spain and Denmark) which do not place the story of Neanderthals alongside natural history, but instead presents them as a part of the history of man (Musée de l'Homme), the evolutionary process (Museum of Human Evolution) or archaeology and ethnography (Moesgaard Museum).

The archaeology of Neanderthals provides an opportune moment to confront the dualistic nature of the bounded and gendered categories of knowledge production and critically consider a paradigm shift, centred on relational approaches (Crossland 2020: 75-100).

Following Thomas Kuhn and Zoe Crossland, it is suggested that the current research framework of Cartesian philosophy and modernity, can no longer encompass the new archaeological discoveries and theories to account for them (Crellin and Harris 2020). A relational ontology to the past which emphasises it's multiple and dynamic, rather than singular and essential nature is emphasised (Witmore 2008). Therefore, 'Strategies for Change' delivers a relational and conceptual framework, that of affective biographies, which attempts to present a new way forward drawing upon feminist critiques, new materialism and posthumanism and resulting in a conceptual shift towards understanding the reality of who the Neanderthals were, on their own terms. Affective biographies provide a window onto these discussions and a means of challenging the traditional iconography of human origins (Ingold 2007; Barad 2003).

#### 1.10. Conclusion.

Palaeoanthropology and palaeogenetics are revealing the messy and complex extent to which the lives of Neanderthals are entangled and inter-connected with our own. This thesis will explore the multiple and diverse possibilities in the process of 'becoming Neanderthal' in contrast to the traditional approach of understanding human exceptionalism and the

‘becoming of humanity’, more specifically the becoming of the modern western mind (Scott 2003). Technological advances and the high-definition retrieval of information at the trowels edge, have significantly impacted our portrayal of Neanderthals. Details our archaeological ancestors could have only dreamed about, are becoming a reality. These details are continuously improving the type and quality of the stories we can tell about them. From the available evidence, we are re-writing their story from dim-witted, ape-like creatures to essentially humans. For the first time, we can truly glimpse over the shoulder of our ‘*kindred*’, and imagine their world, life and being through a relational and affective lens (Wragg Sykes 2020). The evidence has undergone a complete revolution but has the portrayal of Neanderthals and the theoretical frameworks we use to conjure their vanished worlds and life histories undergone a similar transformation.

This thesis concludes that the archaeological and museological community have successfully challenged primitive iconographies based on physical characteristics. The museum no longer depicts Neanderthals as slumped dumb brutes - they are human. Most importantly, their gaze has changed, we are no longer looking down onto an extinct lesser cousin or great ape. Conversely, they are looking at us forcing us to meet and view them on their own terms (Wragg Sykes 2020, 2021). However, Neanderthals remain encased within a visual glass ceiling that centres on restrictive evolutionary scenarios and Lamarckian progression, founded in nineteenth century beliefs and the theoretical framework of modernity and Victorian ideals of human exceptionalism (Zihlman 1997: 91-113). I suggest the key problem is something which unsettles museum curators and archaeologists alike because it is simply the way it has always been - the context of natural history. Within this context Neanderthals are surrounded by dinosaurs and beasts, remnants of a world long vanished. This approach conceptually and theoretically places Neanderthals as a mere missing link in the story of

evolution. 'It instantly puts them at a removed status, separating 'them' from 'us'. It removes the familiarity' (pers. comm. Wragg Sykes 2021: Appendix B). I argue in the context of natural history Neanderthals are instantaneously conceptualised as 'the other', surrounded by geological processes, dinosaurs, fossils, animals, plants, extinct fauna and flora, encapsulated within a cathedral to nature and a mausoleum of extinction.





## Chapter Two. An Artistic Journey.

### 2.1. Introduction.

This chapter provides an historical overview of the traditional display canon used in the imagining of human antiquity that builds on the work of Moser and Gamble 1997, Moser 1998 and Zilhman in 1997. This analysis will identify disciplinary trends and assumptions which have influenced and restrained the representation of Palaeolithic archaeologies and Neanderthals to the primitive ‘other’. This analysis will foreground the seminal motifs of ‘the other’ (Neanderthals, women and animals) and the many artefactual associations and ordering practices that have been used to visually conjure vanished worlds (Palaeolithic) and vanished humans (Neanderthals). It will outline their contribution, or lack of to human evolution within its socio-historical and political context (For a systematic overview see Moser and Gamble 1997; Moser 1998, 2003; Bennett 2004; Schwartz 2006; Madison 2016, 2020, 2021; Pettitt and White 2011; Sommer 2006, 2022).

First, it will identify the seminal motifs of prehistory and then outline the theoretical frameworks that have fuelled the continued use of an iconic vocabulary for depicting primitiveness including classical, romantic and archaeological influences which served to lay its foundation (Moser and Gamble 1997; Moser 1998). This analysis will critically consider the use of visual iconographies and how these different theoretical strands shaped notions of the primitive savage and life before civilisation (Moser 1992: 831-44, 1998:3). Following Moser, this thesis suggests that ‘caveman and brutish’ labels so dangerously attached to Neanderthals in the nineteenth century continue to perpetuate the fallacy that Neanderthals are inferior to their contemporary AMH counterparts. This is because a vision of human ancestry was created long before the scientific discovery of the hominisation process took place (Stoczkowski 1997: 253). It appears in many cases that the museum continues to

operate within a classical framework of conventions, rather than using new discoveries and data to challenge the display canon (Moser 1998: 2). The final section of this chapter critically examines the different types of visual modalities utilised in the context of the museum and considers how these technologies of representation have changed over time. This will provide a brief lineage of habitat dioramas and the rise of hyperrealism to highlight aspects of the visual iconography that have remained the same and which have been successfully challenged by the museum and/or scientific data (Papagianni and Morse 2013). This will include an analysis of the canonical icons of evolution, that of ‘the ladder and cones of diversity’ and the ordering and performative practices of the museum (Gould 1987, 1997a, 1997b; Bennett 2004). When addressing museums, I will focus on a new type of reconstruction, that of depicting the living dead as life size models in painstaking detail, infused with emotion referred to here as hyperrealism (Williams 2009: 192).

## 2.2. Defining the Palaeolithic: Ice and Mammoths.

John Lubbock the founding father of prehistoric archaeology defined the Palaeolithic based on the artefactual association of extinct beasts. In his landmark book *Pre-Historic Times* (1865), he coined the terms Palaeolithic and Neolithic, or old and new stone age, respectively to describe major periods of prehistory (Pettit and White 2013). He defines the Palaeolithic as follows:

*‘From the careful study of the remains which have come down to us, it appears that pre-historic archaeology can be divided into four great epochs.....Firstly, that of the drift; when man shared the possession of Europe with the Mammoth, the cave bear, the woolly-haired rhinoceros, and other extinct animals. This we may call the Palaeolithic period’.* (Lubbock quoted in Pettitt and White 2013).

Lubbock is not only responsible for ‘defining’ the Palaeolithic, but he is also a significant player in terms of the classificatory systems that we as archaeologists and the museum still use today. Most notably, the ‘Three Age System’ that contributed to the emergence of the Middle and Upper Palaeolithic (Pettit and White 2011: 36). Both Lubbock and Pitt-Rivers believed artefacts should be arranged in such a manner as to illustrate the natural laws of progress. Collections were to be organised with objects proceeding from rudimentary to complex forms, coarse to sophisticated manufacture. Neither Lubbock nor Pitt-Rivers utilised reconstructions, but their scientific illustrations of stone, bronze and iron spoke for themselves when arranged into chapters or display cases, and the museum was their medium (Gamble in Moser 1998: xvi).

We can see from the above definition that the artefactual association of ancient man and extinct fauna (prehistoric beasts) constituted a major (if not defining) feature of the Palaeolithic. This association came with a mental schema and presumption of what life was like and how our ancient ancestors might have lived. This thesis demonstrates that the continued association of Neanderthals and extinct beasts simply serves to restrict our interpretative horizon in relation to the types of activities and inter-relationships that are deemed significant in the process of evolution or appropriate for public consumption (Pettitt and White 2013). From this perspective Neanderthals are seen as ice age mammals, their physiological and anatomical structure is defined by and restricted to their harsh and cold environment, adaptive only as arctic creatures. Using an arctic lens, a vanished frozen Neander world is produced where Neanderthals are placed against a backdrop of ice and extinct fauna such as the woolly mammoth and cave bear (Wragg Sykes 2021). The association of ice and extinct fauna became synonymous to the Middle Palaeolithic, creating a visual schema and the production of cultural memes in the reconstruction of Neanderthals

and their world. This strange mix of extinct creatures, stone tools and fossils are so difficult to disentangle visually and theoretically because it is the direct association of these artefacts and entities which provided the standard of proof for evolutionary theories and cemented the acceptance of the deep antiquity of man (Pettitt and White 2011). Consequently, this association is foundational to our understanding of Neanderthals, their bodies, life and world, which adversely perpetuates the caveman stereotype and the representation of them as monolithic entities across time and space (DigVentures 2021; Wragg Sykes 2020).

### 2.3. Imagining Prehistory. Viral Memes and Visual Schema.

*‘Viewing Prehistory is only possible because we have been taught how to look and learn’*  
(Gamble in Moser 1998).

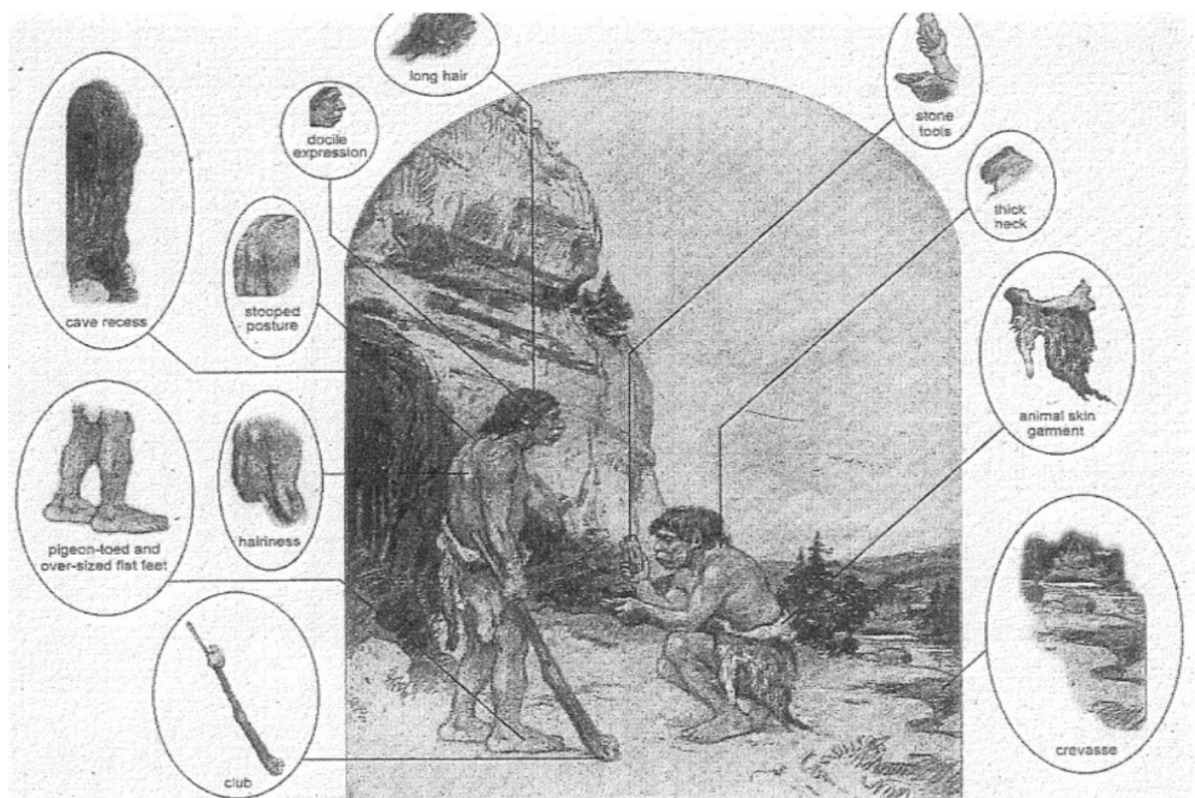


Figure 4: Neanderthal man at the station of Le Moustier, overlooking the valley of Vézère, Dordogne, France, after Charles, R. Knight created for Henry Fairfield Osbourne *‘Men of the Old Stone Age: Their Environment, Life and Art’* 1915. The traditional attributes used for depicting human antiquity and primitiveness are featured here in this image such as stooped posture, hairiness, animal skins, stone tools and the iconic club. Neanderthals are consistently situated within a cave setting with docile expressions (Moser and Gamble 1997: 187).

Moser and Gamble in *Revolutionary Images* (1997) identify the traditional iconography and visual language of human origins. This visual kitbag includes the visualisation of primitive features; physically (simian and racialised characteristics), and environmentally which is often phenomenologically evoked as a wild and dangerous place (Moser 1992). This is achieved through the artefactual association of crevasses, caves and extinct beasts, against a backdrop of ice (Moser and Gamble 1997: 186-9; Wragg Sykes 2021). Moser suggests this visual language is perpetuated further through the medium of museum displays. These displays have created and sustained a highly formulaic and restrictive set of scenarios that are repeated to produce a familiar story about human antiquity (Moser 2003: 14). This canon of depictions integrates several core features.

First is the use of restrictive scenarios that traditionally encompasses ‘fire-making, toolmaking, hunting and gathering, butchery, burial and art to demonstrate key developments in the story of evolution’ (Moser 2003: 9). Second, is the heavy dependence on a traditional iconic vocabulary which utilises a set of pictural motifs as a means of conveying a primitive versus civilised status. Third, is the grand meta-narrative of unilinear progression through time and space that is perpetuated in the context of the museum through ordering practices and the performative action of ‘organised evolutionary walking’ (Bennett 1995). Finally, artistic reconstructions in the context of the museum present assemblages of data, theory and visual spectacle as apparent known truths, whose conservatism reinforces the notion that concepts of human evolution can be divorced from contemporary cultural and gender politics (Moser 2003: 9). In the next section of this chapter, I will examine the origins of this iconic vocabulary and critically consider how it became extremely influential across artistic, archaeological and scientific disciplines.

### 2.3. Visual Trends in the Representation of Human Antiquity.

Moser and Gamble suggest that by the end of the nineteenth century three types of visualisations existed in the representation of the prehistoric past: romantic, archaeological and the comic traditions (Moser and Gamble 1997). All traditions offer different perspectives onto the past and can be associated with different scholarly traditions and trends of visualisation. Despite these differences, all three make use of the same basic repertoire of icons and scenarios which have been developed and redefined since classical times to create a distinctive visual language (Moser 1998). This iconography finds its ontological roots with the vast empires of Greece and Rome, and their concern with archaic life. Although no illustrations of evolutionary schemas survive from classical times, the Greco-Roman world created a mental image of life before, and outside of civilisation, in particular their conceptualisation of the barbarian Gauls (Moser 1998: 3; Champion 1997: 214-6). Both Greek mythology and Roman society ensured that particular people were envisioned according to distinct visual attributes (Moser 1998: 3).

The classical depictions of ‘barbarians’, gave the first glimpse of ‘the other’ in European civilisation. This visual strategy remains an influential and arresting category in the portrayal of Neanderthals and the hominisation process (Gamble in Moser 1998: X). Archaeology as a discipline met a pressing and contemporary need to depict civilisation in opposition to a savage past, which is often equated to the ‘primitive other’ (Fabian 1993). This made it possible to judge species, individuals, populations and nations by their position on a seemingly naturalised ladder of progressive civilisation in which the modern Western world continues to reign supreme (Gamble in Moser 1998: XI). The use of primitive iconographies had a profound impact on the portrayal of Neanderthals (Madison 2020, 2021). Crucially, for the purposes of this study Neanderthals were consequently restricted culturally by notions of

behavioural modernity and the supposed cognitive revolution of the Upper Palaeolithic in Europe (Renfrew 1996; Davidson 1996; Bar-Yosef 1998, 2002; Hill et al 2009; DErrico and Henshilwood 2011; DErrico and Stringer 2011; Finlayson 2019).

### 2.3.1. Setting the Scene. ‘The Romantic Tradition’.

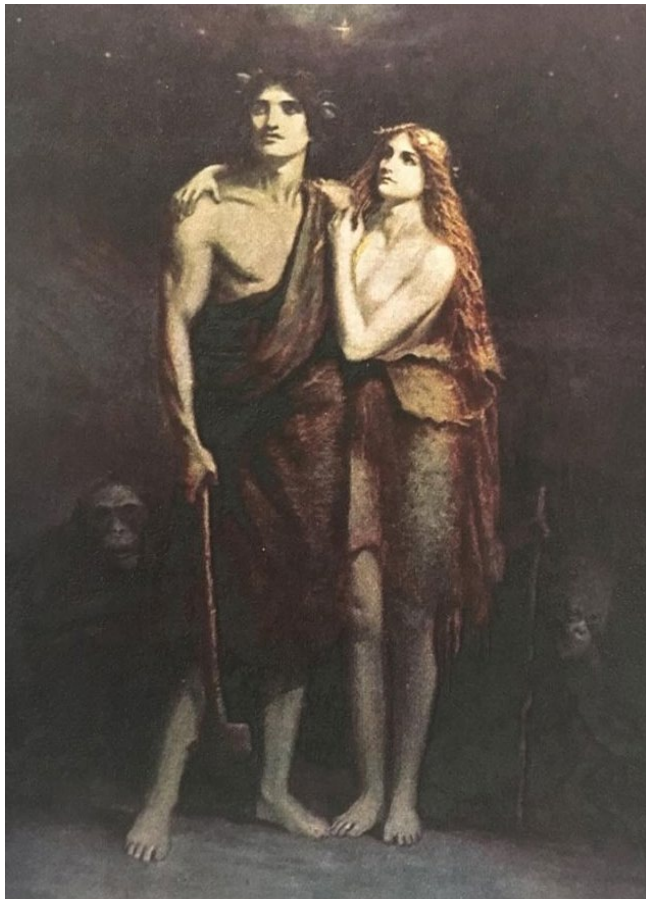


Figure 5: Knipe's frontispiece to his classic text 'Nebula to Man' illustrated by Lancelot Speed in 1905. The image depicts the archetypal couple (European AMHs) wearing animal skins and the male holds a hafted stone axe. Upon closer inspection you can see our primate ancestors crouching in the background, peering around the modern humans. This image effortlessly combines elements of the romantic tradition (modern humans and divine creation), and the archaeological tradition that presented our ancestors as ape-like creatures (process of evolution). In this context the Neanderthals offered scientific evidence for 'the missing link' (Moser and Gamble 1998: 200; Cambridge University Library, nd).

The idea that humans lived in truly ancient times was first communicated in geological and palaeontological reconstructions of earth's history (Moser and Gamble 1997: 191). Many of these scenes attempted to reconcile the recent discovery of stone tools together with human remains and extinct beasts. These images were produced at a time when the concept of human evolution had not yet been universally accepted by the scientific community (Moser 2003: 4-5). During this intermediate period, before the scientific dismantling of religious dogma, a romantic vision of the past flourished. The visual imagery at this time was not based on scientific theories or archaeological evidence rather they were rooted in religious



ideologies. The romantic tradition is primarily characterised by the sudden appearance of man in the final and most recent phase of earth's geological history. This tradition consisted of presenting our ancient ancestors in an idyllic landscape, where fully modern humans act as the first beings to appear on earth. Therefore, our ancient ancestors were pictured as idyllic pastoralists, gentle and naïve primitives in a world of god's creation before the deluge (Moser and Gamble 1997: 191). These types of reconstructions were used to endorse geological and palaeontological theories of earth's creation, rather than archaeological theories pertaining to human evolution or the study of Neanderthals. They represent a didactic mechanism used to convey large and unimaginable timescales which conjure vanished and unknowable worlds. Here, ancient humans are conceptualised within a biblical framework that reflected antiquarian traditions of representation, by emphasising 'primitiveness before civilisation' through the absence of culture (Moser and Gamble 1997: 185).



Figure 6: The image imagines the Pleistocene ice age both environmentally and zooarchaeologically, created by Riou in 1863. The image set the conceptual standard for the types of animals that the viewer can expect to find within the Palaeolithic visual frame (Source Linda Hall Library. Accessed 2023).

Louis Figuier is an immensely important figure in the imagining of prehistory. His first book *La Terre Avant le Deluge* (The World Before the Deluge) was devoted to prehistoric life using recent geological and palaeontological discoveries. The landscape artist Edouard Riou famously designed these new vanished worlds, people, animals and environments by incorporating the available geological and archaeological data. For the purposes of this study, Riou's most interesting set of illustrations for the book is the 'Appearance of Man', which initially was little more than a disguised Adam and Eve scene, but the revised image with the same title and by the same artist, appearing in a later edition had changed dramatically. Rudwick (1992: 208) reminds us that by the time Figuier's book was published more secure data had been found convincing the scientific community of the deep antiquity of man as well as the earth. Subsequently, Figuier radically revised his image. In the later edition, fossil species of extinct animals are incorporated but it remains religious in the way it depicts humans. They suddenly appear at the final stage of earth's development in accordance with the biblical account of Genesis (Moser 1998: 107-8). These images were the first to integrate the new theory of human antiquity based on archaeological findings, marking a significant change to the visual language of prehistory which now included wild and extinct beasts.

A crucial change occurs in the association of prehistoric beasts and ancient man and by 1866, 'Adam and Eve had been replaced by a group of 'prehistoric-weapon-wielding cave dwellers' (Linda Hall Library, nd). Humans maintained their anatomically modern status, their pale skins and European heritage, but the crevasse is a new feature within the landscape that serves as a symbolic gulf to separate humans from animals, and wilder vegetation. We are no longer pastoralists, the bones on the ground in the foreground of the image define our ancestors as primitive hunters. These images illustrate a significant conceptual shift away from 'Adam and Eve' as the original ancestors, instead we see the depiction of social groups

as a means of surviving such harsh and miserable environments. The harsh reality of Palaeolithic life suggested that a group of humans without any technology, clothing or shelter could not survive in such unforgiving conditions. Therefore, newly discovered ancient humans would need to be equipped for this dangerous world and we see the inclusion of hafted axes (although Mesolithic or Neolithic) in the reconstruction of human antiquity (Moser 1998). Interestingly, the depiction of women and the sexual division of labour tasks and roles remains the same across both images: domesticated, marginalised and on the periphery of scientific investigation and representation encumbered with children and positioned in the background of the image. It is noticeable that these reconstructions also privilege a specific way of being human. They restrict technological and cultural developments to the realm of man. Females are depicted as caring for children, scraping hides or ‘at her master’s feet’ (Gamble in Moser 1998). The female role in human evolution within the romantic tradition is rendered peripheral, even invisible, crouched in the darkness of the cave dwelling or placed in the background of the image (Gero 1985, 1991; Gifford-Gonzalez 1993; Butler 1993; Moser 1993, 1997; Scott 1994; Wiber 1994, 1997; Conkey and Spector 1997; Gilchrist 1999; Zihlmann 1998, 2012).





Figure 7: 'Appearance of Man'. The image was illustrated by landscape artist Edouard Riou, for Louis Figuier's *La terre avant le deluge*, in 1863. Ancient humans are presented here as anatomically modern, white and European, living alongside nature as idyllic pastoralists. The presence of sheep, cows and other domesticated animals is indicative of their 'civilised' status. However, the image implies a symbolic gulf between domesticated animals in the foreground and the wild animals across the water. The illustration conveys a sense of primitiveness using the seminal motifs of 'cave-dwellers' and nakedness (Moser 1998; Source taken from <https://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/exploring-deep-history/figuier>. Accessed 2023).



Figure 8: Figuier's revised image of the arrival of humans appeared in a later edition of *La avant le Deluge* (1867). The image retained the same title 'The Appearance of Man' and the same illustrator, but set the conceptual agenda for imagining Palaeolithic archaeologies (Source taken from <https://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/exploring-deep-history/figuier>. Accessed 2023).

An analysis of the above two images and the subsequent revisions demonstrates a significant dichotomy – between a world that progressively evolves through complex stages and the

present world as a stage of '*culmination*', where humans as we know them appeared in an Edenic scene (Pettitt and White 2011: 27). In these images, Figuier supported the theory of divine creation, while embracing a suite of primitive characteristics that have been established and re-defined since classical times to communicate a sense of 'otherness'. (Moser and Gamble 1997; Moser 1998: 120). The revised image incorporated many new icons of antiquity, including the cave recess, animal skin garments, the crevasse separating humans from wild animals and vegetation. Here, human confrontation with wild and extinct beasts is introduced for the first time, representing a major new theme for presenting prehistoric life. This antagonistic/prey relationship remains a defining feature of Palaeolithic archaeologies today. The significant difference between these images is the types of animals and relationships that have been reconstructed within the visual frame. Gone, are the domesticated animals of cows, sheep and horses and instead enter woolly mammoths, rhinoceros, sabre-toothed cats, cave bears and hyenas. This new animal-human relationship is conceptualised as antagonistic or simply as prey and this inter-relationship between animals and humans remains unconsidered and underdeveloped within the visual frame.

The new iconography of human origins reconceptualised our ancient ancestors from idyllic pastoralists to primitive warriors (Moser and Gamble 1997: 191). For the first time, '*it was their fur clothes, habitat dwellings and lack of sophisticated weapons that indicated their primitive status*' (Moser 1998: 126). Therefore, the romantic tradition differs from the archaeological and comic traditions in the representation of primitiveness that is characterised by a lack of material culture rather than any physical characteristics. This thesis demonstrates that despite major archaeological discoveries and new scientific techniques to the contrary, recent innovations have done little to challenge this mechanism of difference and inferiority. This thesis argues the use of hyperrealism in the museum marks a return to the romantic

tradition, not in the sense that Neanderthals are presented as ancestors of divine creation, but the mechanism of difference is no longer founded on their physical attributes but instead it is the lack of sophisticated culture which indicates their inferior status.

### 2.3.3. Louis Figuier and the Sequential Back-telling of the Palaeolithic.

A romantic vision of the prehistoric past or ‘the popular history of life’ was fully established in a series of thirty scenes produced by Figuier in his second book titled *L’homme Primitif*, 1870 (Somerset 2018). His second book was the first of its kind, never had there been an attempt to visually represent the different stages of human culture in sequential order. Figuier’s narrative was structured around geological principles, each section of the book corresponds to a major epoch and each chapter to an age within those epochs. The objective was to provide the reader with a factual description of the successive stages of the emergence of life (Somerset 2018). In this process Figuier, unwittingly set the hallmarks of humanity in his conceptualisation of Palaeolithic environments, life and behaviours created by illustrator Emile Bayard. As a result, these illustrations define the parameters of what life was like in the Palaeolithic and they continue to influence the scenes and scenarios in which we place our stone age ancestors. This sequence of images can be interpreted as the conceptual foundation of a unilinear and directional history of human origins. Key evolutionary behaviours are presented in chronological and progressive order as scenes frozen in time, illustrating how humanity incrementally gained the behavioural and cognitive characteristics that ensured our survival and success. These scenarios encompass producing fire, hunting, making stone tools, burying the dead and finally language and art as demonstrated below (Moser 2003).





Figure 9: 'The Conquest of Fire' was created by Emile Bayard 1870. The image utilises many of the seminal motifs for reconstructing early human life (Source LindaHallLibrary, nd. Accessed 2023).

The first scene of interest (the conquest of fire) is set within a cave and depicts males making fire, while a child helps tend to it. Unfortunately, this task is associated exclusively with males and theoretically to AMHs. The mastery of fire is conceptualised within evolutionary studies as a major technological and social development. The exclusive association of the making of fire to males renders the female role in human evolution as inferior or of little note. (Scott 2004). Modern European males are presented in this scenario as the main protagonists which serves to restrict what is knowable about human origins and gender relations (Moser 1998: 126). The next two images centre on survival, diet and subsistence strategies, but these images have had the adverse consequence of setting the conceptual tone of what life was like in the Palaeolithic. An interesting comparison can be drawn between the images, 'Fending off an Attack of the Great Bear' and the 'Hunting of Reindeer' (below). The great bear and mammoth epoch became synonymous with Neanderthals and their perpetual struggle for survival, while the reindeer epoch has been exclusively associated to the Upper Palaeolithic and the emergence of AMHs. Here, we see the introduction of projectile technologies and the hunting of fast-moving prey presenting modern humans as masters of their environment which is a key (defining) characteristic of behavioural modernity.



Figure 10: Left. Fending off an attack of the Great Cave Bear, detail of wood engraving after Emile Bayard, in *L'Homme Primitif*, by Louis Figuier, 1870. Cave Bears became a seminal motif for depicting the Palaeolithic, used as a mechanism to conjure deep time and vanished worlds. The presence of extinct beasts reflected the available archaeological evidence of the time, but it also evokes a harsh and brutal existence that centred on functionality and survival (Source Linda Hall Library. Accessed 2023). Figure 11: Right. 'Hunting in the Epoch of the Reindeer', after Emile Bayard in *L'Homme Primitif*, by Louis Figuier, 1870. The use of projectile technology is considered as an evolutionary advantage both technologically and culturally that is exclusively associated with the arrival of AMHs (Renfrew 1996; Wiber 1997) (Source LindaHallLibrary, nd. Accessed 2023).



Figure 12: 'Funeral Feast during the Great Bear and Mammoth Epoch', after Emile Bayard in *L'Homme Primitif*, by Louis Figuier, 1870. The image depicts a funeral and a feast in early human antiquity (Source LindaHallLibrary, nd. Accessed 2023).



The next image of interest depicts a funeral and a feast in early human antiquity. Burying the dead has been a unique and treasured hallmark of humanity and for many years until the discovery of the Old Man of La Chapelle-aux-Saints and the Shanidar Neanderthals, burial has been portrayed as a symbolic practice exclusively restricted to the realm of man (Rendu et al 2014, 2015; Dibble et al 2015; Pomeroy et al 2017, 2020). Although, Neanderthal burials are still commonly debated today, it appears multi-disciplinary evidence is mounting in their favour and this is reflected in the context of the museum that includes reconstructions of possible Neanderthal burials (Gargett 1989, 1999; Pettit 2002; Sandgathe et al 2011; Balzeau et al 2020). Furthermore, a gendered iconography for depicting human origins is present within this image. It is a male being buried (in the entrance of the cave) and ten individuals are sitting around a hearth, engaging in a funerary feast. Statistically, females are under-represented, but more importantly the males are depicted ‘controlling’ the fire and dealing with the dead. The only two females (identified from their hair length) are depicted as passive agents, setting the conceptual standard for the representation of women in prehistory.



Right 13: ‘The Beginning of Arts of Drawing and Sculpture During the Reindeer Epoch’, after Emile Bayard in *L’Homme Primitif*, by Louis Figuier, 1870. Cave art had not yet been discovered, but there were known examples of engraved and sculpted bone. Figuier thus presented ‘a stone-age atelier in a cave’. Males are once again the dominant agents, illustrating how the sexual division of labour and male centrality became a key characteristic when imagining human antiquity. Crucially, for the purposes of this research art and language is exclusively associated with modern humans (Moser 1998: 128; Source LindaHallLibrary, nd. Accessed 2023).

Finally, the image titled ‘The Beginning of Arts of Drawing and Sculpture during the Reindeer Epoch’ set the ontological standard of what makes us human: creativity, innovativeness and symbolic behaviours. Cave art had not yet been discovered, but there were known examples of engraved and sculpted bone. Thus, Figuiet presented ‘a stone-age atelier in a cave’, where males are once again the dominant agents, illustrating how the sexual division of labour and male centrality became a key characteristic when imagining human antiquity (Moser 1998: 128). ‘*One needs no training in visual analysis to notice that in early reconstructions, the artist is always a modern European white male*’ (Conkey 1997: 176). The situation is changing but remains to be wholly challenged. Recent discoveries suggest that the earliest cave art in Europe may be attributed to the Neanderthals and indeed many of these are most likely to have been produced by women and children, providing archaeologists with a genuine opportunity to overturn decades of archaeological dogma (Hoffmann et al 2020, 2021).

Although, Figuiet never actually depicted the Neanderthals specifically, his sequential images had a huge impact upon their portrayal and interpretation. In *L’Homme Primitif*, it is the absence of Neanderthals from the framing of behaviourally modern characteristics and thus their expulsion from humanity which had a detrimental and lasting impact on their portrayal and our understanding of their cognitive abilities. Conceptually, the Neanderthals were later slotted into this narrative and directly associated with the Great Bear Epoch, whereas modern humans are exclusively associated with the Reindeer Epoch. This exclusionary detail matters because it is the reindeer epoch that represents an explosion of culture (i.e. representative of the concept of behavioural modernity and the sudden appearance of AMHs). This visual association negatively impacted the portrayal of Neanderthals and restricted what is knowable to functional matters of survival. Ultimately, Figuiet, by defining humanity

inadvertently defined what the Neanderthals were not – social beings with culture and agency.

#### 2.3.4. Setting the Standard. ‘The Archaeological Tradition’.

An analysis of early images and the associated romantic visual traditions demonstrates that palaeontological and geological reconstructions featuring humans included both a religious and scientific content. Crucially, the archaeological tradition adopted the geological tendency to represent vanished worlds as a series of evolving geological epochs and modern behaviours as a series of progressive developments through time (Moser 1998: 117). This tradition began to standardise the sequence of images and thus the sequence of technological and cultural progression. Unfortunately, the archaeological tradition failed to challenge traditional visual schemas; instead, they borrowed the established visual trends and conventions for depicting ‘the other’ (Moser 1998). The familiar icons for depicting primitiveness continued unaltered including the cave recess, nakedness, animal skins and the iconic club. The archaeological discovery of Neanderthals, as human-like as their anatomical features were, did little to challenge the primitive iconography of human antiquity. Instead, we begin to see images of early humans encompassing another visual tradition (ape-like characteristics) associated with the emergence of comparative anatomy and primatology (Moser and Gamble 1997; Moser 1998; Fedigan 1997).

Theories pertaining to human evolution completely revolutionised our understanding of humanity, *‘from a universe of divine creation made for us, to a new world where we are merely the children with many brothers and sisters’* (Wragg Sykes 2020: 31). This revolutionary paradigm created a major transformation in scientific and palaeontological thinking that resulted in the vision of our ancient ancestors as ape-like cave dwellers (Moser

and Gamble 1997; Moser 1998). Evolutionary theory presented the scientific community with the great conceptual challenge of how to communicate this complex process of change and adaptation. The conceptual contribution of archaeology was to stress a progressive tenancy in human evolution, through the mechanism of natural selection and by means of ‘survival of the fittest’. The initial discovery of Neanderthals combined with new theoretical frameworks of evolution, initially presented our ancient ancestors as simian and bestial. They were understood and represented as a direct missing link between modern humans and primates (Reader 2011). Consequently, a new vision of human ancestry came into view that presented Neanderthals as physically and culturally different to us, inferior in both physiology and mental capabilities (Moser and Gamble 1997: 194).



Figure 14: Enter Ape Iconographies ‘Fossil Man’. This image appeared on the frontispiece for Boitard’s *Paris Before Men*, in 1861. The image presents our prehistoric ancestors as ape-like creatures, illustrative of a very different view of human antiquity compared to the classical and romantic traditions (Moser and Gamble 1997). This view incorporates evolutionary theories and presents our ancient ancestors as a missing link between the primates and us. They are depicted as a ‘bridge’, an inter-mediate species (Source Cataladi 2017 [https://www.researchgate.net/figure/The-fossil-man-as-represented-in-the-1861-edition-of-Boitards-Paris-avant-les-hommes\\_fig1\\_316483556](https://www.researchgate.net/figure/The-fossil-man-as-represented-in-the-1861-edition-of-Boitards-Paris-avant-les-hommes_fig1_316483556). Accessed 2023.

The philosophy of the enlightenment provided a picture of a primitive race. Born and raised in the comfort of modernity, it was a theoretical framework that sought to categorise and divide the world into opposing categories. Hominin ancestors were scientifically recognised,

but socially set up in direct opposition to humans (Stozckowski 1997: 253). Archaeologically inspired images created a new vision of the past but recycled classical and romantic icons for conveying a primitive status. The new tradition used by archaeologists had a punitive edge; our ancient ancestors are no longer merely 'primitive', they are also savages (Gamble and Moser 1997: 204). Another contributing factor to the conceptualisation of 'the physical other' as savages, centres on the creation of colonial colonies. After colonial expansion ethnographic material was utilised as a means of making sense of the past, which can be equated to the classical notions of the barbaric savage (Moser 1998: 145). Unfortunately, ethnoarchaeology in the first instance was not used as a theoretical tool to aid in understanding different worldviews and perspectives. Instead, colonised people were conceptualised as living relics and directly equated to the living primitive, less advanced civilisations which has had profound social ramifications (Conkey 2007; Hamilakis 2011; Cunningham and McGeough 2018).

#### 2.3.5. Setting the Myth. 'The Comic Tradition'. Cavemen and Dinosaurs.

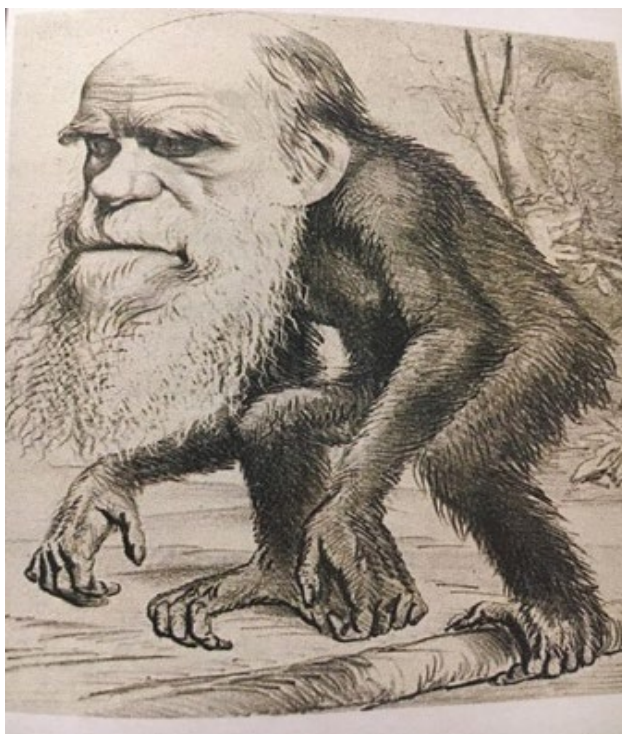


Figure 15: The iconic caricature of Charles Darwin as an ape, titled 'a Venerable Orang-outang', published in the satirical Hornet Magazine in 1871. The image illustrates how ape-like characteristics became a seminal motif for depicting primitiveness within an evolutionary framework. Ape-like iconographies became a visual mechanism for depicting our ancient ancestors as a literal missing link between modern humans and primates (Taken from Bryant 2008).



The comic tradition played a significant role in the construction and dissemination of the ‘sticky’ caveman stereotype. Authors of this visual modality capitalised on the opportunity to ridicule and poke fun at the notion of human antiquity and Darwin’s theory of evolution as proposed in *On the Origin of Species* 1859 and fully conceptualised in *The Descent of Man, and Selection in Relation to Sex*, 1873 (Moser and Gamble 1997: 204). The unwillingness to accept evolutionary theory over divine creation is demonstrated by the infamous caricature, (above) that depicted Darwin as an ape, titled ‘A Venerable Orang-outang’, published in *The Hornet Magazine* in 1871 (Kantha and Suzuki 2009: 715). The first comic illustrations were commissioned to discredit and ridicule rather than support theories of evolution.

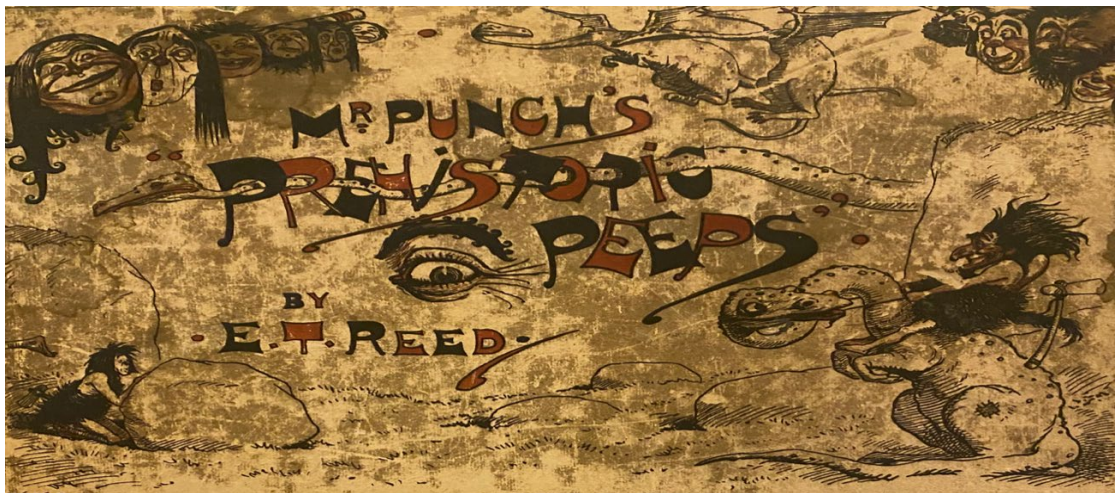


Figure 16: The infamous *Mr. Punch's Prehistoric Peeps*, 1894. A collection of prehistoric themed comics from the popular *Punch Magazine*. The illustrations were created by Edward Tennyson Reed (Reed 1894). This image represents the beginnings of the comic tradition which inspired caveman cartoons such as *The Flintstones* and blockbuster films such as ‘10,000BCE’ and ‘Night at The Museum’ to name a few (Reed 1894).

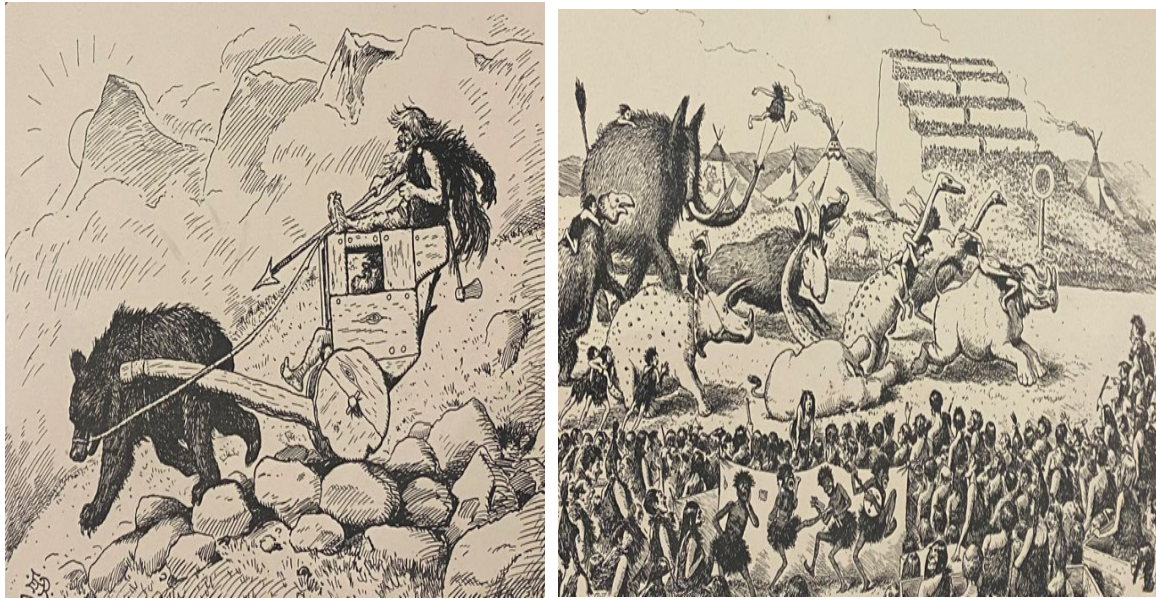


Figure 17: Left. Photograph of 'The First Hansom', created by E.T. Reed. Figure 18: Right. 'The Great Race. Even the "Derby" had its Primeval Counterpart', both illustrations are created by E.T. Reed for *Mr Punch's Prehistoric Peeps*, 1894 (Source Reed 1894).

The comic tradition took a hold of popular culture with the publication of *Mr Punch's – Prehistoric Peeps*, drawn by E.T. Reed in 1894. The book contains twenty-six full page illustrations of dinosaur and prehistoric themed cartoons, originally from the 'Punch Magazine'. This highly influential magazine is one of the first examples of prehistoric and dinosaur comics, predating the infamous *Flintstones* and *Feuersteins*. These portrayals framed the caveman stereotype and immortalised the association of Neanderthals (cavemen) and dinosaurs throughout popular culture (Jackson and Thomas 2017). The comic tradition utilised the same icons of the archaeological tradition, primarily the representation of our ancestors as primitive cavemen. The element that changed is the context in which our stone age ancestors appeared. In the case of archaeology, the stratigraphic context helped reconstruct their environment, life patterns and behaviours using recovered artefacts and fauna. Consequently, the preoccupation with geology, archaeology and zooarchaeology (scientific matters) resulted in a restrictive set of narratives. These narratives presented moments in time (key evolutionary behaviours), developments as imperative and irreversible to human development. The disciplinary assumption of linear progression remains embedded

within the museum as an institution and archaeology as a discipline today (Moser 1999: 111). By contrast, the comic tradition did not concern itself with matters of archaeological context or accuracy. This is evidenced by the close association of prehistoric humans and dinosaurs that are depicted together, in some cases, even utilising these animals to our advantage.

Dinosaurs became a seminal motif for the depiction of prehistory and an expected feature for the average museum visitor to a prehistoric display or a natural history museum (Wood 1996; Wood and Cotton 1999). Unfortunately, the association of cavemen and dinosaurs has retained a firm grasp on both public and professional imagination for over a century to follow and inspired countless popular publications, films and cartoons that continue to perpetuate the fallacy of cavemen and dinosaurs living together (Jackson and Thomas 2017). Eventually, by the end of the nineteenth century, the caveman stereotype had penetrated books, magazines, newspapers, art galleries and even museums, all over the world (Jackson and Thomas 2017). This thesis proposes that the association of Neanderthals and natural history continues to perpetuate the fallacy of prehistoric peoples and dinosaurs living alongside each other. Encountering our ancient ancestors and extinct species within the same spaces, displays and visual frames mentally reinforces the popular misconception that Neanderthals only inhabited vanished worlds filled with extinct animals (Jackson and Thomas 2017).

#### 2.4. Key Portrayals.

Thus far, this thesis has demonstrated that a multiplicity of visual trends and traditions makes up the ‘traditional’ iconography for depicting prehistory. Below is a table outlining the key portrayals of human antiquity and Neanderthals to critically consider how the Neanderthals became the primitive other. I am not concerned with the accuracy of these images, rather the



influence these images have had upon the imagining of prehistoric worlds, life and relationships (Wood 1996; Cotton and Wood 1999).

<i>Title of Image</i>	<i>Date</i>	<i>Illustrator</i>	<i>Significance</i>
<i>Adam and Eve Driven Out of Paradise. Adam Hearing the Voice of the Almighty.</i>	1824/7	John Martin, mezzotint with etching and drypoint.	This visual tradition has been dubbed the Romantic vision of the past which is based primarily on theories of divine creation and intervention.
<i>Depiction of Primitive Races.</i>	1857	Josiah Clark Nott, In <i>Indigenous Races of the Earth</i> .	A comparative drawing of a Greek, Negro and chimpanzee. Importantly, for the purposes of this study the image reflects current thinking of the time in relation to primitive ideologies which closely affiliate primitive with animalistic features and carry a negative and dangerous racial undertone.
<i>Fossil Man.</i>	1861	Pierre Boitard in <i>Magasin Universel l'homme fossile</i>	The introduction of ape-like iconographies in the imagining of our ancient ancestors.
<i>Anthropic Period: Last Palaeontological Age. Appearance of Man.</i>	1861	Pierre Biotard for his <i>'Etudes Antédiluviennes. Paris avant les Hommes'</i> .	The visual representation of the physical 'other' and the reconstruction of a vanished and unknowable world.
<i>Homo Hercules Columarium or Pillars of Hercules Man.</i>	1863/4	Thomas Huxley	The first archaeologically imagined ancestor sketched from the Forbes skull discovered in Gibraltar (adult Neanderthal female). The primitive physical characteristics which this image perpetuates centred on simian (ape-like) iconographies. These included hairiness, stooped/hunched posture, a divergent big toe and even a tail. The creature has a miserable and harsh expression. From the very beginning Neanderthals were conceptualised as the 'other', non-human and animal-like.
<i>Figure 31. An Australian Skull from Western Port, with the Contour of the Neanderthal Skull. Both Reduced to One-third their Natural Size.</i>	1863	Thomas Huxley in <i>Man's Place in Nature</i> .	The beginnings of scientific accuracy and a preoccupation with anatomical correctness. The image used a comparative method to better understand Neanderthals and their physical anatomy.
<i>Figure 25. The Skull from the Neanderthal Cavern. A. side, B. front and C. top view. One Half of Natural size.</i>	1863	Thomas Huxley in <i>Man's Place in Nature</i> .	The first drawing of a Neanderthal skull for educational and data sharing purposes. The outlines were constructed from camera lucida drawings, one half of the natural

			size, by Mr. Busk. The details of the cast were drawn from Dr. Fuhlrott's photograph. Different views of the Feldhofer cranium.
<i>The Feldhofer Skull Compared to Different Races of Human and a Gorilla.</i>	1864	Thomas Huxley. Records and Archives held at Imperial College, London.	Eight comparative outlines of different races of skulls, including the Feldhofer skull, a Scotch Idiot, an Englishman, Australian Aborigine, an American and a Gorilla. This comparative approach had profound consequences for the interpretation and study of Neanderthals for decades to follow, but also profound social consequences on the conceptualisation of race, gender and identity.
<i>Appearance of Man.</i> <i>The Production of Fire.</i> <i>Man in the Great Bear and Mammoth Epoch.</i> <i>Funeral Feast during the Great Bear and Mammoth Epoch.</i> <i>A Family of the Stone Age.</i> <i>Arts of Drawing and Sculpture during the Reindeer Epoch.</i>	1863-1870.	Louis Figuier, Illustrations created by Eduard Riou for <i>La Terre avant de Deluge</i> and Illustrations by Emile Bayard for <i>L'homme Primitif</i>	In the revised version of the 'Appearance of Man'. Figuier unknowingly set the visual and artefactual standard for conjuring prehistoric environments and life. We see the seminal motifs of prehistory most notably, the cave, a crevasse which is included as a symbolic gulf between 'us' and 'them'. Nakedness is presented as a primary characteristic of a naïve primitivity. The most striking feature between the two images is the difference in animals. Our ancestors are now surrounded by wild and extinct beasts. This remains an enduring and persuasive display canon for imagining Palaeolithic archaeologies. The presence of extinct beasts remains a seminal motif in the depiction of vanished worlds and people.
<i>The Neanderthal Man.</i>	1873	Ernest Griest in <i>Harpers Weekly</i> .	This image represents the earliest known reconstructive scenario depicting Neanderthals. The most striking element of this image is its civilised nature. The image incorporates two domestic dogs as Neanderthal companions. There are stone tools, despite there being no archaeological data to justify their presence until the 1880's. The Neanderthal male nevertheless clutches a hafted tool, with an upright posture.
<i>Man is but a Worm.</i>	1881	Edward Linley Sambourne cartoon which appeared in Punch Magazine.	<i>Man is but a Worm</i> depicts the evolution of man from a worm to an ape and finally to an archetypal top-hatted Victorian gentlemen (Darwin

			himself) in the centre. This image ridicules the idea of a relation between the two species and ironically represents evolution as caricature and nothing more than a comical absurdity. The popularity of these types of images resulted in two concepts which were never proposed by Darwin to become canonical icons for the process of evolution namely, gradualism and linearity.
<i>Family of the Ape People.</i>	1886	Gabriel Von Max reproduced in Ernst Haeckle's <i>Natürliche Schöpfungsgeschichte</i> .	Pithecanthropus, as reconstructed by Gabriel Von Max for Ernst Haeckle, could not speak and were represented as a missing link in the evolution of our own species. This had negative connotations which greatly impacted the perception and portrayal of Neanderthals. This image perpetuated the concept that humanity consisted of various hierarchically structured species with which cultural and biological evolution came hand in hand. (Levit and Hossfield 2019: 10).
<i>Ascent of Life.</i>	1886	Illustrator Besnier for Camille Flammarion's <i>Le monde avant la Creation de l'homme</i> .	The conceptual ascent of life forms on earth with modern humans at the top of the evolutionary chain. A classic feature of evolutionary museums which present humans as the pinnacle of biological and cultural evolution. This progressive tendency remains an enduring theme within the context of the evolutionary museum and natural history.
<i>They Risk Their Lives with Ferocious Beasts.</i>  <i>Primitive Man at Work.</i>  <i>Man the Conqueror of the Cave Bear.</i>  <i>Problematic Reconstruction of Pithecanthropus According to Haeckel.</i>	1887	Illustrators E.A Tilley and Georges Devy for Henri du Cleusios's, <i>La Creation de l'homme et les premiers age de Humanite</i> .	This set of images focuses on hunting and combat with wild and dangerous beasts as a major theme of Palaeolithic archaeologies. The next category of archaeological evidence to be included within the visual frame is the inclusion of stone tools. The seminal motifs for prehistory have been fully conceptualised and disseminated – dangerous worlds, extinct beasts and stone tools.
<i>'La Envahisseur' - The Invader.</i> <i>'Deux Meres' – Two Mothers.</i>	1884-1888	Leon Maxime Fairre, oil on canvas, displayed at <i>Musee des Beaux-Arts et d'Archeologie</i> , Vienne.	These images represent one of the earliest imaginings of Palaeolithic life in the museum. 'The Invader' depicts hand-to-hand combat between a caveman (Neanderthal) and an invading modern male situated within the context of the cave. Here, the antagonistic

			<p>narrative based on violence and dominance is perpetuated and modern humans are presented as both the aggressors and victors.</p> <p>‘Two Mothers’ provides an intriguing example where the female has been centralised in the narrative of prehistory. Here the female is presented in action, dominant and strong ready to defend her child from the unwanted animal intruder the Great Bear. This image represents an early exception to the traditional gender-coded iconography of human antiquity namely, female invisibility or highly stereotypical roles.</p>
<i>Neanderthal Man. Printed Drawing.</i>	1888	Hermann Schaaffhausen. In <i>Der Neanderthaler Fund</i>	Drawing of a restored Neanderthal skull with reconstructed facial features. The ‘other’ is presented here as a human frontrunner who is indeed beetle browed and hirsute, but still looks lively and intelligent, conceptualised as a noble savage entwined with subtle ape-like iconographies.
<i>Woman Flaking with Hammer-stone and Flint Block on Anvil Stone.</i>  <i>Man and Woman Making Implement with Hammer-stone and Punch on Anvil-stone.</i>	1894	Worthington G. Smith for his ‘ <i>Man. The Primeval Savage</i> ’.	An anomaly to the traditional invisibility of females in prehistoric reconstruction and Palaeolithic archaeologies. Furthermore, the female is depicted engaging in a typically male dominated activity – making stone tools.
<i>Mr Punch’s Prehistoric Peeps.</i>	1894	Created by E.T. Reed, after ‘ <i>Punch</i> ’ Magazine.	Emblematic of the comic tradition which cemented the caveman stereotype in both public and professional imagination. The first prehistoric and dinosaur comic which presented ancient humans and dinosaurs living together. Arguably, a fallacy still perpetuated today in the context of natural history.
<i>An Eviction Scene at Wookey Hole, Near Wells. Older Stone Age.</i>	1896	Cecil Aldin for H.N. Hutchinson’s frontispiece for his ‘ <i>Prehistoric Man and Beast</i> ’.	This image set the archaeological standard for the depiction of females in prehistory and their role and contribution to human evolution. The male takes centre-stage, situated in the foreground of the image. He is holding controlled fire in one hand and a spear in the other. Both are material items associated with technological progression. The female on the other hand is a blur

			(literally faceless) in the background of the image and hidden by the cave. She is encumbered by the child and restricted to her reproductive role. The visual strategy of character placement emphasised male centrality and female invisibility.
<i>The Return of the Hunt.</i>	1898	Angele Delasalle oil on canvas in the <i>Musee de la Ville de Poitiers et de la Societe des Antiquaires de l'Ouest</i> , Poitiers.	The depiction of social groups and the beginnings of multi-behavioural models. In this image men, women, children and the elderly are portrayed as a social group co-operating and caring for each other. An archaeological trend which is missing from hyperrealism as a representational modality.
<i>Nebula to Man.</i>	1905	Lancelot Speed, in Henry Knipe's ' <i>Nebula to Man</i> '.	The image flawlessly communicates a romantic vision of human origins and effortlessly incorporates Darwinian evolutionary theory. This image is reflective of the historical specificity of the nineteenth century and the philosophical crisis which was occurring.
<i>An Ancestor. The Man of Twenty Thousand Years Ago. The Man of La Chapelle-aux-Saints. An Accurate Reconstruction of the Prehistoric Cave Man Whose Skull was Found in the Department of Correze.</i>	1909	Frantisek Krupka's illustration for Marcellin Boule. In <i>L'Illustration</i> and in the <i>Illustrated London News</i> .	This is perhaps the most impactful, enduring and damaging image of Neanderthals, that of the old man of La Chapelle-aux-Saints. The image is described as an accurate portrayal of Neanderthals which was reinforced by Marcellin Boule's authority as a highly respected anatomist at the time. Here, Neanderthals are conceptualised as our lesser ancestors in terms of their physical and mental capacities – the ultimate 'other', animalistic in nature and non-human. The image was disseminated and received as an objective and scientific representation (Madison 2016, 2020, 2021; Hammond 1982; Corbey 2005; Pyne 2016).
<i>'Not in the Gorilla Stage'.</i>	1911	Sir Arthur Keith, for the <i>Illustrated London News</i> .	Keith's rendition of Neanderthal life is boldly titled ' <i>Not in the Gorilla Stage</i> '. Conversely, this image set to firmly challenge the notion of the primitive 'other' and ape-like characteristics. Neanderthals are presented in this context as essentially human, even adorned with personal jewellery. This image demonstrates there have always been conflicting portrayals which either focus on primitiveness or behaviourally modern

			characteristics. What is interesting is why this image failed to become the conceptual standard (Drell 2000).
<i>Modern Man. The Mammoth Slayer. The Briton of 170,000 Years Ago.</i>	1911	Amadee Forestier for <i>Illustrated London News</i> .	The representation of Neanderthals as top hunters, the primary predators of the Palaeolithic. A further representation of the antagonistic scenario in relation to human-animal relationships.
<i>Men of the Old Stone Age. Their Environment, Life and Art.</i>	1915	Charles R. Knight.	The canonical icons for depicting primitiveness are fully articulated in this image, stooped posture, the divergent big toe, hairiness, animal skins for clothing, nakedness, stone tools and the iconic club. The two Neanderthal males are positioned against a cave with docile expressions, symbolic of their harsh and miserable existence (Vujakovic 2013).
<i>Neanderthals at Le Moustier in the Dordogne.</i>  <i>The Neanderthal Flint Workers.</i>  <i>Cro-Magnon Artists.</i>	1920's	Charles, R. Knight three murals in the <i>American Field Museum</i> , for Henry Fairfield Osbourne's The Hall of the Age of Man gallery.	Charles, R Knight is perhaps more famous for his drawings of dinosaurs than human antiquity. Nevertheless, he epitomised Neanderthal life and culture, restricting Neanderthals to matters of survival and functionality while endowing AMHs with symbolic behaviours and higher cognitive abilities. His sequence of images defined the Neanderthals for nearly a century to follow. This set of highly influential murals are considered as the beginnings of reconstructed scenes in the context of the museum.
<i>The Hunter Returns at Chou-Kou-Tien.</i>  <i>Chipping Flint in the Old Days of Northwest Europe.</i>	1949	Henri Breuil, in <i>Beyond the Bounds of Prehistory</i> .	The representation of multi-behaviour models including technological and social behaviours within the Palaeolithic visual frame. This provided the theoretical space for the inclusion of females within the image, albeit, within stereotypical roles such as gathering berries, tending to children or the fire, scrapping hides which are activities symbolic of the domestic sphere (Gero 1985; Fedigan 1986; Gero and Conkey 1991; Butler 1993; Moser 1993; Scott; 1994; Hurcombe 1995; Hager 1997; Conkey and Spector 1997; Gilchrist 1999; Vujakovic 2018).

<i>Poster for The Neanderthal Man, a b-grade movie.</i>	Release date June, 19 <sup>th</sup> 1953	Produced by Ilse Lahn, Jack Pollexfen, Aubrey Wisberg and Edward Small.	‘The Neanderthal Man’ is a black and white science fiction film. The plot centres around the main character Professor Groves, an expert in prehistoric life. He proves his theories with an extract that regresses a cat to a sabre-tooth tiger and man to a Neanderthal. The film wasn’t well received at the time mainly due to the quality of production and story line, but it cemented the Neanderthals as beast like in their behaviour, inferior in their cognitive capacity and regressive in their state. This had a detrimental impact on public imagination and expectations in relation to their physiology and behavioural capacities.
<i>The Neanderthal Encampment.</i>	1960	Joesph Augusta for Burian’s Prehistoric Man.	A return to the traditional iconic vocabulary for depicting primitiveness. Including ape-like characteristics, stooped posture, hairiness and animal skins. There is a crevasse and the iconic cave, whilst a male Neanderthal clutches the iconic club. Women tend to the children and fires, but the image does represent the Neanderthals as social entities in a multi-behavioural model.
<i>The Road to Progress. Commonly referred to as The March of Progress.</i>	1965.	Rudolph, F. Zallinger for <i>Early Man. The Life Nature Library.</i>	This is perhaps one of the most influential images for the portrayal of evolution as a narrative with a beginning and end. There are many variations and popular memes engrained within our collective consciousness, popular culture, and the scientific community. The image implies evolution is a progressive process working towards a shared goal. The sequential ordering of hominins in a linear and direct line-up is a fundamental feature. Each subsequent species is presented as coming before the next one, disseminating a direct replacement model for the extinction of other hominins.
<i>Meet the Ancestors.</i>	1990	A television series created by Julian Richards.	This television series did not reconstruct our Neanderthal ancestors but set the scientific standard and public fascination with the reconstruction of our ancient ancestors in hyper-realistic detail and to a forensic degree of accuracy (Richards 1990).

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Table 1: A summary of the key portrayals of human antiquity, Palaeolithic archaeologies and Neanderthals from the early nineteenth century through to the late twentieth century. This table does not represent an exhaustive or complete list of all illustrations depicting cavemen or Neanderthals. Instead, the table provides a brief analysis of the major portrayals that have framed our theoretical and interpretative horizons and highlights visual trends and assumptions which continue to condition visualisation and museological practices. These images, visual trends and disciplinary assumptions created and maintained the infamous ‘other’ through the character assassination of Neanderthals (Madison 2016, 2020, 2021). The established practices and ideological constructs of the Palaeolithic visual frame restricted our understanding of evolutionary theory and human antiquity to a celebration of the unilinear laws of progression (Gamble in Moser 1998).

## 2.5. Reconstructing Neanderthals.

Thus far, this chapter has provided a brief overview of the different visual traditions (romantic, archaeological and comic) identified by Moser in *Ancestral Images*. The analysis highlighted visual trends and disciplinary assumptions that have negatively impacted the portrayal of human antiquity and the hominisation process. The next section of this chapter provides a review of early images of Neanderthals over the course of the nineteenth century to assess the emergence of key tropes in relation to the denigration of Neanderthals. This review of early images will evaluate how far the museum has come in dismantling Neanderthal misconceptions and disciplinary assumptions surrounding the sticky and dangerous caveman stereotype.



### 2.5.1. The First Scientific Portrayal. Gibraltar 1.



Figure 19: *Homo Hercules Columarum*, or the 'Pillars of Hercules Man' illustrated by Thomas Huxley in 1864. Thomas Huxley unknowingly created 'the world's first reconstruction of a Neanderthal', from the Forbes' Quarry skull discovered in Gibraltar in 1848. Based on the skull alone, he envisioned ape-like characteristics including hairy skin, long feet, opposable toes, stooped posture and even a short tail (Wragg Sykes 2021: <https://www.pressreader.com/uk/bbc-history-magazine/20210318/28159094830893> 7. Accessed 2023).

The Forbes' Quarry skull, also known as Gibraltar 1 (Neanderthal women c. 90,000ya), is the first adult Neanderthal skull ever discovered in 1848. At that time, Neanderthals were not yet known to the scientific community and the skull was presented to the Gibraltar Scientific Society by Lieutenant Edmund Flint that same year. This was eight years before the Neanderthal type specimen was discovered in Neander Valley, Germany in 1856. Although Neanderthals were recognised by the 1860s, it wasn't until the first decade of the twentieth century that anatomists realised that Gibraltar 1 was indeed Neanderthal. Additional discoveries came in the 1910s and 1920s including the prominent archaeologist Dorothy Garrod's discovery of a Neanderthal child near flaked tools from the Mousterian industry that cemented the importance and significance of Gibraltar's Neanderthals. Ironically, although the skull was the first Neanderthal discovered, but not realised for several years after its discovery, it is the first archaeologically inspired and reconstructed hominin fossil. The

reconstruction was imagined by Thomas Huxley, who sketched the illustration titled *Homo Hercules Columarum*, or the ‘Pillars of Hercules Man’ in 1864.

Huxley a faithful ‘bulldog’ of Darwinism, and an avid supporter of evolutionary theories pertaining to natural selection. He envisioned this new species of human to have ape-like characteristics complete with hairy skin, stooped posture, a short tail, and long feet with opposable toes (Lyons 2009). This simian iconography became synonymous to a primitive and intermediate status. In doing so, evolution was conceptualised as a linear route through the ages and a directional and hierarchal understanding of human antiquity came into play. Although, Huxley was not the first to envision pasts (people) beyond memory, he was the first to envision these pasts from the available archaeological data representing the first ‘scientific’ reconstruction of our closest ancestors (Wragg Sykes 2021). Huxley’s reconstruction wasn’t entirely original. It bore resemblances to an earlier image, commissioned by Pierre Boitard ‘Fossil Man’ in *Magasin Universel L’homme Fossile*, 1838. In this conjectured image of human origins, our earliest ancestors are depicted as noble, ape-like creatures. These creatures were fully upright but with hairy skin, long feet and arms (Blanckaert 2019: 45-60). It appears, since the inception of palaeoanthropology, ape-like iconographies have been used to indicate a primitive and uncivilised status, representing little more than a missing link between modern humans and primates along the great journey of evolutionary progression (Sommer 2006; Mills 2019; Peeters and Zwart 2020). An analysis of Huxley’s image demonstrates how our ancestors were imagined, and despite archaeological data to the contrary subjective prejudices played a significant role in the creation of ape-like iconographies and the reconstruction of other humanities.

*Homo Hercules Columarum* will go down in history as the first reconstruction of a Neanderthal, and from the 1860's onwards, anatomists, artists and authors have produced contradictory depictions of this species, everything from simian brutes painted on canvas to hyperrealistic models and digital portraits of sentient beings (Wragg Sykes 2021). The diversity in visual approaches reflects the diversity of theoretical and conceptual approaches used to imagine the Neanderthals, their world, social and cognitive behaviours. Despite this diversity in both approach and archaeological data these early images set the conceptual agenda for portraying Neanderthals as brutish and unintelligent for decades to follow.

### 2.5.2. Contrasting Portrayals.



Figure 20: 'The Neanderthal Man' published in *Harper's Weekly* by Ernest Griset 1873. Despite being one of the earliest reconstructions of Neanderthals it is perhaps one of the most civilised. The male commands the foreground of the image, standing in-action, accompanied by a passive female, who sleeps in comfort (thanks to her male companion) on top of a large cave bear fur. The male is accompanied by two domestic dogs. Despite a lack of archaeological data, the caveman even boosts the use of stone tools, which were not found in direct association to Neanderthal bones until the 1880's. From a gender perspective the visual standard of female invisibility had been set. She is passive and occupies the background of the image (Wiber 1994, 1997. Source: Taken from <https://bladeandbone.lindahall.org/25.shtm>. Accessed 2023).

'The Neanderthal Man' (above) represents the earliest known example of a reconstructive scenario, where the Neanderthals are placed within an archaeological setting. The infamous cave and canonical icon of prehistory. Despite being one of the earliest portrayals of

Neanderthals it is perhaps the most ‘civilised’. This image represents the first attempt to place Neanderthals within a natural setting, here a cave, (an enduring seminal motif of prehistory), complete with a female companion and two domesticated dogs. Upon closer inspection you can see the female sleeping on a cave bear rug, and in the entrance of the cave a bear jaw is lying on the ground demonstrating ancient man’s ability to survive and possibly even thrive in such a harsh environment. This is symbolic of the Neanderthals success; they are presented here as apex predators with protagonist tendencies. Unfortunately, even though Neanderthals have been conceptualised as ‘closer to humans’, rather than gorilla-like creatures, a gender coded iconography became the visual standard for palaeoanthropology in the following decades.

### 2.5.2. The First Influencer. ‘The Old Man of La Chapelle-aux-Saints’.



Figure 21: The infamous image titled ‘An Ancestor. The Man of 20,000ya. An Accurate Reconstruction of the Prehistoric Caveman’, created in 1909. The image was created by Frantz Kupka under the instruction of renowned anatomist Marcellin Boule. Neanderthals are envisioned as creatures, ape-like and non-human (Corbey 2005). They are brutish and unintelligent presented as physically, behaviourally, cognitively and socially less advanced than modern humans. This reconstruction catapulted and cemented ‘them’ as unintelligent brutes, a conception that has persisted until relatively recently in science but continues in popular culture (Madison 2015, 2021, 2022; Pyne 2016; Source: Frayer 2019).

The merciless characterisation of Neanderthals as brutish and unintelligent is perhaps the most enduring stereotype of all. This misrepresentation is often traced back to Marcellin Boule, a French palaeontologist who examined the famous specimen known as the Old Man of La Chapelle-aux-Saints, France in the first decades of the twentieth century (Madison 2016, 2020, 2021; Pyne 2016). The infamous image created by Franz Kupka for the *Illustrated London News* in 1909, titled ‘An Ancestor: The Man of Twenty Thousand Years Ago’, has been immensely influential in the reconstruction of Neanderthals as brutish cavemen, ultimately setting the dominant conceptual framework for their portrayals. The image encapsulates a classic example of ‘character assassination’ whereby Neanderthals are portrayed as the most primitive and basic form of human, frozen in the gorilla stage of evolution and presented as a literal missing link (Tattersall and Schwartz 1999; Tattersall 2002, 2009). We see a kind of hairy beast with an aggressive, yet degenerative air that stands at the entrance of a cave, equipped with a club or femur in his hand. The placement of a skull laying on the ground phenomenologically evokes and signifies the harsh struggle of the great bear epoch imagined by Louis Figuier. Here, Neanderthals are envisioned as ape-like creatures with a stooped posture, docile hairy beings with bared teeth and overtly simian feet and arms. It appears that the Neanderthals are attributed a natural slave status, subservient to AMHs, and although pictured as physically strong beings, they are also simultaneously conceptualised as sloughing beasts, palpably different and distinct to us. This image reinforces a major theme in the reconstruction of Neanderthals whereby they are envisioned as brutish caveman, monolithic entities incapable of change that are at the mercy of their environment (Wragg Sykes 2021). A crucial aspect of this image is the title itself, described as an accurate reconstruction of the prehistoric caveman, inevitably encouraging an uncritical reading of the data and theory-laden image (Moser 1993, 2003). This image is not disseminated or consumed as an interpretation, in line with current archaeological data.

Instead, it is presented as a scientific fact which had adverse consequences for the study and portrayal of Neanderthals for decades to follow (Pyne 2016). It is dangerous to describe any image as an accurate reconstruction when there are no written records of Neanderthal features. All images in this regard are a matter of subjective interpretation. The problem with Boule's portrayal of Neanderthals and use of primitive iconographies is that it perpetuates a specific type of Neanderthal, and the old man became the archetype disseminated to the public.

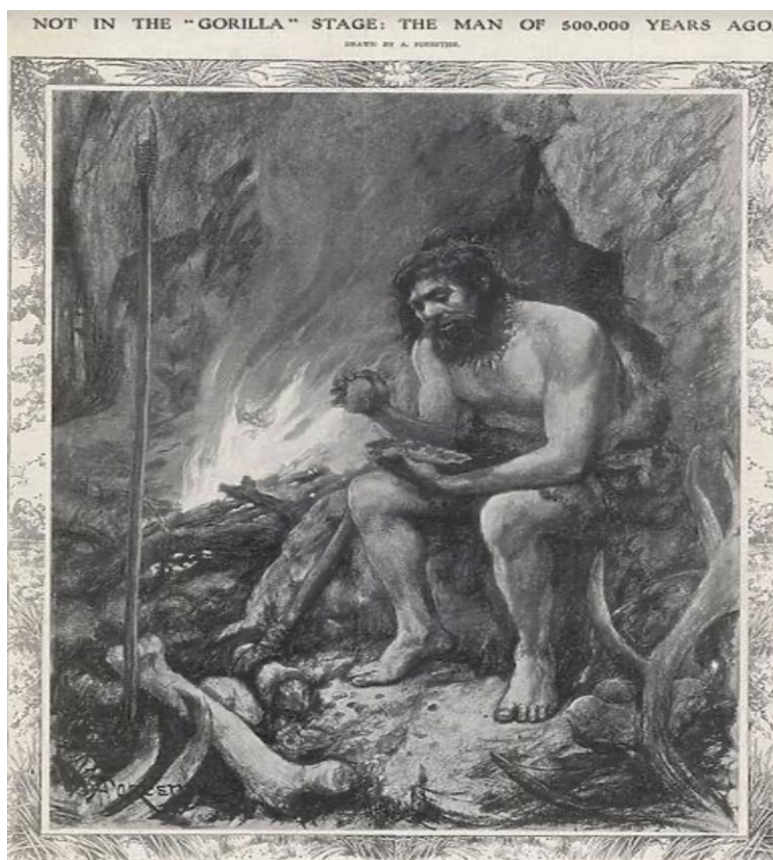


Figure 22: Sir Arthur Keith's rendition of Neanderthal life published in 1911, for the same newspaper *Illustrated London News* provides a different lens for viewing Neanderthals. The image boldly titled 'Not in the Gorilla Stage: The Man of 500,000 Years Ago' firmly challenged the tradition misrepresentation of Neanderthals and the primitive iconography of human origins. This anomaly to the canonical kitbag of codes and conventions failed to become the dominant tradition for depicting our ancient ancestors. Until relatively recently, Neanderthals have been excluded from the realm of humanity (Zihao 2001, 2011, 2012; Amos 2011; Shea 2011; Villa and Roebroeks 2014. Source: Taken from <https://www.alamy.com/stock-photo/la-chapelle-aux-saints.html?sortBy=relevant>. Accessed 2023).

An interesting contrast can be drawn between Boule's image published in 1909, and Sir Arthur Keith's rendition of Neanderthal life published in 1911 for the same newspaper, the *Illustrated London News*. The image was boldly titled 'Not in the Gorilla Stage', in direct response to Kupka's previous imagery. Here, Arthur Keith presents the Neanderthals in a rather different light not as a missing link, instead as our kindred. The individual is sitting carefully by a blazing fire while pleasurably making stone tools. He is even adorned with



jewellery (Wragg Sykes 2021). Remarkably, we see a domesticated Neanderthal, sizeable but with a kempt beard signifying a civilised status. The key question that interests us here is why Boule's primitive iconography prevailed over Keith's imagery who envisioned Neanderthals as creative and imaginative, sentient and social beings? It could be argued that Boule's derogatory image of Neanderthals was presented as an objective scientific process, backed by Boule's expertise and distinguished success in the identification of other human species and anatomy. Therefore, the image provided a window onto what could be known about the past, whereas Keith's image was considered as a subjective creation that lacked archaeological data. Ironically, Keith's rendition of Neanderthal life is more akin to recent discoveries and the current paradigm shift in Neanderthal archaeology that recognises their inter-connected worlds and comparable cognitive abilities.

This thesis suggests that the primitive iconographies of prehistory prevailed not because of their supposed scientific accuracy but because of the theoretical and ontological frameworks of modernity and cartesian philosophy which presented the evolutionary process as a celebration of unilinear progression through the ages (Gamble in Moser 1998: XXII). This analysis reveals deep paradigm biases within palaeontological research and evolutionary theories. I argue the theoretical framework of modernity (founded on dualisms) sets 'them' (Neanderthals) in direct opposition to 'us' (modern humans) long before the dynamism of hominins was archaeologically discovered. Consequently, the image created by Sir Arthur Keith failed to become the dominant convention for portraying Neanderthals. The visual convention of portraying Neanderthals as essentially human remained the anomaly in archaeological reconstruction until relatively recently, primarily, since new data and perspectives revealed through aDNA which highlighted our inter-connected evolutionary journey (Green et al 2012; Kuhlwilm et al 2016).

## 2.6. Sculpting the Ancestors. Neanderthals in the Museum.

By the 1920s Neanderthals had made the transition from books to museums as the subject of the natural world and ethnography. Contemporary interpretations of Neanderthal and Cro-Magnon fossils emerged as a dichotomy between subhuman (animality) and AMHs within a Darwinian tree of life. Not only were Neanderthals understood as primitive savages and the artistic Cro-Magnons as statuesque humans, but these scientific interpretations were publicly disseminated through museum displays and palaeontological art to influence public perceptions and ultimately reinforce primitive iconographies and ancestor stereotypes (Rosenberg and Clary 2018; Clary 2021, 2022).

The first major permanent exhibition was commissioned by Henry Fairfield Osborn at the American Museum of Natural History in New York. The gallery titled ‘The Hall of the Age of Man’, featured traditional glass cases filled with artefacts, casts of hominins skeletal remains and extinct beasts. The focus of the exhibit was three large murals produced by Charles Knight (1874-1953), the prominent palaeoartist of the twentieth century. In 1920, Knight completed murals for the gallery: ‘A Neanderthal Family near Le Moustier Cave’, ‘Cro-Magnon Artists Painting Mammoths in Font-de-Gaume Grotto’, and a ‘Neolithic Community’. Osborn supported eugenics and promoted a human lineage with a ‘dawn man’ outside of Africa. He advocated racial politics and set the agenda for prehistory. Osborn wanted Knight’s murals to portray two distinctive types of early hominins: the shorter, brutish Neanderthals contrasted with the taller, lighter skinned and artistic Cro-Magnons, who were presumably our direct ancestors (Milner 2012; Sommer 2010; Clary 2022). Osbourne utilised these murals to stress the progressive and linear direction of human biological and cultural evolution. Therefore, the murals represent the first sequentially ordered narrative in the context of the museum which I argue continues to frame exhibition practices and limit our



archaeological and interpretive horizon. Although, this analysis does not critically consider the mural titled ‘A Neolithic Community’ it is noteworthy that Knight later referred to the Neolithic community as ‘*we see... human beings much like ourselves, in the first phases of civilisation*’ (Knight 1935: 118 in Clary 2022: 50). This description illuminates the parade of progress in the museum. For Knight and Osborn, Neanderthals were set up in direct opposition to their AMH counterparts representing a state of animality whereas our Cro-Magnon ancestors were conceptualised as the beginning of humanity. Therefore, Neanderthals were not afforded a role or contribution to the evolution of humanity, which, according to Osborn and his scientific contemporaries, begins with the arrival of AMHs in Europe. This suite of scenes sets the conceptual standard for an iconography of human origins that distinctively separated ‘them’ from ‘us’ (Moser 2003: 5). Knight’s murals signify a wide chasm between Neanderthals and AMHs, a misconception more pronounced after genomic sequencing revealed the inter-connected journey of our entangled evolution (Green et al 2010). While Knight’s palaeo-reconstructions evolved, his ancestor stereotypes continued. The museum persisted in portraying Neanderthals as stopped, grotesque, savage and AMHs as tall, intelligent and splendid (Clary 2022: 47-58).



Figure 23: Mural painting created by Charles, R. Knight (1924), titled ‘The Neanderthal Flint Workers’, for the American Museum of Natural History, New York. The attributes commonly used for illustrating human antiquity and the representation of our stone age ancestors as the physical other are featured here in Osborn’s

image. These images demonstrate how reconstructions are characterised and perpetuated using an artefactual grammar and by a set of visual icons (Moser and Gamble 1997: 187).



Figure 24: The second mural painting created by Charles, R. Knight (1924) titled 'Crô-Magnon Artists' for the American Museum of Natural History, New York. In stark contrast to the 'Flint Workers', our own species was reconstructed as modern looking, white European males. These individuals are depicted as the pinnacle of human evolution and are representative of our intellectual and superior cognitive abilities. Conversely, the Neanderthal mural focused on matters of survival and functionality. The defining difference between these images is that the mechanism of separation is not based on simian iconographies. Instead, the difference is the presence or absence of a sophisticated culture that centres on 'art' as a defining feature of humanity. Though the Neanderthals have been given a reasonable amount of material culture (stone tools and a spear) it is their stooped posture which reflects their lower position on a hierarchical Darwinian tree of life. These reconstructions are emblematic of how early twentieth-century paleo intelligentsia thought about the epoch (Source: Pyne 2014).

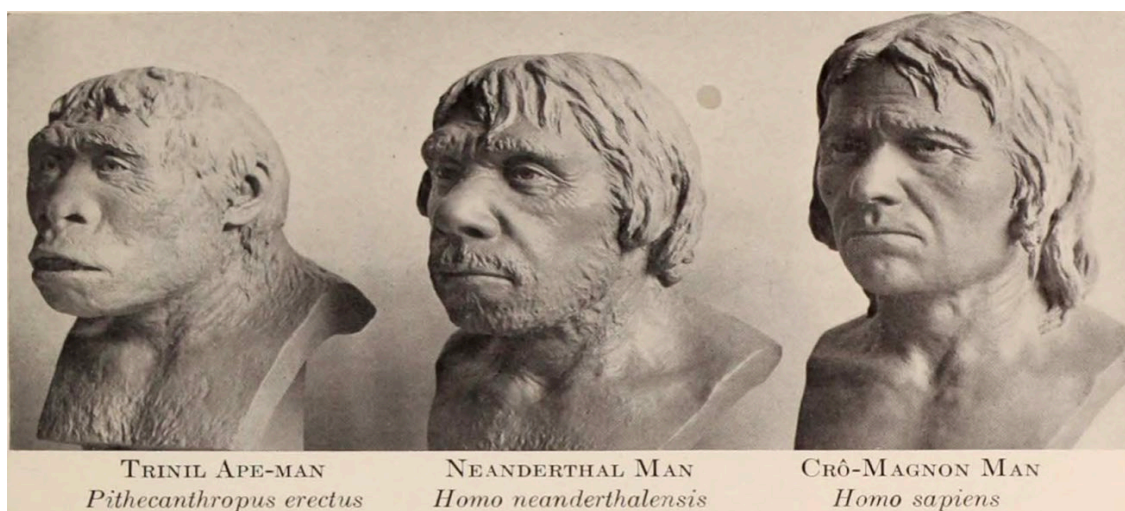


Figure 25: A collection of busts created by Professor H. McGregor and commissioned by Henry Osbourne Fairfield in 1927, for the American NHM, New York (Source: Moser 2003).



The progressive tendency of the evolutionary museum is fully conceptualised by a later addition to the gallery; a collection of four busts of different ‘races of ancient humans’ (Moser 2003: 5). These reconstructed busts were created by Professor H. McGregor in 1927. This type of display strategy marks the beginnings of the living dead approach (hyperrealism) as a visual strategy to reconstruct ancient populations in the context of the museum. The sculptures were covered in hair to give them a realistic and familiar tone to visitors. Note how these busts illustrate Osborn’s conceptualisation of human ancestry as a unilinear parade of progression. Here, Neanderthals are presented as the missing link between us and primates, perpetuating the misconception of evolution as a linear hominin highway where one species directly replaces another through a direct replacement model and each corresponding hominin is more complex (Moser 2003).

#### 2.6.1. The Traditional Habitat Diorama – Setting the Scene.



Figure 26: ‘Neanderthal Family at Le Moustier Rock-shelter’, France made by sculptor Frederick Blaschke and displayed at the Field Museum of Natural History, Chicago. The historical diorama depicts a father, and a mother holding a child in the background of the image, who is covered by the crevasse of the cave entrance. Her features are invisible in the sense she cannot be seen. The diorama also reconstructs a grandmother as drudge, reinforcing gender stereotypes and reinforcing the traditional invisibility of children in the Palaeolithic (Gifford-Gonzalez 1993; Source Field Museum of Natural History 2017 CC BY-NC 4.0 <https://www.fieldmuseum.org/blog/what-happened-to-the-caveman-dioramas> Accessed 2023).

The next major exhibition on human origins opened in 1933, titled ‘Hall of the Stone Age of the Old World’, located at the Field Museum, Chicago. The Field Museum was the first to introduce the visual modality of traditional habitat dioramas which told the story of human antiquity using a linear, progressive and coherent picture narrative. Habitat dioramas were used to conjure a vision of deep antiquity both environmentally and archaeologically. This type of visual strategy became the favoured way of displaying natural history and Neanderthals. The method included reconstructed persons, fitted with costumes, (animal skins and shell beads) and the reconstruction of environments and life patterns based on artefact finds. Following Moser, the new conventions for representing the natural world and its ancient inhabitants marked a significant departure in the history of scientific illustration. Earlier illustrations were based on the observation of phenomena, whereas these new illustrations were based on the interpretation of phenomena in their reconstructed state (Moser 1999). Images went beyond being a descriptive aid to becoming central to the interpretation of ancient man, including physical characteristics, environments and behaviours. The many and varied structural features served to give ancient man a sense of historical time and place that provided visitors with a glimpse at previously unknowable worlds and beings, often to scale, providing a phenomenological experience (Moser 1998: 78, 107).

Henry Field assembled the Hall of Man exhibit for the Field Museum of Natural History and Knight continued to offer his advice and opinions on the museums early human exhibits. Field intended his dioramas to display the ‘progression of prehistoric peoples, from Chelean, Acheulean, Mousterian (Neanderthal skull from Le Moustier) to Aurignacian (Old Man of Cro-Magnon) to the Swiss Lake Dwellers’ (Clary 2022: 52). Field’s vision for Neanderthal and AMH reconstructions aligned with Osbourn’s and Knight’s which ultimately perpetuated

the same primitive iconographies and seminal motifs of prehistory. Neanderthals were again presented as primitive savages while Cro-Magnons were envisioned as statuesque intelligent early humans. By 1929, two Neanderthal dioramas were installed in the Hall of Historical Geology at the Field Museum and by 1933, the Hall of the Stone Age of the Old World opened with eight prehistoric diorama scenes including ‘Le Moustier Neanderthals’ and the lighter skinned ‘Cro-Magnon Artists from Gargas Cave’, France. Field, reflected on the importance of these installations: ‘this was the first life-size reconstruction of prehistoric man ever made in a museum. Some months later, Madam Tussaud’s in London did us the honour of attempting to copy Le Moustier’ (Field 1953: 143 in Clary 2022: 53).

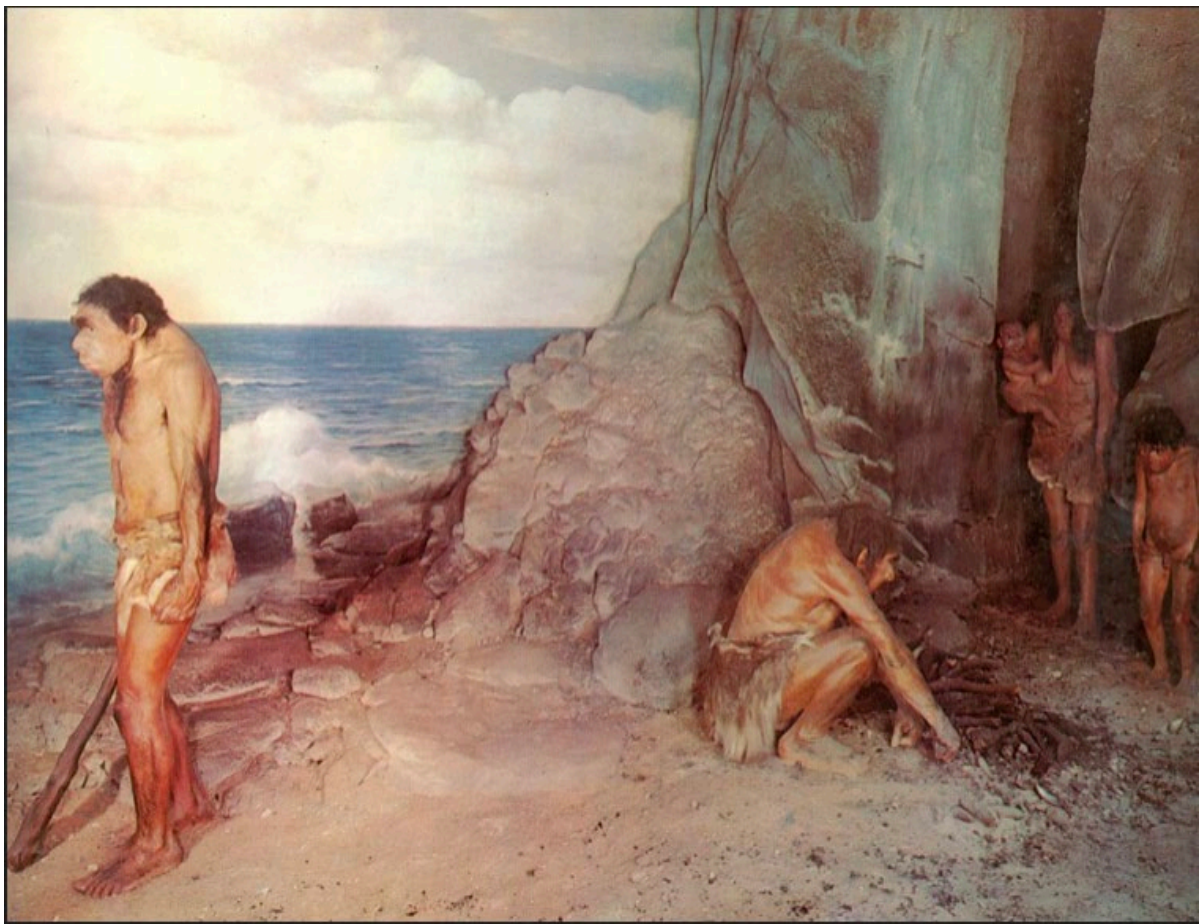


Figure 27: The first habitat diorama to reconstruct Neanderthals titled a Neanderthal family outside Devils Tower rock-shelter at Gibraltar, made by sculptor Frederick Blaschke and displayed at the Field Museum of Natural History, Chicago until 1971. The seminal motifs for depicting Neanderthals as brutish savages included, stooped posture, long feet and arms, nakedness and dejected and miserable expressions and the iconic club. The typical scene is set within the context of a cave reinforcing the comic caricature of a stereotypical caveman incapable of contributing to humanity (Source Field Museum, Chicago, 2017. <https://www.fieldmuseum.org/blog/what-happened-to-the-caveman-dioramas> Accessed 2023).

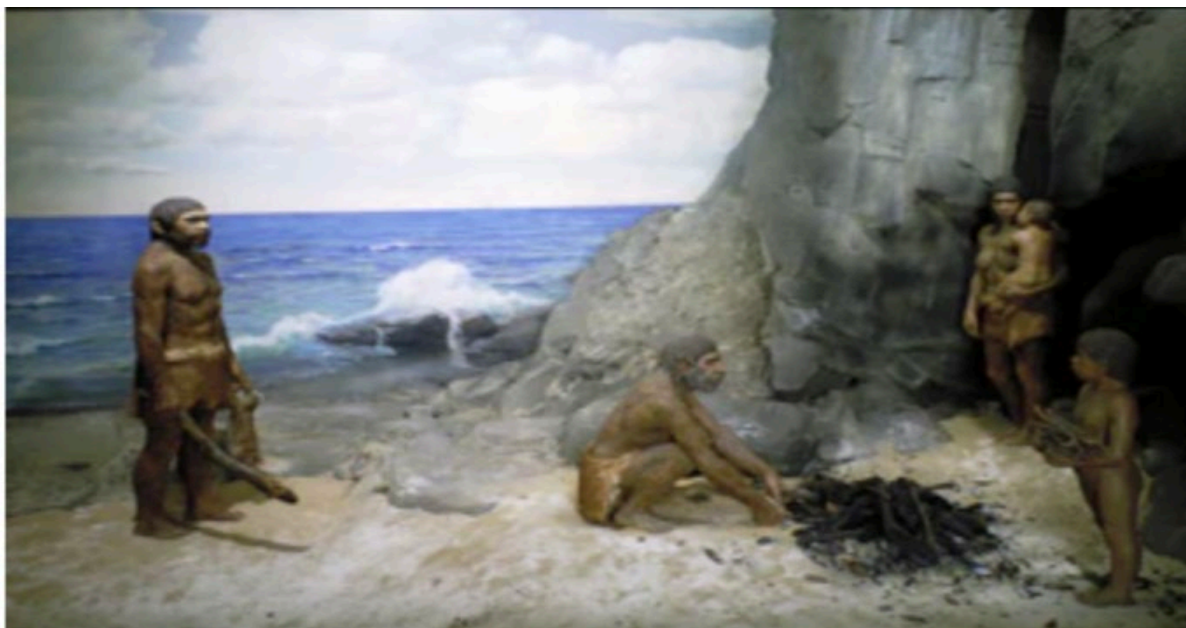


Figure 28: In 1973, the Neanderthal family group at Devils Tower, Gibraltar was replaced with new models created by Joesph Krostolich, but the scene and scenario remained the same, setting the museological and paleontological standard that perpetuated a highly formulaic suite of scenes utilised in the sequential back-telling of human origins. (Source Field Museum of Natural History 2017. <https://www.fieldmuseum.org/blog/what-happened-to-the-caveman-dioramas> Accessed 2023).

The dioramas of a Neanderthal family at Devil's Tower, Gibraltar and Le Moustier, France were the first of their kind and invertedly set the museological standard for presenting prehistory as a directional narrative with a familiar plot. The great journey of human evolution was one that had taken us from 'brutish savages', dependent on nature to statuesque and cerebral early humans interdependent through culture (Wiber 1999). By the 1970s the Neanderthal figures were recognised as being inaccurate (being based on diseased humans) and artist Joesph Krostolich was commissioned to replace the Neanderthal figures which persisted until 1994. An analysis of the differences and similarities between the original Neanderthal models and the updated figures created by Krostolich reveal the racialised and political undertone of palaeoanthropology as a discipline and the changing evolutionary position of Neanderthals on a hierarchal Darwinian tree of life (Clary 2022). There are three striking features of these models. First, note the skin colouration of the models signifying a racialised portrayal of Neanderthals. These figures are intended to be read as black

individuals, their skin colour is brown, and their head-hair is tightly curled. Second, the posture of the models is erect, rather than stooped demonstrating a direct lineage between the primates and early humans. Third, the brutality of the first diorama has been softened. These Neanderthals seem less miserable and dejected and the positioning of the models within the scene has changed dramatically; the male is now facing toward us, changing the direction of his gaze. Another male tends to the fire in the foreground of the diorama, but the child is now afforded an active role in collecting resources for the fire and helping his elder tend to it. The female remains burdened with a small child, but now she has been placed in view and no longer hidden by the crevasse of the cave. Metaphorically speaking, the female position in evolution and human antiquity has changed very little; she is clearer but remains encased within a gendered iconography of prehistory, encumbered by children and positioned in the background of the diorama. The most arresting feature about these embodied Neanderthals in both sets of figures is their lack of animation. Their expressions remained miserable and submissive, seemingly waiting for their own extinction, rather than being at home in their world as thriving and innovative, flexible and adaptive beings (Wragg Sykes 2021). Knight's murals and the Field Museum's dioramas reflect the contemporary scientific views and the cultural and societal constraints of Victorian ideas during which the art was created (Clary et al 2021; Clary 2022).





Figure 29: 'Frieze of Hands Preserved in Gargas Cave', France. Modern man uses a hollow bone tube to blow red-ochre paint around the outlines of his fingers leaving the first traces of cave art. Interestingly, the animals include an elephant and bison drawn on the wall. Once again modern humans are presented as the pinnacle of human evolution (Source Field Museum of Natural History 2017. <https://www.fieldmuseum.org/blog/what-happened-to-the-caveman-dioramas> Accessed 2023).

A brief analysis of the sequence of dioramas reveals that just like the scenarios created by Louis Figuier in his famous *L'Homme Primitif*, and the murals created by Charles, R. Knight, the traditional habitat dioramas were presented in sequential order to present human ancestry as a progressive journey through the ages. The museum focussed on the primitiveness of Neanderthals and the symbolic behaviours of modern humans, epitomised in the creation of cave art. The Neanderthals were exclusively associated with functional matters of survival and Cro-Magnons were associated with cultural matters reinforcing the dichotomy between 'them' and 'us'.



## 2.7. Neanderthals and Juxtaposition. A Turning Point.



Figure 30: The image titled a 'Neanderthal in a Hat' was used by anthropologist Carleton Coon in 1939 to highlight the humanity of Neanderthals. The aim of the image was to illustrate that it is our prejudices and misconceptions which hinder our interpretative horizon. The image supports the idea that Neanderthals were not so brutish and unintelligent as originally thought and that if one were to don modern clothing, he could be mistaken for a *Homo sapiens* (Source Schrein 2016).

Anthropologist Carleton Coon in 1939, used an artist's reconstruction of the Neanderthal specimen La Chapelle-aux-Saints in a hat to demonstrate that people's perceptions of differences between groups of humans depend in part on superficial characteristics such as clothing and facial hair (MacGregor in Schrein 2016). The Neanderthal in a hat image created a meme in Neanderthal reconstructions, dressing them in modern clothing complete with male business attire and a hat to suggest that Neanderthals were not as brutish as previously thought. The objective here was to demonstrate that if one were to don a fedora in the local pub, he would be mistaken for a *Homo sapiens* (Coon 1939; Schrein 2016). This juxtaposition of placing Neanderthals in modern and relatable attire was a conceptual mechanism for seeing the Neanderthals differently and marks an attempt to bring Neanderthals closer to us (Spikins 2009: 179-201). This humanising approach is epitomised by the famous anatomists William Straus and AJE Cave who declared:

*'If a Neanderthal was reincarnated and placed in a New York subway – if he was bathed, shaved and dressed in modern clothing, it is doubtful whether he would attract any more attention than some of its other denizens'* (Straus and Cave 1957). This visual strategy of

portraying Neanderthal as the same or like AMHs marks a significant departure from the traditional visualisation practices that placed ‘them’ in stark opposition to ‘us’.



Figure 30: ‘Mr. N’. A hyperrealistic model of the type specimen created by the Kennis Brothers in the entrance hall of the Neanderthal Museum, Mettmann, Germany. Following Carleton Coon, in the reconstructive meme of portraying Neanderthals in modern clothing. This model attempts to bring Neanderthals closer to us by emphasising their similarities, forcing us (modern humans) to confront disciplinary trends and assumptions surrounding their physical attributes and mental capabilities (Source Neanderthal Museum, Mettmann, Germany <https://www.neanderthal.de/en/home.html>, nd. Accessed 2023).

The Neanderthal Museum, Germany boasts a hyperrealistic model of a Neanderthal male, presented in a suit, complete with newspaper in his pocket and stone tool in his hand. This visual strategy provides a genuine attempt to bring the Neanderthals closer to us, through the representation of our ancient ancestors as essentially human and like us. This visual strategy portrays the Neanderthals as human, compassionate and knowledgeable successfully overturning decades of ‘character assassination’ and palaeontological dogma (Wragg Sykes 2021). The most significant change in the past twenty years in relation to hyperrealistic models ‘is the direction of their gaze’ (Sykes 2021). Gone are the portrayals of Neanderthals as an object of scientific study, an artefact to be marvelled over. Now they stare back at us. They are no longer dim-witted ape-like creatures, staring into the distance, vacant, and expressionless simply waiting for their own extinction (Wragg Sykes 2021). Instead, they are immediately recognisable as human and infused with emotion. They are now our confident cousins, even happy about their existence, mischievous, commanding and attractive. The key difference here is that Neanderthals are no longer looked down upon; their gaze and

relatability demands a reciprocal relationship, to view Neanderthals as human and a part of us (Wragg Sykes 2021). This new approach is epitomised in the ‘Human Family’ permanent exhibition at the Neanderthal Museum, Germany that applies a flat humanity and multi-species approach to the representation of human origins.



Figure 31: ‘The Human Family’ is a permanent exhibition at the Neanderthal Museum, Mettmann, Germany. The exhibition consists of three Neanderthal models and three other hominin species. The Neanderthal models include, Mr N, the smiling Neanderthal man (type specimen) and Kina a female child. This exhibition invites visitors to feel part of our extensive and multiple family tree. The Neanderthals are presented here as bright and intelligent, worthy frontrunners to our own species (Source Neanderthal Museum, Germany nd, <https://www.neanderthal.de/en/home.html>. Accessed 2023).

## 2.8. Conclusion.

As with any tradition of discourse, the visual language developed by archaeologists depends on the repeated association of icons and artefacts to form meaning of its subject matter. The visual language that perpetuated this primitive status achieved its conceptual aims by borrowing already established visual traditions, rather than introducing new images or visual schemas. Images in this regard continue to condition future practices, ideas and theoretical frameworks (Moser and Gamble 1997; Moser 2003). Unfortunately, these iconic vocabularies fuelled the repeated use of a suite of highly restrictive scenes. This suite of scenes is often presented in sequential order as a means of conveying incremental developments in the narrative of slow modernity and progression (Moser 2003: 9). This museological approach has resulted in the perpetuation of a familiar and ‘safe’ narrative about human origins that

focuses on a set of key evolutionary behaviours (please refer to table 3) (Moser 2003: 9-14).

The grand meta-narrative of unilinear progression and slow modernity through time and space, essentially presents Neanderthals as a monolithic entity, incapable of change or innovation, simply waiting for their eventual demise (Wragg Sykes 2021). The familiar narrative of prehistory calls into question the problem of extinction discourses and the direct replacement model that assumes that survival equates to evolutionary success (Villa and Roebroeks 2014; Hendrick 2021).

This chapter has demonstrated that notwithstanding changes to the type and style of representation, the ‘other’ (Neanderthals, women and animals) in prehistory is constrained by an interpretative glass ceiling and core-periphery model that centralises modern humans (white European males) (Zilhman 1997: 112). This is demonstrated by a continued reliance on age-old stereotypes, and speciesism to present Neanderthals as ‘the other’ (Hoffmann et al 2020). This epistemological approach is founded on a set of dualisms and progressive machineries in the context of the museum. This approach has both framed and conditioned public and professional imagination (Moser 1998). The ordering practices of the ‘evolutionary museum’ has played a significant role in ‘reading’ (viewing) ‘pasts beyond memory’ (Bennett 2004). These ‘pasts beyond memory’ were conceptualised using evolutionary theory and presented in a linear and progressive framework to stress the legibility of objects, particularly in the context of natural history (Tattersall and Schwartz 1999; Tattersall 2002, 2008: 28-34). Therefore, this chapter demonstrates that only a deep paradigmatic (theoretical framework of modernity and Cartesian philosophy) bias can explain the widespread application of double standards in the evaluation and representation of the other humanities (Zilhão 2012: 35).



## Chapter Three. Re-Branding the Neanderthals as Social Beings.

### 3.1. Introduction.

*‘The Neanderthal skull is eminently simial, both in its general and particular characters, I feel myself constrained to believe that the thoughts and desires which once dwelt within it never soared beyond those of a brute’ (King 1864: 96).*

William King’s description of the Neander type specimen in 1864, demonstrates that cognitive impairment has been central to the notion that Neanderthals were a distinct and separate species, from the beginning of palaeoanthropology, and evolutionary studies (Zilhão 2012: 35). Modern humans, are typically conceptualised as superior in a wide range of domains, including weaponry, subsistence strategies and cultural innovation. The traditional narrative centres on how the Neanderthals were somehow handicapped by comparison, lacking in symbolic capacity and language (Davidson and Noble 1996). These notions were put into practice using ‘behavioural modernity’ as a criterion (list of traits separating the Middle and Upper Palaeolithic in Europe) that can be empirically identified in the archaeological record (Zilhão 2012: 36). However, recent research, new dating and analytical techniques finds no support for this interpretation (Villa and Roebroeks 2014: 1-9). This chapter critically discusses Neanderthal symbolic behaviour and challenges the exclusive association of modern humans and behavioural modernity. It is my contention throughout this thesis that advanced cognition remains a defining hallmark of modern behaviour and the conceptual framework of behavioural modernity is used to exclude the Neanderthals from the realm of humanity (Zilhão 2020). The themes which follow suggest many of the behaviours traditionally associated with modern humans, and the supposed Upper Palaeolithic revolution are present among some Neanderthal populations and in some cases appear first in their archaeological record.

*‘The incredible details now amassed about Neanderthals are so far beyond the dreams of the pioneering prehistorians of the 19<sup>th</sup> century, they verge on science fiction’* (Wragg Sykes 2020: 174). New data is changing our interpretation of Neanderthals; their worlds, being, relationships and ‘intra-actions’ within multiple and varied landscapes across Eurasia (Barad 2003). In the light of this new evidence, Neanderthals are re-imagined as complex individuals who used sophisticated tools, built home environments, created art and adorned themselves with pigments, feathers and jewellery (Wragg Sykes 2020). Neanderthals didn’t have PR, but they do now, and recent research presents a very different emerging perspective of Neanderthals as: adaptive, flexible, agential and smart humans (Finlayson 2019; Wragg Sykes 2020; Romagnoli et al 2022).

This chapter will not provide an exhaustive list of all the latest discoveries and possible implications on Neanderthal representation. Instead, specific assumptions (ice-age explanations and innovative technologies), environments (the Eemian), behaviours (symbolic and meaningful expressions) and ‘encounters’ (palaeogenetics), will be explored in detail to challenge the traditional misconception of Neanderthals as brutish and unintelligent. I argue the museum must challenge the traditional conceptualisation of Neanderthals as monolithic entities, defined by their supposedly, unadaptable and unimaginative stone tool technology – the Mousterian, restricted to scenarios of hunting and burial against a backdrop of ice and extinct beasts. This chapter explores new visual possibilities and knowable truths that remain faithful to the archaeological data but place Neanderthals in unfamiliar and controversial states, presented as innovators, artists, and monument builders (Wragg Sykes 2021). This chapter essentially makes an argument for the sociality of Neanderthals based on the critical evaluation of the academic literature for and against.

### 3.2. Anatomical Idiosyncrasies. Neanderthals Through an Arctic Lens.



Figure 32: Comparison of a composite Neanderthal skeleton (left) and a modern *H. sapiens* (right) of comparable structure. Neanderthal reconstruction by Gary Sawyer and Blaine Maley; photograph taken by Ken Mowbray (Image taken from Tattersall 2012: 274).

Initially, anatomical comparisons were made between Neanderthals and present-day *H. sapiens*, living primates and eventually other hominins. The above image provides a comparison of a composite Neanderthal skeleton and a modern human of comparable structure. Note, the key differences in robusticity of build and in the proportions of the thoracic and pelvic regions. Initial reconstructions focussed on the anatomical differences between ‘them’ and ‘us’, including their low braincase, pronounced brow ridges and large nasal aperture creating a large prognathic face with no chin. The conical (barrel-shaped) rib cage and smaller robust frame were interpreted as adaptations to cold environments. These anatomical differences have been uncritically equated to cognitive differences despite equal cranial capacity (1330-1750 cc in Neanderthals and 1200-1700 cc in *H. sapiens*) (Tattersall 2012). The dominance of glacial conditions as the primary drivers of their distinct physical



evolution is far less obvious now than when evolutionary studies began. An arctic lens focusses on functional matters of survival presenting Neanderthals as animal-like in their capabilities and dependence upon nature, evidenced by multiple fractures in their bones (Wragg Sykes 2020). This matters because their dependence on nature is a defining characteristic which has excluded Neanderthals from the realm of humanity. Interestingly, the differences are not so distinct or severe when compared to contemporary Cro-Magnon peoples or hominins living in Africa. And one of the biggest transformations in their portrayal has been the toppling of ice age explanations for why they looked different to us. Traditionally, their stockier and heavier bodies were seen as a direct consequence of this environment, further perpetuated by the direct and repeated association of ice age extinct fauna (Wragg Sykes 2020). It is now recognised that these anatomical idiosyncrasies are a consequence of the environment and the lives they lived. How hominins lived and conducted everyday tasks profoundly impacted their bodies. The untangling of these influences, environments and behaviours are crucial to the re-conceptualisation of ‘them’ and ‘us’ (Wragg Sykes 2020).



Figure 33: ‘Snowbound’ created by the highly respected palaeoartist Charles, R. Knight in 1911. The image portrays Neanderthals at the mercy of their harsh and dangerous environment. For over a century to follow archaeological and scientific data sought to explain anatomical differences between them and us using ice age explanations (Wragg-Sykes 2020). The previously held belief is that their bodies reflected adaptation to extremely cold and harsh environments (Source: Staten Island Museum, nd: Accessed 2023 <https://www.tumblr.com/statenilandmuseum/77200793326/snowbound-charles-r-knight-american-1847-1953>).

I suggest, the problem stems from the visual kitbag of extinct beasts such as mammoths and cave bears initially utilised as a visual mechanism for conjuring deep time and vanished worlds (Currie 2016). In fact, this artefactual association of human remains, extinct fauna and stone tools established the deep antiquity of human origins and thus has become synonymous to the representation of prehistory in Europe (Pettitt and White 2011). The interconnected and multi-faceted relationship between animals and Neanderthals remains largely under-explored in archaeological investigations and representation. The variety of different species in the Neanderthals world are hugely under-represented within the visual frame. Neanderthals and animals are imagined in restrictive ways that centre on scavenging, hunting or in the extreme, Neanderthals as prey. Human-animal relationships are simply conceptualised as antagonistic or as a food resource (Wragg Sykes Symbiosis Conference 2020). I argue, the repeated and exclusive association of extinct ice age fauna and the Middle Pleistocene continues to perpetuate the archetypal (classic) Neanderthal as a monolithic entity across time and space. This is demonstrated by a brief analysis of Jersey museum and their display dedicated to the La Cotte Neanderthals.



Figure 34: Hyperrealistic model of the Old Man of La Chapelle-aux-Saints, France at Jersey Museum, Saint Helier. The adult male named Barbu takes centre stage dominating the gallery space. He stands upright with a spear in his right hand and an open wound on his chest demonstrating his active participation in this harsh environment. He is exclusively associated with woolly mammoths and the hunting of large game. (Source: Author 2020).

Barbu, takes centre stage at Jersey Museum, Saint Helier. He stands upright with a spear in his right hand, and an open wound on his chest demonstrating his active participation in the arduous struggle for survival. Mammoths appear reconstructed in an image to his right and the bones of this extinct beast are to his left in the display case. This is because this is a reconstruction of the bone beds at La Cotte de St Brelade, Jersey which happens in a cold phase and the animals that are present are mammoth and rhino. These bone beds were initially interpreted as evidence for intentional hunting drives, representing a ‘mass kill site’. The involvement of Neanderthals in premeditated and organised hunting strategies challenged traditional assumptions concerning their cognitive and behavioural capabilities (Scott et al 2014). La Cotte, therefore entered the canon of key Middle Palaeolithic localities which offered a new perspective on Neanderthal populations. Although, this is an accurate reconstruction of (some) of the available archaeological data it fails to critically consider alternative narratives.

The site has framed important debates about Neanderthal behavioural capacity and organisational abilities, but one impression has dominated archaeological consciousness and visualisation: that the deep ravines at La Cotte provided a location for game drives by Neanderthal hunters (Scott et al 2014). The traditional narrative of Neanderthal subsistence (hunting) is continually re-represented and re-cycled, despite the site offering the most detailed and extensive record of continuous Neanderthal occupation in Northern Europe (spanning from c. 240,000-40,000ya/MIS 7 to MIS 3), punctuated by abandonment during the coldest phases (Shaw et al 2016). The new view of La Cotte provides a different perspective which focusses on the geography and environment of the surrounding area. This whole-site approach demonstrates that La Cotte was situated in a highly structured landscape

of granite bluffs, canyons and valleys, rather than sitting at the edge of a flat and featureless landscape. This new landscape offered Neanderthals an environment where large mammals could effectively be controlled and ambushed, rather than driven over cliffs. Therefore, Jersey museum accurately reflects the traditional archaeological data but fails to incorporate recent findings that provides key evidence for favourable interpretations of Neanderthals that explore alternative narratives.

The museum focusses on the bone heaps and continues to disseminate the traditional game-drive hypothesis, perpetuating mammoth myopia, but the bone heaps simply represent two features within an extensive sequence of Neanderthal occupation. Arguably, ‘the Neanderthal achievement at La Cotte was not driving mammoths over a headland, it was meeting the adaptative challenges of extreme climate change while maintaining a long-term if punctuated presence in the region’ (Scott et al 2014: 27). The continued use of the site by Neanderthals throughout an extended period of changing climate and environment reveals the significance of La Cotte as a persistent place in the memory and landscape of its early inhabitants (Shaw et al 2016). La Cotte, therefore, provides an exciting opportunity to explore alternative narratives centred on the co-evolution of environment and hominins that is not yet explored at Jersey Museum (Shaw et al 2016).

The bones of extinct animals and fleshed out bodies of specific types of megafaunas are emblematic objects and seminal motifs synonymous with the Palaeolithic and the perpetual struggle for survival. The disciplinary and cultural preoccupation with mammoths and extinct beasts has blinkered our conceptualisation of Neanderthals to mere arctic survivors against a backdrop of ice and mammoths (Wragg Sykes 2020: 14). Anatomical differences understood from an alternative perspective demonstrate how the Neanderthals developed their own

unique features, bodies and minds which were a match for contemporary *H. sapiens* and the many other hominins with which they shared their world. The same anatomical idiosyncrasies which have been used to demonstrate their primitiveness and lack of adaptability, dependent upon ice age explanations may be used to demonstrate the sociality of Neanderthals. This new perspective explores the altruistic qualities of individuals and their social group, endowing the Neanderthals with something which they are not traditionally associated: ‘emotionality’ and empathy for members of their social group (Spikins 2009; Tarlow 2000).

### 3.3. Caring Neanderthals.

Margaret Mead famously stated during conversations with a student that *‘a healed femur is the earliest sign of true civilisation’* (Taken from Blumenfeld: 2020).

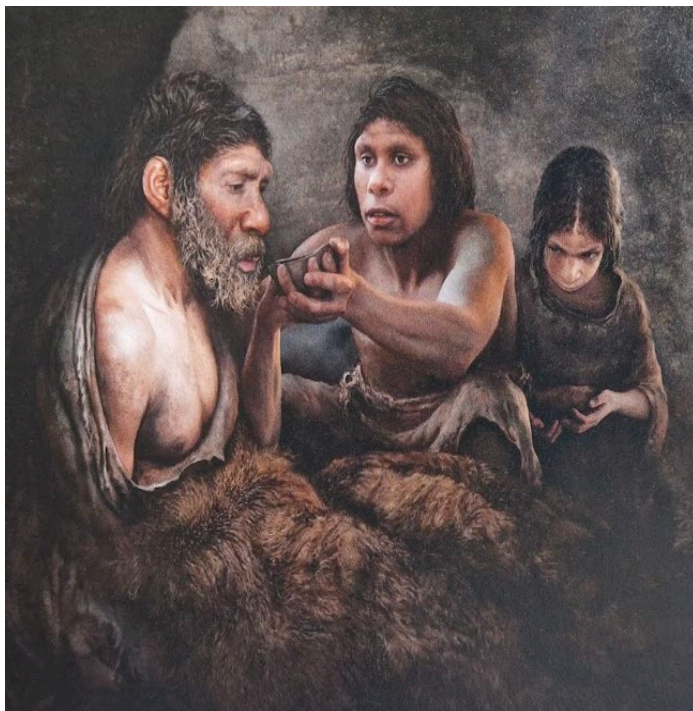


Figure 35: ‘Compassionate Neanderthals’. Image created by Tom Björkland for the special exhibition at Moesgaard museum titled Neanderthals. The portrait explores altruism within Neanderthal culture, reconstructing relationships from the ‘most battered’ Neanderthal Shanidar 1. This radical and theatrical approach portrays them as caring and socially complex individuals (Image taken from Moesgard Museum 2020).

Multiple fractures are identifiable in Neanderthal bodies traditionally interpreted as physical evidence for the harsh and dangerous environment in which they lived and the perils of their everyday lives. However, there is an alternative way of viewing these ‘burdens in the bones’,

beyond functional and environmental concerns (Wragg Sykes 2020). If we apply a social and empathetic lens to our analysis, the bones of Neanderthals reveal tales of altruism, connectedness and social relationships. To give an example of this altruistic behaviour Shanidar 1 provides an enlightening alternative to the brutish and dejected portrayal of Neanderthals. Put simply, Shanidar 1 survived an '*astonishing number of physical difficulties*', which would have been extremely difficult if not impossible to survive without the help and care of other members of his social group' (Wragg Sykes 2020). It appears, Shanidar 1 must have been cared for and seen as a valued and/or respected member by his social group and family. To survive in such a hazardous environment with partial eyesight, hearing loss and the likely amputation of his dominant lower right arm, would not have been possible without considerable care throughout his life (Trinkaus 1983). These severe injuries would have required more than nursing back to health and the short-term provision of supposedly scarce resources. He would have undoubtedly been a burden to his social group, requiring care and provisions for the entirety of his life. Consequently, Shanidar 1 reveals a hard life etched into his bones, but it also illuminates a life of: emotional connections, relationships, co-operation and acceptance of people with a disability within his social group (Spikins 2009). The point here is not to suggest that altruism is proof of the moral value of our closest ancestors, rather the aim is to explore modern behaviours not typically associated with Neanderthals that reflect a broad spectrum of adaptations which allow archaeologists to think differently about their sociality (Gamble 2011).

It appears the museum typically focusses on the 'hard life' aspect of Neanderthal bones as opposed to social and cultural matters of emotionality and intra-activity, failing to represent social relationships and networks (Barad 2003, 2007; Spikins 2009; Gamble 2011). This may be unintentional because many of the hyperrealistic reconstructions in this analysis are single

entities, but in their current format they fail to critically engage with recent archaeological knowledge. This is a common problem across all visualisation types whether it be 2D artistic representations, hyperrealistic models or anatomical reconstructions. In the museums' attempt to humanise Neanderthals they have failed to critically engage with the sociality of their being by moving away from multiple behaviour models that aim to highlight different tasks and roles which are the basis of a social family unit.

### 3.4. Alternative Lenses: Different Environments and New Interpretations.

The last interglacial or Eemian interglacial, from c. 126,000 to 115,000 B.P., saw warm and humid climatic conditions in Europe like those of the current climate. Interestingly, the Eemian is by far the warmest period any hominin species has experienced, though the warmest part of the Eemian is thought to have lasted for only four thousand years. This is an exceptional climate in Neanderthal history, however, an exploration of Eemian Neanderthals challenges stereotypical views about Neanderthal lifestyle and the outdated notion that Neanderthals only thrived in glacial conditions. This approach provides the museum with a genuine opportunity to explore unfamiliar, but relatable and relevant environments and behaviours within the Palaeolithic visual frame. Through an Eemian lens we reveal a warm, lush and giving world, full of forests and different types of animals. From this perspective the Neanderthals are encapsulated within a lush paradise, rather than a frozen and unchanging world of cave bears and mammoths (Wragg Sykes 2020). Although Eemian sites in the United Kingdom have, despite concerted efforts, not been confirmed, I argue, the museum should investigate and present the diversity of Neanderthal populations by exploring different types of Neanderthal communities across multiple Eurasian sites.

The Eemian played a crucial role in our evolutionary history. Many archaeologists consider that humanity (*H. sapiens*) took an important step towards ‘modern behaviour’, during the last interglacial (Richter 2005). These key evolutionary behaviours include but are not limited to technological innovations, marine exploitation, and a change in subsistence strategies and diet, indicating a major shift from conservative subsistence strategies that focussed primarily on large game and the hunting of mammoths (Richter 2005). Interestingly, many of these broad-spectrum adaptations seem to have also appeared, independently in some Neanderthal populations in Eurasia, suggesting that the Eemian interglacial, represents a key stage of our entangled evolutionary history.

Approximately thirty Eemian locales with Neanderthal presence have been identified across Europe. They consist mostly of buried lake beds and springs demonstrating not just a close affiliation to animals in the Palaeolithic but also a close affiliation with water (Wragg Sykes 2020; Finlayson Neanderthal Conference 2021). Sites such as Neumark-Nord, in Eastern Germany present a harlequin environment, an Eemian wildwood, leafy and forested where Neanderthals stalked and hunted deer, demonstrating Neanderthal variability and adaptability across a multitude of different locales and environments (Kindler et al 2020). Presenting Neanderthals within different landscapes, on the beach or in a densely populated forest, instead of steppe tundra against a backdrop of rain, or images of Neanderthals experiencing the hottest summer, remain true to the scientific data, whilst providing the visual and theoretical space to challenge ice age interpretations of Neanderthals, their bodies, being and life which thus far has been encased within an ice blue ceiling (Wragg Sykes 2020, 2021).

A major problem in displaying prehistory is how do we make it relevant and relatable. The Eemian provides archaeologists with a politically and emotionally charged issue that is



currently at the forefront of modern politics and media - climate change (Wragg Sykes 2020). By exploring the exceptional climate of the Eemian, we can start to engage with Neanderthal archaeology in a familiar and relatable sense and ask new questions concerning our own humanity for example, will we survive a self-induced Eemian? The reconstruction of Neanderthals as monolithic entities encased within blue ice, limits regional and geographical variation. The museum defines Neanderthal culture as unchanging and conservative, simply because it insists on placing them within the same set of recycled scenes and scenarios that perpetuate the caveman stereotype and reinforce mammoth myopia (Wragg Sykes 2020). The aim of exploring different environments within the Palaeolithic visual frame is to present different ways of being Neanderthal that challenge the traditional representation of a monolithic archetype.

### 3.5. Food for Thought. Neanderthal Dietary Ecology.

*‘Neanderthals are never going to be modern-day vegan mascots, but the utilisation of plants for subsistence and medicinal purposes has provided a dramatic U-turn in our understanding’* (Wragg Sykes 2020, 2021; Melamed et al 2016).

Traditionally, Neanderthals were imagined as sloughing beasts, who either scavenged or used brutality and force to catch their prey. This view was evidenced by the many fractures in their bones, but the discovery of Le Moustier 1 in 1908, and his associated Mousterian tool kit changed the hypothesis from scavenging to the hunting of large game (Hauser 1909; Maureille and Turq 2005). Consequently, the hunting scene became a key evolutionary stage of development in the unilinear narrative of human progression and a seminal scenario for evoking prehistory. Models of evolution and Palaeolithic archaeologies centred on the hunting of extinct fauna, namely Neanderthals as mammoth hunters, which labelled them as

hyper carnivores, suggesting that they got more than seventy percentage of their diet from meat. This percentage puts Neanderthals in the realms of other meat-loving animals like hyena and polar bears, reinforcing the separation of ‘them’ and ‘us’ by emphasising their animal-like demeanour and capabilities (Monnier 2012).

The traditional portrait of Neanderthals as meat lovers comes in part from the chemical analysis of their bones. Bone collagen reveals the relative ratio of the stable isotopes of nitrogen,  $^{15}\text{N}$  and  $^{14}\text{N}$ . The theory goes, the higher  $^{15}\text{N}$  is in the bones, the more meat heavy the diet. This research has been used by archaeologists as a chemical fingerprint to determine and justify the hyper carnivore label (Duncombe 2018). However, recent research suggests that such heavy reliance on their nitrogen isotope signatures may be misleading since we don’t really understand all the potential inputs and processes going on with generating the higher  $^{15}\text{N}$  signal (Duncombe 2018). Further research is required to understand the effects of rotting meat, eating prey higher up the food chain and processes such as cooking, drying and other treatments of meat that might affect the nitrogen signatures (Duncombe 2018).

What we do know is that Neanderthal dietary ecology was, however, far more complex than previously thought. Recent research and new analytical methods (for example: analysis of dental calculus, biochemistry and dental microwear), developed within the past few decades present an increasingly colourful and dynamic picture of Neanderthal cuisine. Until relatively recently, Neanderthal diet and subsistence strategies have been framed unflatteringly in opposition to *H. sapiens*. This matters because some researchers have proposed dietary differences between ‘them’ and ‘us’ as one of the fundamental causes for their extinction (Henry et al 2010). Archaeologists now know that they exploited a variety of different resources across a broad spectrum of animals and plants; big and small game, carnivores,

birds (Blanco et al 2021), plants (Madella et al 2002), tubers, nuts, fruits, seeds (Shipley and Kindscher 2016), together with marine resources large and small, ranging from walrus and dolphin to molluscs, mussels and clams (Henry et al 2010; Hardy and Moncel 2011; Finlayson et al 2012; Melamed et al 2016; Gomez-Olivencia et al 2018; Hardy et al 2020).

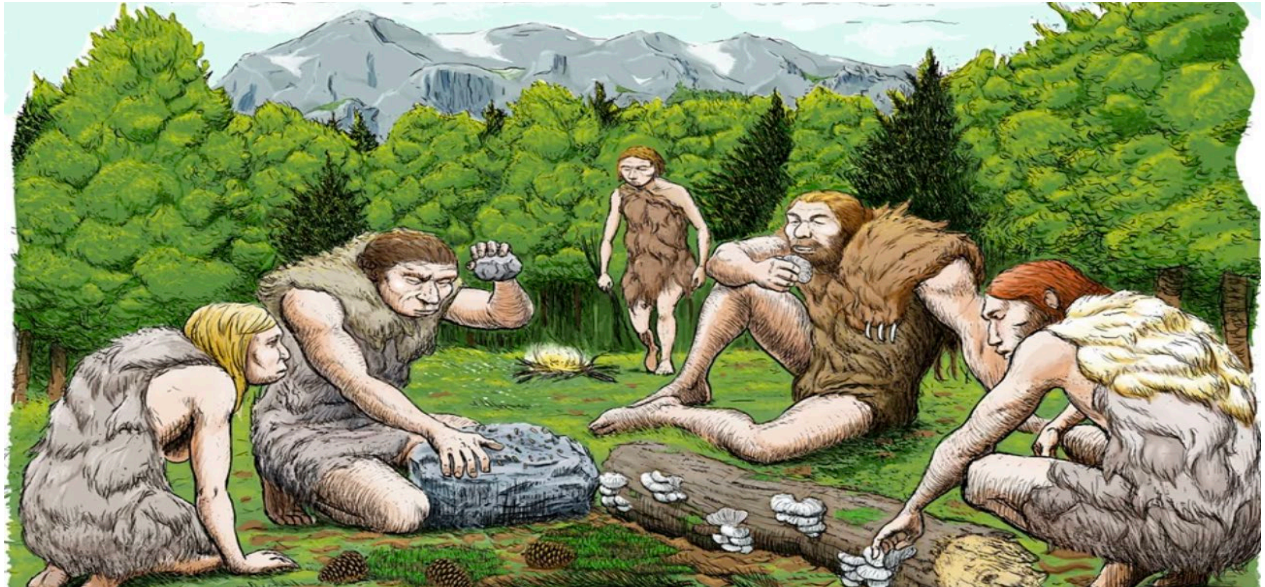


Figure 36: An illustration of Spanish Neanderthals preparing to eat plants and mushrooms after recent studies of their dental plaque revealed a heavily vegetarian based diet. This is an unconventional illustration, but it remains faithful to the scientific data, shattering previous conceptualisations of them. This approach highlights the adaptability and sociality of different Neanderthal populations (Image taken from <https://www.npr.org/sections/thesalt/2017/03/08/519048010/>).

More recently, Neanderthals have been presented as herbaceous connoisseurs, rather than super-carnivores. The use of plants as a subsistence strategy is present at several sites ranging from thousands of charred plants remains at Kebara Cave, Israel (Kaplan 2012) to a diet supposedly comprised of entirely vegetarian resources of pine, mushrooms and moss at El Sidrón, Spain (Hardy et al 2011, 2012, 2021). The varied and multiple use of plants by this Neanderthal community suggests they must have had sophisticated knowledge of their surrounding environment; including the ability to select and use different plants for specific purposes (Hardy et al 2012). This is demonstrated by Weyrich et al (2017), who analysed regional variation from aDNA in the dental calculus of five Neanderthal fossils. They found that Neanderthals from Spy cave, Belgium relied on a heavily meat-based diet (although not

exclusively, mushrooms are believed to have been a significant feature of their diet, also). In contrast, no meat was found in the Neanderthals from El Sidrón, Cave, Spain, suggesting that differences in diet reflect the fact that different populations of Neanderthals lived in different environments (Weyrich et al 2017: 357-361). The study also revealed aspects of Neanderthal life previously unconsidered. One young male adolescence was suffering from a tooth abscess and a stomach bug identified by *Microsporidia*, which is a gastrointestinal pathogen. His dental plaque indicates he was self-medicating by eating the bark of poplar trees which contains salicylic acid, one of the natural sources of what we recognise as aspirin today. Remarkably, they also found evidence of *Penicillium* in his plaque, presenting Neanderthals as very evolved humans, who utilised plants for food and medicinal purposes (Weyrich et al 2017: 357-361).

The image of Neanderthals as mammoth hunters (large game specialists) continues to infiltrate the Middle Palaeolithic visual frame (Kabukcu et al 2022). Although, in some instances this remains faithful to the archaeological record of some Neanderthal populations it is not the case for all (Weyrich et al 2017). The continued association of Neanderthals as super carnivores I argue, simply reinforces monolithic interpretations of Palaeolithic archaeologies and fails to critically consider different ways of being Neanderthal. The problem is not necessarily the types of food they were eating, rather it is our conceptualisation of hunter and gatherer lifestyles. During the 17<sup>th</sup> century, philosopher Thomas Hobbes conceptualised hunter and gatherer lifestyles as short and brutish. These were people who lived in continual fear and danger of an inevitably violent and painful death (Gowdy 2021: 41-63). These connotations and assumptions of hunter and gatherer life patterns, set the conceptual agenda for the living 'other' (ethnoarchaeology), outside of civilisation. The exclusive representation of Neanderthals as super carnivores emphasises an

arctic lens and perpetuates the restrictive scenario of hunting. The traditional approach to Neanderthal diet and subsistence strategies fails to critically consider regional variation, adaptation, and human-animal relationships in the Middle Palaeolithic.

The new picture of Neanderthal cuisine is extraordinary, bringing them much closer to us in terms of relatability and familiarity. In addition, it appears they did not merely exploit a diverse and varied diet, but they may have also cooked their food (Henry et al 2010: 486-491). There is also further evidence to suggest that the Neanderthals invested time and energy into the preservation of their food resources through freezing, smoking, curing and even fermentation (Speth, 2017: 44-72). The roasting of megafauna over an open fire is an old caveman cliché, but this practice has proved to be inefficient and fuel hungry. There is now good evidence of cooking meat, perhaps even the boiling of foods and liquids into stews presenting Neanderthals as '*homo-gastronomus, rather than homo-stupidus*' (Wragg Sykes 2020; Kabukcu et al 2022). Rarely, if at all, are Neanderthals depicted cooking stews, preparing food or eating plants, despite an avalanche of new data which suggests that Neanderthals and contemporary modern humans consumed a similar array of food and plant resources (Henry et al 2010; Madella et al 2022).

### 3.6. Neanderthals and Technological Innovation. Stone Tools.



Figure 37: 'Mousterian and Upper Palaeolithic Stone Tools'. Top left – Le Moustier 1 Neanderthal skull (Source: Henk 2017: Neues Museum of Berlin). Top middle – Mousterian hand axe excavated by the British Museum in 1863. Top right – A box of side scrapers excavated by Lartet and Christy in 1863, held at the British Museum (Source Wikipedia accessed 2<sup>nd</sup> of Sept 2023). Bottom – Stone tools from the initial Upper Palaeolithic at Bacho Kiro Cave, Bulgaria including pointed blades and a sandstone bead with morphology similar to bone beads discovered in the same archaeological layer I as four *H. Sapiens* bones. The site includes a rich assemblage of stone tools, animal bones, bone tools and pendants made from perforated and grooved teeth, awls, lissoirs and ivory beads (Hublin et al 2020; Image taken from MAX-PLANK-GESELLSCHAFT 2020).

The Neanderthal world has been imagined principally from bones and rocks. The next section of this chapter demonstrates that there is more to Neanderthal life and society than stone tools and extinct beasts (Pettit and White 2011, 2013). New data suggests Neanderthal material culture was far more complex and varied than they have originally been given credit for. A



primary misconception surrounding Neanderthals, focusses on their ‘conservative and unchanging’ stone tool industry – the Mousterian. Traditionally, the analysis and representation of stone tool production focusses on the grouping of artefacts into strictly defined and bounded categories (typologies), presented in a chronological and progressive order (Bennett 1995, 2004, 2010). The Mousterian and Aurignacian are representative of two prehistoric cultures that differed in their tool making techniques, artistic traditions and the time periods in which they existed. More specifically, the Mousterian (flake industry) culture has become emblematic of the Middle Palaeolithic and Neanderthals, while the Aurignacian was an Upper Palaeolithic culture. The Mousterian is conceptualised as ‘lesser’ than the Aurignacian culture which is exclusively associated with *H. sapiens*, and lasted from around 37,000 to 33,000ya, with a late Aurignacian phase lasting until about 26,000ya (Hublin et al 2020).

Traditionally, the Mousterian is associated with functionality and is constantly referred to as a demonstration of an unchanging and conservative technology. In contrast, stone technologies of the Upper Palaeolithic are associated with greater complexity, variability, and specialisation. The Aurignacian culture used a variety of tool types including stone flake tools, nosed scarpers, carinate scrapers and end scrapers and they used bones, ivory and antlers to make points and awls. Upper Palaeolithic assemblages are characterised by bladelet production, and the presence of shaped bone tools and pendants (Hublin et al 2020: 3). The burin (an engraving tool) that modern humans used for carving or finishing wood or bone tools and sometimes for engraving images, is considered an important technological innovation that facilitated the creation of art. Consequently, Mousterian industries are conceptualised as tools for function, whilst Aurignacian industries are tools for culture, endowing these artefacts with cultural and symbolic expression. This arbitrary difference

further the divide between ‘them’ and ‘us’. To give a brief example: the production of blades and projectile technologies has been presented as a decidedly human advantage both in terms of lithic production and hunting strategies (Brown et al 2012; Shea 2012). In the extreme, these technological differences have been used as an explanation for their extinction, claiming Neanderthals inability to adapt their technology as a major factor. This has, however, been proven false and unnecessary, with no direct archaeological evidence to support the hypothesis (Villa and Roebroeks 2014; Wragg Sykes 2020). The evidence is growing in favour for independent technological innovation among Neanderthal populations.



Figure 38: A comparative analysis of contemporary *H. Sapiens* at Bacho Kiro Cave, Bulgaria and personal adornments and bone tools from the Châtelperronian layers at Grotte du Renne, Arcy-sur-Cure, France. The IUP pendants of Bacho Kiro Cave are notably like artefacts produced by late Neanderthals at Grotte du Renne. The key point here is that the above artefacts at Grotte du Renne are Aurignacian like and a transitional Châtelperronian has always been envisaged in this way. The discriminatory feature centres on the belief that these cultural advances are a direct result of contact with migrant *H. sapiens*. In this scenario Neanderthals are portrayed as the receivers of knowledge rather than the protagonist movers in evolution. Ironically, it is worth mentioning that the modern human population at Bacho Kiro cave, Bulgaria had a lot of Neanderthal ancestry as recently as four-to-six generations back in their family tree, suggesting that contemporary *H. sapiens* and Neanderthals of this period had similar cognitive and technological capabilities (Hublin et al 2020: 4. Image taken from MAX-PLANCK-GESELLSCHAFT accessed 2<sup>nd</sup> of Sept 2023).



A comparative analysis of the different technological cultures highlights the need to both categorise and divide the world around us, and consequently infer differences between ‘them’ and ‘us’ in their bodies, technologies and culture. This thesis demonstrates that while many of the portrayals of Neanderthals have undergone a significant and welcoming journey of becoming human, there remains a visual and theoretical divide between ‘them’ and ‘us’ in relation to their associated technologies.

### 3.6.1. Innovative Technologies in Neanderthal Populations. Bone Working.

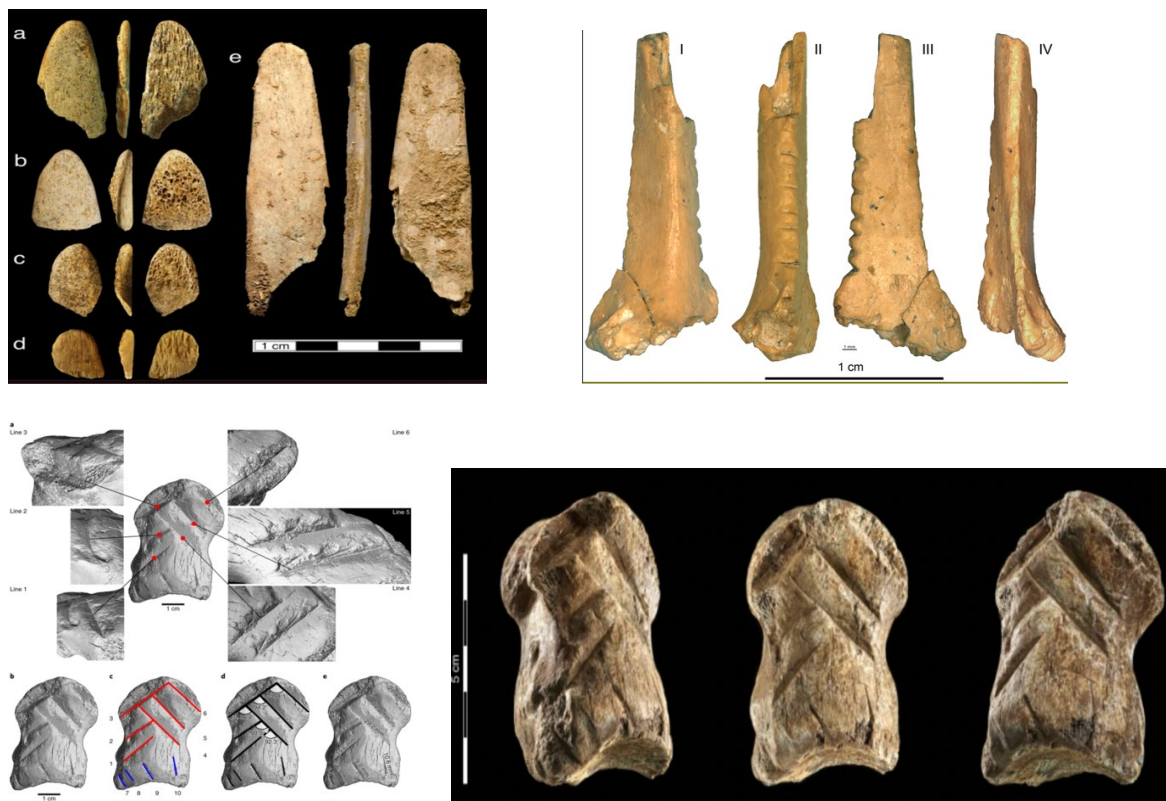


Figure 39: ‘Bone Working. Neanderthals and Innovative Technologies’. Top left. Photographs of the Pech-de-l’Aze I and Abri Peyrony lissoirs (Source Martisius et al 2020). Top right. A raven bone fragment with deliberate notches for aesthetic concerns from Zaskalnaya (Source Majkic et al 2017). Bottom left. Technological details of the incised bone from Einhornhöhle. These Greyscale images provide a close-up view of the individual engravings, line interpretation and line numbers (Source: Leder et al 2021). Bottom right. Photographs of the engraved giant deer phalanx from a late Middle Palaeolithic context at Einhornhöhle, Lower Saxony, Germany (Source: Leder et al 2021).

Bone working by tradition has been exclusively associated with the appearance of modern humans. It is now recognised that some Neanderthal populations produced bone tools. These include the discovery of specialised types known as lissoirs (likely used for the purposes of

working hides). Five fragments of nearly identical lissoirs are found at two middle Palaeolithic sites in southwest France: Pech-de-L'Azé I (Pech 1) and Abri Peyrony (Martisius et al 2020). The first revelation in the relationship between animal bones and tool making is a practical or cultural systematic preference of a specific species (large bovid ribs) which they used for specific purposes. At Les Pradelles, France, Neanderthals mostly hunted reindeer, but made the conscious and deliberate decision to make tools from larger species such as horse and bison bones (Costamagno et al 2006: 466-484). The Neanderthals here carefully selected different species of animals and favoured working the left-hand side of the body into tools. They used different bone tools for different tasks including knapped mammoth ivory, but it appears they only do this when there is little stone to hand (Martisius et al 2020; Wragg Sykes 2020).



Figure 40: Incisions made on a hyena bone by a Neanderthal might have recorded numerical information (Source DErrico et al 2018).

Also, at Les Pradelles, a broken, already old hyena femur has nine deliberate incisions, that are strikingly similar and approximately parallel. The suggestion is that these markings made on the bone by a Neanderthal might have recorded numerical information, signifying the ability to store and retrieve this information. This cognitive skill was traditionally thought to begin with modern humans. However, an analysis of the incisions on the hyena bone at the Les Pradelles, suggest Neanderthals may have been the first to master this practice dating to a

minimum of 60,000 to possibly 72,000ya (Derrico et al 2018: 1740). Furthermore, new evidence is emerging for a symbolic connection and concern for symmetry in Neanderthal populations. Zaskalnaya VI rock shelter, Crimea, provides direct evidence of a bird bone bearing aesthetic modifications that cannot be explained by butchery activities (Majkic et al 2017).

Recent discoveries have also revealed etched, carved and engraved pieces of bone (Leder et al 2021: 1273-1282). Including the possibility that Neanderthals may have produced a bone industry. The recent discovery of more than 1,200 bone tools from the Neanderthal site of Chagyrskaya (Altai, Siberia, Russia) currently provides the only example of a bone industry that can be directly and exclusively attributed to Neanderthals. Together with increasing discoveries of isolated finds of bone tools in various Mousterian sites across Eurasia these continue to stimulate the debate around the importance of bone tools in Neanderthal populations (Baumann et al 2023). Current excavations at Chez Pinaud, France, suggests that the Quina bone-bed level may provide further evidence of a bone industry in the Western area of their geographical range. The analysis revealed as many bone tools as flint ones, including retouchers, beveled tools, re-touched artefacts and a smooth-ended rib. The diversity of bone tools recovered from this site opens a window on a range of activities not documented by stone tools. The above examples require cognitive abilities traditionally associated with the arrival of modern humans in Europe. These examples are rare, but bone tool industries are becoming a reality across Eurasia, forcing us to critically reconsider Middle Palaeolithic subsistence strategies and technologies (Baumann et al 2023). Traditionally, a predominant feature of 'humanity', has been identified in Mousterian contexts, blurring the boundaries between 'them' and 'us' and challenging the foundational tenants of behavioural modernity (Foley 2014).

### 3.6.2. Neanderthals as Carpenters.

New scientific techniques and high-definition archaeologies are beginning to reveal a ghost realm of Neanderthal culture waiting to be discovered (Wragg Sykes 2020: 119). The first category of exploration of the ‘missing majority’ of organic materials is wood (Hurcombe 2014). Wood rarely survives in an archaeological context, particularly in Pleistocene contexts and knowledge of prehistoric hunter-gatherer lifeways is strongly biased by the survivorship of lithics and bones. I propose, the reconstruction of Neanderthals as carpenters who were masters of their environment, allows us to re-think and re-conceptualise them as experimenters who reshaped the boundaries of their material world (Wragg Sykes 2020). This approach may feel unfamiliar and unsubstantiated, but this enlightened view is grounded in recent archaeological data.



Figure 41: Left. The Schöningen spears recovered from Schöningen, Germany believed to be c. 300,000ya. (Image taken from Forschungs museum website, accessed 2<sup>nd</sup> of Sept 2023: <https://forschungsmuseum-schoeningen.de/en/research>). Figure 42: Right. The Aranbaltza stick photograph showing the pointed wooden tool immediately following its excavation (Image taken from Rios-Garaizar et al 2018).

Archaeological sites such as Schöningen, Germany have ‘blown apart’ notions of primitive woodworking and the emblematic iconography of the club (Wragg Sykes 2020; Conard et al 2015). Schöningen 13 11-4 (referred to as the spear horizon) provides the largest assemblage of wooden artefacts worldwide. A total of 187 have now been identified including: at least 10

spears, seven throwing sticks, and 35 newly recognised pointed and rounded sticks interpreted as tools used in domestic activities (Leder et al 2024). The expertly crafted spears are far from pointed shafts. They are finely made from the stump end, which is the most difficult to craft, and carved slightly off-centre to increase the strength and durability of the spear. There is also the possibility that one of these spears was engineered to fly, reaching a range of 30 metres, demonstrating an intimate knowledge of their environment, and the animals and materials within it (Wragg Sykes 2020). The site lacks hominin bones, but most scholars assume the toolmakers were Neanderthals or their immediate ancestor *Homo heidelbergensis*, because it coincides with the earliest evidence for Neanderthals elsewhere in Europe.

Schöningen has revolutionised our understanding of the Lower/Middle Palaeolithic transition and the interplay of technological complexity, human behaviour and human evolution. The high definition and excellent preservation of this site has revealed: hearths, butchered animals, plant remains, bone hammers and wooden weapons. It appears that they are using different bones and materials for different tasks. This illustrates a cognitive capacity not usually afforded to Neanderthals together with the ability to forward plan and adapt to different types of situations and contexts, in this case the hunting of horses (Wragg Sykes 2020). Schöningen, also implies that the Neanderthals in this region of Germany exercised some sort of cultural tradition. They continually returned to the same part of the lake, choose the same tree species for the creation of almost identical spears and used specific parts of the horses they butchered to make bone tools (Leder et al 2024).

Weapons are not the only wooden objects to be found in Neanderthal populations. Contrary to previous interpretations, the total number of twenty to twenty-five hunting weapons and

thirty-five domestic tools demonstrates that Schöningen 13 11-4 functioned not only as a hunting/butchery site by a lakeshore, but equally as a site for domestic activities. Such activities consisted of wood tool curation, artefact recycling, production of expedient wood tools and the use of these tools for varying purposes (Leder et al 2024). Together the wooden artefacts reveal a domestic side of Neanderthal life that is rarely considered or visually represented. These non-hunting tools further our understanding of the diversity and complexity of Neanderthal behaviour. They remind us that Neanderthals had to live and make clothes which helps us relate to them (Barnham in Curry 2024). Many of the wood tools are more complex in planning and craftsmanship than the simple stone tools found at Schöningen, providing a rare insight into the profound cognitive processes (*chaîne opératoire*) needed to create these artefacts. There is also evidence to suggest that some broken wooden tools were recycled – whittled and polished into smaller tools (Leder et al 2024). Out of thousands of Palaeolithic sites, barely a dozen have produced preserved wood. Yet, the wooden tools at Schöningen demonstrate more production steps and more sophistication than the stone tools present, suggesting that maybe stone tools were not as important as the wood tools.

Abric Romani situated in Northeast Spain provides a captivating and exceptionally preserved Neanderthal site and their occupation in incredible detail, so much so, that the site has been referred to as the Middle Palaeolithic equivalent of Pompeii (Wragg Sykes 2020). The preservation of organic materials such as wooden platters and even a clever type of tool with a flat blade and handle provides a different picture of the Palaeolithic and our Neanderthal cousins, not as brutish creatures but as keen carpenters who were creative and adaptive in their approach to different tasks and scenarios (Wragg Sykes 2020). These wooden artefacts resembling domestic implements are, thus far, unique in the Palaeolithic record. They hint at

the existence of a complex wooden technology used by Neanderthals which is very rarely preserved in archaeological deposits (Carbonell and Castro-Curel 1992: 707-719, 1995: 376-384). Abric Romani, Spain provides a high resolution image of prehistoric occupational events. The reconstruction of activities and their spatial and temporal organisation is a key issue concerning the cultural capabilities of Neanderthals compared to modern humans.

The archaeological data indicates the existence at the Middle Palaeolithic site of Abric Romani of the phenomena of space structuration and territorial integration (Burjachs et al 1993). The evidence suggests a basic social unit, archaeologically defined by the hearth-related assemblage. Spatial analysis has identified two distinctive units: domestic areas and areas for faunal processing/bone accumulation (Vaquero et al 2001). These conclusions indicate the flexibility of Neanderthal behaviour in the Middle Palaeolithic, offering new perspectives on lithic industries, subsistence strategies, the control of fire, and spatial organisation. These new perspectives provide an insight into the social structure and complexity of Neanderthal groups (Romagnoli et al. 2022). This new view provides the museum with a genuine opportunity to challenge the monolithic representation of a 'classic' Neanderthal, perpetuated by the strict association of seminal scenarios that centre on stone tools, hunting or burial. These new perspectives shed light on alternative knowable truths and allows the museum to critically consider how to incorporate these new doings (domestic activities) into the Palaeolithic visual frame.

Other domestic wooden tools have been identified at a handful of sites, although currently these finds are rare, they do indicate that we are perhaps missing crucial aspects of Palaeolithic life. For example, digging and walking sticks have been recovered from Aranblaitza, Spain 90,000years ago and Poggetti Vecchi, Italy 200,000ya, not as exciting as

spears but just as finely crafted (Rios-Garaizar et al 2018; Aranguren et al 2018: 2054-2059). The Aranbaltza stick even shows signs it was re-made from a previous larger object which raises interesting questions about Neanderthal possessions. What did Neanderthals carry and what materials/items did they hold dear (Wragg Sykes 2020)? Therefore, the iconic club and /or hand axe, representative of a brutish and dim-witted simian creature should be replaced with a domestic implement. These types of items are more likely to be recognised as belonging to the person who made them, endowing a further human quality of individualism and identity on Neanderthals. Stone and wood are not the only materials to feature in the Neanderthals toolkit. Shell tools have also been discovered at 13 sites across Italy and Greece (Douka and Spinapolice 2012: 45-79). Thus far, this appears to be a regional phenomenon, but serves to demonstrate the adaptability and variability of different Neanderthal populations across multiple environments (Wragg Sykes 2020).

The vanished technological world of organic materials is only just beginning to be appreciated and it is this new world that reveals the exciting and dynamic culture of Neanderthals as experimenters, inventors and even artists. The above examples represent a preservation bias as opposed to a true indication of Neanderthals' cognitive abilities what Hurcombe refers to as '*the missing majority*'. This is both in terms of archaeological evidence and museum representation (Hurcombe 2014). In fact, Leder goes as far as to suggest a change in terminology might be in order arguing that the whole idea of a Stone Age might be wrong and critically considers whether we should be talking about a Wood Age instead (Leder et al 2024). It appears the time has come to present Neanderthals as more than stone specialists, but also as crafts people and carpenters. New discoveries (wood, bone working, shells, feathers, plant fibres and seeds) have sparked a revolution in our understanding of prehistory, forcing new perspectives about Neanderthals and their world.



Evidence for organic materials is challenging traditional assumptions, misconceptions and primitive iconographies of the other, but this type of archaeological data is missing from the museum (Moser and Gamble 1997; Moser 2003).

### 3.6.3. Neanderthals as Experimenters: Adhesive Technologies.



Figure 43: Left. Portrait of a Neanderthal Male and the birch tar artefact created by Tom Björkland. The image was commissioned for the special exhibition on Neanderthals held at Moesgaard Museum, Denmark (Taken from <https://www.theguardian.com/science/2021/aug/01/doggerland-lost-atlantis-of-the-north-sea-gives-up-its-ancient-secrets>). Right. Close up photograph of the birch tar artefact discovered at the man-made beach Zandmotor, Netherlands. (Taken from <https://www.bbc.co.uk/news/science-environment-50131120>).

The use of adhesives for hafting stone tools is a major technological development, improving their efficiency and practicality. Therefore, the technology of adhesives plays an important part in discussions about the technological and cognitive capacities of Neanderthals and modern humans because, in some instances Neanderthals used elaborate production techniques to make them (Schmidt et al 2024). Birch tar is the oldest known synthetic substance made by early humans. There are five pieces of birch tar known from the Palaeolithic record. All are attributed to Neanderthals. The oldest known examples come from Campitello, (Italy) c. 200,000ya (Mazza et al 2006: 1310-1318), a further two pieces are

from Königsau, (Germany) c. 40,000-80,000ya (Koller et al 2001: 385-397) and the most recent find comes from Zandmotor, (Netherlands) c. 50,000ya (Niekus et al 2019).

Birch tar was used as an adhesive to connect stone to both bone and wood in the creation of composite tools and weapons. Early birch tar production by Neanderthals has been presented as one of the earliest manifestations of modern cultural behaviour, interpreted as a marker of complex technology, high planning depth, enhanced cognitive capacity and the controlled use of fire by some Neanderthal populations (Wadley 2010; Roebroeks and Villa 2011). The use of adhesives by Neanderthals demonstrates their ability to create substances and materials not found in nature, inventing a technical process for transforming their material world (Schmidt et al 2023). The assumed complexity of this technology reveals an intimate knowledge of how fire/substances can be used to transmute different materials and matter into different forms. The recognition that fire didn't destroy the material, but instead changed its characteristic properties demonstrates mental fluidity and complexity within the Neanderthal mind (Wragg Sykes 2015, 2020).

Recent research conducted by Schmidt et al (2019) suggests that the production of birch tar does not necessarily require a cognitively demanding setup. They suggest that recognisable amounts of birch tar were likely a relatively frequent by-product of burning birch bark. Thus, the cognitively undemanding connection between burning birch bark and the production of birch tar would have been discoverable multiple times. The study argues the presence of birch tar alone cannot indicate the presence of modern cognition in Neanderthals (Schmidt et al 2019). However, the Königsau artefacts seem to suggest a complex process of birch tar making utilising the most efficient method of an oxygen-restricted distillation process of underground heating to extract the adhesive (Schmidt et al 2023: 1-13). The implications of

Neanderthal birch tar are still debated, but what is certain is that Neanderthals made the effort to make it, although other naturally occurring adhesives were available. The selectivity of birch bark tar over other naturally occurring adhesives suggests that by 191,000ya Neanderthals had already found the best adhesive material and stuck with it (Schmidt et al 2023: 1-13).

By producing birch bark tar, Neanderthals demonstrated their knowledge of material properties, and their use of technology goes beyond simply using what was readily available to them in their natural world. They likely invested more time and resources to produce birch tar. This reaffirms the technical abilities of Neanderthals showing them functioning on the allied principles of technological flexibility based on material properties (Kozowyk and Poulis 2019). Adhesive technologies found in the European Palaeolithic demonstrate that *H. Sapiens* were not the first to reach this mental milestone. Moreover, Neanderthals did not merely create one type of adhesive, instead there appears to be regional variation throughout the Neander world including bitumen use at Umm el Tlel c. 70,000ya (Boëda et al 2008: 853-61) and the use of pine resin to haft tools in Matium at Fossellone and Sant'Agostino Caves, (Italy) (Degano et al 2019).

Ancient adhesives used in composite tools may be among the best material evidence for cultural evolution and enhanced cognitive processes in early humans. African *H. sapiens* are known to have created compound adhesives from naturally sticky substances and ochre, a technical behaviour considered to mark the advent of elaborate cognitive processes in our own species (Schmidt et al 2024). Compound adhesives have different cognitive implications than single component (simple) glues because specific recipes must be followed, highlighting the use of abstraction and recursion (Wadley 2010). For the first time, this type

of evidence (ochre-based compound adhesives) has been found at the Mousterian type site – Le Moustier, France. Bitumen was mixed with high loads of goethite ochre to make compound adhesives. The ochre loads were so high that they lowered the adhesives performance in traditional hafting situations, however when used as handheld grips on cutting or scrapping tools, high ochre adhesives present a real benefit improving their solidity and rigidity (Schmidt et al 2024). The use of compound adhesives may have important implications for human evolution because it depended on cultural transmission. It was more difficult to execute and more costly (time and resources) to produce than other techniques. This is so because bitumen, flint and goethite ochre did not occur at the same locations meaning they must have been gathered and transported to produce the composite tool (Schmidt et al 2024). Thus, similar to the modern human record in Africa, known European adhesive technologies document innovative behaviour and cumulative cultural transmission of techniques, narrowing the theoretical divide between ‘them’ and ‘us’ (Schmidt et al 2024).

I suggest, adhesive technologies provide archaeologists with an opportunity to explore a Neander world filled with transformation and alchemy through an intimate understanding of pyro-technology, material qualities and their environment (Schmidt et al 2023). From this perspective we can paint a different portrait of Neanderthals, their bodies, life and behaviours. The museum can provide new artefactual associations and new scenarios (evolutionary behaviours) to challenge the sticky and dangerous iconography of human evolution and the gender specific reconstruction of labour tasks and roles. These recent findings provide the museum with a genuine opportunity to explore new relationships between Neanderthals and their material world.

#### 3.6.4. Tying the Strings: ‘Them’ and ‘Us’.

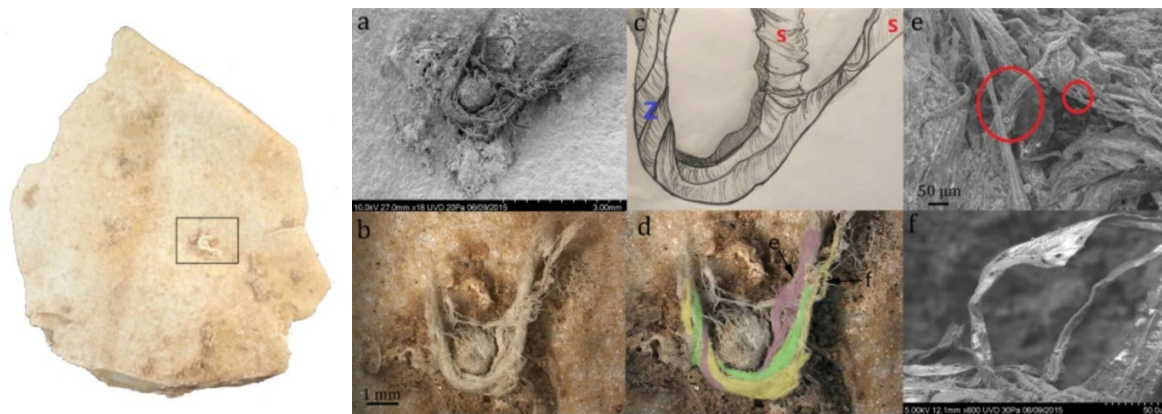


Figure 44: Left. Levallois flake with adhering cord fragment. Photo by M. H. Moncel (taken from Hardy et al 2020). Right – a) SEM photo of cord fragment, b) 3D Hirox photo of cord fragment, c) systematic drawing illustrating s and z twist demonstrating the 3-ply technique. Drawing by C. Kerfant. E) SEM photo of bordered pits (circled in red), hirox by N. Mélard, f) SEM photo of bordered pits (Image taken from Hardy et al 2020).

An incredible discovery at Abri du Maras, France in 2020, highlights another independent invention - that of 3-ply cord and it is changing our understanding of Neanderthal technology (Hardy et al 2020). Representing an almost unbelievable find, the material consists of the 3-ply method, but is extremely fine, suggesting the material is thread, opening a whole new range of possibilities for Neanderthal dress, technology, subsistence and culture. This simple technology is now providing insights into the workings of the Neanderthal mind and the possible complexities of Neanderthal culture.

The cord was made using three separate strands of fibre taken from the inner bark of a coniferous tree (Hardy et al 2020). The bark fibres would have been harvested in the spring or early summer, soaked in water and separated into strands. The strands were then twisted in a clockwise direction, after which they were twisted in a counter clockwise direction to make the cord. This innovative technology has lasting cognitive and behavioural implications because twisted fibres provide the basis for clothing, rope, bags, nets, and mats which would have been an indispensable part of daily life. The use of this technology implies the use of complex multi-component technologies of which we are only beginning to scrape the surface

(Hardy et al 2020). Cord-making technology may date back much further, but this isolated find provides a window into the missing world of organic materials, emphasising the problem of preservation bias in the Palaeolithic record.

The current archaeological evidence suggests that many of the technological firsts originally thought to be modern human inventions were already in use among Neanderthals populations, illustrating their cognitive ability to independently invent complex technologies (Niekus et al 2019; Roebroeks and Soressi 2016). Thus, adhesive technologies and ‘cordage’ may be the best proxies for independent cultural processes in Neanderthals, where they invented and refined transformative techniques (Schmidt et al 2023). It appears the evidence for behaviourally modern and cognitively complex Neanderthals is increasing, forcing us to revisit the untenable and arbitrary division between ‘them’ and ‘us’ (Finlayson 2019). The museological analysis presented in the following chapters suggests that the archaeological recognition of innovation and variability within some Neanderthal populations is not yet reflected in the context of the evolutionary museum (Hardy et al 2013).

### 3.7. Symbolic Neanderthals. Burial Practices.



Figure 45: Miniature diorama titled ‘Reaction to Death’ at the Museum of Human Evolution, Burgos. Spain. This burial scene reconstructs findings from Shanidar IV, the controversial ‘flower burial’, c.60,000ya. The scene needs to be updated to reflect current archaeological thinking in relation to the intentional placement of flowers as an offering to the dead. This has been successfully disputed as taphonomic processes (Solecki 1975; Sommer 1999; Hunt et al 2023; Image taken by Author, 2016).

The significance of burial practices as a marker of advanced cognitive and cultural expression remains contested but what is known is that burial practices are used as a seminal motif/scenario in the sequential back-telling of human evolution. This symbolic activity is traditionally and exclusively associated with modern humans, but the situation is changing. Pettitt has successfully demonstrated that Neanderthal mortuary activity was a real phenomenon in their society including non-burial means of disposal, caching of bodies or bodily parts, simple inhumation without grave goods, elaborated primary activity, elaborated secondary activity and ritualised burial (Pettitt 2011). High diversity in Neanderthal mortuary practices has been proposed on the basis that chronologically and geographically close groups engaged in varying behaviours, ranging from cannibalism to the intentional burial of some of their dead (Rougier et al 2016). Although, it is generally accepted that the Neanderthals did in fact bury their dead, it was a hard pill to swallow for much of the academic community (Gargett 1989). The topic of Neanderthal burial remains controversial, raising questions about the similarity in funerary practices between Neanderthals and modern humans. The question of cultural transmission between these two groups of hominins and the underlying intention behind the practice (symbolism or utilitarianism), continue to be heavily debated. The point here, is not whether the Neanderthals ritually interred their dead, rather, quite simply it appears that the burden of symbolic proof is higher for Neanderthals, than for modern humans as the possible cemetery use of La Ferrassie and the Shanidar Neanderthals demonstrate (Dibble et al. 2015; Rendu et al. 2014). Thus, the Neanderthal burial debate extends beyond scientific frameworks and methodological disputes to an ideological level (Balzeau et al 2020).

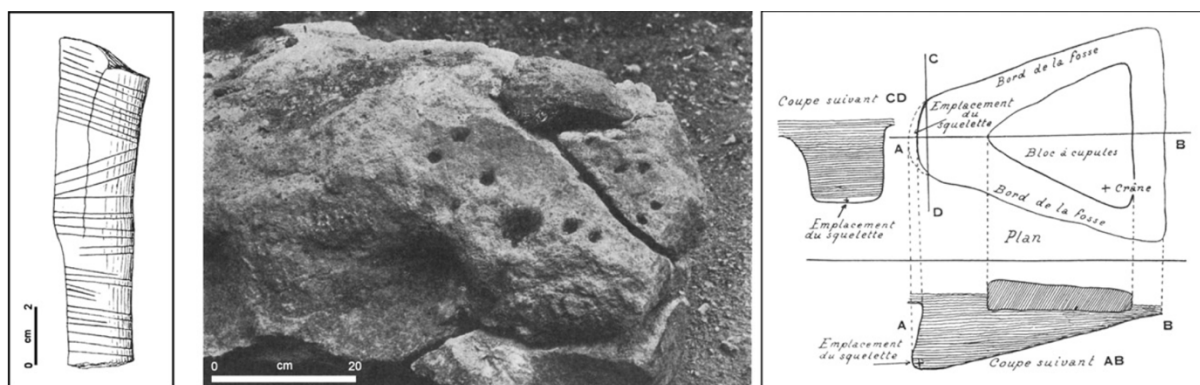


Figure 46: Possible Grave Goods at La Ferrassie rock shelter. Left. Engraved bone found at La Ferrassie rock shelter, Les Eyzies, France with an adult skeleton in burial 1. Middle. The inferior face decorated with cup holes on the stone slab which covered the burial pit of individual 6, a 3–5ya child. Right. Plan and profile of the burial. After Peyrony 1934 (Taken from Zilhão 2012: 37).

It is well documented that some kinds of mortuary practices were undertaken by Neanderthals (Pettitt 2013). However, many researchers suggest burials remain contested, most famously the Shanidar flower burial, Iraq, proposed by Leroi-Gourham in 1975 and developed by Ralph Solecki in the 1970s (Solecki 1975). The Shanidar flower burial hypothesis had a transformative impact on facilitating debate about the abilities and humanness of Neanderthals (Pomeroy et al 2020). Far from being brutish thugs, the Shanidar flower burial painted a picture of Neanderthals as empathic individuals who were capable of symbolic and cognitively modern behaviours, but fresh evidence successfully disputes this interpretation as taphonomic processes, rather than intentional interment of flowers in the grave context (Hunt et al 2023). However, the cemetery use of La Ferrassie, Dordogne, France, by Neanderthals dating between 60,000-75,000ya provides clear evidence for dealing with the dead. The site consists of seven individual burials containing the remains of individuals in their infancy, childhood and adult age (Zilhão 2012: 37). The problem occurs when we consider the possibility of elaborate burial practices and the presence of grave goods, but this situation is changing. An engraved bone fragment decorated with four sets of parallel incisions lay alongside the La Ferrassie 1 individual, an adult male. The La Ferrassie 6 individual (3–5-year-old child) was interred in a deep pit covered by a limestone slab and the inferior face has been decorated with cup holes as demonstrated by the figures above



(Zilhão 2012). New research explores multidisciplinary information on the archaeological context of the La Ferrassie 8, a partial Neanderthal skeleton (two-year old child). The results indicate that a pit was dug in a sterile layer and the body of a two-year-old child was placed within it. The combined anthropological, spatial, geochronological, taphonomic and biomolecular data analysed here demonstrates that a burial is the most likely interpretation for La Ferrassie, 8 (Balzeau et al 2020). The representation of ‘symbolic’ Neanderthals in the context of the museum appears to be restricted to burial and simple pigment use, ultimately re-cycling the same set of highly restrictive scenarios. The origin of funerary practices can be framed within the broader context of the increasing complexity of cognitive and symbolic capacities.

### 3.7.1. The Pigment Boom.

The pigment boom currently occurring in Neanderthal archaeology has identified over seventy sites in Europe that demonstrate the use of and symbolic application of, three different colours: red, yellow and black (Bonjean et al 2015). New data revealing the aesthetic concerns of Neanderthals is forcing a reformulation of the traditional application of modern behaviour and its exclusive association to *H. sapiens*. Pigment use among Neanderthals dates as far back as 200-250,000ya and becomes a widespread practice after 60,000ya (Roebroeks et al 2012: 1889-1894). Maastricht-Belvedere, Netherlands constitutes the earliest known use of red ochre by Neanderthals. Scientific analysis has identified small concentrations of red material retrieved during excavations conducted in the 1980s as hematite. Crucially, this material is not available in the immediate environment meaning it must have been imported to the site, possibly over dozens of kilometres. The identification of the Maastricht-Belvédère finds as hematite pushes the use of red ochre by (early) Neanderthals back to the same time range as the appearance of early ochre use in the African MSA,

produced by ancestors of modern humans (Roebroeks et al 2012: 1889-1894). Although, Maastricht-Belvédère remains a unique occurrence, it narrows the theoretical gulf between ‘them’ and ‘us’ by providing insights into the diversity and complexity of early Neanderthal populations, strengthening the argument for comparable cognition and independent innovation.



Figure 47: Left. The perforated marine shells from Cueva de los Aviones (Source Zilhão et al: 2010). Figure 48: Right. A perforated *Pecten* shell from Cueva Antón. This shell was painted on its external white side with an orange colorant made of goethite and hematite (Source Zilhão et al: 2010).

Two Neanderthal-associated sites of Iberia, dated as early as 50,000ya, have yielded perforated and pigment-stained marine shells. At Cueva de los Aviones, three perforated marine shells were found alongside lumps of yellow and red colourants, and residues found inside one of the marine shells consist of a red lepidocrocite mixed with ground dark red-to-black fragments of hematite and pyrite (Zilhão et al 2010). At Cueva Antón a perforated marine shell appears to have been painted on its external, white side with an orange mix of goethite and hematite which was abandoned after breakage. Also, at Cioarei\_Borosteni Cave, Southern Carpathians, a manuport in the form of a mineral geode, possibly red opal was found. The object may represent a personal possession of significance and curiosity by the Neanderthal who introduced it into the cave. The individual who the manuport belonged to painted the geode with ochre presumably attaching an aesthetic importance to it (Cârciumaru et al 2015: 31-41). The site also boasts the possible use of broken stalagmites as preparation

containers for pigments and colouring, demonstrating that the Neanderthals were interested in applying colour to unusual things, another indicator of modern behaviour and symbolic expression. Together, these recent findings demonstrate that Neanderthals in this region had comparable symbolic capacities to modern humans in the African and Near East archaeological records. Comparable material in these areas is widely accepted as evidence for bodily ornamentation and implies the presence of attachment objects in some Neanderthal populations. Traditionally this type of evidence is interpreted as a signifier of behavioural modernity. The Iberian evidence and isolated finds indicate that European Neanderthals were no different from coeval *H. sapiens* in this regard (Zilhão et al 2010).

### 3.7.2. The Feathered Neanderthal. Personal Ornamentation.



Figure 49: ‘The Feathered Neanderthal’, located on level 1 (Cultural Evolution) at the Museum of Human Evolution, Burgos, Spain. The hyperrealistic head presents Neanderthals in a different light than the traditional representation of the stereotypical caveman. The hyperrealistic bust created by palaeo-artist Fabio Fogliazza successfully challenges primitive iconographies of human evolution and the restrictive set of scenarios typically applied to Neanderthals, by demonstrating that they were sophisticated and cultured beings – capable of symbolic expression (Source Author: 2016).

Recent data suggests interest extended beyond the use of pigments, to an interest in and perhaps even a cultural tradition in, the collection and manipulation of bird feathers and talons. The overrepresentation of bird wing bones in some Neanderthal sites is interpreted as

evidence for the intentional and deliberate removal of their feathers. This is evidenced by new discoveries at Gibraltar (Finlayson et al 2012), Zaskalnaya (Majkic et al 2017) and Fumane cave (Peresani et al 2011). At Gorhams Cave, Vanguard and Ibex Caves, Gibraltar recent research has established a clear, previously unknown and widespread association between Neanderthals, raptors and corvids (Finlayson et al 2012). Here, it appears Neanderthals chose feathers of a specific colour, dark raptor and corvid feathers being selected in preference to others. The study demonstrates that Neanderthals exploited feathers for decoration and suggests this was a regular and systematic behaviour.

The Fumane evidence provides a large and varied avifaunal bone assemblage from the final Mousterian levels of Grotta di Fumane, Northern Italy (Peresani et al 2011). Taphonomic analysis of the bird bones implies the intentional removal of large feathers by Neanderthals. This is evidenced by diagnostic cut marks and fractures, observed exclusively on the wings. The species involved: lammergeier, Eurasian black vulture, golden eagle, falcon, common wood pigeon, and Alpine chough, and the unusual type and location of the human modifications indicate that the activity is linked to the symbolic sphere (Peresani et al 2011). Moreover, the absence of this kind of evidence in the earliest Aurignacian levels at Grotta di Fumane suggests that Neanderthals achieved this level of behavioural complexity independently and that it was not culturally transmitted via contact with modern humans (Peresani et al 2011).

The suggestion that Neanderthals exploited birds for ornamental purposes adds a further dimension to the ongoing debate, that of their cognitive capabilities. The Neanderthals appear to have shared this unique trait of feather ornamentation with modern humans, further narrowing the gulf between ‘them’ and ‘us’ (Finlayson et al 2012). A string of new

discoveries, related to bird exploitation has recently enlarged the visual frame of the Middle Palaeolithic to include new scenarios and relationships that may reflect their involvement in modern behaviours. At the Museum of Human Evolution, Burgos, Spain, located on level 1 (cultural evolution), the visitor comes face to face with the feathered Neanderthal created by Fabio Fogliazza. This display is important because it reflects current archaeological data and changing attitudes to the symbolic capabilities of Neanderthal populations. It explores a new type of symbolic behaviour, rather than the typical scenario of burying the dead or cave art. Here, it is suggested that the body was this individual's canvas, hypothesised from the archaeological evidence of bird feather removal and pigment use among some Neanderthal populations (Peresani et al 2011; Finlayson et al 2012; Majkic et al 2017). The museological analysis herein, recognises that the museum is beginning to include body ornamentation as a new scenario/relationship. However, the style and design remain rudimentary, and primitive compared to their *H. sapiens* counterparts. This is evidenced by the complexity of the design and the exclusive association of personal objects such as jewellery to modern humans.

A decorated raven bone from Zaskalnaya VI (Kolosovskaya), Crimea provides direct evidence to help build a symbolic argument. The object represents the first instance of a bird bone from a Neanderthal site bearing modifications that cannot be explained by butchering activities. In fact, the notches were not produced at random, but they represent equidistant notches with two later additions to ensure the symmetry of the design/pattern (Majkic et al 2017). Furthermore, at Krapina, Croatia, Neanderthals acquired and curated eagle talons for some kind of symbolic purpose approximately 130,000ya (Radovčić et al 2015). Re-analysis of eight white-tailed eagle talons, discovered more than 100 years ago, identified human modifications in the form of edge-smoothed cut marks, polishing facets and/or abrasion and three of the largest talons have small notches at roughly the same place. These features

suggest they were part of a jewellery assemblage, most likely used as a necklace or bracelet in some display of personal ornamentation. They are the earliest evidence for ornamentation production in the European fossil record and demonstrate that Neanderthals possessed a symbolic culture long before the arrival of modern humans (Radovčić et al 2015). Despite this, the absence of beads, portable figurines or cave art in Neanderthal sites continues to be used as evidence of their inferior cognitive abilities. However, growing archaeological evidence places this long-standing contention in doubt, by providing strong evidence that Neanderthals used a variety of different media, to express themselves including: the body, unusual objects and cave walls.

### 3.7.3. Neanderthals as the First Artists.

Art has become a self-defining trait of humanity that until recently has been exclusively associated with the arrival of modern humans. Although evidence for Neanderthal body ornamentation has been proposed, all cave painting has been attributed to modern humans. The production of intentionally made painted or engraved markings on cave walls is considered as a means of recording and transmitting symbolic codes in a durable manner. This cultural innovation is recognised as a major cognitive step in human evolution and has been used to argue in favour of significant cognitive differences between Neanderthals and modern humans (Rodriguez-Vidal et al 2014). Considerable debate surrounds the Neanderthals cognitive abilities and the view that Neanderthals did not possess similar symbolic capacities persists in the literature, despite growing evidence to the contrary. One of the arguments against Neanderthals' modern cognition is their apparent inability to create cave art, but this view is changing (Rodriguez-Vidal et al 2014).

Gorham's Cave, Gibraltar provides the first scientifically accepted engraved abstract pattern attributed to Neanderthals. The image consists of 13 intersected lines deeply etched onto a raised section of the cave floor, dubbed the hashtag (Rodriguez-Vidal et al 2014). The motivation for these markings, their significance and purpose may never be known. The engraving, however, did require careful and considerable planning, along with substantial effort taking between 180 and 300 strokes to fully create the symbol. This excludes the possibility of an unintentional or utilitarian origin, demonstrating the Neanderthals capacity for abstract thought and expression (Rodriguez-Vidal et al 2014: 13301-13306).

Further research conducted by the University of Southampton in partnership with Spanish authorities provides new data, using new dating techniques to make the radical suggestion that ladder-like shapes, dots and handprints painted and stencilled deep within three cave sites in Spain, were created at least 65,000ya. Modern humans are not believed to have arrived in Europe from Africa until approximately 45,000-40,000 years ago. This firmly places these engravings at the hands of Neanderthals, pre-dating the arrival of *H. sapiens* by at least 20,000 years. Therefore, these cave sites in the Iberian Peninsula are reimagining the Neanderthals, not only as capable of creating abstract signs but the research suggests they may have in fact been the first artists in Europe. Uranium-thorium (U-Th) dates on carbonate crusts overlying paintings provide minimum ages, for a red linear motif at La Pasiega cave (Cantabria), a hand stencil in Maltravieso (Extremadura), and red painted speleothems in Ardales cave (Andalucía), Spain. Collectively, the analysis reveals that cave art in Iberia is older than 64,800ya, firmly placing this pigment use on cave walls to Neanderthal populations (Hoffmann et al 2018). The hand stencil had to have been made intentionally, with the artist making the pigment and spraying it over their hand, deliberately and thoughtfully leaving their mark, imprinting themselves upon the space, signifying a deeper

meaning and connection. Although, these paintings are not considered ‘art’, in the narrow sense of the term, these markings are the result of intentional cognitive processes ‘intent on perpetuating the symbolic significance of a space’, representing a cultural, rather than functional role of the underground world among Middle Palaeolithic Neanderthals (Marti et al 2021).

The proposed cave art consists mainly of red and black paintings and includes representations of various animals, linear signs, geometric shapes, hand stencils and handprints. When we move away from a western conceptualisation of art, a more vivid and dynamic Neanderthal world comes into being conceptualised as an entwined process of bodily and sensory engagements. Thus, Neanderthals possessed richer symbolic behaviour than previously assumed (Hoffmann et al 2018). Some archaeologists, however, remain unconvinced with the proposed dating of the cave art (White et al 2019). But, I find myself in agreement with Hoffman et al (2018, 2020) that academic reluctance to accept that the Neanderthals could create cave art, may have less to do with methodological disputes, and more to do with plain old speciesism, which has been perpetuated and maintained through the conceptual framework of ‘behavioural modernity’ (Hoffman et al. 2018, 2020).

More recently, Neanderthal engravings on a cave wall at La Roche-Cotard in Central France, made before 57,000ya provide a clear and well dated case for modern behaviour in Neanderthal populations. The anthropogenic origin of the spatially structured, non-figurative marks found within the cave are confirmed using taphonomic, traceological and experimental evidence. Crucially, the cave was closed by cold-period sediments significantly before the regional arrival of *H. Sapiens*, and all artefacts recovered from the site are typical Mousterian lithics, providing an unambiguous example of Neanderthal abstract design (Marquet et al



2023). This conclusion is reinforced by the earlier discovery of a 'Neanderthal face', a complex object, made of bone and stone from the site in 2003, although, this is a rare example of anthropogenic art with no apparent equivalent. These discoveries provide invaluable insights into the diversity and complexity of Neanderthal behaviour (Marquet and Lorblanchet 2003).

It appears the evidence is mounting in favour of Neanderthals possibly having had an artistic sense in terms of thinking symbolically, like our own. This has led to two separate lines of argument critiquing the notion of behavioural modernity and its use in cognitive and Palaeolithic archaeologies, identifying major problems at both the epistemological and metaphysical level (Garofoli 2015: 125-135). Neanderthals have gained stature and been brought closer to us with the discovery of sophisticated technologies and behaviours, but few researchers imagined them engaging in one of the most definitive practices of human antiquity, creating paintings synonymous with symbolic expression, in the darkness of caves. Contrary to popular belief, the cognitive capacities of early humans and Neanderthals may have been indistinguishable. Hoffman et al (2018) rightly suggest the time has come to accept the Neanderthals as part of us. They are part of our lineage, they are human, in the eyes of these authors Neanderthals simply represent a different human population (Hoffman et al 2018). The recognition that the Neanderthals may have created Europe's first cave art, in the form of early signs has provided archaeologists with a smoking gun to overturn the notion that they were knuckle-dragging cavemen (Hoffmann et al 2018, 2020).

### 3.8. Neanderthals as Architects, Constructors and Builders. The Mystery of Bruniquel.

*‘Monumental in scale and vision, it’s the first great art project’*, Bruniquel, France (Wragg Sykes 2020: 264).

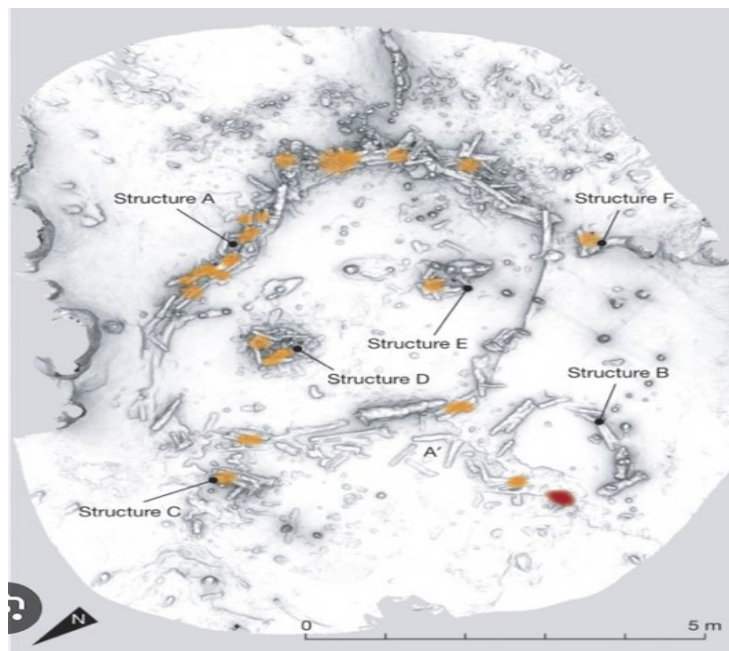


Figure 50: Floor plan of the stalagmite structures in Bruniquel Cave, France. The structures consist of curved lines that are built from layered stalagmites. The stalagmites were deliberately broken off, retrieved and placed into six structures, four concentric circles and two accumulation heaps. The orange spots signify the heated zones where fires were lit inside the stalagmite structures and the red spot highlights a char concentration, mainly of burnt bone fragments on the ground (Source Newitz 2016: arstechnica.com: Accessed 2023).

In 2013, uranium-series dating demonstrated that a subterranean annular construction made of broken stalagmites (mineral formations that grow upward from cave floors), located deep within Bruniquel cave, Aveyron Valley, Southwest France were created between 176-174,000ya, making these edifices the oldest dated constructions made by humans. What makes this site so extraordinary isn't just its great age, but the suggestion that it was made by Neanderthals, the only human population living in Europe during this period. It provides undisputable evidence that the Neanderthals could develop their own symbolic systems (Newitz 2016). The regular geometry of stalagmite near-circles and the arrangement of broken stalagmites into accumulation heaps, plus several traces of fire demonstrates an anthropogenic origin of these structures (Jaubert et al 2016: 111-114). Their presence at 336 metres from the entrance of the cave indicates that Neanderthals had already mastered the underground environment, often considered a major cognitive step towards modern behaviour (Jaubert et al 2016: 111-114).

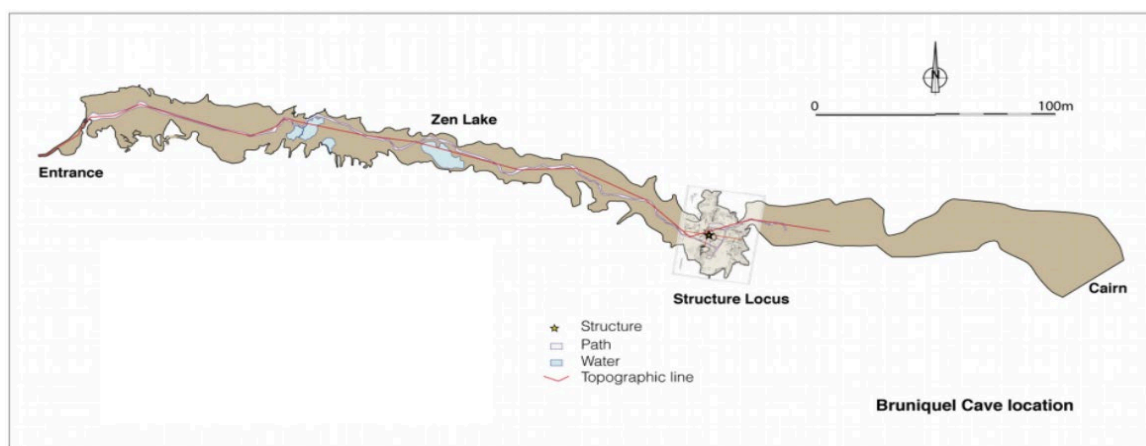


Figure 51: Site map of the Bruniquel Cave system and location. The site was discovered in the 1990s and yielded several Neanderthal artefacts. The Bruniquel structures are situated deep within the cave system which would have needed some sort of light lit by torches and fire to construct the first traces of monumentality in the prehistoric record thus far (Newitz 2016: arstechnica.com; Accessed 2023).

Interestingly, these were not any old stalagmites. This group of Neanderthals carefully and deliberately selected the straight mid-portions (without the root or tip) and aligned their speleofacts into concentric rings and accumulated heaps on the chamber floor, strongly suggesting intentional construction, careful consideration and forward planning (Jaubert et al 2016: 111-114). These perplexing structures do not simply represent the retrieval of materials and laying them down on the cave floor. They are built walls, some sections are buttressed with vertical pieces to reinforce the structure's stability and strength, demonstrating they are carefully considered built constructions. We cannot know for sure their meaning and purpose, but the annular rings unmistakably radiate symbolic intention since the intricacy of this design goes beyond support and into the realm of architecture (Wragg Sykes 2020).

The deep exploration of caves does not appear in Africa, whether in the early or middle stone age. The oldest evidence for the appropriation of this difficult environment is found in Europe, in the accumulation of human bodies in the 'pit of bones' at Sima de los Huesos, Spain, c 300,000ya. Recent discoveries at the Rising Star Cave system have yielded a concentration of hominin remains belonging to more than 15 individuals, representing all age

groups. These individuals have been assigned a new species *H. naledi*. The leading research team boldly claimed that the Dinaledi and Hill Antechamber skeletal remains indicated deliberate disposal of the dead and the production of associated rock art some 300,000ya. However, other researchers have cited geological, taphonomic and palaeontological evidence to suggest that natural formation scenarios may account for the skeletal accumulations. Thus far, no scientific evidence has been provided to suggest *H naledi* buried their dead or produced the supposed rock art (Martín-Torres et al 2023).

Traditionally, the human frequentation of caves is linked to engraving, painting, sculpting activities or disposing of the dead, and these types of activities are almost exclusively associated with *H. sapiens*. Symbolic, cultural or funerary activities are the primary motivations for the exploration and use of karst locations. Bruniquel cave, however, provides evidence for the regular and intentional excursion into caves to a distance which is no longer exposed to daylight, presumably requiring continuous illumination (Wragg Sykes 2020). Moreover, Upper Palaeolithic constructions in caves are limited to simple hearths, fireplaces and the odd rock or speleofact displacement. Remarkably, even in caves regularly visited since the Aurignacian, constructions are non-existent or unreliable (Jaubert et al 2016: 111-114). The attribution of the Bruniquel constructions to early Neanderthals is unprecedented in two ways. *‘First, it reveals the appropriation of a deep karst space (including lighting) by a pre-modern human species, indicating Neanderthals may have been more socially sophisticated than previously thought. Second, it concerns elaborate constructions that have never been reported before, made with hundreds of partially calibrated, broken stalagmites that appear to have been deliberately moved and placed in their current locations, along with the presence of several intentionally heated zones’* (Jaubert et al 2016: 111-114). The findings suggest that Neanderthal society included elements of behavioural modernity and social

complexity which are now proven to have emerged much earlier than previously thought. These include social organisation, fire use and deep karst occupation (Jaubert et al 2016: 111-114). Whilst we may never know why Neanderthals spent hours, possibly even days underground, breaking and carrying heavy rocks, piling, balancing and burning them. This site suggests we should portray the Neanderthals as masters of their environment including, the underworld (Wragg Sykes 2020).

Consequently, archaeological interpretation and representation must move beyond survival/functional explanations for Neanderthal behaviour. The conceptual shift towards attributing to Neanderthals elements of behavioural modernity requires a critical re-consideration of the relations between Neanderthals and their material world, not yet reflected in the context of the museum. Imagining the Neanderthals as designers, builders and architects, may seem unfamiliar but this new approach is grounded within the archaeological record of Bruniquel. The archaeology of Bruniquel broadens the interpretative horizon, providing archaeologists and museums with new and exciting opportunities to expand the visual frame of the Palaeolithic and depict caves not as a symbolic emblem of primitiveness, but as places of spatial, and social organisation and monumentality. Recent evidence suggests that the seminal motif of Neanderthals and caves, should be presented in a more nuanced manner. It appears, the time has come to present Neanderthals as explorers, collectors and artists where the underground world played a significant and symbolic role in Neanderthal society (Pitarch et al 2021).

### 3.9. Palaeogenetics - New Encounters and Relationships.

Traditionally, the Neanderthals were conceptualised as dim-witted evolutionary dead-enders, who looked and behaved completely differently to us. New data raises the possibility that

perhaps *H. sapiens* did not outcompete or outsmart Neanderthals into extinction, as the traditional narrative of human antiquity suggested. Instead of a distinct hominin in a state of barbarity, aDNA analysis reveals how Neanderthals are braided into our own evolutionary story. The first fully sequenced Neanderthal genome surprisingly illustrated some admixture of Neanderthals into the modern genome, which has in many ways re-written the narrative of evolution. Neanderthals and modern humans exchanged genetic material: people living outside of Africa carry on average between one and two percent Neanderthal DNA (Green et al 2010). This genetic evidence challenges the traditional caveman stereotype and the application of primitive iconographies, presenting the Neanderthals as a part of us, rather than a distinct and separate category of hominin that is directly opposed to us. More recently, they have become our ancestral cousins, rather than ancestral victims in modern portrayals (Papagiani and Morse 2015).

## Traces of Stone-Age encounters

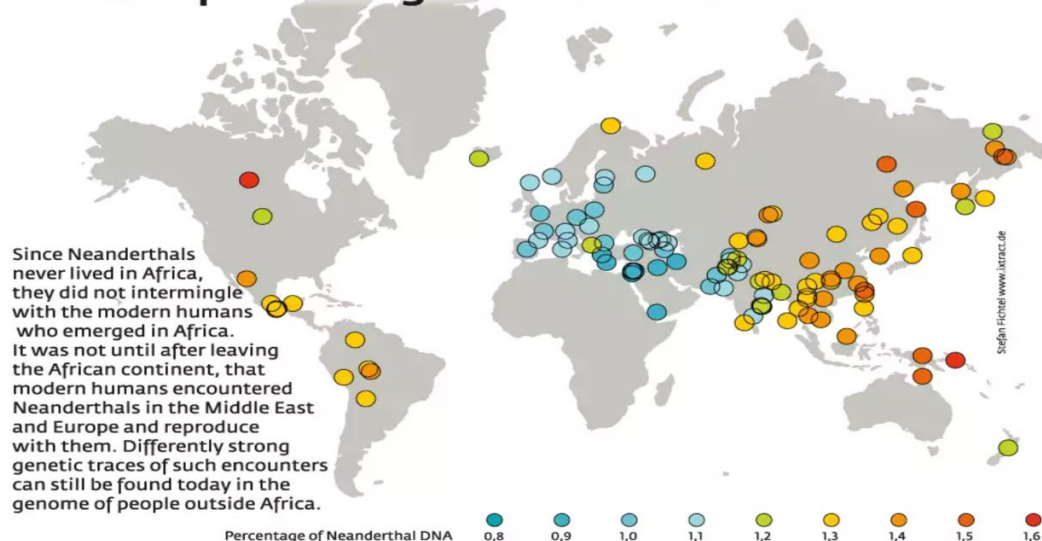


Figure 52: ‘The Neanderthal in Us’. Infographics provided by the Max-Plank-Gesellschaft institute that demonstrates Neanderthals and modern humans exchanged genetic material: people of non-African descent living today carry between one and two percent Neanderthal DNA (Source: Max-Plank-Gesellschaft 2020).

The scientific understanding of admixture between humans and Neanderthals has changed dramatically over the past decade and a half. Once thought not to have occurred at all, there is now significant evidence for gene flow from Neanderthals to humans and vice versa. In fact,

Neanderthals and modern humans have long occupied two separate branches on the Darwinian family tree, but recent genetic revelations suggest they might be the same species after all (Li et al 2024). The scientific community now suspects that *H. sapiens* and Neanderthals met and mingled their genes on multiple occasions and the suggestion has been made that what we are looking at is different populations and cultures, rather than a different or inferior species. Using the classic definition of species, ‘if two organisms can interbreed and produce fertile offspring, it means they belong to the same species’ (HersHKovitz in Glausiusz 2020). HersHKovitz, for example, sees *H. sapiens* and Neanderthals as sister populations within the same species. It appears one species may have simply absorbed the other – and so, Neanderthals in a sense still survive in us today (Mafessoni 2019; Glausiusz 2020). However, other prominent scientists such as Professor Chris Stringer argue that the morphological characteristics are distinct enough to argue Neanderthals represent a separate and distinct species of hominin (Meneganzin and Stringer 2024).

Ancient DNA has had a significant and irreversible impact on the perception of Neanderthals, particularly in relation to the possibility of interbreeding between the two species of human (*Homo-Neanderthalensis* and *Homo-Sapiens*). This scientific revelation has forced us to change our sensitivities towards them as a species and as individuals. For the first time, they have become a part of us, and/or similar to us. This is reflected in modern portrayals that depict Neanderthals as essentially human in their physical characteristics. It appears, the Neanderthals have done it again, blurring the boundaries between the known and the unknown, human and non-human. For decades previously, this was heavily debated, and Neanderthals were characterised as ‘other’, a dangerous and potent category, in a constant state of flux, ever changing, but also ever restrictive (Moser 2003).

With the extraction of aDNA from Neanderthals and Denisovans came the final blow to the modern human and Neanderthal boundary, demonstrating instead interwoven histories of human ancestry. Archaeologists now present a rather more complicated and messier lineage of our origins, one that centres on multi-speciesism (Birch 2019). New scientific analysis reveals an evolutionary process of co-operation, co-habitation and co-evolution (Dunbar et al 2014). New data alludes to the possibility that Neanderthals, Denisovans and modern humans inhabited geographical areas at the same time, with increasing evidence that these different species were, not only aware of each other, but they may have communicated, lived, loved and died together (Wragg Sykes 2020).

The incredible discovery of ‘Denny’ (Denisova 11, a bone fragment from Denisova Cave, Russia), a first-generation hybrid between Neanderthals and Denisovans provides direct evidence for the genetic admixture between Neanderthals and Denisovans on at least two occasions. Once between her Neanderthal mother and Denisovan father, and at least once in the ancestry of her father (Slon et al 2018). Currently, of the six individuals from Denisova Cave from whom aDNA is available, two (Denisova 3 and Denisova 11) demonstrate gene flow between Neanderthals and Denisovans. Interestingly, of the three genomes retrieved from modern humans who lived at a time of overlap with Neanderthals in Eurasia, one individual ‘Oase 1’ had a Neanderthal ancestor four to six generations back in his ancestry (Fu et al 2015). Taken together with the presence of Neanderthal and Denisovan DNA in ancient and present-day populations, the evidence suggests that admixture among archaic and modern hominin groups was common when they met (Fu et al 2015). It is these stone age encounters, interactions and relationships, archaeology should be seeking to investigate and represent in Palaeolithic archaeologies and human evolution. To achieve this, we must abandon the view that the Neanderthals or other more distinct hominin species represent a



literal bridge between us and primates at different stages of biological, social and cultural development.

There is no doubt that the conceptualisation of Neanderthals has been revolutionised by aDNA studies, but the original motivations were narcissistic. The Neanderthal genome was primarily decoded, not to better understand the genetic workings of Neanderthals and their possible contributions to our evolutionary history. Instead, the hope was to reveal what makes modern humans different and unique: some palaeogenetics are still being used to make us feel special and superior (Pääbo 2014). Just as the discovery of Neanderthals in 1856 forced a re-structuring of knowledge and philosophy, the discovery of our interconnected and continued histories through palaeogenetics should force a re-structuring of our place in human evolution, not as a dominant species, who won the great battle of survival through the ages, but rather as a part of an inter-connected world of becomings and un-becomings (Barad 2003, 2007). Unfortunately, the theoretical approach to much of aDNA in the context of Neanderthals remains mired in assumptions inherited from the idea of culture history (Crellin and Harris 2020: 37-56).

Ancient DNA studies presage a return to older forms of thinking and a return to culture-historic approaches to archaeology and interpretation, illustrating how data, regardless of the mechanisms through which they are produced, always remain theory-laden. It is suggested that aDNA must be situated within a relational approach that does not divide the world into binary oppositions, if we want both an accurate and more nuanced understanding of Neanderthals and to prevent the uncritical imposition of modernist ways of thinking (Crellin and Harris 2020: 37-56). It appears the time has come to present evolution not in terms of linearity and progression, but rather as a mosaic tapestry of multiple species and multi-

directional becomings. Archaeology has entered a new era of Palaeolithic research, where scientific methods and high-definition archaeology at the trowels edge are revealing an ever more complicated, and dynamic evolutionary process of interwoven and convoluted paths (Wragg Sykes 2020).

### 3.10. Conclusion.

*'Like true revolutionaries, the Neanderthals have challenged what it means to be human once again and the dynastic tree which firmly places us at the top. They are shaking our roots and have moulded the direction of our branches'* (Wragg Sykes 2020).

New data allows us to reconstruct the Neanderthals' biological and social character, highlighting their diversity, adaptability and success. This is the new stage upon which we must turn to look again at the archaeology of Neanderthals. The portrayal of Neanderthals has changed dramatically from their initial discovery and conceptualisation, but still many misconceptions about our evolutionary history and the Neanderthals place within it, exist (Wragg Sykes 2020: 39). This chapter has forced the re-conceptualisation and re-orientation of Neanderthals as social beings, who were technologically and culturally like contemporary *H. sapiens* to dismantle the traditional display canon of primitive iconographies and restrictive scenarios. This thesis argues that to overcome the disciplinary trends and inherent biases of Neanderthal archaeology, the museum must centre its approach on the affective qualities and intra-actions between species (human and non-human), environments, materials, matter and spaces (Barad 2003, 2007).



## Chapter Four. Methodology.

### 4.1. Introduction.

In this chapter a research design is provided for the critical interrogation of the knowledge making-capacity of museum displays on Neanderthals in the context of natural history and the evolutionary museum (Hooper-Greenhill 1992; Merriman 1999; Moser 2003; Bennett 2004). Specific variables (primitive iconographies, scenarios and artefactual associations) are derived from the conceptual model described by Moser and Gamble in the literature review (Moser and Gamble 1997). The study compares displays on Neanderthals within two different national and archaeological contexts to critically assess the historical threads, visual trends and highlight continued misconceptions of human antiquity (Williams 2009: 205). It provides a comparative analysis between the newly installed interim ‘Human Evolution Gallery’ at the Natural History Museum, London and the permanent ‘Wales is ‘2%’ Neanderthal’ thematic display within the recently installed archaeological gallery ‘Wales Is’ at St. Fagan’s Museum of Welsh Life and Industry, Cardiff, recently renamed as the National Museum of History. This thesis uses qualitative and museological analysis to explore the differences within, and between the museums under review (Baxter and Jack 2008: 548-50).

The methodology in this chapter combines both exhibition design analysis and primary oral interviews with principal curator Dr. Elizabeth Walker at the National Museum, Cardiff and Neanderthal specialist Dr. Rebecca Wragg Sykes to probe problems with the current interpretation of Neanderthals and highlight how the museum and/or archaeologist may reflect the changing disciplinary attitudes in design and representation. This thesis explores new and innovative ways of representing human antiquity that may contradict or challenge the ethnocentric and androcentric core-periphery models of human origins.

#### 4.2. The Museum and the Representation of Prehistory.

The museum is increasingly recognised as documents of significance in understanding the complex history and development of academic disciplines and the evolution of ideas. The museum is more than a mere document of significance, it is an active agent in the articulation and dissemination of archaeological and scientific knowledge (Moser 2010: 22). The meaning and impact of the display is constantly being renegotiated and reassessed by different and diverse actors across different times and spaces. The didactic component of the museum setting is understood as a physical manifestation of the historical, conceptual and visual threads which have developed and changed over time. Consequently, museums are not neutral spaces. The collection, organisation and exhibition strategies are a direct result of the socio-historical circumstances in which the museum was created (Bennett 1995, 2010; Moser 1998, 2003; Ingold 2007; Riggs 2014).

The museum is peculiar to and characteristic of the 19<sup>th</sup> century: *'the project of organising in this sort of perceptual and indefinite accumulation of time in an immobile place, this whole place belongs to our modernity'* (Foucault 1986: 26). The museum was envisioned as a readable text, that focusses on non-verbal means of communication (objects, remains, animals and categorisation), as a medium for communicating 'pasts beyond memory' (Bennett 2004). The new museums of natural history, ethnology and geology which flourished in the closing decades of the nineteenth century played a key role in making prehistory visible and knowable. Exhibition strategies moved away from the chaos and contradiction prevalent in the seventieth and eightieth century, that of cabinets of curiosity and into a realm of rationale and scientific presentation (Bennett 1995: 1). In this regard the museum constituted a new space of representationalism.

The evolutionary principles of classification, exhibition and arrangement facilitated a new reading of the past, not from the evidence of its textual mediations, but from the evidence of things themselves – rocks, fossils, bodies, and tools, that created a new authority in the conceptual field of prehistory. The new legibility of the museum established a traditional iconography in both the visual and artefactual field by proving new rules for the classification and combination of objects (Bennett 2004: 2-5). The new exhibition strategies centred upon organising principles which emphasised functionality to ensure that the museum/collection could '*speak to the eyes*' of the visitor (Bennett 1995: 26-27). This visual strategy extended to the architectural design of the buildings used to house these internationally significant collections. The exterior of the museum building aimed to convey the transparent meaning of didactic learning which enabled them to serve as speaking monuments (Bennett 1995: 34).

The evolutionary museum posits '*man as both the object of knowledge and the subject that knows*', Foucault refers to this phenomenon as '*the empirico-transcendental doublet of man*', (Foucault 1970). The contemporary museum continues to rely on visual schemas and traditional iconographies for depicting 'the other' - continually re-defined and re-formulated to suit the historical and political circumstances of the time, as outlined by Moser and Gamble in 'Revolutionary Images. The Iconic Vocabulary for Representing Human Antiquity' (Moser and Gamble 1997: 184-212) and 'the Visual Language of Archaeology: A Case Study of the Neanderthals' (Moser 1992: 831-44). More specifically, for the purposes of this research, the museum recycles a standardised set of artefactual associations (stone tools, animal bones and remains) and highly formulaic and arresting scenarios (Pettit and White 2011, 2013; Moser 2003). These include fire, hunting, combat with wild beasts, stone tools, burial and early art, restricting what can be known or knowable about Neanderthal intelligence and their distinct evolutionary journey (Please refer to table 3). The analysis

suggests that despite many welcome changes in the modern portrayal of Neanderthals, they unfortunately remain arrested to a set of scenarios, typically expected in the sequential back-telling of human evolution and Palaeolithic archaeologies. It appears the museum remains a little 'safe' in the types of narratives and archaeological evidence it is willing to engage with.

Traditionally, Neanderthals are only afforded a role or contribution to evolution discourses in physical or functional matters that focus on biological rather than social development. From this perspective, museum visitors are led to deduce the superiority of *H. sapiens* over Neanderthals, men over women, culture over nature and so on. Dualisms and the theoretical frameworks of modernity continue to plague the interpretative frameworks at the heart of our displays on human origins (Henshilwood and Marean 2003; Foley 2014; Garofoli 2016; Zilhao 2018). In this research, many museums continue to embrace the traditional patriarchal principles, by assuming that the greater part of material culture has been produced by men (Gero and Conkey 1991; Hurcombe 1995; Gilchrist 1999). The sheer statistical visibility of males in dominant positions has resulted in an androcentric vision of human antiquity which has rendered females invisible through the disciplinary and visual trends of museum exhibition and practice (Gifford-Gonzalez 1993, Moser 2003; Zihlmann 2012). Women are transformed into invisible subjects, often only anatomically reconstructed within the context of the museum or fleshed out in the earliest stages of human evolution, divorced of the capacity to participate in the construction of societies, or in the collective memory the museum purports to preserve (Scott 2004).

#### 4.3. Analysis Overview and Research Questions.

Next, specific research questions are formulated and discussed. This is followed with a detailed summary of how the research will investigate and problematise the key issues

outlined in an artist journey: that of a traditional narrative, restrictive scenarios, and primitive and gender-coded iconographies for depicting human evolution. The research design developed in this chapter supports the key aims and objectives of the research to critically assess whether the portrayal of the primitive ‘other’ (Neanderthals) has been successfully challenged, reflecting current archaeological thinking and scientific discoveries or has the ‘other’ been re-formulated and re-designed to restrict Neanderthals to the realm of functionalism.

The portrayal of Neanderthals has changed dramatically in the context of the museum since their initial conceptualisation and discovery over a century ago. However, despite the presence of modern looking Neanderthals, I argue that the Neanderthal remains suspended on a thread, like a pendulum swinging between animal and human, and between ‘likeness’ and ‘otherness’. A hidden but fierce war is being waged in the scientific community. On the one side, advocates who believe the Neanderthal is another human and those proponents on the other side who suggest that the Neanderthal is an archaic form of humanity, with vastly inferior cognitive and behavioural capabilities (Slimak 2022). This is demonstrated at the Natural History Museum, London which restricts symbolic behaviours to the realm of burial and simple pigment use despite new archaeological data that reveals a Neander world of complex and adaptive technologies, a ghost realm of organic materials and comparable cognitive capabilities, suggesting that the Neanderthals are not an inferior type of human population, rather the other humanity (Neanderthals) are a distinct intelligence of their own (Slimak 2022).

The first research question assesses whether the museum incorporates new scientific discoveries and data that provide a genuine opportunity to re-imagine the sociality of



Neanderthals and their role in human evolution. The second research question examines whether hyperrealism is sufficient to visualise and re-write the Neanderthal story from one of ‘otherness’ and primitive cavemen, to a complex tapestry of materiality, variability and sociality (Hussain and Will 2021), a tapestry that draws upon relationships and connections as opposed to conceptual differences in the sequential back-telling of their evolutionary history and legacy? (Bennett 2004). If so, what about other traditionally marginalised subjects, particularly women and children? Can this new technology of representation sufficiently provide the theoretical space to visualise and write the ‘other’ into narratives of prehistory?

#### 4.4. Case Studies and Interviews.

The natural history museum was chosen because of its palaeoanthropology collection that comprises the UK’s largest assemblage of fossil hominin remains and a diverse collection of over six thousand hominin tools (NHM, website, nd. Accessed 2023). The collection of hominin fossils consists of over four hundred original fossils including *H. neanderthalensis* skulls from Forbes Quarry and Devils Tower, Gibraltar, cranial bones from Swanscombe, England and from Tabun Cave, Israel. Of particular interest to this research are the two skulls from Gibraltar. They were among the first Neanderthal remains ever discovered and have since become some of the best-studied hominin fossils in the world. Furthermore, new research at Gibraltar has highlighted a previously unconsidered world of complex subsistence strategies including a varied diet and marine exploitation, symbolic behaviours, ‘the hashtag’ and deliberate feather removal, presumably for personal ornamentation (Finlayson 2019). The recent wave of new data coming from Gibraltar paints a very different picture of Neanderthal life and their cognitive abilities. It provides a genuine opportunity to assess the changing interpretation of Neanderthals from one of the first habitat dioramas at the Field Museum of Natural History, Chicago in 1971 to the exquisite hyperrealist models of Nana and Flint

currently on display at Gibraltar Museum. The modern conceptualisation of the Gibraltar Neanderthals has changed significantly since their discovery and this thesis explores this artistic journey at the NHM, London.

My original intention was to study these specimens and their updated portrayals at Gibraltar Museum, but this was not possible because of COVID 19 restrictions that resulted in museum closures across the UK and Europe. Furthermore, when museums were allowed to re-open and welcome physical visitors, strict restrictions were in place for travelling abroad including pre-covid tests before flying and should any passenger contract covid, they were mandated to stay at their own expense for a further five days or until testing negative. Therefore, conducting a museological analysis abroad during this time was not practically or financially feasible. Consequently, I adapted my research design to assess the changing portrayal of Neanderthals at the NHM, London because this museum holds the original fossils and had recently created an interim gallery titled 'Human Evolution' that featured displays on Gibraltar's Neanderthals including the original fossils, a hyperrealistic model (Spy, Belgium) and the hyperrealistic heads made by the palaeoartists, the Kennis brothers, making this the next best focus of my study. An analysis of the NHM provided two distinct advantages for the purposes of my research. First, it offered a timely opportunity to assess whether new archaeological and scientific data is reflected in the context of an internationally important museum and second, to assess whether the museum continues to rely on a traditional and familiar plot, that of the grand meta-narrative of unilinear progression and/or the canonical icons of evolution, that of the ladder and cones of diversity as identified by Gould (Gould 1995a, 1997).

St Fagan's, National Museum of History was chosen because of the newly installed archaeological galleries that feature a permanent gallery titled 'Wales Is'. The exhibit 'Wales is 2% Neanderthal' within this gallery displays the teeth, stone tools and animal bones recovered from Pontnewydd cave, Denbighshire (Aldhouse-Green et al 2012). This case study explores the potentially ground-breaking, but radical decision to remove the prehistory collection from the traditional grip of natural history at the National Museum of Wales, Cardiff, to St Fagan's, National Museum of History. Both museums are in Cardiff, but they are situated in very different locations of the city. St. Fagan's is set within an estate and is the UK's first open-air museum. Whereas the National Museum of Wales is in the city centre surrounded by administrative buildings that exudes an air of authority and authenticity. These differences provide a different atmosphere, style and interpretation to the prehistoric collection. The aim here, is to evaluate whether the museum utilises different strategies that reflect alternative modes of archaeological thinking, socio-politics and attitudes towards the 'other'. The comparative analysis demonstrates the importance of inter-disciplinary research and multiple technologies of representation in challenging the stereotypical portrayal of Neanderthals as primitive or unintelligent (Madison 2020, 2021). Together the two case studies provide a timely opportunity to assess how far the museum has come in the representation of Neanderthals and human evolution. Both case studies have recently installed and updated their displays and/or galleries on Neanderthals, therefore, they should reflect the new data, scientific advancements and updated interpretations that are currently available to archaeologists.

My choice of interviewee in Rebecca Wragg Sykes was driven by her popular book 'Kindred', which inspired and influenced my subject choice, the changing portrayal of Neanderthals. Her deliberate highlighting of the sociality of Neanderthals led me to question

whether museums, especially British ones reflected these new approaches in their displays on human origins. During this interview she encouraged me to question the validity of representing Neanderthals in a natural history context, creating as this does, the sense of their animal and inferior status. Hence, I also refer to other European examples such as the Museum of Man in Paris and the Museum of Human Evolution in Spain where the approach is to place Neanderthals in a human context rather than a natural history one. The very fact in Paris, the Natural History Museum is housed in four separate buildings, one dealing with palaeontology, one with evolution, another with geology and finally the Musée de L'Homme where Neanderthals and modern humans are exhibited together, not in a mausoleum of extinction, highlights different attitudes and approaches to this subject taken by some European museums. The second interviewee, Dr. Elizabeth Walker was initially an obvious choice in that she curated the new Neanderthal display at St. Fagan's in Wales. This new display within the 'Wales Is' gallery interested me precisely because of its locating of Neanderthals in the context of a national museum dedicated to history, not natural history. I suggest, this facilitates alternative interpretations of the humanity of Neanderthals and their position in human evolution.

#### 4.5. The Data Collection Process. Site Visits and Field Notes.

I have conducted site visits to the museums listed in the table below. Only three of the museums form the core case studies of this thesis, but I will refer to several other museums in Europe throughout this research to highlight both traditional and unconventional approaches to the representation of Palaeolithic archaeology.

<i>Museum</i>	<i>Country</i>	<i>Location</i>	<i>Date Visited</i>
<i>Natural History Museum.</i>	United Kingdom.	London.	2016, 2018, 2023.
<i>National Museum of Wales.</i>	Wales, UK.	Cardiff.	2019, 2022, 2023.
<i>St. Fagan's. Museum of Welsh Life and Industries.</i>	Wales, UK.	Cardiff.	2021, 2022, 2023.
<i>Museum of Prehistory.</i>	United Kingdom.	Cheddar.	2018.
<i>Caves Museum.</i>	United Kingdom.	Wookey Hole, Wells.	2018.
<i>Torquay Museum.</i>	United Kingdom.	Torquay.	2019.
<i>Jersey Museum. Art Gallery and Victorian House.</i>	Jersey.	St. Helier.	2020.
<i>The Musee de L'Homme.</i>	France.	Paris.	2023.

Table 2: List of Museums I have attended during the data collection process that are included in this analysis, although, the Natural History Museum, London and St. Fagan's, Cardiff form the core case studies. The above museums are referred to throughout this analysis and have influenced both my interpretations and findings. This research also draws upon two other museums which I could not attend in person because of covid 19 restrictions. These include Gibraltar Museum and the hyperrealistic models of 'Nana and Flint', and the Special exhibition titled 'Neanderthals' at Moesgaard Museum, Denmark.

#### 4.6. The Variables.

Moser and Gamble outline the primitive iconographies and visual schemas used for depicting an ancient past. These include three variables for depicting 'the other' which will be under constant review throughout this analysis.

- 1) Physical characteristics (stooped posture, divergent big toe, nakedness, hairy, ape-like features, miserable and passive expressions),
- 2) Material culture (stone tools, extinct animals and megafauna, fragments of bone), more specifically their lack of material culture (symbolic behaviours and cognitive complexity).

- 3) Highly restrictive and formulaic scenarios that are utilised in the sequential back-telling of prehistory (hunting and foraging, butchering, food and protection, art and burial)

These variables are explained in detail in the table below.

<b>Physical Characteristics (Moser and Gamble 1997; Moser 1998).</b>	<b>Landscape (Moser and Gamble 1997; Wragg Sykes 2020).</b>	<b>Scenarios (Moser 2003).</b>	<b>Artefactual Associations (Pettit and White 2010).</b>
Ape-like characteristics including a stooped posture.	Cave recess (to signify a wild and dangerous place).	The cave and or recess, Neanderthals as cave-dwellers reinforcing the age-old caveman stereotype.	The iconic club which is not supported by the archaeological evidence.
Nakedness	Crevasse (as an emblem of the symbolic gulf between 'them' and 'us').	Subsistence strategies such as hunting and gathering and butchery activities.	Stone tools, Mousterian technologies, conceptualised as unchanging and un-adaptive compared to the technology of the Upper Palaeolithic.
Hairiness- Long unkempt hair	Arctic Tundra. A world of ice (the Neanderthals are conceptualised as arctic specialists, only adaptable to cold and harsh environments).	Making stone tools	Unfitted animal skins as garments for clothing.
Thick neck	Camp life – where ancient humans are gathered around a hearth.	Making fire	Thrusting spear, for close combat are the only organic artefacts associated with Neanderthals in the context of the evolutionary museum.
Flat, long feet often with opposable toes	Steppe Tundra	Hide working – representation of gender specific activities.	Extinct animals such as woolly mammoths are conceptualised as material culture, belonging to the Neanderthals, rather than living entities. Extinct beasts have become a seminal motif of the Palaeolithic visual frame. A visual mechanism for conjuring the prehistoric past.
Docile expressions and dejected posture		Burying the dead continues to be a controversial topic in relation to Neanderthals. Our Cro-Magnon	Seeing Women – remains a persistent and dangerous problem in the representation of the Middle Palaeolithic and

		ancestors take centre stage in the intentional and symbolic treatment of the dead.	Neanderthals. Females remain on the periphery of archaeological investigation and representation. They are only afforded a role in the earliest stages of human origins or presented anatomically (regarded as those of little note) reflecting traditional female invisibility when compared to their male counterparts or they are represented in stereotypically gendered roles and scenarios.
Racialised characteristics, such as dark skin colour, curly hair and wide noses in relation to the earliest hominins. A colonial undertone is still present in the ‘back-telling’ of human evolution as our ancient ancestors gradually become white and male (Moser 1999 and Scott 2004).		The creation of art and symbolic behaviours such as personal ornamentation is predominately associated with modern humans.	Children. Traditionally, children are invisible in the reconstruction of prehistory seen almost exclusively in relation and close association to females, reinforcing a gender specific notion of prehistory that naturalises gender inequality in the past and present.

Table 3: A list of the traditional iconographies, seminal motifs, restrictive scenarios and artefactual associations used for depicting human origins (Moser and Gamble 1997; Moser 2003; Pettitt and White 2011; Wragg Sykes 2020).

#### 4.7. A Bespoke Methodology.

There is no clearly articulated methodology for investigating a museum display and the representations embedded within it. How does one interpret or evaluate a museum display, when every individual reading of that display will be different from one another, and each an active participant in the creation of knowledge. It appears ‘the devil is in the detail’, simply because these exhibitions are furnished, with so many devilish details including multiple (sticky, psychological, technical, representational, institutional), political and historical threads. I combine anecdotal observations and specialist interviews to probe problems with design and display, whilst also highlighting areas of exemplary practice. To investigate how

visual icons, exhibition strategies and the artefactual grammar create and disseminate knowledge, a framework is provided which builds upon previous research in museum studies. This approach incorporates a mosaic and heuristic methodology to reveal and interpret the epistemological function of the gallery and/or exhibit.

The examination of museum displays and how they construct knowledge requires both a theoretical and methodological skillset. Objects, texts, images, audio-visual media and arrangement practices work independently and together to convey meaning. The museological practices of exhibition and display reveal disciplinary trends and hidden assumptions about the Neanderthals and their contribution or lack of it to human evolution. To assess whether the traditional iconography for portraying Neanderthals as brutish and unintelligent persists in the context of the museum, I critically consider a diverse range of factors involved in the production and commission of exhibitions, galleries or museum displays. The analysis includes the critical interrogation of unconscious ‘props’ used in museological displays and explores how the various components of object, image, text and exhibition practices compliment and reinforce each other in a system of representationalism (Pettit and White 2011; 2013). These so called ‘props’ include details such as lighting, display furniture, and spatial arrangement within an exhibit. These features function as didactic devices in the understanding of culture, history, science and ultimately our evolutionary history and progression as a species (Moser 2010: 23). When reading the museum, or exhibition as a text, the first point of consideration is the spatial qualities of the gallery, including allocated space, layout and atmosphere. Space and the use of space including the format and layout of the exhibit, must be critically assessed to reveal the museum narrative and exhibition discourse (Mason 2006: 26).



#### 4.8. Allocated Space. Is there Room for Multiplicity and Relationships?

The architecture, location and setting of the core museums in this analysis will be recorded as a key factor in the epistemological function of the museum (Moser 2010: 24). It is important to carefully consider the details of the display environment because the institutional setting is significant to the grand meta-narrative the museum purports and the didactic performative practices the museum employs. For example, a comparative analysis of the National Museum of Wales and Britain's first open-air museum St. Fagan's, Museum of Welsh Life and History is provided in the case studies. This will include an analysis of the architectural style of the two corresponding buildings. Their location and setting will be described, to highlight different display types, exhibition practices and ways of presenting human origins that are possible in different institutional settings and archaeological contexts. An assessment of the history and nature of the NHM, London is provided to demonstrate that the separation of the natural history departments from the rest of the British Museum in 1881 represents the material manifestation of the division between the natural and cultural world and the evolutionary division between modern humans and other humanities (Neanderthals).

Next, the spatial layout of the display and/or gallery is identified on annotated floor plans provided in chapters five and six. An important consideration within this thesis is space, both physically and theoretically. The allocation of space and the way in which exhibitions are laid out including the ordering of space, time and things within the display are critically considered. Spatial analysis does not simply refer to the physical parameters of the exhibit or gallery, rather it provides an evaluation of the ways visitor movement is restricted or guided throughout the space. For the purposes of this research, I critically consider performative mechanisms of 'evolutionary walking' and provide exemplary practices centred on thematic display and multi-directional movement throughout the galleries (Bennett 2004, 2010). What

interests me here, is whether there is a clear demarcation between different spaces, encouraging different readings of the displays? Have different parts of the collection (for example dinosaurs and animals) been dis-jointed and accorded a different space or theme? Crucially, is this demarcation sufficient to challenge the fallacy created by the comic tradition and popular media that cavemen and dinosaurs roamed the same vanished worlds in the context of natural history? This will include an analysis of the design, lighting and colour scheme of the display. The styles of decoration, and display furniture including cabinets, shelves, plinths, pedestals are all recorded to assess whether they situate objects, cultures, and the 'other' within a particular intellectual framework (Moser 2003).

#### 4.9. The Visitor in Museum Studies.

The visitor in museum studies is understood as a crucial participant in the process of meaning-making (Mason 2006: 27). Future research is required to critically consider visitor experience through observational studies and participant feedback, particularly in relation to how a visitor's pre-existing assumptions and narratives of prehistory and its subject matter influence their experience as conducted by Wood and Cotton at the 'Prehistoric Gallery', Museum of London in 1992 (Wood and Cotton 1999: 28-43, British Museum: Francis, nd. Accessed 2022). Here, they asked visitors 'please can you tell us what you associate with the word 'prehistoric'? The top answers were dinosaurs, cavemen, flints, tools, caves, the ice age, barbarism, animals and monsters including mammoths (Wood and Cotton 1999: 43). I suggest that despite major changes to the primitive iconographies of human origins the above common misconceptions surrounding prehistory continue unabated in the consciousness of the visitor. These age-old stereotypes and assumptions are perpetuated not through visual schemas based exclusively on physical attributes, but, rather through the continued artefactual associations and ordering practices of the evolutionary museum (Pettit and White

2011; Bennett 2004). The problem is exemplified in the context of natural history where human evolution is depicted side by side with dinosaurs and animals, encasing the Neanderthals within a mausoleum of extinction. The aim of this thesis, however, is to highlight the role of visual ‘modalities’ and ‘ordering practices’ in the construction and dissemination of past and present disciplinary working trends and assumptions (Moser 2003: 14).

The way in which visitor movement is directed or restricted within a gallery space is fundamental to the way a narrative is told and perceived (Bennett 2004; Moser 2010). Therefore, this study records the design and spatial layout of the display cases, artefacts, reconstructions and images (using annotated floor plans) to reveal the museum narrative and highlight the different modalities utilised within the gallery or exhibit. To extend this point the context and content of images and hyperrealistic reconstructions will be critically assessed to provide an analysis of the prevalence of ancestor and gender stereotyping (Moser 2010). Whilst seeking to identify the classic display canon, I will also be actively seeking anomalous examples of novel and radical visualisations of the other humanity – Neanderthals.

This museological analysis includes but is not restricted to four distinctive types of representationalism. Sowers, (1984) identifies three modalities which are primary instruments of pure envisagement in the context of the museum (Sowers 1984: 271-276). The first is the ‘image modality’ (chapter two) which includes artistic reconstructions, portraits, habitat dioramas, digital media and audio-visuals (Sowers 1984: 271). The second is the ‘object modality’ which is associated with sculptures for Sowers. In the context of human origins and the evolutionary museum, hyperrealism, (scientific models) and the artefacts themselves are

understood as the ‘object modality’. The third is the ‘environment modality’ conceptualised here as the nature, history, architecture, location and setting of the museum (Sowers 1984: 272). Finally, I propose a fourth category in relation to the ordering and exhibition practices of the museum referred to here as the ‘time modality’, used to assess the associated artefactual grammar, restrictive scenarios and the grand meta-narrative of slow modernity. The individual modalities taken together are integral parts of the message which are consciously and subconsciously communicated. This is particularly relevant in the context of human origins; different visual modalities convey different meanings and assumptions about a species and/or individual and their behavioural and cognitive capabilities (Moser 2003: 28).

This museological analysis will critically interrogate the different visual mediums and their modalities, to reveal disciplinary trends and assumptions that marginalise the ‘other’s’ role and contribution to human evolution. An analysis of museum displays requires careful consideration of what the type and style of an exhibition is, to assess whether it has been created with a distinctive and or traditional approach to Neanderthals and human origins. Establishing the nature of this style is crucial to my analysis, since this research rests on the premise that ‘the only way to challenge the traditional dogmas associated with Neanderthals is to create new stories pertaining to human evolution by exploring alternative perspectives’ (pers. comm. Davies 2016 in Beresford 2016). I believe this requires a critical deconstruction of the theoretical, methodological and interpretative frameworks applied to models of evolution and Palaeolithic archaeologies, advocating a radical dis-juncture of Palaeolithic collections from the arresting grip of natural history museums.

#### 4.10. The Object Modality. Hyperrealism.

The object modality in this context refers to the use of hyperrealistic models. They represent a three-dimensional portrait of Neanderthals and their lives, capturing the range of possibilities that are imagined and disseminated in the modern reconstruction of their life and being. The models are constrained by current scientific data and archaeological research, but also go beyond what is objectively knowable and into the realm of interpretation and artistic style. All portrayals of deep prehistory must be inferred from material traces. There are no documents, oral histories, or living testimonials to support any claims about the past. The way individuals look, their appearance, hair styles and dress are all assumptions or at best educated guesses using ethnographic research (Giles 2016). Consequently, prehistory is hugely dependent upon archaeological theory and the foundation of our understanding plays a central role in the narratives and portrayals the museum perpetuates. A brief example would include the bodily position, facial expressions and clothing, all of which are meshed as a scientific (objective) process and artistic (subjective) pursuit. Artefacts are simply objects of curiosity and wonder, understood from an aesthetic or superficial viewpoint. An opportunity to understand the past, only occurs with context. This is more prevalent in the context of hyperrealism, because they are often stand-alone wax work models of our ancient ancestors. In a museum setting, the object speaks for itself, but in palaeoanthropology an analytical framework is needed to interpret the data – that framework is evolution and slow modernity.

#### 4.11. The Time Modality as Ordering Practices.

The evolutionary museum traditionally served as the incubators/laboratories for broader developments affecting the very grammar of the artefactual and visual field by providing new rules for the classification and combination of objects into a linear and progressive system (Bennett 2004). The arrangement and association of objects creates a mental picture that

functions as an interpretative framework for understanding and a didactic mechanism in the ordering of things to make meaning. Note that these ordering practices do not merely incorporate things, but the evolutionary museum organises space, time and things into a readable text (Bennett 2004: 2). This re-ordering has repercussions throughout the museum and scientific sector and is referred to here as the time modality of representationalism.

The typological and chronological arrangement of objects and images into sequential stages, within the exhibit, is a means of communicating complex ideas in relation to the development of civilisation. Although, these evolutionary exhibition practices increase intelligibility, they have the adverse consequence of perpetuating notions of linear progression (founded on Darwinism) as a moral and social imperative. The distribution of objects on display and their relationship to each other is a narrative that the visitor subconsciously reads when they are engaging with an exhibition (Moser 2003: 27). From the perspective of human origins, it is necessary to consider whether the objects have been arranged in a chronological or thematic manner?

Chronological displays that focus on typologies and notions of functionality, often make indirect statements about the level of cultural attainments of different species and categories of person (Witcomb 2003: 128). Consequently, the spatial and sequential layout of human antiquity displays, function as a 'performative system of evolutionary walking' and sequential back-teller of prehistory (Bennett 1995: 6). This research explores the role and significance of the museum not merely as an educational institution in the effective dissemination of archaeological and scientific knowledge, but also considers how visual icons, exhibition practices and the museum are constitutive of knowledge. In the context of natural history, I argue the principles of evolutionary arrangement and exhibition have both enabled and

constrained future archaeological methodologies, interpretations and representations of prehistoric life. This is demonstrated at the NHM, London which continues to rely heavily on the canonical icons of evolution, that of ‘the ladder and cones of diversity’ (Gould 1995a, 1997).

#### 4.11.1. Canonical Icons of Evolution. Ladders and Cones (Gould 1995).

Evolutionary theory is often viewed as a revolutionary paradigm. Evolution in the context of the museum comprises a mixture of a new paradigm and traditional approaches that categorise and organise the world into a schema of progression towards perfection, Gould refers to this phenomenon as ‘the ladder’ (Gould 1995a, 1997; Wells 2002). Most people are familiar with the canonical iconography of evolution, that of the ‘march of progress’, epitomised by the infamous image of the linear and hierarchal line up starting with the primates evolving into a modern white male (Gould 1995a; Wells 2002). This misconception erroneously equates evolution with progress, a mistake compounded repeatedly by science fiction and the museum has fallen victim to this pitfall (Gould 1995a). The representation of linear progression through the ages fails to capture the dynamism and complexity of evolutionary theory or the archaeological record. When evolution is presented as a cultural ladder of progression or the hominisation process is conceived as a celebration of the universal laws of development and gradualism, evolution is no longer a ‘process’ or mechanism of change and adaptation. It becomes a narrative with a beginning (the australopithecines), a middle (genus *Homo*), and an end (modern humans). It is recognised that the Neanderthal’s position in this narrative has moved from a missing link to the last stopping station en route to civilisation (Wragg Sykes 2020).

In modern portrayals, they have been brought closer to us and now occupy a position much higher in the ascent of life and chain of being. However, current approaches fail to challenge the 'ladder' itself and the progressive tendencies of the museum. This ontological perspective of the natural world and all its species is a holdover from before 1859, and the acceptance of evolution by the scientific community. The misconception of evolution as progression is explicit in the 'great chain of being', originating from Plato and Aristotle in Classical times, but this approach is dangerous for three reasons (Gould 1996). Firstly, it holds that all beings on earth, animate and inanimate should be organised hierarchically. This creates and sustains social inequalities and injustices between different populations of humans and different species of hominin. The conceptualisation of linear progression effects all other animal and plant species, traditionally used as a political means to justify our (western) dominance over 'the other' (Gould 1995a, 1997). Secondly, it envisions only two organising criteria: things progress from simple to complex and from primitive to modern. Consequently, this approach represents both time and evolution as linear and directional (Bennett 2004, 2010). Thirdly, the great chain of being reinforces the falsification of bounded entities and categorisations. The cultural ladder of progression reinforces dichotomous thinking. Within the context of the evolutionary museum there are no leaps, intermediary stages of development or in-betweens, which unfavourably reinforces Cartesian philosophy and the great foundation cut between nature and culture (Bennett 1995; Wheeler et al 2019). These hangovers of ancient thought and religious ideologies have maintained the hierarchal categorisation of 'them' and 'us'. The desire of early archaeologists and museum curators to depict Neanderthals as the alternative to modern humans (made in God's image) resulted in archaeology seeking substantial differences between modern humans and other humanities.



#### 4.12. The Study Design. A Theoretical Approach.

In deconstructing the epistemological function of the museum exhibit, I take a feminist and ontological perspective. From these perspectives, the complex network of relationships in the creation of knowledge are themselves Westernised and gendered (Kosut 2016). The identities of ‘same’ and ‘other’, ‘human’ and ‘object’, ‘man’ and ‘woman’ are formed and articulated through a range of visual and artefactual relationships. The categories of Neanderthal and *H. sapiens* are set in direct opposition to each other yet at the same time are bound together and interdependent (Peeters and Zwart 2020). The approach taken in this thesis is founded on materiality theory and the ontological turn in archaeological theory (Hussain and Will 2021; Harris 2016; Kristiansen 2017). New interpretative frameworks such as materiality are rooted in several recent theoretical re-orientations within the social sciences. Most notably, in the context of human origins the ‘material’ and ‘non-human’ turns are founded on a resolute critique of the long-standing preoccupation with human exceptionalism and human-centred approaches that have plagued Palaeolithic archaeologies and evolutionary narratives (Knappett and Malafouris 2008; Knappett 2014). Materiality as an ontological turn can be understood as post-humanist in that it seeks to deconstruct subject-object dichotomies and decentralise humans from the core of scientific research and archaeological representation (Latour 1991; Descola 2005; Harraway 2007, 2016; Braidotti 2013).

Five major strands make up this new movement within archaeological theory. The first is described as object centred, namely that of symmetrical archaeologies (For proponents of symmetrical archaeology see... Olsen 2003, 2010, 2012; Gosden 2005; Shanks 2007; Ingold 2007; Witmore 2008; Webmoor 2012; Nativ 2018). Objects, are now recognised as having their own complex biographies, where the original design and function constitutes only one chapter in a trajectory of existence that includes subsequent reuse, discovery, presentation and

interpretation, adding additional value and meaning to objects of scientific study. In essence, 'a new life emerges for objects once they are placed in an exhibitionary setting' (Gosden and Marshall 1999: 169-178; Moser 2006: 5-6). This new focus directs attention to the way human and non-human histories inform each other. The central idea is based on the premise that as people and objects gather time, movement and change they are constantly transformed, and these transformations of persons and objects are tied up together in the cultural biography of objects (Gosden and Marshall 1999: 169-178). This approach is used to overcome use-life approaches to objects that focus on changes to the morphological or functional characteristics of an artefact. Traditionally, the Neanderthals have been conceptualised as the object of scientific inquiry and modern humans (Western males) have become the subject of archaeological investigation, making the Neanderthals peripheral to archaeological concern and representation. This approach, I argue has been detrimental to our conceptualisation and understanding of human evolution and Palaeolithic archaeologies.

The second is defined as archaeologies of entanglement which is primarily focussed on the works of Hodder (2011, 2012, 2014) and its relational partners (Robb 2013; Watts 2013). This thesis demonstrates that a relational approach to the archaeology of Neanderthals may be more fruitful than the traditional binary approach of 'them' and 'us' (Wiber 1994, 1997). It appears that a relational perspective is what is missing from Palaeolithic archaeologies. There are notable exceptions. However, general approaches continue to perpetuate a dichotomous relationship that emphasises cognitive and symbolic differences between Neanderthals and modern humans (Chazan 2018; Hussain and Will 2021).

The third is defined as more-than-human approaches to archaeology, namely a multispecies approach to the hominisation process (Birch 2018). In the context of human origins this

requires a flat ontology where a specific type of being (modern humans) or evidence (material culture) is not privileged or centralised. A multispecies approach would include multiple hominins, their different and varied environments and a re-evaluation and assessment of human-animal relationships, beyond that of the antagonist scenario. The fourth is a range of cognitive approaches that critically engage with material engagement theory (Renfrew and Malafouris 2010; Malafouris 2013, 2015 2016). This theoretical approach emphasises the importance of material engagement as a preverbal capacity for basic thought. This capacity emerges from bodily engagement with the material world, demonstrating the active role of materials in human thought and action. The final theoretical strand drawn upon is emotionality in archaeology. The aim here is to explore and highlight approaches that can be incorporated into the ‘deep-past’ of Palaeolithic archaeologies (Tarlow 2000; Harris and Sorensen 2010). Thus far, the above theoretical strands and approaches appear to have been successfully incorporated into later periods of prehistory (namely the Neolithic), and archaeology more generally but the museum has fallen short in the incorporation of the ontological turn in the archaeology of Neanderthals.

The visual approach to palaeoanthropology has changed over time and varies depending on the media outlet used. However, some museums continue to make the unfounded assumption that the greater part of material culture (the ‘true’ distinguishing feature between ‘them’ and ‘us’), has been created not only by modern humans, but more specifically, by white Western males (Wiber 1994, 1997; Hager 1997; Moser 1992, 1999). This approach subconsciously places modern humans as the pinnacle of human evolution, both physically and symbolically. On the one hand, scientific advances, evolutionary theories and contemporary social ideas influence and shape how we portray our ancestors. On the other hand, Neanderthal reconstructions themselves, in turn, kick back and influence our view and the underlying

assumptions and ideas we hold dear about ‘cavemen’ (Wragg Sykes 2020, 2021). We must acknowledge the power of representationalism in the creation of compelling narratives concerning the construction of knowledge, the evolution of ideas and the evolution of ourselves as a species. Therefore, I argue that images as a mode of representation are integral to the portrayal and interpretation of other humanities. In this thesis ‘images’ are given a voice and analysed as central characters in the narrative of human evolution, particularly in relation to hyperrealism and its potential as a powerful new visual strategy for archaeologists, curators and artists. I argue that for hyperrealism to reach its full potential the museum must critically consider the theoretical underpinnings (the philosophy of science) and ‘affect’ of iconic vocabularies. What is needed is a theoretical revolution, one that:

- Does not privilege modernist (dualistic) ways of thinking (Crellin and Harris 2020; Hussain and Will 2021).
- Challenges the categorisation of bounded and fixed notions of identity, the body and environment (Barad 2003, 2007).
- Does not privilege specific forms of being (modern humans) or knowledge (cultural and social) (Villa and Roebroeks 2014).

#### 4.13. Conclusion.

The analysis thus far, demonstrates that recent discoveries and scientific developments have not yet been matched by the development of an updated theoretical framework.

Consequently, this thesis proposes a unification theory founded on agential realism (Barad 2003) which incorporates a symmetrical approach to the investigation and representation of human origins rooted in what I refer to as ‘affective biographies’. I begin by issuing a direct challenge to the cartesian cut, a philosophy of binary opposition and dualisms, proposing instead an interpretative framework that begins with a flat ontology to break down the classificatory schemas that have resulted in hierarchal and binary modes of thinking about

Neanderthals. The framework proposed, through a relational and multispecies approach to Palaeolithic archaeology, is one which incorporates materiality theory at its core rather than human exceptionalism. New evidence reveals a complex landscape consisting of multimodality and semiotic relationships that enables the museum and/or archaeologist to investigate and represent Neanderthals, modern humans, objects and materials as ontologically inseparable, emerged through intra-actions, rather than existing independently (Birch 2018; Hussain and Will 2021). An exploration of the interconnected and woven relationships of Neanderthals and their material worlds, with modern humans, and other humanities (Denisovans), with nature, culture, males and females, contradicts notions of linear progression, highlighting instead degrees of intimacy, inter-dependence, co-existence and ‘intra-action’ (Barad 2003, Dunbar et al 2014).



## Chapter Five. A Case Study of the Evolutionary Museum.



Figure 53: Exterior architecture of the Natural History Museum famously dubbed a ‘cathedral to nature’ located in central London. The main entrance on Exhibition Road, South Kensington (Source: Author 2023).

### 5.1. History and Nature of the Natural History Museum, London.

The NHM is one of three large public museums on Exhibition Road, South Kensington, London, the others being the Science Museum and the Victoria and Albert Museum. The museum takes advantage of its location in the heart of central London. With over six million physical visitors a year and a further nine million virtual visitors to its website, the NHM is one of the most visited museums in the UK. Therefore, it is imperative we critically assess the interpretative frameworks at the heart of our displays on human evolution in the context of natural history (Moser 2010; Ash 2019; Ceder 2021).

*‘The Natural History Museum is one of the world’s great public museums, combining excellence in curating, research, public engagement and learning. The museum plays a unique role in the cultural and scientific life of the nation, providing a voice of authority on*

*the natural world, and a source of inspiration across generations'* (Annual Review 2012/3: 3).

The purpose of the museum is to 'curate, develop and provide access to one of the world's most important natural history collections. It contains over eighty million items and documents 4.6 billion years of earth's history and its life, forms and organisms' (Annual Review 2012/3: 3). The subject matter includes planet earth (and its formation) and life on planet earth, and for over one hundred and forty years the museum has displayed this collection to the public in Alfred Waterhouse's iconic building in South Kensington (Thackray and Press 2023). In essence, the NHM explores nature in all its glory including the geological formation of earth and the diversity of life and its delicate ecosystems to ensure the appreciation and survival of our planet. The collection is divided into five main categories: botany (plants), entomology (insects), mineralogy (geology), palaeontology (dinosaurs and human evolution) and zoology (mammals). The museum's palaeoanthropology collection holds the largest assemblage of hominin fossils in the UK. It includes three thousand hominin specimens representing seventeen different species, and over six thousand stone tools (Natural History, nd: c Accessed 2023).

The museum appears to have changed its aim and objectives from a place of didactic learning to a reflective space that focusses on the power of nature and our (modern humans) responsibility to act for nature. This is because life is under threat, with recent decades seeing a catastrophic acceleration in the rate of biodiversity loss. The museum has shifted its focus and identity from passive observers of the natural world to active participants in the struggle to reverse this trend (Gurr in Thackray and Press 2023: 6). This institutional shift in focus is



evidenced by the new installation in Hintze Hall: that of ‘Hope’, the blue whale exhibit suspended from the ceiling.



Figure 54: ‘Hope’, a giant blue whale skeleton has for the first time replaced Dippy as a new icon for the Natural History Museum. *‘Putting the blue whale at the centre of the museum suspended from the iconic ceiling of the Hintze Hall, between living specimens on the left and extinct species on the right, is a powerful reminder of the fragility of life and the responsibility we have towards our planet’*. This move in attraction management represents a genuine attempt by the museum to refresh its image, asking to be known for its living collections rather than its fossil collections, namely dinosaurs. (Casson Mann NaturalHistory, nd: d. Accessed 2023).

Hintze Hall is the gateway to the museum’s collections and galleries, initially intended to function as an index for the museum’s collection, but for the past thirty years the first encounter and representation of the museum was Dippy, the diplodocus skeleton cast. This area functioned as entertainment value and a political and cultural statement as to what the museum represented and what wonders you might expect to find within. It set the conceptual agenda of the museum and emphasised its close affiliation with natural history and dinosaurs, since the museum houses one of the world’s most important dinosaur collections, including 157 taxa and 69 type specimens. Dippy as an iconic emblem has now changed to a skeletal cast of a blue whale named ‘Hope’ to demonstrate the delicate balance of the earth’s ecosystems and the need to take climate change seriously to ensure the survival of our planet (NaturalHistory, nd:d. Accessed 2023).

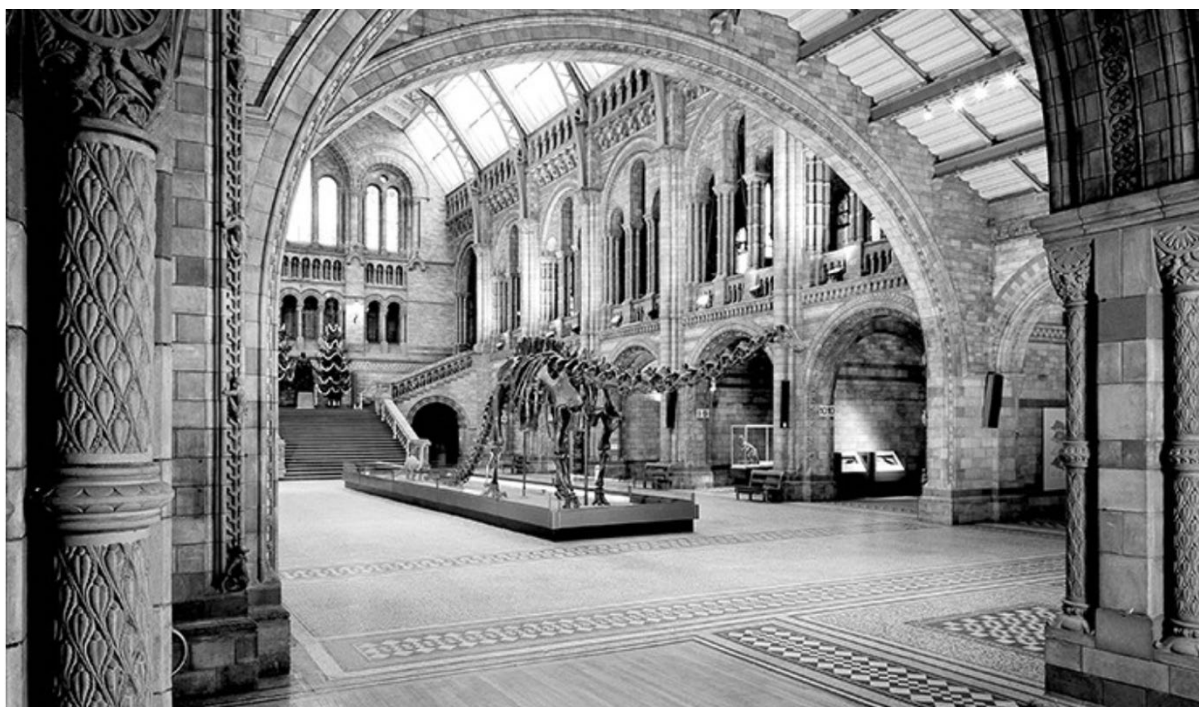


Figure 55: ‘A Star Cast’. The museum’s Diplodocus skeleton cast, known affectionately as ‘Dippy’. For over thirty years, Dippy was the first impression encountered upon entering the museum. He served as an awe-inspiring welcoming for visitors. The nation’s favourite dinosaur has been on display for a hundred years at the NHM and has just returned home, from his UK wide tour. Dippy has become an emblematic representation of the museum, and visitors worldwide have come to love and treasure this dinosaur. (NaturalHistory, nd).

## 5.2. The Great Divide. Nature and Culture: The Move to South Kensington.

The museum first opened its doors on the 18<sup>th</sup> of April 1881, but the idea of a natural history museum stems from much further back to a generous offer made by a renowned doctor, Sir Hans Sloane, one of the most influential men of eighteenth-century London. After his death his will facilitated the government to purchase his collection at a fraction of its estimated market value (NaturalHistory, nd: a Accessed 2022). This collection was originally held at the British Museum, but in 1856, Sir Richard Owen managed to convince the museum’s board of trustees that a new building was needed to house this nationally important collection and by 1881, ‘a cathedral to nature had been built’ (NaturalHistory, nd:b. Accessed 2023).

The identity of the NHM was set in motion by its founding father, Sir Richard Owen. He was a world-famous naturalist when he became superintendent for the natural history collections

at the British Museum and set out to purpose build a new building outside of this institution. In a bold move he took his proposal to a leading politician, William Gladstone to bring home the point that a new home was needed to house the ever-growing natural history collections (Thackray and Press 2023). Owen, then announced to the trustees of the British Museum that the time had come to divide the museum into two, ‘separating the works of man (books, manuscripts and antiquities) from the works of God (natural history)’ (Thackray and Press 2023: 60). I argue that the separation of these collections represents the material manifestation of the Cartesian cut between nature and culture and the evolutionary division between ‘them’ (other humanities) and ‘us’ (modern humans). Therefore, I discuss the validity of representing other humanities in a natural history context, particularly in relation to the genus *Homo*, creating as this does, a sense of their natural and inferior status. Hence, I propose an approach that places other humanities in an archaeological context rather than a natural history one. As unsettling as this suggestion is to museum curators in the UK, in some European museums such as the Museum of Human Evolution, Burgos, Spain and the Museum of Man, Paris, France and Moesgaard Museum, Denmark, other humanities (the hominisation process) are exhibited together, not in a mausoleum of extinction, but rather a historical context highlighting a very different attitude to the categorisation of the origins and evolution of man (pers. comm. Elizabeth Walker 2021: Appendix A).

Ironically, many of the museum’s features derive directly from Owen’s own view of the natural world, in particular his rejection of Darwinism. This is demonstrated by Owen’s decree that the east wing was to be decorated entirely with extinct creatures, and the west wing entirely with living specimens. This categorisation and ordering practice of extinct and living species is continued today in the Hintze hall with living specimens on the left and extinct species on the right. Today, however, this separation serves a different purpose, not to

demonstrate God's role in the origin of species but instead as a stark reminder of the fragility of life (Natural History nd: d). Owen, disapproved of Darwin's removal of God as the creator of our living species, however he did agree with the science and the mechanisms of natural selection, but Owen believed that Darwinian evolution could not explain the origins of species. For him it all began with God.

Although, the NHM was established in the comfort of modernity and evolutionary theory. Owen, did not support Darwinian evolution, but the museum's successors did. The concept linking the assemblages of the museum's material is that of the progressive development of the natural world (Stearn 1998: xiv). Victorian ideals of unilinear progression and slow modernity are centred on progression towards perfection. These theoretical frameworks shaped the collecting, organisation and display strategies employed by the museum, reflected by the presentation of artefacts and specimens in a chronological and typological arrangement (Grimes 2012; Athreya 2018; Ash 2019; Ceder 2021). I suggest that the problem stems from a direct association of prehistory and nature, cavemen and extinct animals/dinosaurs. Within this institutional setting an expected and traditional narrative of evolution (the ladder and cones of diversity) are perpetuated and disseminated to general members of the public (Gould 1995a, 1997).

### 5.3. The Environment Modality. Architecture, Location and Setting.

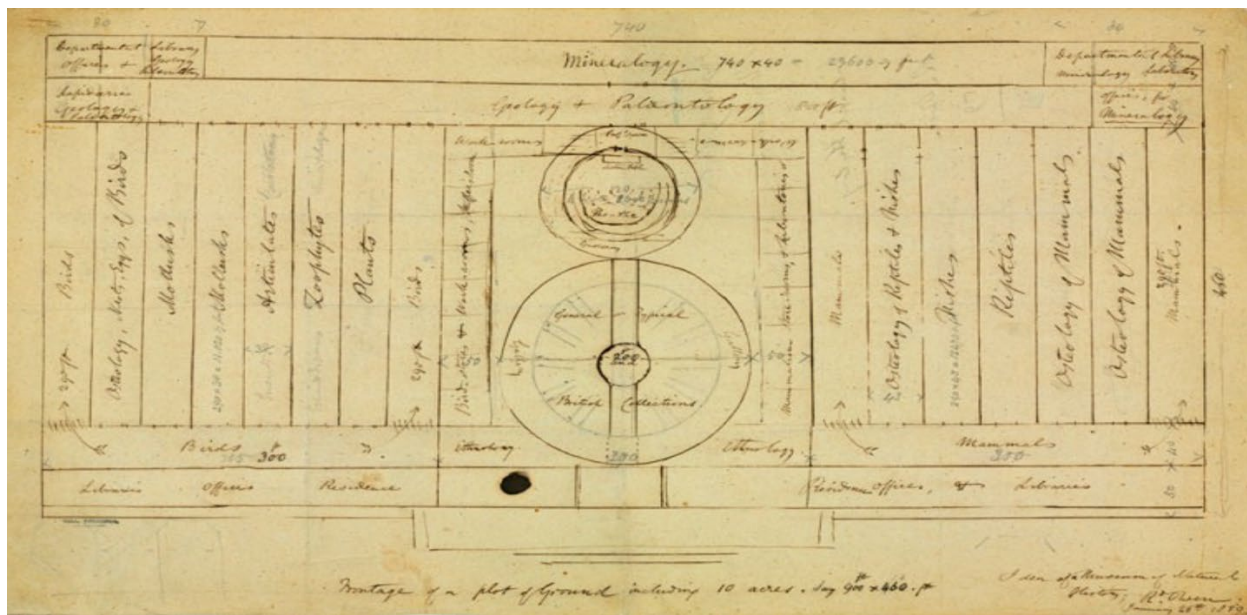


Figure 56: A rough architectural plan drawn by Richard Owen in 1859, titled 'Idea of a Museum of Natural History'. Alfred Waterhouse designed the architecture of the museum in 1865, but he referred to Owen's original sketch when he designed the new museum of Natural History.

Although, the NHM was initially conceptualised by Sir Richard Owen, it was ultimately designed by the young architect Alfred Waterhouse (Natural History, nd: a). The building today represents one of Britain's most striking examples of neo-Romanesque architecture and has become one of London's most iconic landmarks. The museum architecture reflects Waterhouse's individual style, but it also pays homage to Owen's vision of a museum that should be free and accessible to all, that aims to exhibit the largest specimens in the museum's collection. Therefore, Waterhouse incorporated huge expanses of space (the Hintze Hall) to display colossal specimens within the museum's collection. Owen suggested that Hintze Hall should act as an index for general members of the public. Upon entering the museum, members of the public could immediately see what they could find within the rest of the museum, predominately this association was mammals and dinosaurs. The museum has stayed true to Owen's original vision of a museum for the masses which should be free and accessible to all. However, special exhibitions within the museum are charged at an inflated

additional rate. For example, during my last visit (September 2023) it cost £16 per adult to see the Titanosaurus exhibition. This commercial approach to the representation of natural history contradicts the original purpose and epistemological function of the museum and signifies its commercialisation as an institution (NaturalHistory, nd: Accessed 2023).

Incorporating Owen's ideas into his design, Waterhouse also commissioned a series of plant and animal ornamentation, statues and relief carvings throughout the museum, drawn and reconstructed to a scientific standard as a reflection of the natural world and the scientific authenticity of the museum as a world authority on nature (Natural History, nd: a). The ornate architecture, scale and detail of the building has led to it being dubbed 'a cathedral to nature' (Natural History, nd: b. Accessed 2023). I argue that in the context of natural history Neanderthals (other humanities) are encased within a mausoleum of extinction that further increases the divide between 'them' and 'us'. It presents other humanities at a removed status, failing to critically engage with the sociality of the 'other' and new archaeological data that presents a very different emerging picture of Neanderthals and human evolution more generally (pers. comm. Wragg Sykes 2021: Appendix B).



#### 5.4. Human Evolution. An Interim Gallery.



Figure 57: The entrance to the human evolution gallery at the NHM, London. Directly opposite is the life-size fossilised remains (cast) of a Stegosaurus nicknamed ‘Sophie’. The reconstruction sets the conceptual and intellectual tone for what visitors can expect to discover within the museum. Immediately, visitors conceptually associate natural history with dinosaurs. Despite, the human evolution gallery being demarcated by a wall, I argue the proximity of hominins and dinosaurs perpetuates the comic fallacy that they lived during the same geological epochs and in the same environments (Source: Author 2023).

The next section of this chapter focuses exclusively on the interim gallery titled ‘Human Evolution’ located on the ground floor in the red zone. This zone is dedicated to the changing history of the Earth, showcasing specimens of rocks, minerals and gemstones behind glass cases in the dimly lit Earth’s Treasury. The human evolution gallery, opened to visitors on Friday the 18<sup>th</sup> of December 2015, it displays star specimens from the museum’s palaeontology collection. The gallery’s objective is to emphasise updated interpretations and new scientific approaches to the study of evolution. According to the available online resources the primary purpose of the gallery is to ‘present the intertwined history of our species’, that highlights a complex hominin family tree, rather than a linear path from simple to complex culture over time (NaturalHistoryPress, nd. Accessed 2023). The gallery focusses on objective and scientific knowledge, particularly on recent advancements in aDNA and CT scanning to uncover the origins and dispersals of humans (Nadelson and Hardy 2015).

The gallery is housed within one of the most iconic and historically specific buildings in London, but the space is modern, reflecting the aim of the gallery to disseminate new

scientific discoveries and techniques that are revealing an inter-connected narrative of human evolution. This modern approach to the palaeontology collection represents a shift in focus to living collections, rather than extinct beasts, animals and plants. However, when the visitor enters the NHM, from the Exhibition Road entrance they are immediately greeted at the top of the staircase with the life-size fossilised skeletal cast of a Stegosaurus. This anatomical reconstruction is imposing and takes centre stage in the entrance space. On the left-hand side is the small interim gallery titled 'Human Evolution'. The dinosaur is not positioned within a chronological framework, it simply represents a type of entertainment value for the museum, conceptualised here as a grand opening statement upon entering the building.

#### 5.4.1. Design, Lighting and Colour.

The colour scheme within the gallery is dark blue in contrast to the rest of the museum which is light in colour and remains faithful to Richard Owen's vision of a spacious and open museum. The lighting within the gallery is dimly lit and dark, only the modern glass display cabinets have light flooded onto them to highlight the specimens inside. This visual strategy is in direct contrast to the architectural features of the museum with its high ceilings and natural light through ornate windows to showcase the specimens on display.



### 5.4.2. The Time Modality. Exhibition Design and Layout.

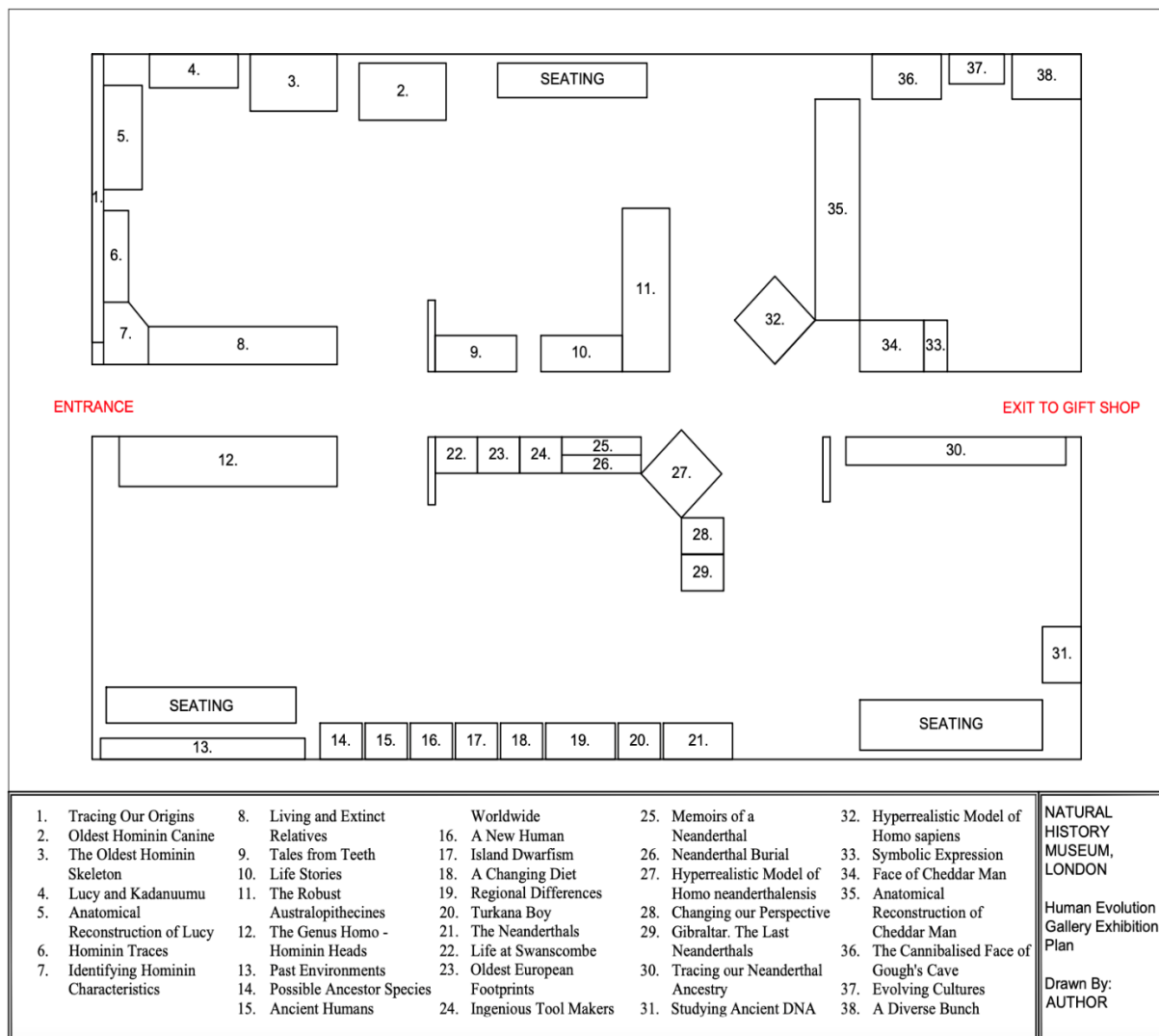


Figure 58: Plan of the Interim Gallery 'Human Evolution' at the NHM, London. It was not possible to obtain the original floor plans, therefore the above plan has been created by the author from photos and memory.

Consequently, it is not to scale.

1. Tracing Our Origins. The introduction wall of the gallery displays the diversity of the human family tree, using replica hominin skulls belonging to our ancient ancestors. The accompanying text highlights the multiplicity and complexity of the hominisation process demonstrating that the human family tree is made up of many ancient relatives. However, the first impression upon entering the gallery is illustrative of the canonical icon of evolution and displays the evolutionary process as the 'cone of diversity' on a chronological timescale that evokes the cultural ladder of progression as identified by Gould (Gould 1987, 1995a, 1997).
2. The Oldest Hominin Canine. This display case showcases the oldest known hominin canine within the museum's collection which belongs to *Australopithecus afarensis*, recovered from Laetoli, Tanzania and dates to over 3.5mya.
3. The Oldest Hominin Skeleton. This display showcases three of the earliest species of hominins. First, there is the skull (cast) of the oldest known hominin *Sahelanthropus tchadensis* (Chad, 6-7mya).

Second, *Orrorin tugenensis* the earliest known bipedal hominin (Kenya, 5.6-6.2mya) and finally, the oldest known hominin skeleton that consists of the hand of *Ardipithecus ramidus* (Middle Awash, Ethiopia, 4.3-4.5mya). The display highlights the scarcity of fossils representing the earliest hominins from the first phases of human evolution.

4. 'Lucy' and Kadanuumu. The purpose of this visual panel is to illustrate the extent of sexual dimorphism within *Australopithecus afarensis*. The display demonstrates that males were much larger than their female counterparts. *Australopithecus afarensis* as a species of hominin is consistently reconstructed as female both anatomically and fleshed out, despite the presence and display of male remains. I argue this is because the type specimen is interpreted as female, therefore this visual strategy remains faithful to the archaeological data but fails to critically consider gender-coded iconographies that currently only afford females a role in the earliest stages of human origins (Ward and Hammond 2016).
5. Anatomical Reconstruction of Lucy. The accompanying text explains the importance and significance of this species and skeleton, particularly the presence of a very human characteristic, walking on two legs. This behaviour is interpreted as a cultural advantage that may have bestowed survival benefits and freed up their hands to do other tasks such as carry food and use tools. The display case showcases the anatomical remains of Lucy, but also includes the skull of *Kenyanthropus platyops* to demonstrate that several hominin species lived in Kenya at the same time, about 3.5mya.
6. Hominin Traces. Cast of the Laetoli footprints, the oldest indirect evidence of bipedalism.
7. Identifying Hominin Characteristics. A digital interactive display that allows visitors to engage with the scientific data by comparing anatomical features including larger brain capacity, bipedalism and smaller canines. The display explores how scientists identify these different features through the comparative analysis of primates, different hominins and modern humans.
8. Living and Extinct Relatives Case. This case contains three anatomical reconstructions including the skeleton of a male chimpanzee (left), *Australopithecus sediba* (centre) and an anatomically modern female from France, 150 years old (right). The purpose of this display is to demonstrate differences in bipedalism - the first stage of the hominisation process. The corresponding text highlights features within the primates, the spine, divergent big toes and flat feet demonstrating that chimpanzees are not hominins. Whereas the s-shaped spine, along with aligned toes and arched feet are anatomical features associated with bipedalism and modern humans.
9. Tales from Teeth. This display explores the importance of teeth, because they are made partly of hard-wearing enamel, teeth tend to survive over extensive periods of time. It highlights how analysing their shape and wear, their surfaces and fossilised plaque can reveal the owner's species, age, state of health and diet. The corresponding display case features chimpanzee teeth on the bottom row and modern human teeth on the top row, providing a comparative analysis that highlights the anatomical differences between non-hominins and modern humans.
10. Life Stories. This case provides a summary of the available evidence on *Australopithecus africanus*, showcasing two specimens, that of The Taung child and Mrs Ples. The Taung child (skull and naturally preserved brain case) was the first specimen of this hominin found in 1924. The Taung child (2.8-3.3mya), type specimen highlights some human characteristics and some non-hominin characteristics.

Primarily, the position of the foramen magnum provided clear evidence for bipedalism (human), but microscopic analysis of its tooth enamel suggests it grew quite quickly, more like an ape than a human (Conroy et al 1987). The Taung Child is displayed alongside ‘Mrs Ples’, the most complete skull of *Australopithecus africanus* ever found. The skull was discovered at the Sterkfontein caves near Johannesburg, South Africa, believed to be c.2.5mya.

11. The Robust Australopithecines. Three Skull Casts of *Robust australopithecines* including: *Paranthropus robustus*, *P. aethiopicus* and *P. boisei*. The first area ends with the consideration of the new emerging species and the extinction of *Australopithecus afarensis*. The approach here explores a major shift in the African climate and the appearance of two new groups of hominins. One that contained the ancestors of modern humans, the other was a robust australopithecine group in the genus, *Paranthropus*, characterised by their heavy jaws and huge molars.
12. The Genus Homo: Hominin Heads. The hominin heads are created by the famous and highly distinguished palaeoartists, the Kennis Brothers. Six different species are represented from the genus *Homo*. These include *H. erectus* (adult male), *H. antecessor* (an unsexed child), *H. heidelbergensis* (adult male), *H. neanderthalensis* (adult female), *H. sapiens* (child) from Qafzeh Cave 120,000-90,000ya, and finally *H. floresiensis* (adult female).
13. Past Environments. A large map located on the wall of the gallery directly facing the hominin heads, identifying key archaeological sites and hominin discoveries across the world. It illustrates the geographical distribution and migration patterns of the genus *Homo* over the past two million years. The map highlights the diversity, adaptation and variation of the genus homo across the millennia.
14. A Possible Ancestor Species. Two skull casts of *H. habilis* and *H. rudolfensis*, both species have been identified as possible stem species from which modern humans evolved. They lived around 1.9mya, one larger bodied and larger brained and the other, smaller.
15. Ancient Humans Worldwide. A comparative display of six skull casts. Three *H. erectus* and three *H. heidelbergensis* specimens from different countries. *H. erectus* included: 1. West Asian, 2. Asian female, 3. African female. *H. heidelbergensis* included: 1. European, 2. African, 3. Asian. The aim of this display is to highlight their geographical range and the diversity between individual populations conceptualised as a direct consequence of their new environments.
16. A New Human. This display highlights ‘one of the most exciting finds of the century’ where more than one thousand fossil fragments were uncovered deep inside a South African cave. These remains have been identified as a new species of human, known as *H. naledi*. This species demonstrates some primitive features in its shoulder, a small brain and curved fingers, but its jaw, teeth and proportions of the hands and lower limbs are more like modern humans. On display is a cast of the lower jaw (human characteristics) and a hand (primitive features) of *H. naledi* highlighting its role as an intermediate species.
17. Island Dwarfism. An anatomical reconstruction of *H. floresiensis* c.20,000ya, alongside a map of the Island of Flores where the species was discovered. The display is used to illustrate the importance of environment as a key driver of human evolution, suggesting that the island environment may have led to dramatic changes in body size.

18. A Changing Diet. This section explains the importance of meat and protein for the development of our brains. It explores the implications of cooking by controlled fire, an evolutionary behaviour that has been identified in Britain from c. 300,000ya. This display features the only reconstructed scene within the gallery in the form of an audio-video demonstrating experimental archaeology, alongside the butchered remains of a rhinoceros skull and a boxgrove-style hand axe.
19. Regional Differences. This display focusses on the anatomical idiosyncrasies of *H. heidelbergensis*, *H. erectus* and Neanderthals, suggesting that longer legs (gracile structure) are an adaptation to tropical environments, whereas shorter legs and more compact body shape is presented as an adaptation to colder environments.
20. Turkana Boy. An anatomical reconstruction of the famous Turkana boy (1.5mya) providing scientists with insights into the body proportions of *H. erectus* because of the remarkable completeness of the skeleton.
21. The Neanderthals. This display case showcases three Neanderthal skull casts from three different locations in Europe. An early male (400,000ya) from Sima de los Huesos, Atapuerca, Spain, an early female (300,000ya) from Steinheim, Germany and a third unsexed skull of a Late Neanderthal (50,000ya) from Grotta Guattari, Mont Circeo, Italy. The accompanying text highlights that Neanderthals are our closest human relative and explores their extended geographical range across Europe and West Asia (although no Asian Neanderthals are included in the display). They are defined as successful hunters who developed new stone tool technologies and made fire from around 300,000ya.
22. Life at Swanscombe. Showcases the local fauna of Swanscombe including straight-tusked elephant, deer antler, a wild boar tooth, a pine marten leg bone, a dolphin vertebra, and a horse tooth. These remains were all found at Swanscombe in Kent, England. The display case also showcases the skull cap of an early Neanderthal women (c.400,000ya), possibly representing one of the first Neanderthals in Britain.
23. Oldest European Footprints. Traces of the first Britons stretches back nearly one million years. In 2013, coastal erosion exposed a preserved trail of footprints, believed to be at least 900,000 years old at Happisburgh, Norfolk. These footprints could possibly belong to *H. antecessor*. Footprint analysis demonstrates that the small group of humans included both children and adults.
24. Ingenious Tool Makers. This display presents a typological and chronological approach to the display of stone tools, focussing on major technological advances, starting with pebble stones used by *H. habilis*, *H. rudolfensis* or *H. erectus*, Acheulean hand-axes, and the quartzite cleaver by *H. heidelbergensis*.
25. Memoirs of a Neanderthal. The display describes Neanderthals as skilled hunters, undoubtedly intelligent, social and compassionate beings. However, it falls short of bestowing the Neanderthals with similar complex language and cognitive capabilities as their *H. sapiens* counterparts.
26. A Neanderthal Burial. Anatomical cast of a possible Neanderthal burial from Kebra Cave, c. 60,000ya (Meignen and Bar-Yosef 2019). The accompanying text describes these remains as an intentional burial because the head had been removed after the initial interment of the deceased into the ground.

We have no idea why the head might have been removed but it demonstrates that the Neanderthals reacted to death in a variety of different ways (Pettitt 2002).

27. Hyperrealistic Model of *H. neanderthalensis*. The model reconstructs an adult male from anatomical remains discovered at Spy, Belgium. The male stands clutching his hands behind his back. He is presented as glancing over to his *H. Sapiens* counterpart (number 32). He has an emotive expression, almost smiling, presented as happy and glad to be alive, rather than miserable and dejected. This is a welcomed departure from the use of 'primitive iconographies' as outlined by Moser and Gamble (1997). It is refreshing to see that their gaze has changed, and we are now forced to recognise them as essentially human (Balter 2009; Wragg Sykes 2021; Peeters and Zwart 2020).
28. Changing our Perspective. Audio-visual which explores interbreeding between modern humans and Neanderthals. The visitor can listen to Professor Stringer discussing what non-African populations have inherited from Neanderthals.
29. Gibraltar. The Last Neanderthals. A small display that showcases two very important Neanderthal specimens, that of the first Neanderthal skull ever discovered, although not initially recognised and the Devils Tower child discovered by Dorothy Garrod.
30. Tracing our Neanderthal Ancestry. The video follows several 'famous' friends of the museum (for example, Alice Roberts) and traces whether they have any Neanderthal DNA. The video emphasises new types of scientific evidence available to archaeologists and briefly explores our interwoven evolutionary history.
31. Studying Ancient DNA. This case explains the scientific methods which have been employed on the analysis of hominin canines including the decoding of the Neanderthal and Denisovan genome. The DNA of which was retrieved from the teeth. The two canines are presented alongside each other, one Neanderthal and the other Denisovan.
32. Hyperrealistic Model of *H. sapiens*. The model stands behind a glass case, holding an instrument in his mouth presumably for tattooing his body. Interestingly, this model has a darker skin tone, representing a significant and welcomed change from the traditionally racialised characteristics of human antiquity (Scott 2004, 2007; Jablonski 2012; Jablonski and Chaplin 2006; Jablonski and George 2017).
33. Symbolic Expression. Symbolic and decorative objects which are exclusively associated with modern humans. A total of fourteen decorative objects can be found in the display, some of which are recognised as the most famous pieces of prehistoric 'art'. These objects include the Holhenstein Stadel from Germany c. 40,000ya, a decorated spear-thrower from the Dordogne, France c. 16,000-12,000ya, tooth beads and antler frontlets from Star Carr, bone needles and symbolic arrowheads. The accompanying text states Neanderthals made things for survival; modern humans began making objects that interpreted the world around them.
34. Face of Cheddar Man. The hyperrealistic bust of Cheddar Man's head subverts the common misconceptions of what many people expect our ancient ancestors to look like. A controversial reconstruction because it presents Cheddar Man as an individual with a dark skin tone and blue eyes (NHM 2018).
35. Anatomical Reconstruction of Cheddar Man. A Mesolithic skeleton that is the most complete modern human found in Britain at Gough's Cave, Somerset. Visitors can peer over the remains which are laid

out horizontally, reflecting a burial context. However, the position of the remains is not archaeologically accurate (Williams 2009).

36. The Cannibalised Face of Gough's Cave. The 'cannibalised face' demonstrates that a complex culture of butchering human remains existed from c. 14,700ya in Britain.
37. Evolving Cultures. The textual panel essentially reinforces modern cognitive superiority over other humanities, emphasising a cerebral distinction between 'them' and 'us'.
38. A Diverse Bunch. This display case showcases seven different ways of being human from across the globe as a representation of the diversity of our species.

#### 5.4.3. Zone One: Meet the Hominins.

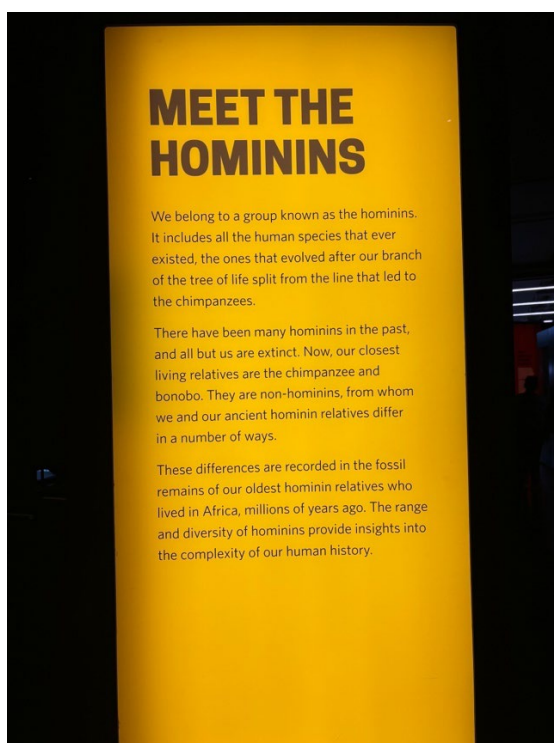


Figure 59: 'Meet the Hominins'. The first textual panel the visitor comes across upon entering the gallery. *'There have been many hominins in the past, and all but us are extinct. Now our closest living relatives are the chimpanzees and bonobo. They are non-hominins, from whom we and our ancient relatives differ in a number of ways. These differences are recorded in the fossil remains of our oldest hominin relatives who lived in Africa, millions of years ago. The range and diversity of hominins provide insights into the complexity of our human history'* (NaturalHistory 2015. Author 2023).



Figure 60: Photograph of Zone One 'Meet the Hominins' (cases 3-8). An exploration of the first stages of the hominisation process, emphasising the importance of bipedalism (Author 2023).

The Interim gallery can be divided into three zones (themes): 'Meet the Hominins', 'Becoming Human' and 'What makes us Human?,' each area serving to tell new and updated stories about human evolution at different stages of the hominisation process. The primary objective is to emphasise scientific analysis and changes in the contemporary perception and understanding of human evolution not as a linear line up of gradually acquired biological, social and cultural characteristics where one hominin directly replaces another. Instead, the focus is to emphasise the diversity and multiplicity of modern human origins research. The next section will provide a detailed analysis of the three different zones to critically assess whether this gallery aim has been achieved.

The first zone titled 'Meet the Hominins' is positioned directly on the left as you enter the gallery. It features key information about evolutionary developments in the earliest stages of the hominisation process, focussing primarily on the scientific identification and categorisation of hominin characteristics such as bipedalism, larger brain size and smaller canines, compared to primates. Emphasis in this zone is placed on the physical differences

between us, primates and early hominins. At the same time, it highlights anatomical and physical characteristics that demonstrate the deep antiquity of our species by highlighting our similarities. This area takes a comparative approach and displays the material in a chronological framework, starting with the earliest features (physical characteristics and anatomical idiosyncrasies) of hominin identification and interpretation. This zone is dedicated primarily to the evolutionary journey of the *Austropithicines* and draws upon primatology to highlight differences between early hominins, primates and modern humans (Fedigan 1997; Corbey 2005; Rodseth and Novak 2006; Delgado et al 2015).

The visitor begins their journey encountering the oldest hominin skeletons (number 3 on exhibition map) that of *Sahelanthropus tchadensis* (Chad, 6-7mya), *Orrorin tugenensis* the earliest known bipedal hominin (Kenya, 5.6-6.2mya) and finally, the oldest known hominin skeleton which consists of the hand of *Ardipithecus ramidus* (Middle Awash, Ethiopia. 4.3-4.5mya). The oldest hominins are followed by a visual panel (number 4) that explores ‘Lucy and Kadanuumu’, the famous *Australopithecus afarensis* hominins. The display highlights one human characteristics (bipedalism) and one primate feature (greater sexual dimorphism). The visual display is followed by the anatomical reconstruction of ‘Lucy’, the type specimen for *A. afarensis*, alongside a cast replica of the Laetoli footprints (cases 4-6). The chief objective of these displays is to emphasise the importance of bipedalism in the earliest stages of human evolution.

In the far-left hand corner visitors will find an interactive display that allows them to explore in greater detail the three main characteristics for identifying early hominins: these include larger brain capacity, smaller canines and bipedal motion identified by the positioning of the foramen magnum, physical characteristics of the spine, pelvis, legs and feet, and sometimes



by the indirect traces of footprints left behind. The interactive display is then followed by a large display case, emphasising the importance of bipedalism. This display case presents a stark illustration of the differences between primates, early hominins and modern humans. This case contains three anatomical reconstructions including the skeleton of a male chimpanzee (left), *Australopithecus sediba* (centre) and an anatomically modern female from France, 150 years old (right). The purpose of this display is to demonstrate the differences in bipedalism - the first stage of the hominisation process. The corresponding text highlights features within the primates, the spine, divergent big toes and flat feet demonstrating that chimpanzees are not hominins. Whereas the s-shaped spine, along with aligned toes and arched feet are anatomical features associated with bipedalism and modern humans. Interestingly, this display case illuminates the intellectual undertone of human origins research where our ancient ancestors are continually compared to chimpanzees (primates) and modern humans rather than a contemporary analysis, between primates living in the Pleistocene and contemporary humans/hominin species (Fedigan 1997; Corbey 2005).



Figure 61: Photograph of the adjacent area of Zone 1 'Meet the Hominins'. This area focusses on tales from teeth. It features case 2 (the oldest hominin canine) and displays 9-10 that showcases *Australopithecus africanus* (The Taung Child and Mrs. Ples). The final display case (11) features the robust australopithecines and considers the extinction of *A. afarensis* (Author 2023).

The area directly adjacent focuses on the identification of another hominin characteristic, that of teeth. This area begins with the display of the oldest hominin canine (left-hand side) within the museum's collection. The accompanying text briefly explains the specimen's discovery and identification as an *A. afarensis* tooth (3.5mya) because of its shape and wear. The next two display cases (right) focus specifically on the types of tales we can tell from their teeth. The textual panel explores the importance of teeth because they are made partly of hard-wearing enamel, teeth tend to survive over extensive periods of time. It highlights how analysing their shape and wear, their surfaces and fossilised plaque can reveal the owner's species, age, state of health and diet. The corresponding display case features chimpanzee teeth on the bottom row and modern human teeth on the top row, providing a comparative analysis that highlights the anatomical differences between non-hominins and modern humans. The aim here is to demonstrate that anatomical idiosyncrasies investigated through scientific analysis reflect differences in diet, subsistence strategies and social structures.

The second case in this area focusses on the types of life stories we can explore, specifically focussing on *A. africanus*. Here, the visitor comes face to face with casts of the Taung child (2.8mya) and Mrs. Ples (2.5mya). This case provides a summary of the available evidence on *Australopithecus africanus*, showcasing two specimens that of The Taung child and Mrs Ples. The Taung child (skull and naturally preserved brain case) was the first specimen of this hominin found in 1924. The Taung child (2.8-3.3mya) type specimen highlights some human characteristics and some non-hominin characteristics. Primarily, the position of the foramen magnum which provides clear evidence for bipedalism (human), but microscopic analysis of its tooth enamel suggests it grew quite quickly, more comparable to an ape than a human (Conroy et al 1987). The Taung Child is displayed alongside 'Mrs Ples', representing the most complete skull of *A. africanus* ever found.

Finally, zone one concludes with the *Robust australopithecines*, the display showcasing three skull casts of: *Paranthropus robustus*, *P. aethiopicus* and *P. boisei*. The first area ends with the consideration of these new emerging species and the extinction of *A. afarensis*. The approach here explores a major shift in the African climate and the appearance of two new groups of hominins: one contained the ancestors of modern humans, the other was a robust *australopithecine* group in the genus, *Paranthropus*, characterised by their heavy jaws and huge molars, reminiscent of the traditional direct replacement model in extinction discourses.



Figure 62: The *Robust Australopithecines* including a *P. boisei* skull, *P. Robustus* skull and a *P. aethiopicus* skull. This display explores the rise of this new hominin species and offers a different extinction discourse that incorporates climate change and the traditional direct replacement model (Author 2023).

#### 5.4.4. Zone Two – ‘Becoming Human’. The Genus *Homo*.

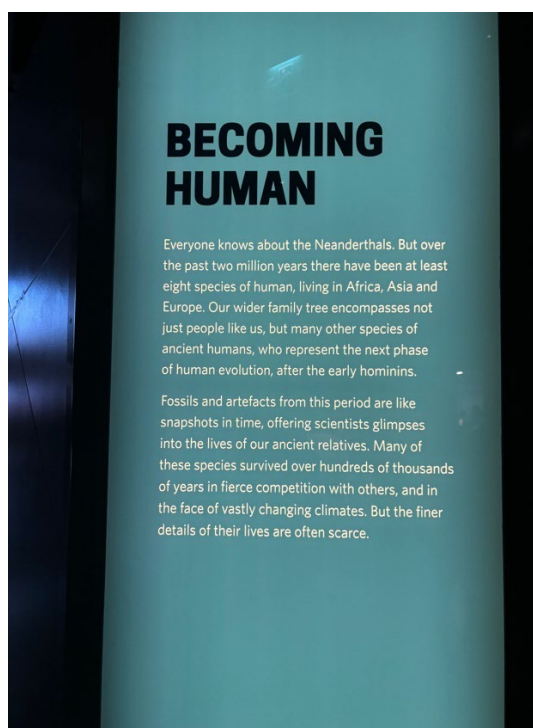


Figure 63: ‘Becoming Human’. The text panel as the visitor enters zone two presents a different emerging perspective of the hominisation process that encompasses our wider family tree, after the early hominins. The panel highlights that our wider family tree encompasses not just people like us, but many other species of hominins that survived for hundreds of thousands of years in fierce competition with others (Author 2023).

The second zone explores the genus *Homo* using ‘new’ scientific discoveries that demonstrate the complexity of our hominin family tree including the discovery of new hominin species, namely *H. Floresiensis*, *H. Naledi* and the Denisovans. On the left-hand side of the zone, next to the entrance, the visitor will find six hominin heads from the genus *Homo*, created in thermoplastic by the Kennis brothers (case no. 12). The display can be touched by visitors, providing an ‘up-close and personal’ experience that allows visitors to feel and see the different anatomical and morphological features of other humanities within the *Homo* genus. However, they are made of a white thermoplastic, consequently, they lack the relatable and familiar elements of the hyperrealistic life size models, minimising their potential for dis-juncture, challenge or context within the Palaeolithic visual frame (Perry 2009). The display includes a cast of the anatomical skull and a fleshed out hyperrealistic reconstruction side by side, illustrating the artistic process and emphasising the scientific accuracy and objectivity of the models.

Parallel to the hominin heads located on the back wall is a large map (no. 14), which identifies key archaeological sites and hominin discoveries across the world. It illustrates the geographical distribution and possible migration patterns of the genus *Homo* over the past two million years. The map highlights the diversity, multiplicity and variation of our genus across the millennia. Next, the visitor encounters a display titled possible ancestor species that showcases two skull casts of *H. habilis* and *H. rudolfensis*, both identified as possible stem species from which modern humans evolved. The accompanying text suggests that early tool innovation and a less specialised diet had given *H. habilis* (nicknamed the handy man) and *H. rudolfensis* a distinct evolutionary advantage over the *Robust australopithecines*. The next display case features ancient humans worldwide, it provides a comparative display of six skull casts, three belonging to *H. erectus* and three *H. heidelbergensis* specimens from different countries to highlight their geographical range and diversity between individual populations. The map and display case emphasise another human characteristic, that of world-wide geographical distribution and diversity among individual populations resulting from living in and occupying new environments.

The next section of 'Becoming Human' explores newly identified species of humans, including *H. naledi* (age unknown) and *H. floresiensis* (20,000ya). The first display 'a new human' (no.16) highlights 'one of the most exciting finds of the century' where more than one thousand fossil fragments were recovered from deep inside a South African cave. These remains have been identified as a new species of human, known as *H. naledi*. This species demonstrates some primitive features in its shoulder, a small brain and curved fingers, but its jaw, teeth and proportions of the hands and lower limbs are more like modern humans. On display is a cast of the lower jaw (human characteristics) and hand (primitive features) of *H. naledi* highlighting its role as an intermediate species. The display briefly explores the

possibility that some of the skeletons in the cave may represent some sort of burial disposal site due to the completeness of the remains, however this is a controversial interpretation that is contested (Martín-Torres et al 2024). The next display case features an anatomical reconstruction of *H. floresiensis*, alongside a map of the island of Flores, where the species was discovered. Island dwarfism emphasises the role of the environment as a key driver of human evolution, suggesting that the island environment led to dramatic changes in body size. So much so, that this ancient human has been nicknamed ‘the hobbit’.

Next, the zone explores another hominin characteristic which is presented as a key evolutionary behaviour, namely a changing diet. This section explains the importance of meat and protein for the development of our brains. It explores the implications of cooking by controlled fire, an evolutionary behaviour that has been identified in Britain from c. 300,000ya. This display features the only reconstructed scene within the gallery in the form of an audio-video that showcases different types of fauna including hyenas and rhinoceros, alongside the butchered remains of a rhinoceros skull and a boxgrove-style hand axe. The scenes focus on hunting as a primary scenario and evolutionary behaviour, strengthened by an experimental approach where a male archaeologist butchers the remains.

This is followed by a display titled ‘Robust Ancient Humans’ that highlights the anatomical idiosyncrasies of *H. heidelbergensis*, *H. erectus* and Neanderthals. The text states that longer legs (gracile structure) are an adaptation to tropical environments, whereas shorter legs and a more compact body shape is understood as an adaptation to colder environments. This display reveals that the evolutionary museum continues to perpetuate ice-age explanations for physical differences, rather than reflecting current archaeological perspectives that suggest anatomical idiosyncrasies are the result of a combination of factors including their

environment, hominin behaviours and life ways. Another display showcases an anatomical reconstruction of the Turkana Boy (1.5mya). He provides scientists with remarkable insights into the body proportions of *H. erectus* because of the completeness of his skeletal remains. This specimen often occupies a dominant position in human evolution galleries, displays or museums.

The final area of zone two focusses primarily on Neanderthals. The first display case the visitor encounters in this section is called 'The Neanderthals' (no. 21). The display case showcases three Neanderthal skull casts from three different locations in Europe. The accompanying text highlights that Neanderthals are our closest human relative, it demonstrates their extended geographical range across Europe and West Asia (although no Asian Neanderthals are included in the display). They are defined as successful hunters who developed stone tool technologies and made fire from around 300,000ya. However, this display unfortunately reinforces a monolithic interpretation of Neanderthals as adaptive to cold environments, successful hunters with stone tool technologies, ultimately perpetuating the same set of scenarios. The next section focusses on life at Swanscombe, showcasing the local fauna of Swanscombe including straight-tusked elephant, deer antler, wild boar teeth, pine martin, a dolphin and horse tooth. The purpose of this display is to highlight how the presence of different animal species allows scientists to identify different climates that switched between warmer periods and glacial episodes, suggesting the environment changed from forests to open grasslands. This display also showcases an important Neanderthal specimen, the skull cap of an early Neanderthal women (c.400,000ya), who possibly represents one of the first Neanderthals in Britain.

The next display provides a brief exploration and analysis of the Happisburgh footprints, found in Norfolk in 2013 (no. 23). These footprints represent the oldest known European footprints and are believed to belong to *H. antecessor* nearly one million years ago (at least 900,000ya). The text states that footprint analysis reveals a small group of hominins including both children and adults, but it fails to explore the social implications of these findings. Next, the displays consider ancient stone tools and technologies utilised by both *H. heidelbergensis* and Neanderthals. The star specimen within this area is the famous Clacton Spear. The oldest known wooden spear in the world thought to belong to Neanderthals. This is the only consideration within the gallery of organic materials in relation to Neanderthals, highlighting the problem of ‘the missing majority’ in the context of the museum which fails to present Neanderthals from a nuanced and social perspective (Hurcombe 2011; Gamble 2011). The display case titled ‘Ingenious Tool Makers’ provides a typological and chronological approach to the representation of stone tools, starting with pebble stones used by *H. habilis*, *H. rudolfensis* or *H. erectus*, followed by Acheulean hand-axes and the famous quartzite cleaver by *H. heidelbergensis*.



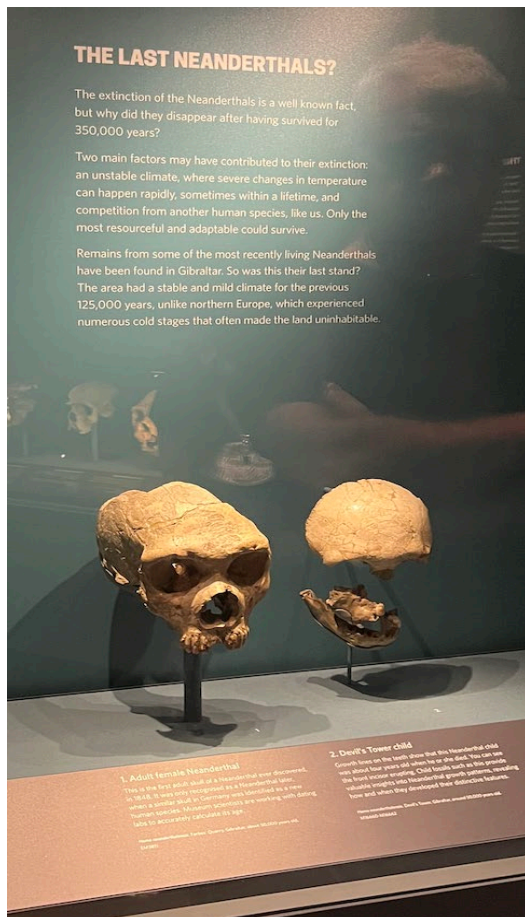


Figure 64: Left. 'The Last Neanderthals'. This display showcases the anatomical remains of the first skull of a Neanderthal (female) ever discovered, and the Devils Tower Child, discovered later by Dorothy Garrod.

Figure 65: Below. A 'Neanderthal Burial'. This display features an anatomical cast of Kebara Cave, Israel c. 60,000ya. The display highlights that some symbolic behaviours may be attributed to Neanderthals (Author 2023).



Finally, the area explores Neanderthal symbolic behaviours and their cognitive capacities in relation to burial and pigment use. 'Memoirs of a Neanderthal' (no. 25-26) suggests that the Neanderthals did in fact bury their dead. This is demonstrated by the anatomical cast of a possible burial from Kebara Cave, Israel (c. 60,000ya). The accompanying text states that this was most likely a deliberate burial because the head was removed after the initial interment of the body, representing a cultural mechanism for dealing with the dead (Pettitt 2002; Dibble et al 2015; Sandgathe et al 2011; Bar-Yosef et al 2019). The museum restricts modern behaviour in Neanderthals to burial and pigment use, failing to incorporate new data that reveals the sociality of Neanderthals including possible cave art, adhesive technologies or organic materials. Unfortunately, the displays fall short of bestowing Neanderthals with similar cognitive capabilities as their *H. sapiens* counterparts.

Next, the gallery provides an audio-visual that highlights the impact of recent genetic data in changing the perspective about interbreeding between Neanderthals and modern humans. The visitor can listen to Professor Chris Stringer discuss what non-African people have inherited from Neanderthals. Immediately, after the audio-visual the gallery showcases two, star specimens, the first adult skull of a female Neanderthal discovered and the Devil's Tower child. The first skull was discovered in 1848 in a quarry on Gibraltar and it is one of the most precious specimens in the museum collection. It is also known as Gibraltar 1. The second skull was discovered in 1926 by Dorothy Garrod at a site called Devils Tower.

The display that houses these incredibly important specimens is titled 'The Last Neanderthals?'. The focus of the display is the extinction of the Neanderthals, and Gibraltar in the context of extinction discourses simply represents their last stand, since the remains of some of the most recently living Neanderthals come from Gibraltar. The museum offers two explanations for their eventual demise: climate change and the direct replacement model, where only the most resourceful and adaptable could survive – modern humans. Recent research and re-analysis at Gibraltar that highlights symbolic and behaviourally modern behaviours within this Neanderthal population (Rodriguez-Vidal 2014; Finlayson 2019). However, the potential of these remains to challenge age-old stereotypes and a century of professional and public dogma, has been abandoned in favour of extinction discourses and the direct replacement model (Fabre et al 2011).

The final area of this zone demonstrates that palaeogenetics is providing scientists with a new array of possibilities that have fundamentally changed our conceptualisation of other humanities and the evolution process. 'Tracing our Neanderthal Ancestry' provides a video that follows several famous friends of the museum (for example: Alice Roberts) and traces

whether they have any Neanderthal DNA. The audio-visual is around seven minutes long. However, the only consideration of hominin interactions or brief encounters is presented as forced and perhaps even violent. The next display explores studying aDNA and explains the scientific methods which have been used to extract and study it, including the decoding of the Neanderthal genome and the identification of a new species of human, that of the Denisovans. Despite this, there is no consideration of modern human, Neanderthal and Denisovan relationships and/or their sociality within a multiple and shared world which highlights our interwoven histories. The Neander world remains a brutal and dangerous environment centred on functionality, survival and violence (Toestevin 2007; Mills 2019).

The final installation in zone two is a striking hyperrealistic model of an adult Neanderthal male reconstructed from the anatomical remains discovered at Spy, Belgium. The male stands clutching his hands behind his back. He is presented as glancing over to his *H. Sapiens* counterpart (no. 32). He has an emotive expression, almost smiling, presented as happy and glad to be alive, rather than miserable and dejected, emphasising the humanness of the individual (pers comm. Wragg Sykes 2021: Appendix B). This is a welcome departure from the use of ‘primitive iconographies’ as outlined by Moser and Gamble (1997). It is refreshing to see that his gaze has changed, and we are now forced to recognise them as essentially human (Balter 2009; Wragg Sykes 2021; Peeters and Zwart 2020). However, the model as a singular entity has fallen short in the reconstruction of materiality, cultural relations, gender and the sociality of Neanderthals, all of which remain a persistent and dangerous problem in the representation of human evolution (Gamble 2011; Hussain and Will 2021; Piqueras et al 2022).

#### 5.4.5. Zone Three: What Makes Us Human? Symbolic Behaviours and Human

##### Exceptionalism.

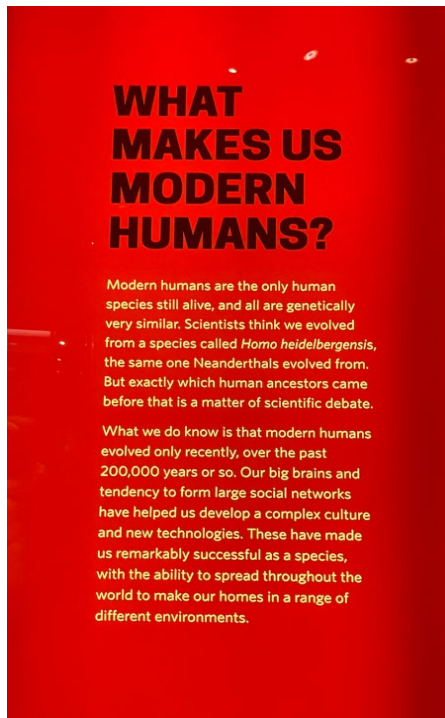


Figure 66: 'What Makes Us Human'. The introductory panel before entering zone three asks what makes us modern humans. Put another way this question essentially asks what makes us special and unique. To answer this loaded question the text emphasises our 'big brains, larger social networks and complex culture and technology'. We are defined as remarkably successful perpetuating the fallacy of unilinear progression towards perfection. This zone presents modern humans as the masters of their environment and the pinnacle of evolutionary processes, by focussing on symbolic behaviours that are exclusively associated to modern humans (Author 2023).

The final zone on the far left of the gallery explores symbolic behaviours that are exclusively associated with *H. sapiens* with a particular focus on British archaeology from the museum's collection and the Ancient Human Occupation of Britain research project. First, the visitor meets the hyperrealistic model of an adult male, titled 'One of Us' (case 32), a contemporary hominin (30,000ya). He stands behind a glass case, commanding the visitors gaze, casually holding a tattooing instrument in his mouth, presumably used to adorn his body with the intricate markings. The accompanying text states that early modern humans were taller and less stocky than Neanderthals, and perhaps better suited to endurance running (which is presented as an evolutionary advantage).

Upon entering the final zone, the visitor first encounters a small, but powerful display case that showcases some of the most famous pieces of prehistoric art, crafts and tools. A total of

fourteen decorative objects can be found in the display. These objects include the Holhenstein Stadel (replica) from Germany c. 40,000ya, a decorated spear-thrower from the Dordogne, France c. 16,000-12,000ya, tooth beads and antler frontlets from Star Carr, bone needles and symbolic arrowheads. The accompanying text states Neanderthals made things for survival; modern humans began making objects that interpreted the world around them. The text implicitly suggests that the Neanderthals inability to innovate, create personal items, such as sculptures and carvings imbued with symbolic significance, or to form larger social networks ultimately led to their demise. An analysis of the textual panels in this zone reveals the intellectual undertone of the gallery, that of human exceptionalism and uniqueness.



Figure 67: Right. Anatomical display of the original skeletal remains of the Cheddar Man c. 10,000ya. This individual represents the oldest and most complete *H. sapiens* burial in Britain. He is displayed horizontally to mimic a grave context, although this is not archaeologically accurate (Williams 2009). Figure 68: Left. 'The Changing Face of Cheddar Man' created by the Kennis Brothers. This reconstruction demonstrates a major shift from the traditional racialised characteristics for depicting human origins (Scott 2007 and 2010, Photographs taken by Author 2023).

Next, the visitor comes face-to-face with the hyper realistic bust and anatomical reconstruction of Cheddar Man (case no 34 and 35). The face of Cheddar Man was created by Kennis and Kennis. The model subverts common misconceptions of what many people expect our ancient ancestors to look like, the model has a dark skin tone and blue eyes (NHM 2018). The ongoing backlash this reconstruction receives is perhaps a reflection of the current racial biases embedded within modern society. I argue, this racial bias has been directly influenced, justified and maintained by the racialised characteristics of human evolution which for decades presented our ancient ancestors as becoming gradually less hairy, with paler skin and a European heritage (Jablonski and Chaplin 2006; Jablonski 2012; Jablonski and George 2017; Piqueras et al 2021). Therefore, this is an important reconstruction (and the hyperrealistic model of adult *H. sapiens*) that successfully challenges over a century of racial prejudices.

Cheddar Man is the oldest and most complete *H. sapiens* burial in Britain dating to c.10,000ya. The next display showcases his skeleton laid horizontally in a glass case to emphasise the completeness of the skeleton and reinforce the authenticity of the artistic reconstruction. However, I suggest the museum has missed a genuine opportunity to critically engage with the many new perspectives and affective biographies currently available to archaeologists that emphasise the sociality of Neanderthals. The museum's insistence on focussing on its own collections with their geographical and scientific considerations, has facilitated an inter-disciplinary neglect of the current paradigm shifts occurring in the field of palaeontology and the archaeology of Neanderthals (Breyer 2020: 1-20). An argument can be made for the sociality of Neanderthals and a genuine consideration of the Gibraltar Neanderthals beyond that of the last stand, would provide visitors with a better understanding of Neanderthal life and behaviours.



The star specimens of this zone consist of ‘cultural cannibalism’ recovered from Gough’s Cave, Somerset. These items include the skull cap of a male that indicates a complex cultural practice of butchering human remains c.14, 700ya (Bello et al 2017). The ‘cannibalised face’ demonstrates that a complex culture of butchering human remains existed from c. 14,700ya. Interestingly, from a Neanderthal perspective it appears that the standard of proof for symbolic behaviour is different for these two species. Cannibalism within Neanderthal populations is typically considered as a reaction to severe environmental pressures and thus, conceptualised as a desperate measure to defer their inevitable failure as a species. And in the extreme, cannibalism has been proposed as a reason for their extinction (Augusti and Rubic-Campillo 2017).

The same archaeological evidence and similar practices within AMH populations much later in the archaeological record is, however, considered as a symbolic and meaningful reaction to death (Trinkaus 1895; Defluer 1999; Rougier 2016; Phifer and Zaffos 2019/2020. Accessed 2023). But the skull cap from Gough’s cave is distinctive and similar practices are not yet recorded within Neanderthal populations or sites. Within Neanderthal populations the butchery marks on human remains and animal remains are the same or similar. This is perhaps why similar archaeological evidence in the context of Neanderthals (i.e. cannibalism) is conceptualised as evidence of barbarism and an emblem of their miserable and harsh existence. Still, there is the possibility that we are looking at the evidence through the lens of western traditions and expectations, failing to critically consider Neanderthal-animal relationships in the Middle Palaeolithic (Wragg Sykes 2020: Symposium Conference). It appears similar archaeological evidence is interpreted from different perspectives depending on the species of hominin we are discussing. For ‘them’ it is a functional concern but for ‘us’ it is a cultural act of significance and meaning.



Figure 69: 'A Diverse Bunch'. This display case showcases seven different ways of being human from across the globe as a representation of the diversity of our species. This display can be read as an anatomical illustration of the canonical icon of evolution, that of the cones of diversity (Author 2023).

Zone three emphasises modern human creativity over Neanderthal functionality. It implies that symbolic expression gave us an advantage over other humanities, who focussed on matters of survival. This approach is not reflective of current developments in archaeology that present a convincing case for modern behaviours and symbolic capabilities in some Neanderthal populations (McGill 2015). The strategy of cultural indifference at the NHM, London is in stark contrast to museums such as Museo de la Evolucion Humana, Burgos, Spain and Mooseguard Museum, Denmark - where the expression of behavioural modernity is associated with both *H. sapiens* and Neanderthals. Unfortunately, when one considers the hidden trends and disciplinary assumptions, the approach taken at the NHM, London has the adverse consequence of presenting 'us' as the pinnacle of human evolution (Moser 2003; 2010).

Evolutionary theory in this gallery is not conceptualised as a process of adaptation rather it remains a story with a beginning (*austropithecines* and bipedalism), a middle (other humanities) and an end (modern humans). This traditional approach is epitomised by the final



display case that highlights the diversity of humans (reminiscent of the canonical icon of evolution in the form of the ‘cones of diversity’ (Gould 1995a, 1997). The display showcases seven different ways of being a modern human. Consequently, the grand meta-narrative of unilinear progression (the ladder and times arrow) through the ages remains a persistent and dangerous problem within the context of natural history (Gould 1987, 1995a, 1997).

The NHM is truly Owen’s Museum and his legacy echoes through the museum today, particularly in the context of human evolution. For Owen, what made modern humans unique was our brains; this scientific controversy is referred to as the great hippocampus question that attempted to identify a cerebral distinction between man and monkeys. Despite Owen’s commendable aim of finding an objective way to define the uniqueness of humanity and distinguish between primate and human brain anatomy, his obstinacy in refusing to admit his errors led to his fall from the pinnacle of British science (Gross 1993). However, his legacy still retains a firm grasp in the human evolution gallery, despite the scientific acceptance of Darwinian evolution. The museum continues to present modern humans as special and unique because of our superior cognitive abilities that centre on innovativeness and creativity. There remains an arbitrary pursuit to identify a cerebral distinction between ‘them’ (other humanities) and ‘us’ (modern humans).

### 5.5. Representational Modalities.

The human evolution gallery utilises two very distinct and different types of visual modalities, that of anatomical and ‘scientific’ reconstruction; the latter being created by specialist palaeoartists – famously known as the Kennis Brothers. There are no images of scenarios, behaviours or societies, Neanderthal or human. Consequently, it is not possible to

analyse whether the museum continues to rely on a set of highly standardised set of scenarios in the sequential back-telling of human evolution.

#### 5.5.1. The Image Modality. Anatomical Reconstructions.

The visualisation strategy employed within the gallery depends heavily on anatomical reconstruction as a means of conveying a scientific and objective narrative of human evolution. Comparative anatomical reconstructions are a key feature within this gallery, and this comparison consists of primates, hominins and modern humans. The aim of these comparisons is to illustrate changes in the morphological and physical characteristics of hominins. Anatomical reconstructions provide a frozen snapshot of an individual from a scientific and distanced perspective. They are almost clinical in approach and conceptualised as ‘an objective databank’ (Moser 2003, 2010). A total of twenty-three anatomical models and original fossils are on display (excluded from this analysis are any unsexed skeletal parts (eg. canine, hand or jaw)).

Throughout the gallery, emphasis is placed on the anatomical identification and geographical location of hominin remains as opposed to any artistic illustrations of hominin life and behaviour. Instead, the museum takes a ‘scientific’ and ‘objective’ approach in the presentation and dissemination of models and theories pertaining to human evolution (pers. comm. Freye 2016 in Beresford 2016). However, a scientific approach, I argue facilitates the neglect of social matters and fails to reflect the current archaeological evidence available to archaeologists. Neanderthals may be presented as modern looking humans, but they remain inferior in their behavioural and cognitive capabilities (Gamble 2011).

### 5.5.2. The Object Modality. Hyperrealism as a Visual Strategy.

The second type of visual modality is that of scientific reconstruction, discussed here as hyperrealism. There are four hyperrealistic installations within the gallery and all are created by the famous palaeoartists, the Kennis brothers. The first is the hominin heads, followed by two life-size reconstructions that visually and theoretically dominate the gallery and finally the facial reconstruction of Cheddar Man. The hominin heads represent six different species from the genus *Homo*. These include *H. erectus* (adult male), *H. antecessor* (an unsexed child), *H. heidelbergensis* (adult male), *H. neanderthalensis* (adult female), *H. sapiens* (child) from Qafzeh Cave, and finally *H. floresiensis* (adult female). The life-size reconstructions of an adult Neanderthal male and a modern human are situated centrally within the gallery space and positioned either side of the prescribed path through the exhibition. These ‘scientific’ reconstructions are stand-alone living-dead manikins, individually cased but facing, almost glancing at one another across the gallery. Immediately, the visitor is forced to confront any preconceived expectations and misconceptions about ‘the primitive savage’ and the age-old stereotypical ‘caveman’, so dangerously attached to our ancient ancestors during the nineteenth century (Moser and Gamble 1997; Moser 1998). The final hyperrealistic installation is a bust of the face of Cheddar Man which goes a long way in challenging the Eurocentric construction of Palaeolithic archaeologies and human evolution.



Figure 70: The hominin heads created by the Kennis brothers. The display includes a cast of the anatomical skull and a fleshed out hyperrealistic reconstruction of six different species of hominins from the genus *Homo* (Source Author 2023).



Figure 71: Left. Hyperrealistic model of an elderly *H. sapiens* male. The key unconventional features include dark skin colour, older features (grey hair), and complex body ornamentation. Figure 72: Right. Hyperrealistic model of an adult Neanderthal male. Unconventionally, he is presented with an upright posture, characterful expression and simple body ornamentation. Both reconstructions are created by the Kennis brothers and take centre stage within the space. These models have challenged the traditional display canon for depicting human origins and ethnicity. However, their centrality and importance implicitly present males as the main protagonists of evolution (Author 2023).



The above reconstructions are recognised and highly praised for their success in challenging negative assumptions in relation to ethnicity and evolution (Scott 2007; Jablonski and Chaplin 2006; Jablonski 2012; Jablonski and George 2017; Piqueras et al 2022). They offer a contrast to the traditional and familiar narrative of human evolution that presents our

ancestors as gradually becoming less ape-like and hairy, eventually leading to paler naked skin (a visual icon for representing civilisation). The modern human in this display is imagined as an elderly dark-skinned male. Crucially, the primitive iconography for depicting human origins is not present within the visual frame, and refreshingly, there is not a hand-axe in sight. Instead, the individual is reconstructed with an upright posture, a highly tattooed body and holding a tattooing instrument in his mouth. He is presented ‘in action’ with a commanding expression over the gallery. The models exhibited in this gallery can only be described as emotional and sentient beings capable of complex thought and social relations. This is demonstrated in the bodily ornamentation both model’s project. However, if you look closely, the modern human’s ornamentation is of a far more complex and intrinsic design than the Neanderthals. He even boasts the tattooing instrument in his mouth, whilst the male Neanderthal is decorated with very simple and thick lines, implicitly suggesting that these markings were made by their hands rather than an archaeological instrument that is presented here as a symbol of behavioural modernity.

The museum describes these hyperrealistic models as ‘*the most scientifically accurate life-size Neanderthal and early H. sapiens models ever made*’ (nhm.ac.uk, nd. Accessed 2023). This is an ambitious claim that falls within the remit of the Museum as a didactic institution and the general purpose of the museum to provide a voice of authority on the natural world (Nadelson and Hardy 2015). But this approach is problematic for three reasons. First, the museum portrays itself as an objective and scientific storyteller. Here, reconstructions are conceptualised as an objective databank of things we know about the ancient past, peoples and their lives (Giles 2016). They are presented as scientific facts immune from criticism and void of an epistemological meaning or purpose (Moser 2003, 2010). However, this is a misleading position since all reconstructions are an entwined process of objective data and

subjective interpretation. Art and science are weaved together in an ‘uneasy marriage’ (Balter 2009). The result is modern looking humans that influence both professional and public opinion and imagination.

Second, a primary focus on ‘scientific’ findings and technological advancements has facilitated an inter-disciplinary neglect of the sociality of past peoples, and their lifeworld. Gamble states *‘it has taken 150 years for Neanderthals to emerge as humans with a difference and this difference depends now, not on their anatomical features but rather in their competence as social actors’* (Gamble 2011: 157-166). This analysis proposes that despite an avalanche of data to the contrary, the museum has failed to produce an affective biography of other humanities (Houser 2018). The Neanderthals in the context of natural history remain our lesser evolutionary cousins. Finally, the gallery features original skulls, teeth and jawbones, casts of skeletons and stone tools that reveal clues about how humans interacted with their surrounding environment, materials, animals and each other. However, the museum has not yet fully engaged with the exciting archaeological material currently available to archaeologists, despite an explicit focus on the advancements of scientific research, namely aDNA. The gallery fails to consider how these multiple hominins interacted and encountered each other, beyond that of the antagonist scenario (Tostevin 2007: 341-157; Crellin and Harris 2020).

The object modality essentially portrays Neanderthals as humans, but the ordering practices of the museum and artefactual association present them as humans with a difference (Gamble 2011; Peeters and Zwart 2020). It is only when one steps back and critically considers the artefactual associations and the ordering practices of the museum that one realises that the grand meta-narrative of unilinear progression has changed very little (Bennett 2004, 2010).

The Neanderthals are no longer presented as a direct missing link or literal bridge between the primates and us. Instead, they have been brought closer to us, occupying the ‘last stop on route to civilisation’ (Wragg Sykes 2020, 2021). In this gallery, true ‘culture’ begins with the cognitive revolution of the Upper Palaeolithic and the arrival of modern humans. Although, the Neanderthals are no longer depicted as ape-like creatures, they remain encased within a mausoleum of extinction and associated primarily with functional matters, surrounded by the natural world, animals (many extinct) and dinosaurs. The artefactual association of stone tools, extinct animals and bones remains unchallenged and unhindered in the context of natural history (Pettitt and White 2013).

#### 5.6. Where Are the Women and Children?

A clear visual trend can be identified within this gallery: statistically females are represented almost proportionally, males represent 30%, and females represent 26% of the sample. The difference is found in the type of reconstruction, rather than the statistical representation of males and females present within the exhibit. The long standing and persistent gender bias embedded within models of evolution and Palaeolithic archaeology, has contributed to the traditional invisibility of females in the representation of prehistory (Fedigan 1984; Hager 1995; Zilhman 2012). This museological analysis demonstrates that females as a general convention are reconstructed anatomically, while their male counterparts are reconstructed anatomically and ‘fleshed out’. The visualisation of males in hyperrealistic detail renders them visible and active participants in human evolution, whereas females are represented as mere fragments of bones, rendering the female role in human evolution as inferior and peripheral to their male counterparts (Scott 2004).

Within this gallery, females and children remain visually under-represented and their role and contribution to human evolution or society is under-explored, considered only within the limited context of the domestic sphere. Women dominate one specific type of modality – that of ‘anatomical reconstruction’ (three-dimensional casts of the original skeletal remains). On the other hand, males dominate pictorial illustrations, habitat dioramas, audio-visual aids and scientific reconstructions, including hyperrealistic models. What message does this exhibition strategy convey about the history of gender and their respective roles in human evolution? I propose, that the disciplinary trend of reconstructing females anatomically, renders them invisible in models of evolution and Palaeolithic archaeologies; relegating them to ‘those of little note’ in the study and interpretation of prehistory (Scott 1994: 1; Adovasio et al 2007). This is demonstrated by the hyperrealistic models that take centre stage within the gallery space. They are visually imposing and highly detailed in nature, unintentionally and perhaps even innocently this visual strategy places males at the centre of exhibition discourse. The visitor is left with a lasting impression that it remains predominantly a man’s world (Wiber 1994, 1997).

During email correspondents with the gallery curators, I questioned why the hyperrealistic model of the adult Neanderthal is male. The response was as follows they ‘*wanted representations derived from the geographically closest Neanderthals skeleton to Britain. These were the Neanderthal remains from Spy, Belgium, who happens to be male*’ (pers. comm. Stringer 2016 in Beresford 2016). The life-size models were repurposed from the temporary exhibition ‘Britain: One Million Years of the Human Story’ because the museum had no budget to obtain further figures beyond the additional Kennis brother hominin heads (pers. comm. Stringer 2016 in Beresford 2016). This is an interesting response, considering all three of the Neanderthal skulls on display anatomically (the last Neanderthals, life at



Swanscombe and the hominin heads) are female, yet the hyperrealistic models are male. The response highlights two problems with the use of hyperrealism as a visual strategy to challenge traditional misconceptions and the typical display canon of prehistory. First, from a practical perspective they are extremely costly to produce and therefore difficult to update or change. Second, they are often single entities that enable the humanisation of different hominin species but, at the same time facilitate an inter-disciplinary neglect of the multiplicity of other humanities. Unfortunately, the museum's focus on scientific matters of completeness and geographical distribution has ultimately disseminated a gendered and westernised perspective of Palaeolithic archaeologies. Females and children are only reconstructed anatomically or in the form of the hyperrealistic hominin heads that are created out of thermoplastic and lack any realistic elements and/or familiarity. In this respect the museum continues to perpetuate an archaic approach to gender - that of 'traditional female invisibility' (Adovasio et al 2007).

#### 5.7. The Time Modality. Ordering Practices of the Museum.

An analysis of the unconscious props and ordering practices of the gallery reveals that the museum still relies on the canonical icons of evolution, that of the ladder and cones of diversity (Gould 1995a, 1997). The ladder is represented in subtle and unconscious ways throughout the gallery using 'behavioural modernity' as a checklist criterion and a mechanism of difference between 'them' and 'us' (Gould 1997). The museum has failed to challenge the traditional interpretative and visual frameworks at the heart of their displays on human origins. The theoretical framework of modernity (dualisms) still lingers on in the gallery in relation to cultural evolution (Pettit and White 2011; Crellin and Harris 2020). Modern humans are continuously referred to and presented as the most successful species because of our innovative and creative capabilities that resulted in the rise of symbolic

behaviours. The idea of our superiority is reinforced through the ‘diversity’ of our species and geographical range. This is reminiscent of ‘the ladder’ and ‘cones of diversity’ as outlined by Gould in 1995 (Gould 1995a, 1997).

The final consideration of this analysis is space both physical and theoretical. Physically, the human evolution gallery is a small interim gallery, housed within the larger natural history museum so the available space, budget and capacity of the exhibition is limited by both practical and theoretical considerations (pers. comm. Stringer 2016 in Beresford 2016). The human evolution gallery opened to the public in December 2015 and despite this gallery serving as an interim space it remains the only gallery dedicated to human evolution nearly a decade later. This highlights another important criticism of the museum as a space of representationalism. The museum as an institution is slow to change, but the archaeology of Neanderthals is changing rapidly and as chapter three demonstrates there is a wealth of new information which is not yet considered or incorporated into the gallery space. The key question here, is whether the museum can keep up with this rapidly changing picture of Neanderthals and other humanities. In the institutional context of natural history, it appears not.

According to the curators of the gallery it does not have a didactic or epistemological purpose, rather the aim is ‘to reflect the latest scientific discoveries and current thinking on human evolution’ (pers. comm. Stringer 2016; Freye 2016 in Beresford 2016). In one respect the gallery has achieved its primary aim to critically engage visitors with recent scientific developments in the field of palaeoanthropology and produce a nuanced scientific perspective. However, the ordering practices of the museum continue to place space, time and things into a chronological and progressive framework demonstrating a performative system

of evolutionary walking (Bennett 2004, 2010). The analysis reveals that a scientific approach simply perpetuates human exceptionalism and the anthropocentric core-periphery model of human evolution. The museum makes a distinctive effort to highlight new scientific techniques and findings, but the narrative of evolution is presented as a linear line-up of slowly acquired physical and cognitive attributes. Therefore, our ancient ancestry remains centred on progressive tendencies and slow modernity (Bennett 2004).

I suggest, the progressive tendencies of the evolutionary museum have facilitated an interdisciplinary neglect of cultural and social matters, thus there is no room for a multispecies approach in terms of cognitive capabilities and symbolic behaviours, physically or theoretically (Birch 2018). The sociality of Neanderthals, their community and lifeworld remain underexplored in the context of natural history and evolution. Arguably, the NHM should produce a permanent gallery that tackles these issues head on, one that critically deconstructs the interpretative frameworks of cartesian philosophy and behavioural modernity or as the next case study suggests, perhaps the museum should divorce human origins from the context of natural history to present them in a new light and create new stories about the Neanderthals on their own terms. Consequently, I propose a gallery of human evolution should explore the inter-connected and inter-woven histories of co-operation and co-evolution that places relationships at its centre, perhaps focussing on specific periods of time, for example 50,000ya where the archaeological and genetic data provide evidence for multiple humanities, providing a snapshot of the interconnected co-evolutionary journey (Gamble 2011; Dunbar et al 2014). It could be a gallery dedicated to the world before us, a ‘veritable middle Earth’ in terms of the diversity of forms of human families that existed at the time. There were five, six maybe more different types of humanities present in different parts of the world (Higham 2021).

### 5.8. The Comic Fallacy. Cavemen and Dinosaurs.



Figure 73: 'The Jurassic Park Gift Shop'. Visually the visitor encounters a life-size dinosaur upon entering the gallery – Sophie the stegosaurus, and the visitor enters a gimmick shop exclusively dedicated to dinosaurs upon exiting the gallery. It is worth nothing that the only exit of the gallery is directly through the Jurassic Park gift shop, that is exclusively associated with dinosaurs (Author 2023).

The association of dinosaurs and cavemen is a dangerous fallacy perpetuated initially by the comic tradition, maintained by popular culture and legitimised in the context of natural history. This is particularly relevant in the context of the NHM, London because of its founding father, Sir Richard Owen. Although Owen himself envisaged the main hall (Hintze Hall) functioning as an index museum, occupying the bays and central space, for over thirty years 'Dippy' the diplodocus dominated its vastness, creating an iconic emblem of the nature and history of this institution. Dinosaurs no longer dominate Hintze Hall, and Dippy has been replaced by Hope, a giant blue whale suspended from the ceiling, marking a genuine attempt by the museum to refresh its image, but the association of the NHM and dinosaurs will take decades to unravel in public consciousness.

I suggest that the museum continues to reinforce the common misconception that dinosaurs and cavemen lived together and shared the same worlds, through the unfortunate placement of Sophie the stegosaurus, immediately side by side to the entrance of the human evolution gallery (Cotton and Woods 1999). Although, the museum makes a genuine effort to demark

the space between dinosaurs and human evolution using a contrast of colours and style, the institutional identity and nature of the museum combined with the life-size model of a stegosaurus leaves a lasting impression. The situation is worsened by the presence of the Jurassic Park gift shop located at the exit of the gallery. When the visitor follows the prescribed route of the gallery, they are directed through to the Jurassic Park gift shop, which is exclusively dedicated to dinosaurs. The shop includes several souvenirs and a life-size model of a Velociraptor, and a meteorite as a visual reminder of what caused their extinction. From a child's perspective this is an engaging and fun gift shop, but from an educational perspective the shop and/or gallery are poorly placed, perpetuating the common fallacy among general members of the public who associate cavemen and dinosaurs as living together in shared geological epochs.

It is the moral and educational responsibility of the museum to challenge popular culture and the comic tradition which retains a firm grasp on the imagination of the public and academic community as demonstrated by Cotton and Wood (1999). The proximity in space, preserves the traditional caricature of Neanderthals and the mistaken belief that cavemen and dinosaurs encountered each other and lived together. It will take years for public consciousness to shift from dinosaurs, extinct animals and relics of the past to living specimens that aim to highlight the fragility of our world (NaturalHistory, nd: d. Accessed 2023). It appears the NHM, museum has fallen victim to commercialisation and the ever-increasing dependence on gift shops selling mostly gimmicks to pay the bills (Gould 1995b). The NHM, currently (September 2023) has three dedicated dinosaur themed gift shops including: the dinosaur shop, Titanosaur (the world's largest dinosaur special exhibition with its own dedicated shop) and the Jurassic Park gift shop and a dedicated 'T-Rex Restaurant', demonstrating a

continued reliance on the dangerous association of natural history and dinosaurs in the mind of the public.

### 5.9. Discussion: A Scientific Perspective.

Upon first inspection the human evolution gallery successfully challenges the traditional display canon and the seminal motifs for depicting ‘the other’ based on physical characteristics which have until relatively recently plagued our portrayals of the Neanderthals (Moser 2003, 2010). The aim of this thesis is to assess whether newly installed archaeological galleries reflect the current archaeological evidence available to archaeologists. Interestingly, it appears that the human evolution gallery is comfortable with incorporating aDNA (scientific research), but not necessarily recent advances in archaeological data that present Neanderthals in a new social light (Gamble 2011).

Ancient DNA analysis is referred to on several occasions throughout the gallery. First, aDNA is utilised to illustrate migrations in and out of Africa that is explored using an audio-visual device to trace Neanderthal DNA from six individuals who are famous friends of the museum. Second, it is used to authenticate the changing face of Cheddar Man to suggest the first Britons had a darker skin tone and light-coloured eyes; blue, green or dark brown (NHM 2018). However, there remains an air of human exceptionalism and superiority throughout the gallery, particularly concerning extinction discourses and symbolic behaviours (Cartmill 1990; Renfrew 1996; Villa and Roebroeks 2014; Iriki et al 2021). Finally, the museum highlights the power and potential of aDNA and new extraction methods that have led to some amazing revelations including the decoding of the Neanderthal genome and the identification of a new hominin species – the Denisovans (Meyer et al 2012: 222-226). However, the museum fails to engage with the wealth of new data that makes an argument for

the sociality of Neanderthals including, organic materials, innovative technologies (adhesive technologies and the invention of 3-ply cordage), social behaviours (compassionate and caring Neanderthals) and cognitive complexity (symbolic behaviours, possible cave art and personal objects).



Figure 74: Photograph of the signpost that directs visitors to the separate buildings that house the different departments of the Natural History Museum in Paris, France. The Natural History Museum collections are divided into four departments and corresponding buildings, one dealing with palaeontology, one with minerology, another with evolution and finally the Musée de l'Homme, located at in a different area of the city, in the Trocadero gardens. The museum of man exhibits modern humans and other humanities together, not in a mausoleum of extinction, highlighting a very different attitude to the representation of the hominisation process which in Paris, is physically and visually separated from the natural world and extinct beasts (Source: Author 2024).

Reconstructing Neanderthals within a natural history framework is problematic for two reasons. Firstly, Neanderthals are conceptualised as relics, a symbol of pasts beyond memory. They are envisioned as extinct, evolutionary dead-enders, a mere past-tense phenomenon, encased within a mausoleum of extinction and presented as an object of study within these ‘dead circuses’, surrounded by dinosaurs, animals and nature (Bennett 2004). The time has come to present our *kindred* as sentient and intentional beings who were imbued with agency and symbolism (Wragg Sykes 2021). Second, it perpetuates Cartesian philosophy and the great philosophical divide in archaeological and scientific theory (Foley 2014). In the context of natural history, Neanderthals are conceptualised as animals, not as individuals imbued with personhood (Fowler 2004). They are firmly cemented in the imagination of the public as ‘the physical other’ and are immediately placed at a removed status (pers. comm. Wragg Sykes 2021: Appendix B). Although natural history is the study of all living things - their origins,

evolution and interrelationships, to the general public natural history represents the observation of animals and plants, often primarily focussed on extinct species and conceptualised as dealing with the physical world. A natural history framework continues to present the Neanderthals as ‘the other’ and maintains dualistic thinking, depicting them as creatures, rather than beings: they are merely afforded a position, a ‘pit stop en route in the civilisation of man’ (Wragg Sykes 2020).

I suggest a new approach is needed for the representation of Neanderthals in a natural history context, something more in line with the French or the UK’s European counterparts. In France, the Natural History Museum is housed within four separate buildings that are dedicated to different departments, palaeontology (dinosaurs), minerology (the formation of earth and its mineral structures), evolution (mammals) and the museum of man (the hominisation process). The Museum of Man is in a different location of the city divorced from the context of evolution and dinosaurs, both physically and theoretically. The departure of Neanderthals from the shackles of natural history may seem like a radical suggestion, but the ‘Wales Is 2% Neanderthal’ exhibit, discussed in the next chapter provides an exciting opportunity to re-frame how we think about Neanderthals (and other humanities), their capabilities and individual and inter-connected histories. The Neanderthals in the ‘Wales Is’ gallery at St. Fagan’s are not presented as becoming human, quite simply they are human and play an important role in the contribution and evolution of our own species and national identity.

#### 5.10. Conclusion.

The human evolution gallery traces our species’ evolution from the first upright primate through to modern humans. Neanderthals are given a role in our evolution, but peripherally.



Areas two and three demonstrate that the narrative of evolution continues to be focussed on ‘becoming human’, followed by what makes modern humans special and/or unique. Consequently, other humanities (Neanderthals, Denisovans) remain on the fringe of archaeological concern, investigation and representation (Piqueras et al 2021). The gallery fails to portray them on their own terms or successfully challenge ancestor (based on cultural characteristics) and gender stereotyping (traditional female invisibility). The gallery is commended for its attempt to demonstrate a multiple and entwined process of evolution in becoming human, indeed several of the displays explicitly state that during the hominisation process, different humanities lived, shared and encountered the same landscapes and environments. However, there is little consideration of the types of relationships or encounters these multiple worlds consisted of. There is no consideration of the inter-connected evolutionary journey beyond that of the antagonistic scenario, through force or violence. Essentially, the focus of the gallery is ‘scientific’ in nature and neglects to provide visitors with any meaningful information about how our ancient ancestors lived or engaged with their material world (Hussain and Will 2021). In the words of Ludovic Slimak in *The Naked Neanderthal* (2022), ‘if you are trying to imagine, even superficially, what the world of different humanities looked like, the museum will only disappoint you’ (Slimak 2022: 12).



## Chapter Six: A Comparative Analysis: Evolution or History?

### 6.1. Introduction.

The case studies examined in this chapter provide a ‘timely’ opportunity to assess the potentially ground-breaking attempt to remove the prehistory collection from the National Museum of Wales, Cardiff, (NMW, Cardiff hereafter) to the Museum of Welsh Life and Industry, Cardiff (St Fagan’s hereafter). This move marks a fundamental departure of palaeontology collections from the traditional grip of natural history museums and the evolutionary principles of classification and exhibition (Bennett 2004, 2010). This was a six-year project in the making, funded by a heritage lottery grant and the archaeological galleries opened to the public in 2018. The Welsh government described the move to St. Fagan’s as ‘the most ambitious redevelopment project in the museum’s history’, which included the incorporation of new archaeological installations (museum.wales, nd. Accessed 2022). This was a collaborative and community driven project that included 120 community organisations, charities and groups, with more than 3,000 volunteers donating over 8,000 hours of their time (pers. comm. Walker 2021: Appendix A).

This chapter will expose the visual trends and hidden assumptions of the National Museum of Wales, followed by an analysis of St. Fagan’s and the newly installed ‘Wales Is.... Gallery’ to demonstrate the significant institutional differences in visualisation and approach between the two museums. These different theoretical perspectives and exhibition practices have facilitated an alternative lens for viewing other humanities, namely the Neanderthals. This chapter suggests that the representation of Neanderthals within a historical rather than a natural history context or evolutionary framework challenges the primitive iconographies of human origins and the canonical icons of evolution, that of ‘the ladder and cones of diversity’ (Gould 1997; Moser and Gamble 1997; Moser 1998). At St. Fagan’s, Neanderthals are

conceptualised as a part of human identity and culture, successfully challenging dualistic thinking and the theoretical framework of slow modernity. This case study is critically examined and presented as an example of exemplary practice in the representation of Neanderthals, because it focuses on relationships and ‘intra-actions’ (Barad 2003, 2007).

## 6.2. History and Nature of the National Museum of Wales, Cardiff.

The NMW is a museum and art gallery in Cardiff, Wales. The museum is part of a wider network consisting of seven museums including the Museum of Welsh Life and History, St. Fagan’s, also located in Cardiff. The National Museum of Wales was founded in 1905, with its royal charter granted in 1907 (NMW, nd. Accessed 2022). As a national museum, rather than a museum exclusively dedicated to natural history, the 1907 Charter states that the primary objective of the museum is to ‘*present Welsh history by the complete illustration of the geology, mineralogy, zoology, botany, ethnography, archaeology, art, history and special industries of Wales and generally by collection, conservation, elucidation, presentation and publication*’ (NMW 1907: Accessed 2022).

The NMW was born and raised in the comfort of the evolutionary framework laid out by Darwin in the *Origin of the Species* and the *Decent of Man* (Darwin 1859, 1871). The focus on evolutionary frameworks is distinct within the context of Welsh history because of the lesser known but equally important Alfred Russel Wallace, who independently conceived of the theory of evolution through natural selection. His 1858 paper on the subject was published the same year alongside extracts from Charles Darwin’s earlier writings on the topic. The NMW has a clear historical and nationalistic agenda, but evolution plays a significant role in the representation of objects because of Alfred Wallace. His contributions and support of Darwin’s work features heavily throughout the museum’s exhibition strategies.

Therefore, an evolutionary framework has shaped the collecting, organisation and display strategies employed by the museum that centre on the presentation of objects within a chronological and typological arrangement (Bennett 2004, 2010).

#### 6.2.1. The Environment Modality. Architecture, Setting and Location (NMW, Cardiff).



Figure 75: Photograph of the exterior features and architecture of the National Museum of Wales, Cardiff (Source Author 2023).

Architects Arnold Dunbar Smith and Cecil Brewer had a much grander design but the building as it stands is a heavily truncated version of their original idea. It is classical in style, although simpler in design than the surrounding City Hall and Law Courts situated in the heart of Cardiff city centre. The walls are faced with Portland stone and there is a double flight of granite steps leading up to the south-east facing entrance. The portico (the granite architrave leading to the entrance of the building) is supported by ten extensive Doric columns, reflecting the then highly fashionable Greek revival architecture of the late eighteenth and early nineteenth centuries. The portico here is topped by the domed entrance hall. Smith and Brewer's design for the NMW in 1907 was influenced by the Greek revival movement, but it presents their own take on this classical architecture and style. The grandeur

of the building is epitomised by the colossal bronze doors that lead to the entrance of the museum. The entrance hall is thirty metres high with polished marble floors and Doric columns throughout, replicating a classical cathedral of nature, history and culture (Cadw listing description. Accessed 2022). In the context of the NMW, we see a national museum built in a gothic, Greek revival style, just like cathedrals that assert a sense of history and tradition upon the viewer. Exhibits assume a similar role in celebrating national history and the achievements of nations. This is a prevalent feature of the NMW.

### 6.3. The Evolution of Wales and the Human Story.



Figure 76: Entrance to the Evolution of Wales gallery at the NMW, Cardiff. The first encounter with human history appears in the entrance to the gallery. The image is titled ‘Human Burial at Paviland Cave, South Wales’ and is positioned on the right-hand side of the entrance. The image reconstructs the burial of the Red Lady of Paviland, (who is in fact male) by modern humans c. 33-25,000ya (Source: Author 2023).

#### 6.3.1. The Time Modality. A Chronological Journey.

The Evolution of Wales is the museum’s largest ever single exhibition covering over nine thousand square metres of floor space. It tells the story of the evolution of Wales from its earliest geological origins up until the end of the last ice age, when the modern landscape was

moulded. The gallery aims to represent a ‘readable’ order of how life evolved in Wales, but it also illustrates the many different environments, and climates in which different types of animals lived. The visitor takes a chronological and progressive journey through time and space starting with the big bang and the beginning of time. ‘Visitors are then taken on a voyage of discovery with meteorites, moon rock and fossils that brings the visitor face-to-face with dinosaurs and woolly mammoths’ on a chronological journey through time and space (museum.wales, nd. Accessed 2022).

### 6.3.2. The Image Modality. Illustrations and Habitat Dioramas.

The gallery utilises several technologies of representation in the sequential ‘back-telling’ of the evolution of Wales, beginning with the use of 3D animations and digital media to demonstrate the making of the universe and the big bang theory, followed by the geological processes of the earth’s formation (Bennett 2004). Next, the museum utilises objects, star-specimens, and anatomical reconstructions to demonstrate the evolutionary journey of Wales, but the most ‘memorable and entertaining’ forms of display are the life-size habitat dioramas. The defining characteristic of this visual modality is the reconstruction of vanished worlds and extinct beasts. This approach ultimately relies on the seminal motifs and traditional display canon for the representation of ‘deep time’ and prehistory (Currie 2019). Here, habitat dioramas do not feature human origins, Neanderthals or modern humans, rather they are used traditionally to reconstruct life-size animals and dinosaurs within their original environment. The main features of this exhibit include dinosaurs, woolly mammoths, cave hyenas, the arctic wolf and woolly rhinoceros as the images below demonstrate.





Figure 77: 'Animal Life in the Coal Forests, 320-300 mya'. The first traditional habitat diorama that the visitor encounters is that of the Late Permian era. The diorama reconstructs a rich tropical forest and swamp environment that features the largest insects to inhabit prehistoric earth - a dragonfly '*Meganeuropsis permiana*' and a '*Arthropleura*', a giant millipede that grew to 2.5 metres in length. The accompanying text explains that large amphibians were the dominant vertebrates on land, and the first reptiles had just started to appear. The text also highlights how the spider in the display is no longer considered scientifically accurate. The aim of the display is to highlight the alien nature of vanished environments, functioning as a mechanism for conjuring deep time and different worlds (Author 2023).



Figure 78: 'A Land Where Dinosaurs Roamed, c.220 mya'. The second habitat diorama that the visitor encounters shows every known dinosaur found in South Wales, against a backdrop of the landscape as it was 200mya. The diorama includes dinosaur models, skeletons and footprints. The accompanying text highlights the footprints of a large Megalosaurus-like dinosaur found near Porthcawl South Wales in 1879 and provides descriptions of the dinosaur models (Coelophysis, a small carnivorous dinosaur and a crocodile-like phytosaur Rutiodon) and anatomical reconstructions (replica megalosaurid, Isle of Wight and replica Plateosaurus skeleton, Germany) within the display (Author 2023).





Figure 79: 'The Marine Reptiles'. During the early Jurassic a warm shallow sea drowns out most of Wales. During this time Ichthyosaurs, ammonites and bivalves are common, defined as the age of the reptiles. This display attempts to create a realistic and phenomenological experience with the subdued blue lighting, fossils, and anatomical reconstructions suspended from the ceiling alongside hyperrealistic images that are strategically placed behind the anatomical reconstructions. This display features Ichthyosaurus, Plesiosaurs, Pliosaurs and Mosasaurs and the accompanying text panels explain their anatomical and physical differences (Author 2023).



Figure 80: 'Mammoths and the Steppes'. Next, the visitor encounters the mammoths, featuring an adult female and baby. The visitor must walk through a reconstructed cave to enter this area and see the mammoths in one of the cave openings. The models are animatronic, they move and make sounds, a feature children seemed to enjoy and were fascinated by. The accompanying text states that mammoths were the largest animals that lived in Wales during the Ice Age, highlighting their strength and size. (Author 2023).



Figure 81: 'Skeleton (cast) of a Woolly Mammoth', Pleistocene found at Condover, Shropshire, England and placed in front of an arctic tundra. The accompanying text highlights their cold-adaptive features such as thick layers of fat and shaggy coats ensuring their survival in cold tundra regions. The text explains that the date of extinction is different for different areas of the world, Europe c.12,000ya, North America c.10,000ya and some dwarf mammoths survived in Siberia until 4,500ya (Author 2023).



Figure 82: 'Hyena Den'. This habitat diorama features a cave hyena with accompanying sounds effects of the 'laughing hyena'. To reach this reconstruction, the visitor must peer through the cave openings to see the hyena in one of the chambers. The accompanying text states that fierce animals lived or sheltered in caves and highlights how hyenas were among the most dangerous predators (Author 2023).



Figure 83: 'Two Arctic Wolves'. The final habitat diorama is that of two arctic wolves. They are a part of the 3D reconstruction of the caves, and they are positioned above the visitor on the cave's ledge. They are presented in action, keeping a look out and almost ready to attack (Author 2023).



#### 6.4. The Human Story.

The display strategy for disseminating the human aspect of the evolution of Wales gallery utilises traditional illustrations, represented broadly within a chronological framework. The only exception to this exhibition practice is the inclusion of ‘the Red Lady of Paviland’ at the beginning of the exhibition, but this illustration is also featured within the end section of the gallery that focusses exclusively on the human story. The final and only encounter with the human story occurs at the end of the gallery with a brief set of four display panels and corresponding display cases that are accompanied with pictorial illustrations of ‘The first Humans’ in Wales, the Neanderthals, followed by human burial at Paviland cave, next a Mesolithic settlement, followed then by ‘The Beginnings of Agriculture’ and the human story ends with ‘The First Metal Workers’, reminiscent of the ‘Three Age System’ initially developed by C. J. Thomsen and later refined by Lubbock in the context of the Stone Age (Darvill 2021; Lubbock 1865).

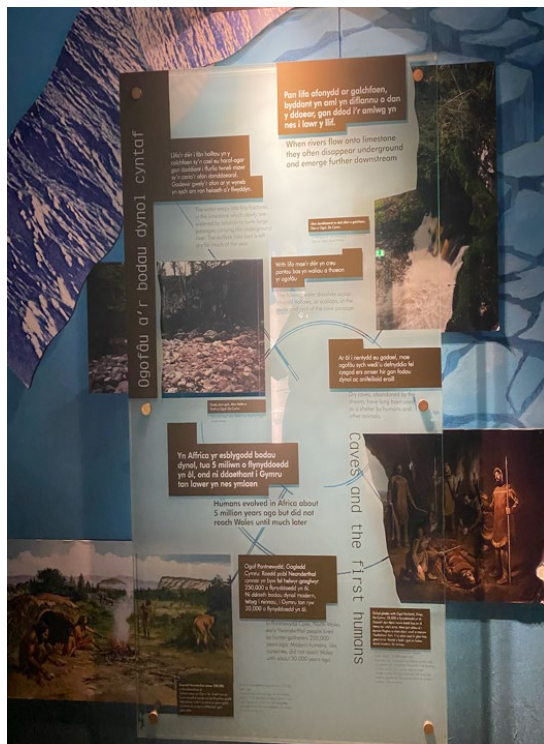


Figure 84: The first information panel titled ‘Caves and the First Humans’. The panel explains the geological formation of caves by the active process of rivers and streams. The panel goes on to state ‘dry caves, abandoned by the stream, have long been used as shelter by humans and other animals, reinforcing the age-old caveman stereotype. The information panel offers two images that reconstruct prehistoric life (Author 2023).



Figure 85: 'A Neanderthal Encampment, c.250,000ya'. The image reflects a mild phase of the Ice Age, almost a lush paradise with a much warmer climate. A man shapes a stone hand-axe and a woman gathers wild fruits. Bands of male hunters are attacking deer with spears and driving elephants into boggy marshland using fire. The image challenges the traditional display canon for portraying 'primitive iconographies' and critically considers the sociality of Neanderthals by presenting a multi-behavioural model of early human behaviour (Gamble 2011). However, a gender-coded iconography is present within the image that depicts females in direct association with children, attending to the fire, cooking and positioned close to the constructed hut (domestic sphere) (Author 2023).

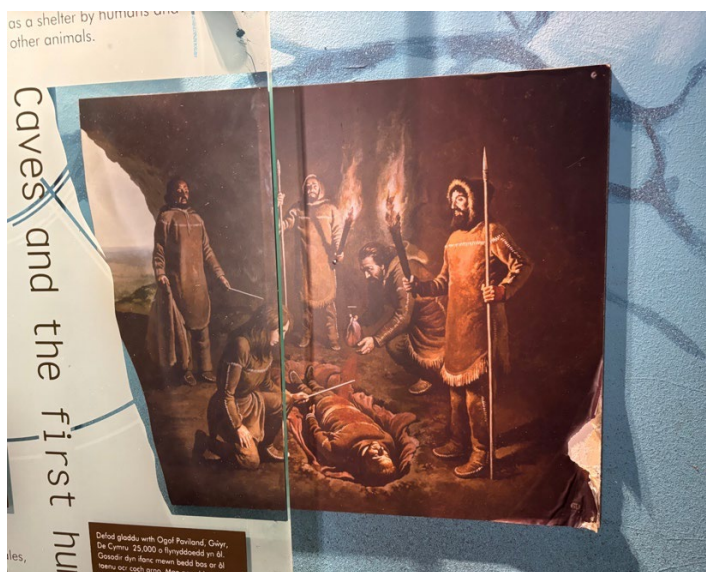


Figure 86: Burial scene at Paviland Cave, Gower, South Wales 25,000ya. A young man is placed within a shallow grave and is covered symbolically with red ochre. Two men hold flaming torches, and a man and a woman hold 'magic wands' of ivory. There is only one female present within the scene, but she is afforded a central role in symbolic behaviours, representing an anomaly to the traditional invisibility of females and the representation of gender-coded iconographies in prehistory (Author 2023).

The artistic illustration located on the bottom left-hand corner of the 'Caves and the First Humans' panel reconstructs daily life at Pontnewydd Cave, North Wales, where early Neanderthals lived as hunter-gatherers 250,000ya. This scene is set within a lush paradise and a warmer climate, rather than the traditional background of 'ice and mammoths' (Wragg Sykes 2021). The scene consists of thirteen individuals, two men in the foreground of the

image, one making stone tools the other carrying the spoils of the hunt. There are two women and two children and a baby in the foreground of the image and finally there are two bands of male hunters, one group attacking deer with spears and the other group driving an elephant into boggy marshland using fire. The image, statistically and environmentally challenges the traditional display canon for portraying primitive iconographies. It effortlessly incorporates a social dimension to Neanderthal life by reconstructing a multi-behavioural scenario and small social group (Gamble 2015). Here, the Neanderthal social group is reconstructed alongside elephants and a constructed hut, essentially providing a different lens for viewing the Neanderthals as social beings within different regional contexts.

The problem occurs when we critically consider the sexual division of labour roles. The first male takes centre stage making stone tools, whilst a female and child tend to the fire and cooking in the foreground of the image. The first woman is situated near the entrance of the hut, evoking a domestic atmosphere and the second female is depicted with her back towards the viewer gathering fruits in close association to a second child. Thus, women are presented as the primary caregivers, encumbered with children, restricting their role and contribution to evolution. The second male is depicted in the background of the image carrying the spoils of his hunt, representative of ‘man the provider and protector’ models of Palaeolithic archaeology. The key concern is that males are associated with evolutionary and technological behaviours whilst females are portrayed as ‘those of little note’ (Scott 1994, Dorbes 1992; Wiber 1994, 1997). This image presents women as faceless, with their backs towards the viewer mimicking their role and contribution to human evolution. A comparison between the two images demonstrates that Neanderthals are restricted to the realms of function and survival whilst modern humans are associated with the realms of culture and symbolism. Even the placement of the images on the information panel reflects their



corresponding evolutionary positions. The Neanderthals have been brought closer to us, but they remain excluded from cultural matters and lack symbolic behaviours.



Figure 87: 'A Mesolithic Settlement, 9,000ya'. A temporary settlement on the coast, men are making arrows and preparing to go hunting. In the distance people are fishing from boats. The social group is larger in size and more complex in their behaviours and technology. However, one element remains the same, the representation of women. In the foreground of the image, the males take centre stage making and using the new complex weapon technology (harpoons, archery) and carving boats for seafaring. In the background of the image women tend to the fires, cooking, and children, hence they are exclusively associated with the domestic sphere (Author 2023).



Figure 88: 'The Beginnings of Agriculture' and its associated display case that features classic Neolithic polished axes. The text highlights how 6000ya the first farmers cleared the woodlands with stone axes to graze animals. It demonstrates how they domesticated animals and cultivated crops including: wild cattle, sheep, goats and pigs, for their meat, leather, milk and wool. They cultivated wheat, barley and other cereals. The panel emphasises another technological innovation that of pottery to cook and store food (Author 2023).



Figure 89: 'A Farming Settlement, 5,000ya'. A settlement with both rectangular and round houses has been built. Fields can be seen, and peoples are harvesting their crops and keeping goats, pigs and cattle. Food is being stored in pottery bowls. Notice, how gendered iconographies persist into this period of prehistory, also. It appears a gendered coded iconography of the secondary sexual division of labour tasks is heavily depended on. The males tend to the animals and women gather the harvest, tend to the fires and children or scape hides (Gifford-Gonzalez 1993; Author 2023).



Figure 90: 'The First Metal Workers' and the associated display case features Bronze Age weapons. There is no accompanying image that reconstructs daily life during the Bronze Age. Instead, the panel focusses on the Bronze Age mines in Wales which are amongst the earliest copper mines in Europe (Author 2023).

The above information panels truncate the human story (Stone Age) into three displays with corresponding images. These three panels are an illustration of the progressive tendencies of human evolution in the context of natural history. A brief analysis of the display cases illustrates a traditional and typological approach to the display of archaeological artefacts in chronological order, starting with simple technologies (stone tools recovered from

Pontnewydd Cave, Wales), progressing through (Neolithic axes) to the first metal workers (Bronze Age weaponry). Each panel exhibits a different technological innovation, the Upper Palaeolithic burial of Paviland highlights symbolic behaviours, the Mesolithic panel highlights new technologies in the form of archery, harpoons and seafaring and finally, the Neolithic panel showcases animal husbandry, harvesting crops and the major technological innovation of pottery to cook and store food. A brief analysis of the images reinforces this progressive narrative, the visitor will notice that the social group becomes larger and the technologies more complex throughout the sequence, illuminating the progressive tendencies of the evolutionary museum. The analysis demonstrates that the canonical icons of evolution that of the ladder, are still present in the ordering and exhibition display practices of the evolutionary museum (Gould 1987,1995a; Bennett 2004).

#### 6.5. Moving the Prehistory Collection.

During interviews the curator of archaeological collections at the museum, Elizabeth Walker expressed that the original idea was to incorporate the human story into the ground level galleries at NMW, Cardiff. This is important because an evolutionary context bridges the gap between the past and the present which provides visitors with a conceptual model to interpret the displays. So, in the absence of any plans to upgrade this display it made sense to make sure that the collection (Pontnewydd remains) was made prominent again at St Fagan's (pers. comm. Walker 2021: Appendix A). *'The archaeology collections were moved in 2007, temporarily down onto the ground floor. The idea being, then, that the ground floor and the National Museum, Cardiff would become natural history and a temporary exhibitions space. The whole human story would be told in one place'* (pers. comm. Walker 2021: Appendix A).



The controversial decision to move the archaeological collections from the NMW to St. Fagan's, was not a matter of choice, rather the archaeological galleries were downgraded in both size and importance within this institution that now chooses to focus on art as opposed to archaeology. Unfortunately, the human story starting with Neanderthals was ultimately cut and heavily truncated in the 'Evolution of Wales' gallery located on the bottom floor (pers. comm. Walker 2021: Appendix A). Ironically, this chapter argues that by changing the institutional setting from a didactic expectation of evolutionary principles, natural history and dualistic thinking, the museum has enabled an alternative reading of Neanderthals. I suggest that divorced from the context of natural history and the progressive tendencies of the evolutionary museum, Neanderthal culture and their vanished worlds are seen through the lens of human history, rather than primitive iconographies and the seminal motifs of prehistory, challenging decades of professional and popular dogmas, that centre on the traditional ancestor stereotype.

## 6.6. Nature and History of St. Fagan's Open-air Museum.

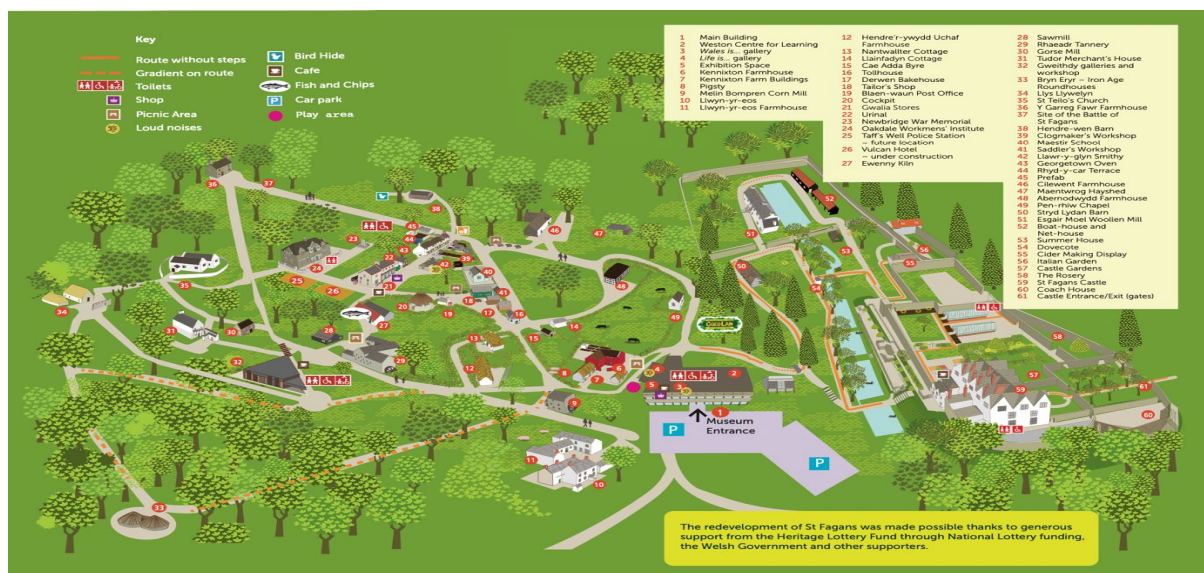


Figure 91: Museum map of St. Fagan's, Welsh Museum of Life and Industry. St. Fagan's represents the UK's first open-air museum and Wales' most beloved (visited) heritage centre (museumwales, 2020: Accessed 2023).

*‘The task was not to create a museum which preserved the dead past under glass but one which uses the past to link up with the present to provide a strong foundation and a healthy environment for the future of their people.’* (Iorwerth C. Peate, 1948 taken from museum.wales, nd:b Accessed 2022). This opening quote highlights the essence of St. Fagan’s as an institution. The museum is not an inherited model of consumption and control, rather, participatory models are a core feature. Here, we see the establishment of a folk museum one that presents the material culture of past and present peoples, but also ‘the activities of the mind and spirit’, which reflects a move in museological research to display and articulate ‘intangible heritage’ (Holtorf 2014). Cornelius Holtorf argues objects and technologies of representation gain authenticity when used as props in a staged setting (like the scientific and authoritative context of the NHM, London and NMW, Cardiff). This philosophy is extended to open-air museums that feature experimental archaeology (process and making) to further authenticate their interpretations and findings (Holtorf 2014).

St. Fagan’s first opened to the public on 1<sup>st</sup> of July 1948, making it the UK’s first national open-air museum. It was controversial in its day because it reflected the everyday lives and voices of ordinary people, perhaps better understood as a folk museum. Since then, it has become Wales’s most popular and beloved heritage visitor attraction (museum.wales, nd:c Accessed 2023). The museum website suggests there is no over-arching narrative or grand meta-narrative being told in the new galleries, rather a thematic approach is applied (pers. comm. Walker 2021: Appendix A). The museum does not apply a chronological framework to the newly installed archaeological galleries. Instead, the focus is primarily Welsh identity and nationalism. This is evidenced in the expression and exploration of political concerns such as Welsh independence and political activism in the form of trans rights, black lives matter and immigration throughout the Wales Is gallery. I suggest, therefore, that the

archaeological galleries have a nationalist and political agenda throughout. The display strategies are unconventional in this respect when contrasted against a traditional museum and the rows and rows of display cases laid out in typological and sequential order, arranged from simple to complex (Bennett 2004, 2010).

#### 6.6.1. The Environment Modality. Architecture, Location and Setting.

The architecture, setting and context of St. Fagan's and the NMW are very different to each other. One is set in the heart of the city centre, surrounded by administrative buildings such as the town hall and law courts. The other is set within a 100-acre parkland surrounded by re-erected historical buildings. The site for the new museum located on the outskirts of Cardiff city centre was donated to the nation by the Earl of Plymouth. Much of the parkland was cleared to facilitate the re-erecting of historic buildings. Currently, over forty original buildings from various historical periods in Wales have now been re-erected in the parkland. The star attractions include St. Fagan's castle, the Rhyd-y-Car Ironworker's houses and Bryn Eryr Iron Age roundhouses. The welcome building is a modern purpose-built building and marks a clear departure from the classical 'cathedrals to nature' that traditionally house natural history collections. The space is large, open and light in colour reflecting a modern approach to the representation of the past and present. I propose this institutional setting provides a different atmosphere, style and interpretation to the prehistoric collection.

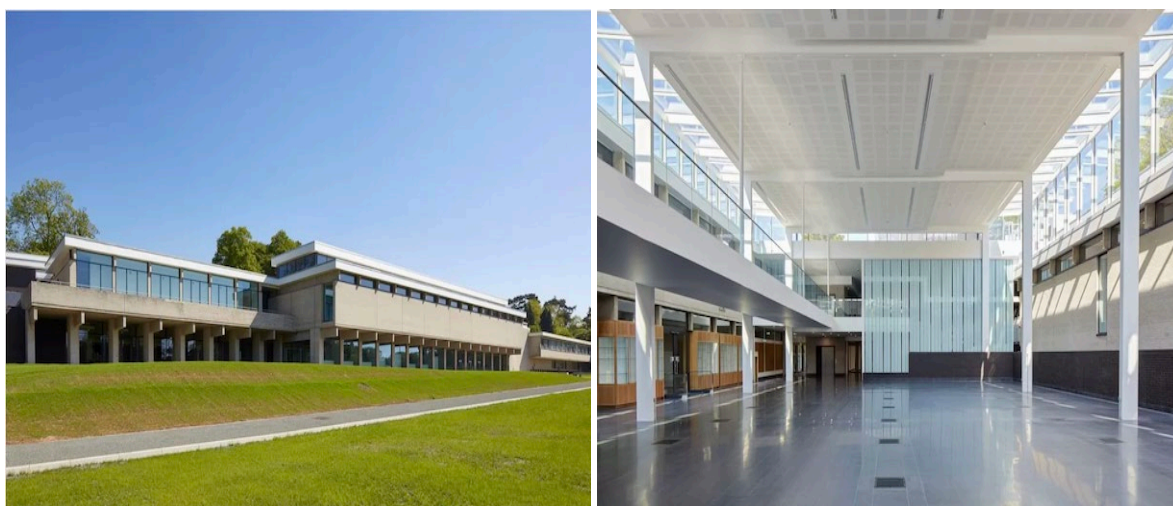


Figure 92: Left. Exterior architecture of the main building at St. Fagan's. The re-development project allowed the museum to incorporate the newly developed archaeological galleries into this space, along with a welcome reception, gift shop and café. Figure 93: Right. Interior features of the main building, the visitor must enter this area to access the rest of site functioning as the visitor and information centre. The space is light in colour, modern looking using steel infrastructure and glass throughout. (museumwales.com, nd: Accessed 2022).

Oral histories and intangible heritage play a major role in the knowledge making capacities of the museum and the exhibition practices used to disseminate alternative views of archaeological materials and processes. The museum's slogan '*Don't just visit history, be part of it*' demonstrates a significant institutional difference between St Fagan's and the NMW, Cardiff and the NHM, London. St. Fagan's encourages visitors to be a part of the knowledge making process, whereas the national museum disseminates a didactic experience focussed on the visitor being a passive observer to the evolution of Wales, geologically and archaeologically (Hooper-Greenhill 1992).

The moving of the prehistoric collection from the NMW to St. Fagan's marks a fundamental departure from the traditional display canon that focusses heavily on natural history, evolutionary frameworks and progressive tendencies to re-tell the same narrative in sequential order (Dorbes 1992). I propose this new approach offers an exciting opportunity to reframe how we think about Neanderthals. It provides a genuine attempt to tell new stories and offer alternative perspectives to the prehistoric past. This case study demonstrates the

humanness of Neanderthals and their variability across different geographical locations. This is a common feature often neglected in the context of natural history and human evolution which inadvertently perpetuates the common misconception of a monolithic and classic Neanderthal (Wragg Sykes 2020).

#### 6.7. The Archaeological Galleries.

The new developments at St. Fagan's incorporate three archaeological galleries in the newly designed welcome building that houses the reception area, archaeological collections, gift shop, and a large café for the site. Gallery one titled 'Welcome to a World of Making', explores 'crafts and the performative actions of 'making', including the materials, processes, practical techniques and technologies involved. This gallery celebrates the skills of makers and allows visitors to learn some of the skills for themselves (museumwales, nd: Accessed 2022). This is a proactive and performative space that focusses on experimental archaeology. Gallery two, titled 'Wales Is', encourages a dialogue between the past and present to imagine different pasts and different futures and their entanglements and inter-relationships (Hodder 2011, 2012, 2014). The gallery explores how an emotional response to objects can evoke cultural, social and personal memories and connections. Located in this gallery is where the visitor will find the hyperrealistic model of a young Neanderthal boy nicknamed 'Ned', who lived in Wales 230,000ya. He is the focus of this museological analysis. Gallery three, 'Life Is', takes ordinary everyday objects we all use in life and shows them to be extraordinary. The gallery explores themes common to humans for example, playing, dying, eating and attachment to objects. This gallery can be understood as an archaeology of emotion, seeking to understand 'the spirit and the mind' (museumwales, nd: Accessed 2022).

Within the newly installed archaeological galleries the curator's voice represents an 'editor-in-chief', (only one of multiple voices in a democratic process that focusses on inclusivity and the diversity of visualisation), rather than a traditional and authoritative role to provide expert knowledge (pers. comm. Walker 2021: Appendix A). The galleries do not take a chronological or typological approach but instead they are thematically designed showcasing specific artefacts and processes. The Wales Is.... 2% Neanderthal display is a permanent exhibit, housed within the larger archaeological gallery Wales Is. The gallery is dedicated to life in Wales, Welsh identity and culture. Consequently, the available space, budget and capacity of the exhibit is limited by both practical and theoretical considerations (pers. comm. Walker 2021: Appendix A).

#### 6.7.1. Aims and Objectives of the Wales Is.....Gallery.

*'The whole premise is that everything is rooted back into the present and that you've always got a connection with today and you're encouraging people to look at today and the past down to make the connections between the two, for example the mirror and looking at your face and comparing it to the Neanderthal skull. That again it is intended to bring the present person into the bumps of the past'* (pers. comm. Walker 2021: Appendix A).

The gallery tackles the knotty question of what Wales Is. This is a smaller space than the Life Is gallery, with a low ceiling, little natural light and a clean whitewashed, but modern look. There are several topics on display, each visually and thematically distinct from one another. Despite being wide-ranging, the themes are treated individually, meaning Welsh history and identity is digestibly presented through standalone topic zones. Themes are explored in greater depth using simple but thought-provoking activities throughout the gallery (Dafydd 2020). In the gallery the museum explores the history, culture and identity of Wales from

different perspectives. This is a performative space that explores Wales as a culture and national identity. It encourages visitors to contribute and share their own thoughts, feelings and experiences throughout the space with the use of monitored post-stick notes and performative activities. This is an unconventional way of engaging visitors within the context of the museum, rather than an authoritative voice of authenticity and accuracy this museum actively engages visitors to become a part of the knowledge-making process (Hooper-Greenhill 1992). Quite simply, St. Fagan's and the newly installed archaeological galleries represent 'a museum by the people and for the people' (Dafydd 2020).

### 6.7.2. The Time Modality. Exhibition Layout and Design.

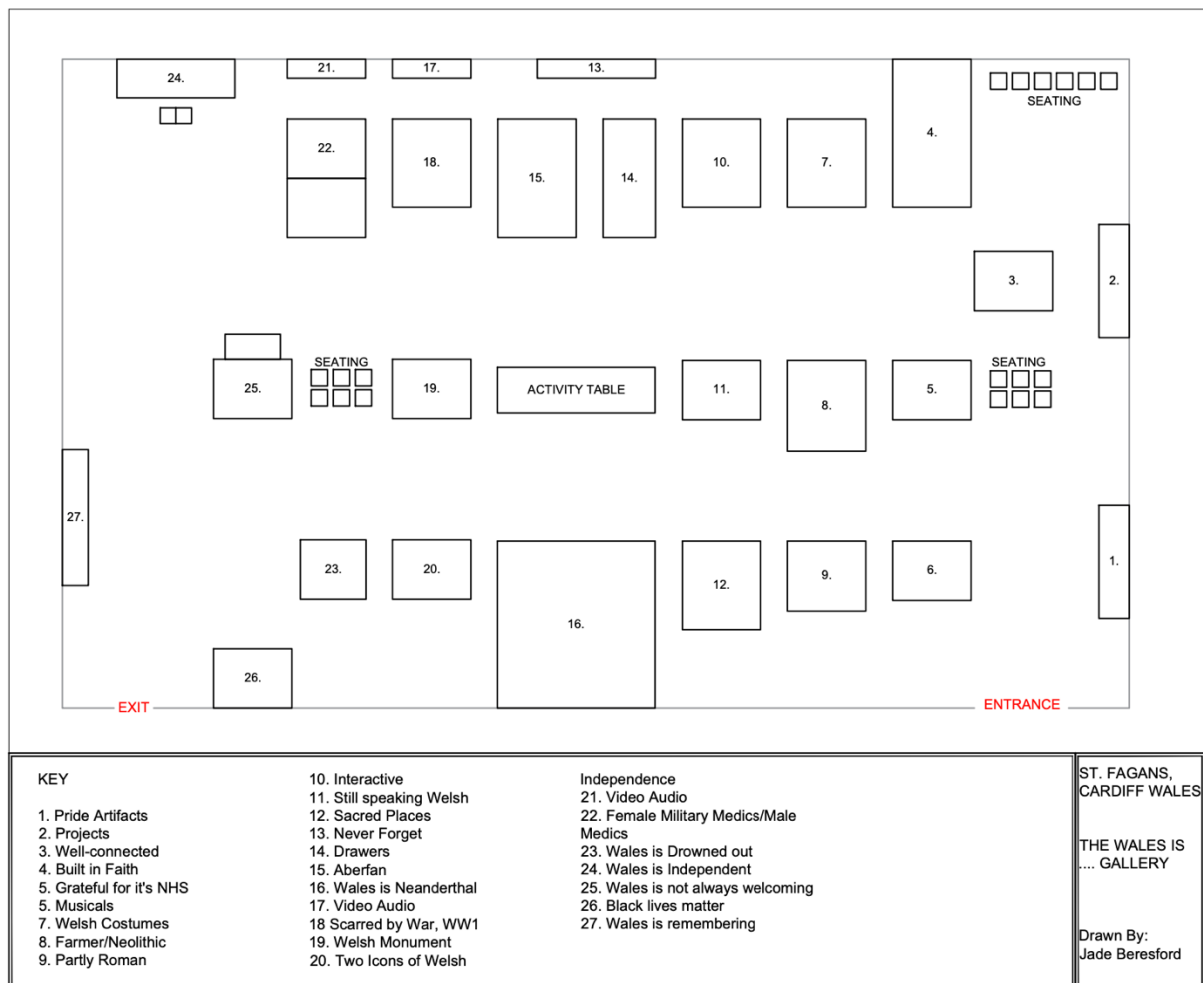


Figure 94: Gallery Plan for Wales Is..... located in the new main building at St. Fagan's, Welsh Museum of Life and Industries. The gallery plan has been created by the author from memory and photographs, consequently it is not to scale.

1. Pride Artefacts. Pride artefacts are showcased with this display.
2. Wales is Proud... This display case focusses on human and trans rights.
3. Wales is Well Connected. Features an early Bronze Age lunula and a Bronze Age caergwrle bowl and jewellery.
4. Wales is Built on Faith. This display explores alternative faiths in Wales including the Durga – a Hindu goddess.
5. Wales is Grateful for its NHS. This display exhibits gratitude for the services of healthcare professionals during COVID 19 and encourages visitors to leave messages of support and share their experiences.
6. Wales is Musical. This display challenges traditional Welsh stereotypes and explores different instruments and types of music.
7. Wales is Welsh Costume. The Welsh costume is a national icon that is often worn by children on St David's Day. The costume is based on the clothing worn by rural women in the nineteenth century, and its most recognisable feature is the tall black hat. The Welsh hat is a symbol of Welsh heritage and pride.



8. Wales is Farmers. The display focusses on Neolithic Wales and the beginnings of agriculture. Agriculture in the past is linked to the present by using audios of modern Welsh farmers voicing their personal concerns and difficulties in recent times.
9. Wales is Partly Roman. The display exhibits a Roman burial, alongside Roman artefacts recovered from Wales.
10. A Photo Opportunity. An interactive display which encourages visitors to take 'selfies' as a traditional Welsh family in traditional Welsh costume.
11. Wales is Still Speaking Welsh. This display explores the significance of Welsh as a native language.
12. Wales is Sacred Places. The display focusses on ancient but meaningful places in the past, in this case 'offerings to the lake' during the Bronze and Iron Ages are explored.
13. An Audio-visual of Some of the Victims and Witnesses of the Aberfan Coal Pit Disaster. The Aberfan disaster was a catastrophic collapse of a colliery spoil tip on October the 21<sup>st</sup>, 1966, killing 116 children and 28 adults as the slurry engulfed Pantglas Junior school and a row of houses in the village of Aberfan.
14. A Set of School Chest of Drawers from Aberfan.
15. Wales is Aberfan Coalpit Disaster. This display explores the cause, consequences and reactions to the Aberfan disaster.
16. Wales is 2% Neanderthal (explored in detail above).
17. Video-audio of Men Who Served in in the World Wars.
18. Wales is Scarred by WWI.
19. Welsh Monument Llywelyn Fawr.
20. Wales is Lywelyn and Glyndwr. Two national icons of Welsh independence.
21. Video-audio.
22. Male and female Military Medics. The display critically considers the different contributions to the war effort.
23. Wales is Drowned Out. A demonstration of English control over Welsh interests where a valley was turned into a reservoir.
24. Wales is Independent. This display asks visitors whether Wales should be independent by voting yes or no.
25. Wales is Not Always Welcoming. Wales and the Vikings.
26. Black Lives Matter. Images of the 2020 Black Lives Matter Protests in Wales.
27. Wales is Remembering. Terrence Higgins, the first Welsh person to die of aids.

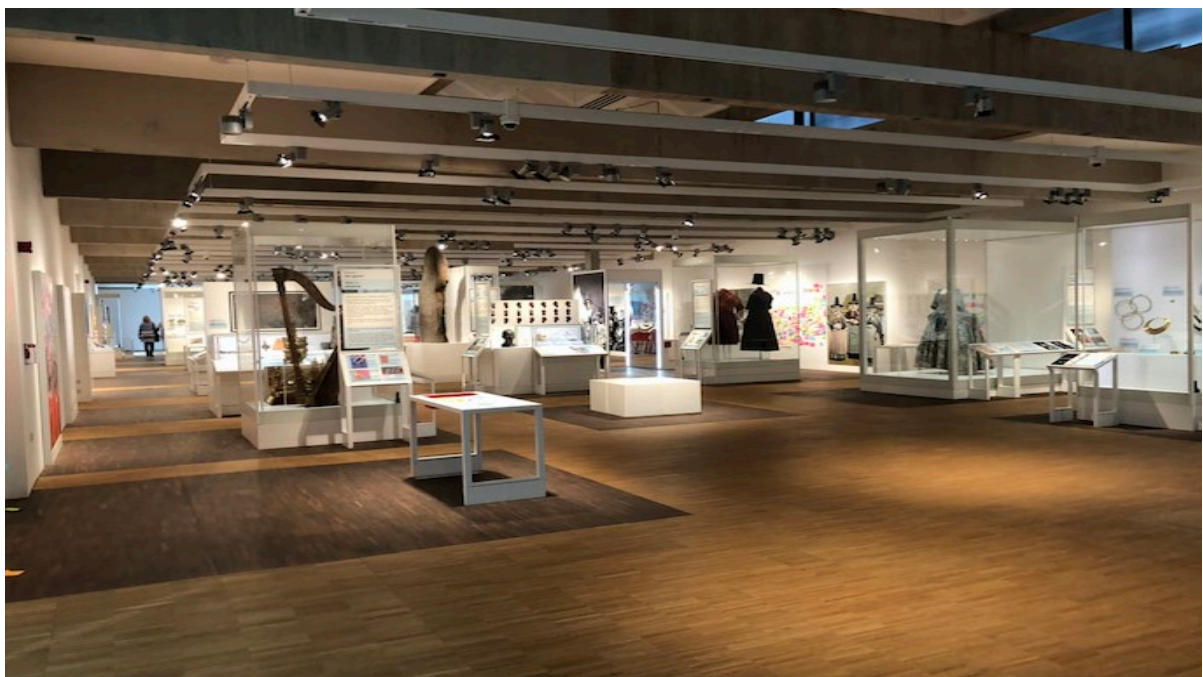


Figure 95: First Impressions of the Wales Is Gallery. The design and style of the gallery space is light, modern and open plan, aided by the clean arrangement of vitrines and information boards into a grid-like formation that

imbue the space with a laboratory-like feel (Dafydd 2020). The space within the gallery is not structured chronologically or progressively, instead there is no prescribed path through the space. Here, Neanderthals are surrounded by human history and culture (Author 2023).

#### 6.8. Wales Is.... 2% Neanderthal.



Figure 96: 'Ned'. Hyperrealistic Neanderthal model affectionately nicknamed 'Ned' by museum staff, who was created by the Kennis Brothers. Ned is the star attraction and centrepiece for the Wales is 2% Neanderthal display. He has a cheeky and playful expression and most importantly he looks happy to be alive. A far cry from the nineteenth century portrayals of unintelligent and dejected cavemen (Wragg Sykes 2021). Neanderthals are presented as familiar strangers with a human spark, imbued with dignity and spirit (Peeters and Zwart 2020; Author 2023).

The 'Wales Is 2% Neanderthal' exhibit provides an exciting example of how modern science is re-writing their story (Papagianni and Morse 2013). The exhibit is based exclusively on the internationally important archaeological remains discovered at Pontnewydd Cave in 1984, representing a site-specific approach (Green 1984). The Neanderthal remains discovered here represent the oldest known hominins from Wales, dating back some 230, 000 years to the early Middle Palaeolithic (Green 1984). The Pontnewydd remains, excavated between 1978 and 1995, consisted of a total of seventeen teeth, representing at least five individuals, alongside these individuals are stone tools and animal bones, some of which show signs of butchery. The abundance of stone tools and the presence of waste flakes (around 1000 finds in total) suggests that the cave functioned as more than an overnight resting place. Burnt stones were recovered and interpreted as the residual of fires lit for warmth, protection and sociality (Green and Walker 1991: 40-44). The most complete discovery from Pontnewydd is

a fragment of an upper jaw of a male child aged approximately nine years old. This is the star-specimen and visual focus (archaeologically) of the Neanderthal exhibit in the form of the original remains on display and the hyperrealistic model created by the famous Dutch palaeoartists - Kennis and Kennis (museum.wales, nd: Accessed 2022).

6.8.1. Layout and Design of the Wales Is... 2% Neanderthal Display.

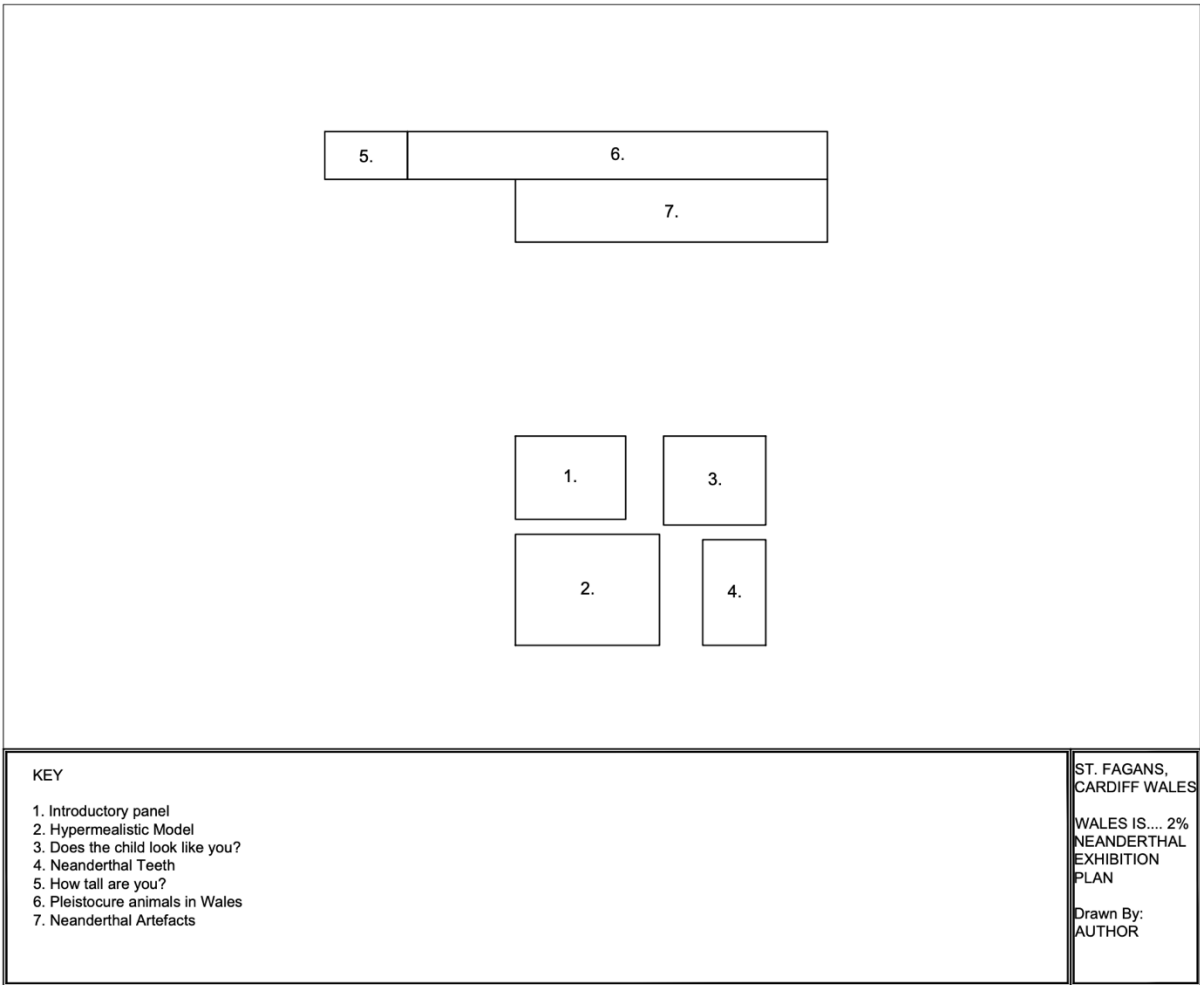


Figure 97: Plan of Wales Is... 2% Neanderthal exhibit. The plan is created by the author from memory and photographs, consequently it is not to scale.

1. Introductory Panel. ‘Wales is... 2% Neanderthal. This is a story of a Neanderthal boy who lived 230,000ya’. The panel provides the location of his discovery and explains that although the Neanderthals became extinct around c.30,000ya, most of us today of European descent contain about 2% Neanderthal DNA. The genetic evidence reveals that some Neanderthals interbred with modern humans. The information panel also includes a reconstruction of the Welsh landscape 230,000ya featuring straight tusked elephants, a river and a male and child engaging in fishing activities.
2. ‘Ned’. The hyperrealistic model is the centrepiece of the exhibit created by the Kennis Brothers. The model contains many of the primitive iconographies as outlined by Moser and Gamble (1997) including nakedness, unfitted clothes in the form of a fur wrap, the traditional hand-axe and unkempt hair. However, there are many crucial differences. Firstly, he is dark-skinned with brown eyes. The

model reflects current scientific thinking using genetic evidence to successfully challenge the racialised characteristics of evolution, though palaeogenetics is ambiguous on Neanderthal pigmentation (Jablonski and Chaplin 2006; Scott 2007; Jablonski 2012; Jablonski and George 2017). Secondly, the Neanderthal gaze has changed from a miserable and dejected being to a fun and playful child, who meets the visitors gaze, directly forcing the visitor to reconceptualise Neanderthal life and behaviour (Wragg Sykes 2021). Finally, the model centralises ‘children’, who are traditionally under-explored and under-represented in the narrative of prehistory (Fernandez-Navarro et al 2022; Galanidou 2007: 145-172).

3. Does This Child Look Like You? This display features an anatomical skull cast of a Neanderthal child and the accompanying text reads; ‘children like this lived in Wales a very long time ago. They moved from place to place, helping their family collect and make food’. The second element of this display includes a mirror with the etched outline of the models face. The accompanying text asks ‘does this child look like you? Look at their eyebrows and chin. How are they different from yours? This performative feature engages children to critically consider our physical similarities and differences. The display is aimed at children and is therefore placed at a child’s eye level (Galanidou 2007).
4. Neanderthal Teeth. The original teeth and jaw fragment of an 8-year-old Neanderthal child are positioned on a raised plinth inside the modern display cabinet, highlighted as a star-specimen. The accompanying text explains the context of their discovery and the number of represented individuals (at least five). The display panel describes the size, shape and wear of the teeth and explores how this analysis reveals the child’s age and his biological sex. There are two accompanying photographs, one of the excavations at Pontnewydd Cave and the other is an x-ray of the teeth (demonstrating the importance of new scientific techniques in the production of archaeological data).
5. How Tall Are You Compared to a Neanderthal Child? The display asks visitors (children) to measure and compare their height with that of Neds. Visitors use post-it notes to mark their height on the wall. This is another performative feature of the exhibit, aimed at engaging children to compare their physical characteristics. These performative and engagement mechanisms are used to emphasise both our physical similarities and differences. However, this implies that Ned is an accurate reflection of his height, this is an educated guess that is not possible from the remains of the skull alone.
6. Pleistocene Animals. A gamma wall runs across the back of the exhibit that features no. 5 (How Tall Are You?) and the outlines of several animals reconstructed as life-size. The choice of animals represents a site-specific approach. They do not feature the traditional seminal motifs for depicting the Palaeolithic, instead they reflect the environment of Wales c.230,000ya. These animals include a lion, horse, deer, leopard, a wolf and bison. The species depicted are indicative of a much warmer climate than is typically associated with the Neanderthals.
7. Neanderthal Artefacts. The final display case features a selection of the archaeological material recovered from Pontnewydd Cave. The display takes a thematic rather than typological approach in displaying the finds. Starting with stone hand-axes, cutting tools, scrappers and traces of tool making. Then the display goes on to represent a selection of the local fauna recovered from the site including horse and bear with stone tool cut marks to portray Neanderthals as successful hunters. Animal bones of extinct animals are also included in this display; wild cattle, giant deer and the narrow-nosed rhino. This display presents the Neanderthals through an alternative lens environmentally, but the archaeological story of Neanderthals remains limited to stone tools and extinct animals.

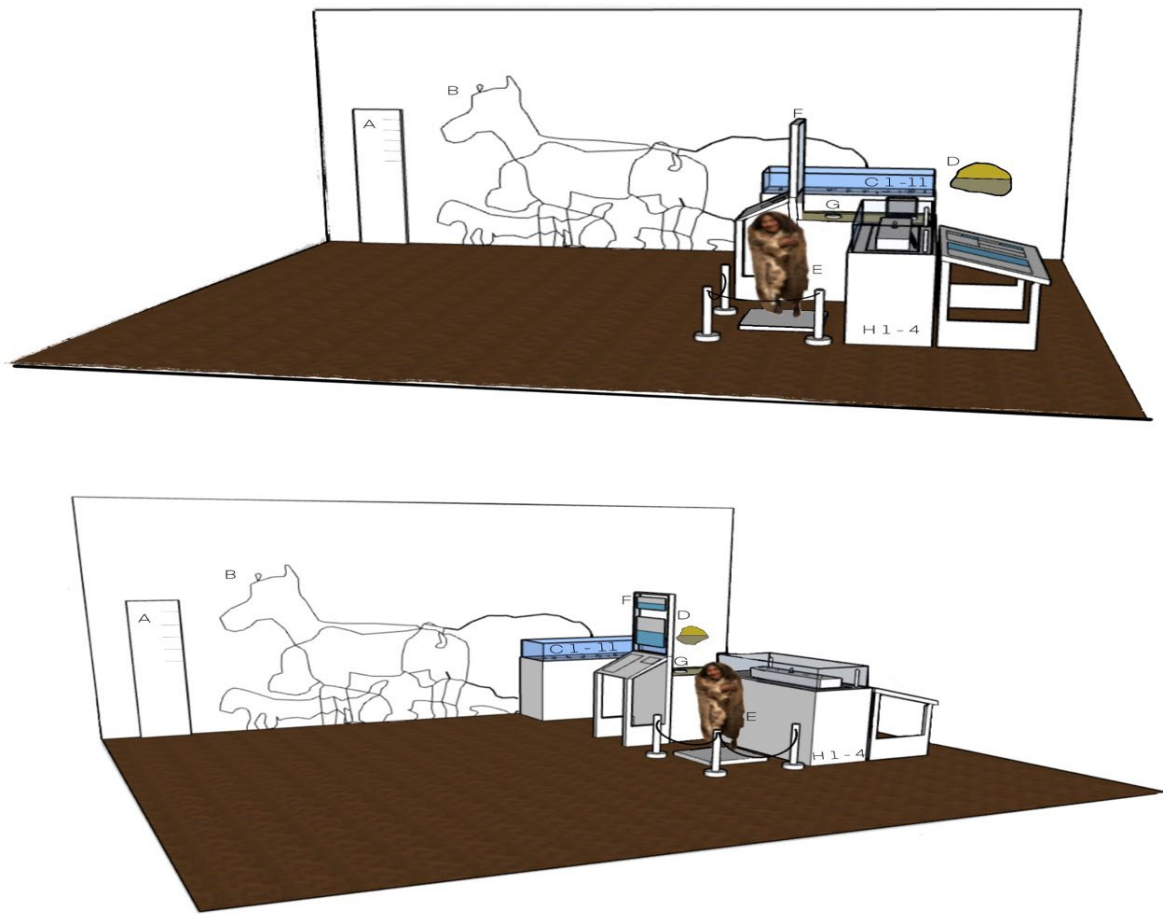


Figure 98: A three-dimensional model of the Wales is 2% Neanderthal display created by the Author, consequently the model is not to scale (Author 2022). The model is provided to demonstrate how modern looking the exhibit is. The panels and display cases are light in colour and interchangeable reflecting the rapidly changing knowledge of Palaeolithic archaeology. The space is open, and the visitor can move freely between the different aspects of the display. There is no prescribed route or ‘performative walking’ within this space rather a site-specific and thematic approach is applied (Bennett 2004).



## 6.9. The Image Modality. Introductory Display Panel and Reconstructions.

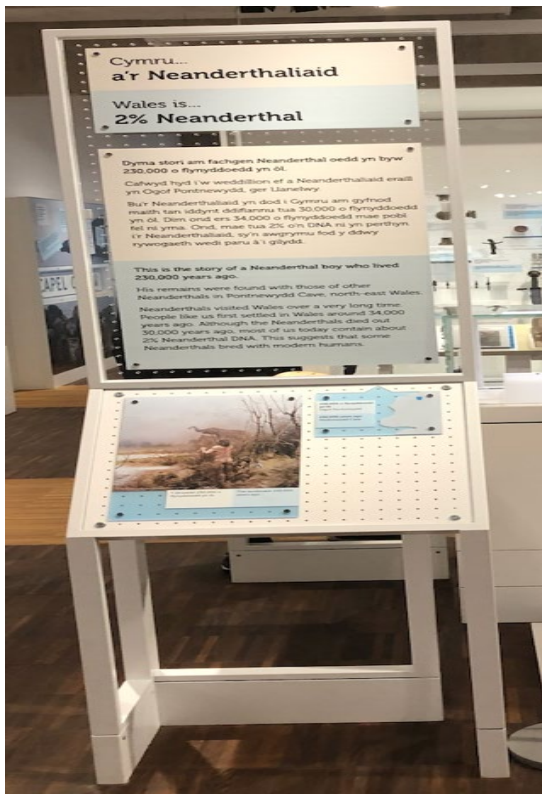


Figure 99: 'The Introductory Panel Wales is 2% Neanderthal'. The textual information states this is the story of a Neanderthal boy who lived 230,000ya. His remains were found with those of other Neanderthals in Pontnewydd Cave. The panel reinforces the gallery objective to present the Neanderthals in a different environment. The accompanying image titled 'The landscape 200,000ya' phenomenologically evokes a relatable world in a warmer climate, open grassland landscape featuring straight-tusked elephants in the background (Author 2022).

There are a total of four images within the display. The first image is located on the introductory panel. The image reconstructs the Pontnewydd landscape over 200,000ya and features an adult male and child, gazing over the valley, engaging in different activities, beyond that of the highly restrictive and formulaic scenarios outlined by Moser (2003). A new scene (Neanderthal fishing) has been incorporated into the Palaeolithic visual frame, despite this behaviour not being present in the archaeology of Pontnewydd, but it reflects current debates in the archaeology of Neanderthals that suggests fishing may have been a systematic practice during the Middle Palaeolithic in Western Europe (Guillaud et al 2021). Therefore, the display incorporates the idea that Neanderthals were capable of freshwater fishing, hinting at the use of new technologies and a close affiliation with water, rather than ice.

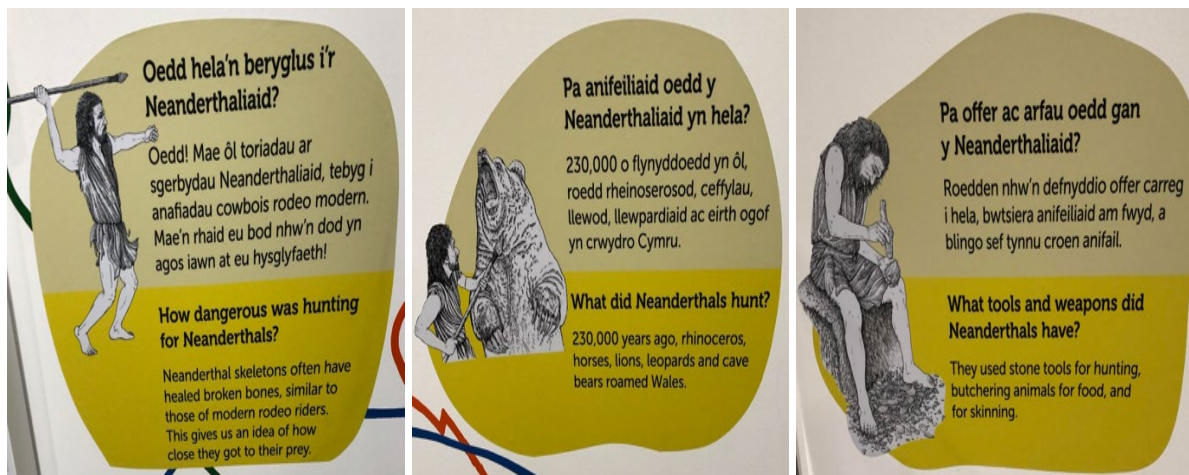


Figure 100: The three 'stickers' depicting males in action and their corresponding text. The stickers are positioned on the gamma wall of the Neanderthal exhibit. The three images exclusively depict adult males. Consequently, the image modality continues to maintain the traditional invisibility of females and children that depends heavily on the seminal motifs of prehistory and the same age-old recycled scenarios that limit the interpretative horizon to that of stone tools, hunting and combat with wild and extinct beasts (Dorbes 1992; Author 2023).

Next, the gallery displays three images on stickers that depict a sole male character, in action making stone tools or hunting wild and extinct beasts. The images are accompanied with a set of questions attached to them, positioned along the gamma wall on the back of the exhibit. These images may be small, but they are mighty in significance, leaving a lasting impression of the exhibit. The stickers are interactive in the sense that they ask visitors to actively engage with the exhibition and/or challenge common misconceptions surrounding the Neanderthals. The first sticker portrays Neanderthals as successful hunters. It reconstructs an adult male 'in action' throwing a spear and the corresponding question asks how dangerous was hunting for Neanderthals? Unfortunately, the accompanying text re-iterates the traditional and out-dated narrative that emphasises the hard life aspect of Neanderthal life that is etched into their bones. The first sticker presents Neanderthal as successful hunters but fails to incorporate new perspectives that highlight their altruistic nature as compassionate and social beings (Gamble 2011).

The second sticker depicts a male Neanderthal thrusting his spear into the neck of a cave bear, presumably in the act of hunting, perpetuating the same set of highly restrictive and formulaic set of scenarios. The accompanying text asks what did Neanderthals hunt. Once again, the sticker fails to incorporate new archaeological data and perspectives that critically consider the complex combination of dietary plant and animal proportions (Hardy et al 2022). The accompanying text provides a very restricted view of Neanderthal diet and subsistence strategies, reinforcing the super carnivore label. The text only provides examples of rhinoceros, horses, lions, leopards and cave bears. The artefactual and visual association of Neanderthals and cave bears is reminiscent of the cave bear epoch proposed by Louis Figuier.

The final image depicts a male making stone tools, a seminal motif and restrictive scenario continually perpetuated within the Palaeolithic visual frame, and the corresponding question asks what tools and weapons did Neanderthal have? The accompanying text only explores the use of stone tools for hunting, and butchering animals for food and skinning. There is no consideration of other innovative technologies or organic materials. In essence, the above images depict males making stone tools, males hunting with a spear, this visual strategy of female invisibility, implicitly suggests that only males made and used stone tools and only males hunted. The traditional display canon (particularly the use of restrictive and formulaic scenarios) perpetuates a gender-coded iconography of human origins and evolution that is heavily relied upon in the image modality (Sowers 1984). The above images unconsciously perpetuate the myth that men are the main protagonists in human origins and evolution (Dorbes 1992). The time has come to ask more socially driven questions like do you think the Neanderthals had language or told stories?



### 6.9.1. Regional Variation and Neanderthal Adaptation.

The general objective of the exhibit is to tell the story of Neanderthals from an alternative perspective that explores different landscapes and environments, focussed primarily on the early Middle Palaeolithic. The approach taken in this display represents a site-specific and regional approach, rather than an evolutionary perspective that seeks to identify Neanderthals place in evolution. The exhibit focusses on displaying star specimens and telling one specific narrative about the internationally important site of the Pontnewydd Neanderthals that aims to challenge the traditional arctic lens for viewing our closest ancestors, the Neanderthals.

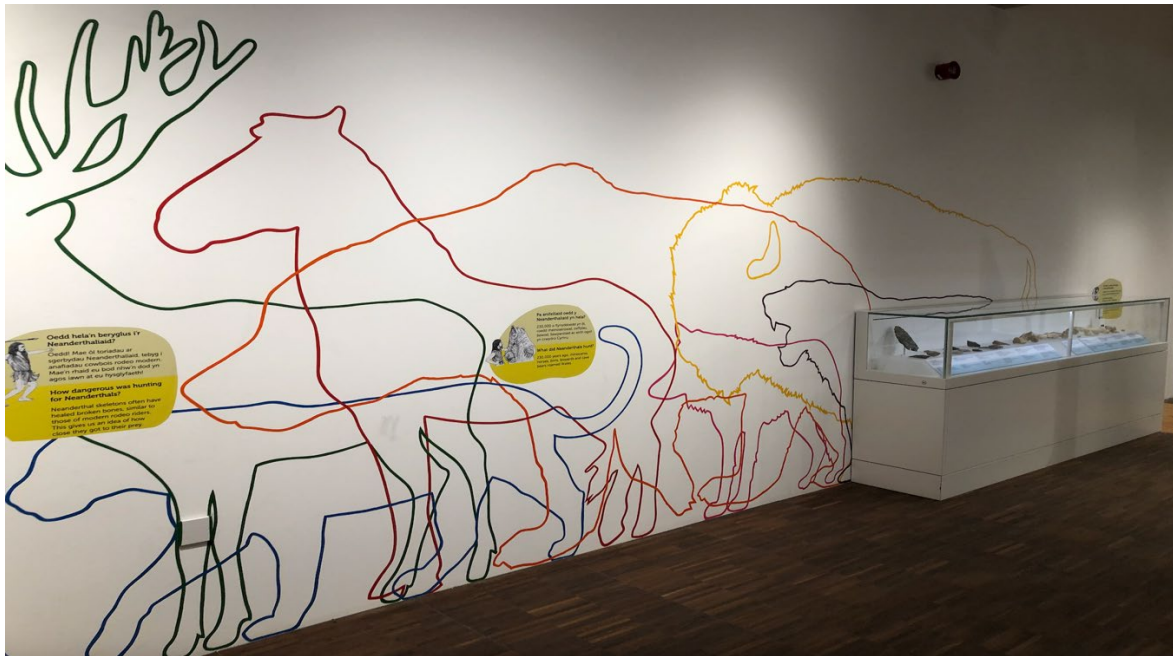


Figure 101: The gamma wall running along the back wall of the exhibition space, rather than a chronological timeline. Here, the primary aim of the display is to represent the Neanderthals within a warmer climate and different environment, reflecting the early Middle Palaeolithic of Wales (Author 2023).

*'It is important to understand that the Pontnewydd Neanderthals, aren't Ice Age Neanderthals. So, these are much earlier and the landscape they lived in would have been much warmer than it was for the 'classic' Neanderthals. So, we don't have a mammoth or wholly rhino on the wall because those would be cold steppe animals. We were trying to focus on those animals in the open steppe, which are more open landscape animals, like the lion, the leopard and the horse' (pers. comm. Walker 2021). This is an important distinction*

between the cold and open steppe environments and landscapes. A cold steppe has extreme cold winters and are semi-arid, whereas an open steppe is more of a grassland open landscape with warm summers and cold winters, that reflects the climate of 230,000ya in Wales (pers. comm. Walker 2021: Appendix A). I argue that an exploration of Neanderthals from different times and environments successfully challenges the traditional arctic lens and the monolithic representation of a classic Neanderthal type.

The museum takes a site-specific and relational approach that focusses on telling the story of a child Neanderthal, a boy affectionately named Ned. This approach has two distinct advantages over a natural history and evolutionary context, it successfully challenges the infamous arctic lens and the traditional invisibility of children (Fernandez-Navarro et al 2022; Wragg Sykes 2021). In this context, Neanderthals are no longer represented as simply arctic mammals or specialists, rather they are understood as emotive and adaptive individuals, who are essentially human in their physical and symbolic capabilities. The approach taken confronts entrenched disciplinary trends and assumptions that implicitly suggest that the Neanderthals were a monolithic and unchanging species. A site-specific approach provides the museum with a genuine opportunity to tell new and exciting stories and allows visitors to explore the Neanderthals through the relational and relatable lens of human history. The objective here is to demonstrate that different Neanderthals lived different lives and in different climates and environments, highlighting Neanderthal variability and adaptability, a feature of Neanderthal archaeology that is absent at the NHM, London. The aim here, is not to conjure vanished worlds and visions of the primitive savage, rather the intention is to provide a relatable connection between the past and present. This in turn forces the visitor to critically consider the Neanderthals from a different perspective and vantage point, that

reconceptualises them as essentially human, rather than reinforcing negative connotations of the primitive ‘other’ (Peeters and Zwart 2020; Breyl 2022).

#### 6.10. The Object Modality. Hyperrealism as a Visual Strategy.

The sculpture, affectionately nicknamed Ned demonstrates how in recent years, new research has pulled the Neanderthals much closer to us: here they are instantly recognisable as human (Papagianni and Morse 2013: 11-15). Although Ned is reconstructed with the typical hand axe and fur wrap, he is not associated with traditional ice age fauna. Instead, the gallery takes a different approach and focusses on the animals within the locale and geographical region of North-East Wales, Denbighshire (open steppe) as a demonstration of regional variability. This is a feature often neglected within the context of the evolutionary museum that focusses on the progressive and incremental development of the hominisation process. In many instances they are presented as monolithic entities who are the same across both time and space. In the context of human history, Neanderthals are not represented as mere creatures of the ice, instead they are presented as humans (with a difference), who lived complex and familiar lives. The model feels more romantic in its approach in that, the child is portrayed as a naïve primitive, rather than ape-like creatures or brutish savages (Moser and Gamble 1997).



Figure 102: Ned the hyperrealistic model of a Neanderthal child. The model is important for two reasons, firstly it places children at the centre of archaeological discourse and evolutionary models. Secondly, the most striking feature of this Neanderthal child is his expression (joyful and playful), rather than dejected and miserable. The model successfully challenges the traditional invisibility of children within the Palaeolithic visual frame by producing a site-specific narrative that centres on a Neanderthal child and his world (Author 2023).

During conversations with the exhibition curator and keeper of archaeological collections at the National Museum of Wales, Elizabeth Walker expressed that originally, she had wanted the child to be offering his hand axe to general members of the public, us – modern humans. Instead, the little boy clutches his hand axe close to his chest as though it is a prized and meaningful possession. He is almost shy and anxious to show his technology to us (pers. comm. Walker 2021: Appendix A). This could have been a subtle move in line with current archaeological evidence and discoveries that suggest Neanderthals were not merely the receivers of functional and/or cultural knowledge. They were in some cases the innovators of technological and cultural change. New research suggests that during this process of cultural and symbolic exchange it would most likely have consisted of multi-directional becomings, including other humanities and modern humans learning from each other in a process of co-operation and co-evolution (Gamble 1998; Horan et al 2008; Boyd and Richerson 2009: 3281-3288; Dunbar et al 2014). This would have been an apt scientific nuance that explores a neglected area of investigation, interpretation and representation, that of encountering

multiple hominins and the possibility of social relationships, a feature which is not yet wholly exhibited in the context of the museum (Gamble 2011).

Ned is important for several reasons. He represents an exception to the traditional invisibility of children within the Palaeolithic visual frame. Children are almost exclusively associated with an adult female and conceptualised traditionally as a seminal motif of secondary sexual difference, revealing the gender-coded representation of Palaeolithic archaeologies and palaeontological research. Typically, children are not conceptualised as individuals with personhood and agency or considered on their own terms (Gifford-Gonzalez 1993). If women, as a category of visualisation represent those of little note, then children are invisible, simply objects within the visual frame (Fernandez-Navarro et al 2022). Therefore, the centralisation of Ned as the main character in this site-specific narrative represents a positive and welcome change. It is also refreshing to see that the whole exhibit is targeted at children. The exhibition design is interactive, engaging and fun, encouraging children to critically engage in relatable and connected characteristics such as height and physical appearance.

The character and expression of the model challenges the traditional character assassination of Neanderthals as unintelligent and brutish (Madison 2016, 2021). The Neanderthal gaze has changed dramatically here, from a miserable creature doomed to extinction to an individual who is cheeky and playful but most importantly, human (Wragg Sykes 2021). Despite the identification of some primitive iconographies within the model including nakedness, an unfitted fur wrap, a hand axe, and unkempt hair, all of which are seminal motifs used to evoke a state of primitiveness, he still appears human, young and naïve, but essentially a part of ‘us’, our identity and culture (Peeters and Zwart 2020). This exhibit somehow effortlessly

portrays the ‘other’ as a part of our cultural identity and affords them a contributory role to our evolution and success. This I suggest is because of the intellectual tone of the gallery itself and his placement in a relational and emotive space that divorces Neanderthals from the context of natural history. Here, the chronological ordering of things and the progressive framework of slow modernity has been abandoned in favour of an archaeological approach that centres on regional variation, adaptability and relationships between the past and present.

The model goes a long way in challenging negative connotations of ethnicity. Ned is dark-skinned with brown eyes refuting the traditional perception of ethnicity in models of evolution. The Eurocentric and racialised characteristics of human origins in which our ancient ancestors gradually become white is successfully debunked in the reconstruction of Welsh Neanderthals (Jablonski and Chaplin 2006; Scott 2007; Jablonski 2012 and Jablonski; George 2017). Neanderthals were initially conceptualised as a European species and even after the advent of palaeogenetics, they continued to be depicted as fair-skinned and often with red hair. The genetic expression of skin pigmentation remains ambiguous however, there is some evidence to suggest that Spanish Neanderthals might have had red hair. Scientists don’t know how these genes express each other, therefore the skin pigmentation of hyperrealistic models and artistic illustrations remains a subjective interpretation.

Hyperrealism, as a new technology of representation is recognised and highly praised for its ability to bring other humanities closer to us. There is, however, still the problem that this type of visual modality in the context of the museum is presented and consumed as an objective databank. I suggest the model here functions as a smuggler of the truth since, Ned is not actually a Welsh Neanderthal, after all. *‘The artists went with Chris Stringer’s recommendation that Teshik-Tash was the closest parallel and there was a complete skull and*

*indeed the plastic skull we've got on display there for visitors to handle is a copy of the Teshik-Tash skull'* (pers. comm. Walker 2021: Appendix A). This is an important revelation made by the museum curator, since this information is not communicated to the public. It highlights the fragmentary nature of hyperrealism as a visual strategy, that purports to reconstruct a Welsh Neanderthal, but the archaeological data of Ned is a small fragment of jawbone that contains two teeth. Therefore, the museum curators and palaeoartists (Kennis Brothers), in a scientific pursuit of objectivity opted to reconstruct the skull of Teshik-Tash discovered in a cave in Uzbekistan in 1938 which was officially classified as Neanderthal in 2012 (Gunz and Stansfield 2012).

Teshik-Tash was the first Neanderthal fossil discovered in Asia and the only complete Asian Neanderthal skull, preserved so far. The original skull was reconstructed from over 150 fragments. The model within the context of the gallery and exhibit is presented as a Welsh Neanderthal and a part of Welsh identity, but the remains are reconstructed from a Neanderthal fossil thousands of miles away in Uzbekistan with a completely different environment and cultural identity. Furthermore, the two Neanderthals are over 150,000 years apart in age. Pontnewydd represents an early Middle Palaeolithic site while the archaeological remains from Uzbekistan represent a Neanderthal child believed to be c.70,000 years old (pers. comm. Wragg Sykes 2021: Appendix B). This seems counter-intuitive, considering the main objective of the gallery is to reflect a regional narrative of Welsh Neanderthals. This analysis reveals the subjective nature of hyperrealism as a visual strategy, from the choice of fossils that are reconstructed to a scientific standard, and the completeness of the archaeological remains. Ultimately, since the archaeological remains of Ned represent a mere fragment of the jaw, the individual's height, build, stature and appearance are all subjective choices that are open to interpretation and criticism.

Just as no two archaeological sites or individuals are the same, I would argue this is also true for Neanderthals. A focus on scientific objectivity and the completeness of the remains to attain 'factual' reconstructions of our closet ancestors facilitates a neglect of Neanderthal adaptation, variability and sociality (Gamble 2011). Once again, Neanderthals are portrayed from a scientific perspective as essentially monolithic, the same across time and space. This is reminiscent of traditional approaches to the representation of human origins. It appears that the exhibit challenges the monolithic representation of Neanderthals from an archaeological perspective, but it fails to critically consider different individuals from a scientific perspective. This is a common feature of hyperrealism: to focus on anatomical completeness, rather than a site specific or individual basis for reconstructing past hominins and their behaviours.

Ironically, physically the adult Neanderthal male (Spy, Belgium) at the NHM, London portrays a modern looking human and it successfully challenges the traditional display canon for depicting primitiveness, based on physical characteristics. However, the museological analysis in the previous chapter demonstrates that the canonical icons of evolution and the ordering practices of the museum presents Neanderthals as modern looking, but lacking in their cognitive and symbolic capabilities. The ordering practices of the evolutionary museum and the repeated artefactual associations restrict Neanderthals to a lesser humanity, reinforcing the grand meta-narrative of human origins and progression towards perfection. However, at St Fagan's many of the traditional display canon for depicting primitiveness are heavily depended on in the image and object modality, but the exhibits placement within a gallery dedicated to national history and identity, forces the visitor to view the Neanderthals through a relational lens and on their own terms. Divorced from an evolutionary context, they have become a part of us, rather than representing the last pit stop en route to civilisation,



suggesting that the ordering practices of the museum, combined with a scientific focus facilitates the inter-disciplinary neglect of alternative perspectives. There are two general criticisms of this exhibit from a theoretical perspective. First, females are absent from the Neanderthal exhibition space both visually and theoretically, contributing to the traditional invisibility of females within Palaeolithic archaeologies and core-periphery models of evolution. Second, the incorporation of new archaeological and scientific data appears to be restricted to the impact of aDNA on the conceptualisation of Neanderthals and their role and contribution to our history.

Neanderthals once met a recurrent need to voice and depict the alternative to civilisation (Gamble 1998). It now appears that science has entered a golden age of paleontological research. New advances in aDNA have led to the revolutionary genetic breakthrough of decoding the Neanderthal genome which has provided the theoretical space to overcome traditional visions of the dim-witted caveman (Papagianni and Morse 2013: 11-15). Overall, the Neanderthal exhibit is interpreted as a cultural exhibition, not because of the archaeological material on display, but because of the surrounding artefacts and the context of the gallery itself, which centralises human history and Welsh culture. Unconventionally, they are not presented as an object of study or a past tense phenomenon, instead they are a part of the present and a part of human history. This I suggest is an effective mechanism for challenging primitive iconographies and the traditional display canon of evolution.

#### 6.11. A Traditional and Familiar Narrative: A Curators Perspective.

The most refreshing and thought-provoking aspect of this gallery is the placement of Neanderthals within the context of human history, divorced from the context of natural history and the evolutionary ordering practices of the museum. Instead, the gallery focuses on relationships and intra-actions. However, during my interview with the museum curator,

Elizabeth Walker confirmed that she felt the museum couldn't be too radical in its approach and should aim to produce a familiar and safe narrative about the ancient past that is placed within a chronological framework. When I asked whether the curators felt it was a positive change to remove the Pontnewydd collection from the traditional grip of evolutionary museums and slow modernity at NMW? She responded:

*'Personally, I would be far more comfortable telling the chronological story and the history of Wales in that sequence because I just feel, there is no timeline anywhere in the galleries..... it's not easy for visitors to place themselves in time, and the fact that it is jumbled in terms of what is next to each other. (pers. comm. Walker 2021: Appendix A).*

Interestingly, the aspect of the gallery which unsettled the curator are the same aspects which I argue effectively challenge traditional stereotypes and common misconceptions surrounding Neanderthals, their life patterns and behaviours. The most striking feature of this exhibit is not necessarily how Welsh Neanderthals are portrayed or how Pontnewydd is interpreted. It is the reality that they are immediately identifiable as a part of Welsh identity and culture. They are surrounded by human history, rather than the traditional 'dead circuses' of natural history that often evokes a vanished world of ice and megafauna, merely serving to separate 'them' (other humanities) from 'us' (modern humans) (Bennett 2004).

#### 6.12. Moving Forward. A Gallery of Relations.

The traditional display and exhibition strategies of the evolutionary museum (National Museum, Cardiff and NHM, London) centre upon ordering practices that emphasise functionality and order to ensure that the gallery can 'speak to the eyes' of the public (Bennett 1995: 26-27). The arrangement of objects as a readable text through the chronological and typological arrangement of collections is used as a visual mechanism to increase legibility

and encourage the Victorian notion of ‘progress’ as a moral imperative (Bennett 2004). Essentially, the evolutionary museum devised ways of regulating visitor conduct and experience, by means of restricting their physical movement throughout the galleries. Consequently, the spatial layout and ordering of objects functions as a ‘performative system of evolutionary walking’, referred to in this thesis as the time modality of prehistory (Bennett 1995: 32). There is no prescribed route, or ordering of objects from simple to complex, hence there is no performative system of evolutionary walking present in the ‘Wales Is’ gallery, instead the museum applies a thematic and relational approach. I suggest St Fagan’s provides a new relational lens for viewing the Neanderthals. In the context of an open air (folk) museum, surrounded by human history, local culture and national heritage they have become a part of our story, rather than opposed to it.

St. Fagan’s as an institution, concentrates on principles of co-curation and co-presenting that has arguably facilitated a different reading of Neanderthals by using a heuristic approach that includes multiple voices and multiple perspectives, but the common theme is relationships in the past and present. Those voices include specialists, external designers, artists and visitors in the knowledge making process of the exhibition (Hooper-Greenhill 1992). It is therefore suggested that it is the voice of the ‘other’ that needs to be made an integral part of evolutionary perspectives including women, minority groups and children in the context of archaeology and the museum.

*‘We did do several focus groups with the material before we settled on them and some of the aspects of the gallery.... It didn’t really matter to volunteers where the material came from or how and when it was discovered, this never really came up. It was very much only focussing on the people and the items that they had handled and what people would have done with them’* (pers. comm. Walker 2021: Appendix A). The use of focus groups in the creation of

archaeological knowledge reveals a common misconception concerning the expectations of the visitor. It appears that rather than an objective description of the materials and discoveries, members of the public are interested in meaningful connections and relationships, the things that connect us to people in the ancient past, rather than aspects that divide and separate other humanities from modern humans. Therefore, incorporating a relational perspective to museums should not be understood as a gesture of political correctness rather it should constitute a bona fide line of archaeological and scientific inquiry, open to constant review and dialogue. This approach comes with many challenges, but also some very exciting alternatives.



## Chapter Seven. Viewing Neanderthals Through the Lens of Hyperrealism.

### 7.1. Introduction.

Hyperrealism as a visual strategy has dramatically changed the portrayal of Neanderthals from dim-witted, ape-like creatures to essentially human beings, with individual expressions and identities. The viewer is forced to confront the Neanderthals from an individual, humanistic level, anthropomorphising them, and affording them human characteristics and traits such as giving them names, emotional and characterful expressions that directly attempt to bring them into the fold of humanity. However, the theoretical undertone remains the same; evolution is presented as a sequential and progressive narrative with a beginning, the australopithecines, a middle (the homo genus) and an end (modern humans and symbolic behaviours). Scientific communities on either side of the great Cartesian divide, continue to re-define the boundaries of culture and therefore humanity, to present the Neanderthals as our lesser cousins. Ultimately, culture (symbolic behaviours) remains the distinguishing feature between ‘us’ (modern humans) and ‘them’ (Neanderthals, women, children, animals and plants).

Hyperrealism has been presented as the solution to many problems when reconstructing ancient peoples, their life patterns and behaviours. Modern portrayals of Neanderthals have changed significantly for the better and they are almost unrecognisable from their nineteenth century origins. Hyperrealism as a visual strategy has successfully humanised the ‘other’ and in the process challenged the primitive display canon based on physical characteristics. Neanderthals now have personalities, and their expression has changed from miserable and dejected animals who are doomed to extinction to individuals who look happy to be alive (Wragg Sykes 2020). Therefore, modern portrayals of Neanderthals reconstruct them as

intentional and emotional beings, forcing the viewer to critically reconsider the ontological position that modern humans are the pinnacle of biological and cultural evolution.

Hyperrealism brings our ancestors to life through scientific techniques and forensic reconstruction. They remain the most striking, commanding, memorable and costly form of display, often forming the centrepiece of the museum exhibition and disseminated online through academic and popular publications and by the media (Moser 2003, 2006). I propose that hyperrealism effectively challenges the preconceived modern human - Neanderthal boundary, so clear cut when evolutionary studies began, but it fails to challenge several exhibition practices and theoretical issues, namely the ordering practices of slow modernity (Finlayson 2019; Bennett 2004).

First, the canonical icons of evolution, that of the ladder and cones of diversity as outlined by Gould and the ordering practices of time and space using linear progression and typological arrangement, remain a persistent problem (Gould 1987, 1995a, 1997; Bennett 2004). Second, I argue that the exclusive association of modern humans and complex symbolic behaviours remains a consistent and dangerous problem in the context of the evolutionary museum.

Burial and pigment use are the only exceptions to this general visual convention. Third, the set of seven or eight highly restrictive and formulaic scenarios outlined by Moser continue to limit our interpretative horizon, failing to critically consider alternative narratives and the new emerging picture of intelligent and social Neanderthals (Moser 2003). Finally, gender-coded iconographies that of traditional invisibility and secondary sexual division of labour tasks and roles continues to infiltrate the Palaeolithic visual frame (Moser 1999). It appears that the museum has become so distracted by the potential of hyperrealism and modern

looking Neanderthals that archaeology as a discipline has failed to critically interrogate the theoretical underpinnings of this visual strategy.

## 7.2. Death of the Traditional Habitat Diorama.



Figure 103: Traditional habitat diorama featuring Neanderthals at the American Museum of Natural History, New York. This traditional habitat diorama perpetuates ancestor stereotyping and gender-coded iconographies that have become canonised as common sense in the context of the museum. These early reconstructions presented cavemen within a landscape setting (the cave) and depicted gender specific behaviours. The male is holding a spear while the woman is mouthling a hide, reminiscent of woman as drudge and at her master's feet (Gifford-Gonzalez 1993; Moser and Gamble 1998; Scott 2010: 407).

The key visual movement identified within this analysis centres on the decline in the presence and popularity of the traditional habitat diorama. This visual modality has given way to a different type of scientific reconstruction (fleshed out hyperrealistic models), referred to in the literature as 'living dead manikins' (Williams 2009) a visual phenomenon that gained momentum and popularity in the 1990s with the arrival of the television series 'Meet the Ancestors' (Richards 1999). Hyperrealism is a relatively new form of art. I use the term 'hyperrealism' to describe life-size and very realistic mannequins of other humanities (hominins) which have been reconstructed to a scientific standard in the context of the museum. Hyperrealism describes artwork or sculptures that look incredibly life-like and could be mistaken for the real thing. The hyperrealistic style is an artistic approach that



emphasises extreme detail and accuracy in the depiction of subjects. This style is characterised by the meticulous attention to detail, with an almost photographic quality that captures textures, lighting and expressions which separates this visual tradition from that of photorealism and realism. Broadly speaking, modern hyperrealism (particularly in the context of palaeoartists reconstructing hominins) combines traditional artistry with forensic techniques by leveraging advances in technology. Palaeoartists deliberately infuse their models with emotion and narrative to evoke meaning and challenge decades of dogma. Therefore, if the habitat diorama is characterised for its expulsion of Neanderthals from humanity and the categorisation of them as ‘other’, (almost animal-like in their demeanour and behaviour), then hyperrealism should be characterised for its attempt to humanise the Neanderthals and bring them closer to us (Hammond 1982: 1-36). This raises the question of whether this move is sufficient to visualise and write ‘others’ into the narrative of prehistory and human evolution?

The habitat diorama is a life-size model of subjects (hominins and animals) in a landscape or place, often conceptualised as a recreation of a natural setting and a rendering of a specific moment in time but in the context of human origins exhibitions, these are merely artistic tableaux, and it is important to understand them as such (Scott 2010). Habitat dioramas played a critical role in bringing ideas about evolution and progress to life particularly within the context of the ‘evolutionary museum’ (after Bennett 2004; Riess 2019; Piqueras et al 2022). Dioramas are separate in another distinct category described here as ‘contextualism’ (Moser 1999). They reconstruct events, ideas and concepts against a scenic background. This is a popular visual modality for museum displays, particularly in the context of natural history. They help visitors understand past events, places, environments and individuals in a unique way. They are particularly useful in enabling the reconstruction of deep time and

overcoming cognitive dissonance to give a sense of realism and scale (Currie 2019).

Therefore, dioramas provide the viewer with a sense of being there and observing the past from a historical viewing platform. Essentially, they are a visual mechanism used for conjuring up vanished worlds and entities (Cooke 2012).

An important point of consideration is the loss of contextualism within the reconstruction of hyperrealistic hominins. It appears that the modern museum has effectively abandoned the use of habitat dioramas, and for many this is a welcome change particularly when one considers the early examples of this visual approach (Moser 1992, 2003; Gifford-Gonzalez 1993). However, dioramas do not merely reconstruct an individual, they also reconstruct their world, life patterns and behaviours, an archaeological feature we have lost in the current visualisation movement. I personally find this a dangerous situation, to have lost the very foundation and allure of archaeology as a discipline, that of contextualising the past and revealing the every-day activities of past peoples. It appears human origins is currently understood within a geological and palaeontological framework rather than incorporating the recent ‘turns’ in archaeological theory and practice (Foley 2014).

As stunningly attractive and painstakingly accurate certain aspects of these models are, it is a shame that the museum has not grasped the opportunity to re-imagine Neanderthals at a time of scientific and archaeological discovery. New evidence provides the museum with a genuine opportunity to contextualise Neanderthals and to reconceptualise the grand meta-narrative of unilinear progression, creating new stories and scenes about their existence and role in evolution. It appears the radical potential of hyperrealism has not yet been fully realised in the museum, which often presents them as the centrepiece of the gallery and/or exhibit and as a type of entertainment or object of study (Perry 2009, 2011, 2012). Therefore,

the museum must challenge the theoretical framework of modernity and linear progression to encourage visitors to view old collections from new perspectives and provide ‘different’ readings of the prehistoric past.

### 7.3. Monolithic Representations: The Old Man of La Chapelle-aux-Saints.



Figure 104: ‘Monolithic Reconstructions. The Old Man of La Chapelle-aux-Saints’. Left - Hyperrealistic model of a male Neanderthal at the Museo de la Evolucion Humana, Burgos Spain. Centre – Hyperrealistic model of a Neanderthal male at Le Pole International de la Prehistoire aux Les Eyzies, France. Right. Hyperrealistic model of ‘Barbu’ at Jersey Museum, Jersey (Author 2016, 2019).

The Old Man of La Chapelle-aux-Saints, France, is one of the most complete skeletons found to date, providing one of the most reliable data sets to accurately reconstruct Neanderthals and their bodies. However, this reconstruction can act as a dangerous visual strategy often reinforcing the misconception of Neanderthals as a monolithic and unchanging species with one identifiable culture, who are the same across both time and space (Wolpoff 2004: 21). Often, this has resulted in male Neanderthals, looking and being presented as the same. For example, the hyperrealistic reconstruction of a male Neanderthal, named *Barbu* at Jersey

museum is almost identical to the reconstruction of a Neanderthal in the Museum of Human Evolution, Burgos, Spain and a further Neanderthal male from Musée de la Préhistoire. This is because they have all been scientifically reconstructed from the same physical remains and created by the same palaeoartist Elizabeth Daynes. In very different places, environments and archaeology, Neanderthals are presented as the same across this great expanse of space and time as the images above demonstrate. Hyperrealism as a technology of representation simply perpetuates the fallacy that Neanderthals were homogeneous, despite an avalanche of scientific and archaeological data to the contrary (Wolpoff 2004: 21).

A preoccupation with scientific objectivity and techniques has facilitated an inter-disciplinary neglect of the regional and temporal variability, behavioural adaptability and the cognitive complexity of Neanderthals, all of which fails to reflect the current nuances of archaeological data which paints a complex tapestry of Neanderthal life and being. Despite different locations, archaeologically, environmentally and culturally the museum has reconstructed these models from the same archaeological remains and by the same paleo-artist Elizabeth Daynes. This is a major critique of hyperrealism as a visual strategy because of the pre-occupation with scientific accuracy and anatomical correctness. The museum often chooses to reconstruct the Old Man of La Chapelle-aux-Saints because of the completeness of the skeleton, but this is a famous individual with multiple biographies and interpretations. Here, across three museums in three different countries the Neanderthals are depicted scientifically and objectively as the same across time and space, lacking variability that ultimately reinforces a new ‘archetypal’ Neanderthal. The only difference between the images on the left and right is the position of his open wound. In the left image this is on his left-hand side whereas in the image on the right it is positioned on the right side. Both models depict the same material culture in the form of a spear, accompanied with a small fur wrap. The image

in the centre on first inspection appears different, but the differences are minimal, the type of animal that the model holds in his hand and a larger fur wrap. The model incorporates the idea that Neanderthals were capable of hunting small game, but the facial features, bodily posture and material culture remain the same.

Just as no two fossil sites are the same, no two Neanderthal skeletons are the same, either. They are not simply a monolithic entity with the same physical and mental attributes across time and space. To successfully challenge the misrepresentation of the archetypal (classic) Neanderthal the museum must critically explore regional and cultural variation within Neanderthal populations (Shea 2011). This is not simply a case of sculpting an emotional Neanderthal; rather we must create biographical histories including their becoming, unbecoming and afterlife to tell new stories about their being, life and contribution to human evolution. To create new narratives, the museum must pose new questions and consider what made ‘them’ different, special and unique, and critically consider how they experienced their world through *their* eyes, not through a western encultured lens (Wolpoff 2004; Slimak 2022).

Hyperrealism allows us to view a very specific type of Neanderthal (the old man in most cases) on his own terms but fails to include behavioural modernity, variability or adaptability. It appears that a pre-occupation with objectivity and the accurate reconstruction of the fossil/anatomical record means that only very specific and complete Neanderthals are reconstructed using this visual modality, that of hyperrealism. Hyperrealism thus far has failed to provide a symmetrical lens to view the Neanderthals that centres on a flat humanity and explores the multiplicity of their shared worlds (Witmore 2008). There has been a welcome shift in the study of Neanderthals, away from the representation of anatomical

idiosyncrasies as primitive, with accentuated simian features. Within the guise of hyperrealism, the faithful reconstruction of anatomical idiosyncrasies is instead disseminated as a statement of authenticity and accuracy, rather than primitiveness. The problem occurs when the image and/or display is presented and publicly consumed as an objective visual databank (Moser 1999). This seems particularly commonplace within the object modality that is all too often seen as scientific representations, unproblematic and objective truths of what we already know about our closet and most famous hominin ancestor (after Moser 1997; Moser and Gamble 1998; Moser and Smiles 2005: 5; Molyneaux 1997).

#### 7.4. Hyperrealism as Smuggler of the Truth.

An important critique of the use of hyperrealism in the context of the museum is the partiality of ‘truth’ and its consequent interpretation by the public (Comis 2006: 78-82). It is important to acknowledge that hyperrealism is used to represent past and present peoples and the authoritative context of the museum feeds into the illusion of truth and accuracy. The scientific accuracy and detail of these sculptures is highlighted and emphasised across the museum website, press releases and in the gallery (Comis 2006: 78). They are disseminated in the authoritative context of the museum as an objective data bank, demonstrating what we know and what is knowable about Neanderthals. Members of the public consume these visual modalities as ‘unproblematic truths’ about the past (Moser 2003).

Despite, scientific considerations and archaeological discoveries to the contrary, hyperrealism remains a static and fixed three-dimensional depiction of their makers perception of ‘being’ and ‘reality’ (Comis 2006: 78). Hyperrealistic models are not strict interpretations of the anatomical and/or archaeological data, neither are they factual reconstructions of a particular scene or subject. Instead, they use additional, often subtle pictorial elements (seminal motifs

and the traditional display canon) to create the illusion of a reality which in fact either does not exist or cannot be seen by the human eye (Fleming et al 1991). Regardless of the popular perception of hyperrealism and the allure of modern looking Neanderthals it remains a subjective and artistic process.

Hyperrealism as a visual strategy, rests upon two problematic theoretical assumptions.

First, they are uncritically represented as ‘truths’, part of the forensic and scientific process, and therefore, conceptualised as accurate reconstructions, an objective databank, so to speak of Neanderthal bodies, and by extension their being, life and world. ‘A popular belief is that scientists discover the truth, step-by-step, and thus, eventually produce bulletproof scientific facts. In practice, no matter how technically sophisticated, scientists try to fit observations into their systems of accepted myths and preconceptions’ (Bandelt 2018: 659 in Crellin and Harris 2020: 42). The philosophical foundation of science rests upon a series of binary oppositions, these binary distinctions are not scientific facts but, rather, inherited categories of thought (Crellin and Harris 2020:43).

Second, despite major scientific advances, critiques of the iconic vocabulary and new initiatives/discoveries to the contrary, the shackles of modernity maintain a firm grasp on our imagination of prehistory. The problem stems from the theoretical foundation of our modernity - a sequential and bounded history of linear and gradual progression towards the archetype modern humans that still lingers on in Neanderthal research today. I argue that this dualistic thinking limits the ontological and epistemological possibilities of Neanderthal being and life. This dualistic and dichotomous approach to human evolution and Palaeolithic archaeology has been the explicit focus of archaeological critique for over two decades, but it continues to infiltrate our portrayals of human evolution.

In the sequential back-telling of the familiar and hierarchal narrative, earlier hominin species (typically females) are presented without or with very crude stone tools, symbolic of a lack of technology and their animal-like dependence on nature (Bennett 2010; Athreya 2018; Gifford-Gonzalez 1993). They are presented and publicly consumed as ape-like creatures, hairy and naked which are seminal motifs for portraying a primitive status based on physical characteristics (Moser and Gamble 1998). For the purposes of this study, the fundamentally discriminatory feature within such narratives is the detail that modern humans (males) physically and symbolically head the evolutionary process from nature (other humanities and women) to culture (modern humans and males) (Haraway 1989; Moser 1998; Wiber 1998; Conkey 2005; Scott 2007; Bünz 2017). This thesis demonstrates, notwithstanding changes to the iconic vocabulary of primitiveness, new archaeological data to the contrary and a new technology of representation (hyperrealism), we continue to operate within an epistemological framework that centralises a specific form of being (modern humans and males) and a specific type of evidence (cultural and symbolic).

The foundational dichotomy within Palaeolithic archaeologies is the ‘archaic/primitive vs. the modern/advanced’ or put another way ‘inferiority vs. superiority’ (Piqueras et al 2022). These dualisms include, but are not limited to, ‘ape-like features vs. human like features’ (Athreya and Ackermann 2020; Scott 2007; Moser and Gamble 1997; Wiber 1997), ‘hairiness vs. hairlessness’ (Moser 1992; Wiber 1994), ‘nakedness vs. fitted clothing’ (Moser and Gamble 1997), ‘dark skin vs. pale skin tones’ (Wiber 1994, 1997; Scott 2007; Pillay 2010), ‘crude/no stone tool use vs. sophisticated tool use’ (Athreya 2018; Gifford-Gonzalez 1993), ‘sitting/crouched position vs. standing’ (Gifford-Gonzalez 1993) and finally ‘passive vs. active’ (Moser and Gamble 1997; Gamble in Moser 1998). Furthermore, this dualistic



approach to the archaeology of Neanderthals, and evolutionary studies more generally has produced a gendered iconography of human origins. The images/models are almost always men, absent of children and social groups or interactions. Even the vocabulary used is predominantly masculine. I suggest, what is needed is a theoretical revolution, a conceptual framework that challenges modernist ways of thinking, specific forms of knowledge and the highly restrictive and formulaic scenarios of human evolution (Crellin and Harris 2020; Moser 1998, 2003; Peeters & Zwart 2020).

## 7.5. A Traditional Narrative. The March of Progress.

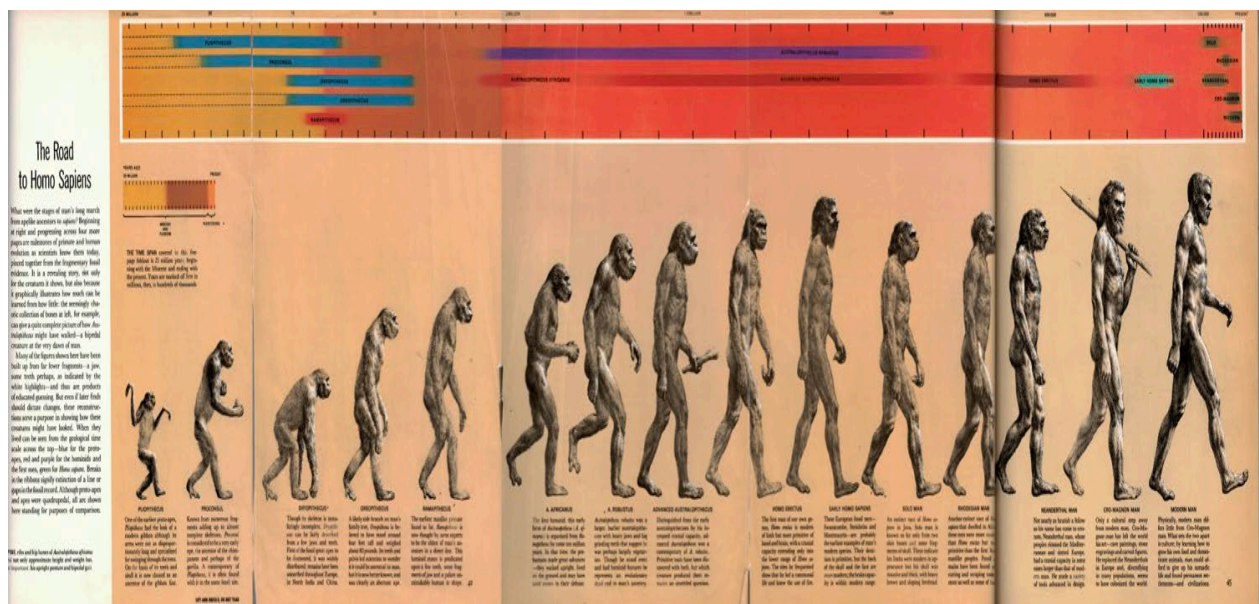


Figure 105: The full version of *The Road to Homo sapiens* created by Rudolph Zallinger for Early Man in 1965. The infamous image canonised the evolutionary ladder of progress, referred to in the literature as ‘the march of progress’. The image perpetuates the incorrect notion that evolution equals linear and irreversible progress. (Gould 1989; Wiber 1997; Cedar 2021; Piqueras et al 2022; Source <https://sites.wustl.edu/prosper/on-the-origins-of-the-march-of-progress/>. Accessed on 01/10/2023).

Muller-Scheessel demonstrates, in *Fair Prehistory. Archaeological Exhibits at French Expositions Universelles*, that international exhibitions in the nineteenth century were used as showcases for scientific and technological advances, giving western civilisation the opportunity to celebrate itself and its progress (Muller-Scheessel 2001: 391). And by the end of the nineteenth century, the western world looked at the past with a new perspective and

ontological position. Archaeology and the museum had the role of conveying the idea of western progress, by comparing the primitive (past) and the civilised (present) (Muller-Scheessel 2001: 391; Moser 1992). Archaeological objects and material associations helped create the ultimate ‘other’ (Neanderthals), against which European civilisation could be measured and conceptualised. Therefore, Neanderthals within this theoretical framework are ‘playing the role of ‘other’ that is used so we can define ourselves as different and better’ (Stringer and Gamble 1998). In this vein, images and reconstructions of human origins not only supported the prevalent ideologies of the time, but they also helped shape them (Muller-Scheessel 2001: 400). I argue that the evolutionary museum continues to operate within this ideological construct of slow modernity. Accordingly, three essential laws regarding the display and ordering practices of human origins have been identified. ‘First, the gradual and consistent progress of humanity through the ages. Second, the unilinear arrangement of material, cultural and the moral development of mankind and finally the great antiquity of humanity’ (G. de Mortillet in Muller-Scheessel 2001: 392).

The new museums of the late nineteenth and early twentieth centuries re-assembled things, time and space to facilitate the reading of the prehistoric past and human evolution ‘at a glance’, to ‘make each object auto intelligible’ through its placement within the gallery space (Bennett 2010: 65). Gould refers to this system of ordering and visualisation ‘as an irreversible sequence of unrepeatable events’ (Gould 1987). I refer to this phenomenon as the sequential back-telling of human evolution. In the context of human origins and natural history each key evolutionary behaviour (bipedalism, technological innovation, symbolic behaviours and cognitive abilities) ‘occupies its own distinct position in a temporal series and all moments tell a story of linked events moving in a direct line’ (Gould 1987: 11). This ordering practice is referred to as ‘time’s arrow’ which generates the appearance of time’s

passage and evolutionary processes as a continuous flow in a hierarchal and progressive direction (Gould in Bennett 2010: 64). I refer to this aspect of the ordering and exhibition practices of the museum as the time modality (Sowers 1984). When one critically considers the hominisation process it remains a hominin highway, developing from simple to complex, this is demonstrated by the sequential and linear line-up of functional, then cultural traits, slowly acquired through time, continually progressing towards the pinnacle of human evolution – modern humans (Gould 1987; Bennet 1995, 2004, 2010).

It appears that the initial ‘exhibitions of prehistory depended on three ideologies of progress, racism and nationalism’ (Muller-Scheessel 2001). Over a century later and it appears the institutional narrative of evolution and the march of progress has changed very little. The museum remains constrained by progressive ideologies that continue to dictate future museological practices (Moser and Smiles 2005). This thesis acknowledges that the museums under review have made a genuine attempt to challenge a racialised understanding of human origins, by using hyperrealism and genetic data to incorporate different ethnicities into the narrative of evolution. This is demonstrated by the hyperrealistic models of Cheddar Man, the adult *H. sapiens* male at the NHM, London and the Neanderthal boy, ‘Ned’, at St. Fagan’s, who are all reconstructed with a darker skin tone and brown or blue eyes. It appears it is no longer a necessary feature of the hominisation process for our ancient ancestors to gradually become white, challenging the traditional racialised narrative of human evolution (Wiber 1994, 1997; Scott 2007). However, nationalism, remains an enduring problem in the context of St. Fagan’s and the *Wales Is ..... gallery*. This is a heavily politicised space with a clear nationalistic agenda in the representation of Welsh history and oral traditions, but this analysis focusses on the ideology of progression and evolutionary theories pertaining to human origins (Gamble in Moser 1998).

### 7.6. Behavioural Modernity and Restrictive Scenarios.

The visitor may find the odd illustration that depicts Neanderthals burying their dead, constructing huts from mammoth tusks or a group of hominins engaging in cultural acts of cannibalism, a prevalent scenario at the Museum of Human Evolution, Burgos, Spain, but until relatively recently this was the only consideration of cognitive complexity and symbolic behaviours to be associated with Neanderthals in the context of the museum. Even then complex burial rites, rituals and grave goods are reserved for the realm of modern man as observed by the anatomical reconstruction of the Kebara Neanderthal burial at the NHM, London (Moser 2003). The situation is changing with the incorporation of pigment use; however, the current dynamism of Neanderthal archaeology is not yet wholly reflected in the context of the evolutionary museum.

Following on from Moser and Gamble 1997, I suggest the problem lies in the translation from archaeological data to the image. The museum is restricted to some six or seven typical scenes that are deemed appropriate mechanisms to emphasise key evolutionary behaviours in the sequential back-telling of human origins and evolution. These deal with hunting, toolmaking, diet and subsistence, making fire, combat with wild and extinct beasts and symbolic behaviours such as early art and burial (Moser 1998). These are the typical scenes that the visitor can expect to encounter when entering the natural history museum (Moser 1993, 1998). These scenarios are presented in sequential order to produce a familiar story of our origins from simple (fire, hunting and making stone tools) to complex (art and burial). Behaviourally modern trait-lists, (or as Wadley ironically calls them ‘shopping lists’), are used as a theoretical mechanism to separate ‘them’ from ‘us’ and to illustrate the progressive tendencies of biological and cultural evolution (Wadley 2001; Henshilwood and Marean

2003; Meneganzin and Currie 2022). This visual and artefactual approach merely reflects the ‘traditional’ archaeological evidence available to archaeologists in the form of bones, stone tools and extinct fauna. Demonstrating that, notwithstanding an avalanche of new data, scientific techniques and alternative perspectives, the museum has failed to incorporate these new discoveries and findings within the context of the permanent gallery.

### 7.7. A Return Back to a Romantic Vision of the Past.

*‘It was their fur clothes, habitat dwellings and lack of sophisticated weapons that indicated their primitive status’* (Moser 1998: 126).

A romantic vision of the past is characterised by divine creation and its portrayal of primitive versus civilised was not in terms of any physical characteristics but rather it was their lack of material culture that indicated their inferior status. This analysis demonstrates that despite major archaeological discoveries and new scientific techniques to the contrary, recent innovations have done little to challenge this mechanism of difference and inferiority. I argue that the use of hyperrealism in the museum marks a return to the romantic tradition, not in the sense Neanderthals are presented as ancestors of divine creation, but the mechanism of difference is no longer founded on physical attributes but on a lack of sophisticated culture that indicates their inferior status. This situation is further perpetuated and reinforced in the context of natural history through human exceptionalism and extinction discourses that focus on the direct replacement model.

This thesis proposes that we have become so distracted by the potential of hyperrealism that the museum has failed to critically integrate new scientific research or incorporate updated theoretical frameworks (the ontological and affective turn) into models of evolution, Palaeolithic archaeologies and representationalism (Hussain and Will 2021). The analysis

confronts the assumption that casting Neanderthals as essentially human, through their modernisation, successfully challenges the core-periphery model of human evolution.

Hyperrealism reconstructs Neanderthals as physically modern looking (Peeters and Zwart 2020). However, the complexity of Neanderthal society and their updated cognitive abilities are not yet wholly reflected in the context of the museum. Material culture remains the dividing feature between 'them' and 'us', particularly in the context of natural history and the evolutionary museum.

Exhibition strategies of organisation and the continued use of restrictive scenarios demonstrate that the current revolution in archaeological data and scientific approaches has not yet been matched by an updated theoretical framework (Crellin and Harris 2020).

Following, Slimak in *The Naked Neanderthal*, current Neanderthal research is not so much a war of ideas, more a war of ideologies that requires new theoretical approaches, namely a unification theory founded on relationships and materiality to bridge the gap between the competing perspectives that seek to either expel or include other humanities into the fold of humanity or human history (Slimak 2022: 9).

### 7.8. Women in the Palaeolithic. Then and Now.

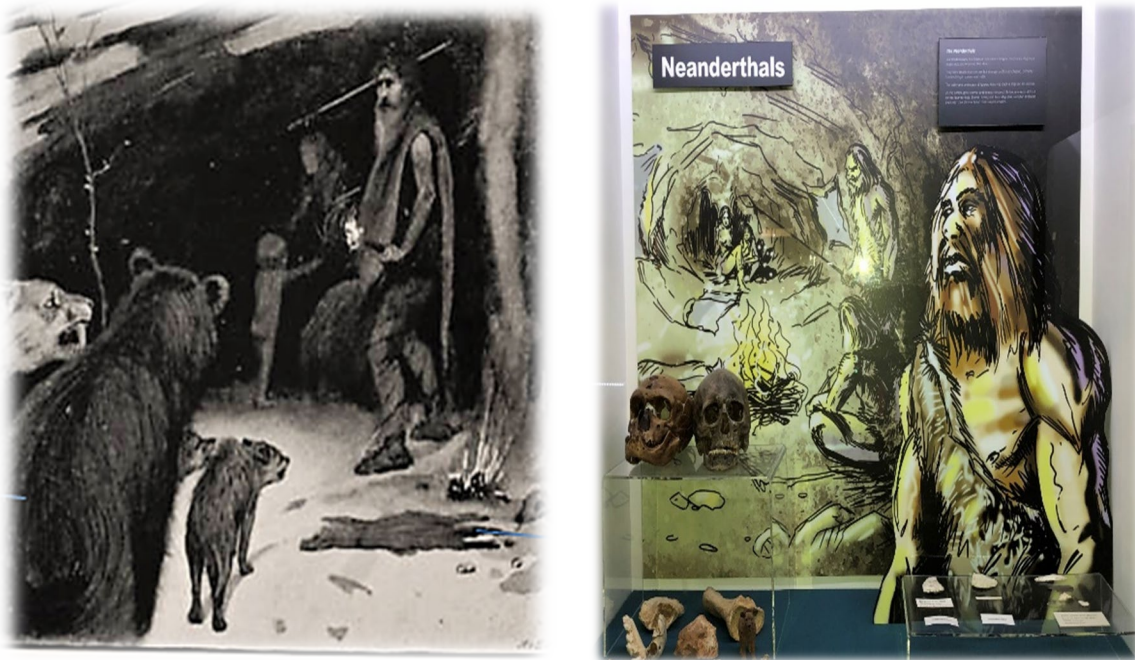


Figure 106: Left. H. N. Hutchinson's frontispiece titled 'An Eviction Scene at Wookey Hole, Near Wells Older Stone Age' for *Prehistoric Man and Beast* in 1896. The image provides an excellent example of the gender coded attributes and specific activities that have conditioned visual and exhibition practices across artistic illustrations and the museum. The female's primary contribution to evolution is confined to nurturer and care-giver. She is barely visible, literally faceless, situated in the background of the image and directly associated with the domestic realm (the cave). Figure 107: The comic style display *Neanderthals* at Wookey Hole Cave Museum taken by the author in 2019. The same display canon is used for depicting the inferior and submissive status of women (Author 2019).

The illustration of Palaeolithic life at Wookey Hole, created by H.N. Hutchinson in 1896, features several of the stereo-typical and gender specific characteristics used to exhibit secondary sexual difference in the representation of human antiquity.

- The female is positioned in the background of the image, literally faceless and overshadowed by the crevasse of the cave.
- The male takes centre stage both in his position within the visual frame and his body position. His upright posture, standing and 'in action' ready to defend his family depicts him as the protector, the provider and the inventor. Man is presented as the main protagonist in human evolution.

- The female assumes a more passive and stereo-typically nurturing role than their male counterparts. Women are exclusively associated with children and the domestic realm of the cave. Therefore, they are restricted to their biological functions and reproductive roles, presented as submissive and dependent upon their male companions.

A comparative analysis of the above images, reveals an unexpected situation in archaeology and representationalism, demonstrating that the traditional invisibility of females and children remains a persistent and dangerous problem (Moser 1993, 1998, 2010). A common feature of the traditional gender-coded display canon is to place females, metaphorically speaking, ‘at-her-Master’s-feet’ (Gamble in Moser 1998: xxi). Here, the male is consistently foregrounded within the visual frame, their gender specific role written into their upright physical form, standing, gazing purposefully in the distance and/or future and grasping a tool or weapon. These features are indicative of his active participation in the ‘progress’ of human evolution. In contrast, females are positioned in the middle or background of the image, encumbered with children, usually naked and either stooped in posture or crouching, often portrayed with an adoring and passive expression (Gamble in Moser 1998: xxi).

Now, if we compare the image created in 1896 for the frontispiece to H.N. Hutchinson’s *Prehistoric Man and Beast*, depicting early *H. sapiens* at Wookey Hole, with the current prehistoric display (in April 2019) from Wookey Hole, Cave Museum on Neanderthals, it appears that all that has happened in the intervening one hundred and thirty years is that the female role in history as indicated from her posture, seems to have changed from a standing but stooped to a crouching position. Irrespective of all the advances in archaeological data, scientific methods and interpretations, the message conveyed from the popular image and museum exhibit remains unchallenged (Gamble in Moser 1998: xxi). Images like the eviction



scene set the archaeological standard for a gender-coded iconography and visual kitbag for depicting human origins. In short, men are portrayed as hunters, toolmakers and problem-solvers, regardless of the visual modality used. In image after image, model after model, males continue to hunt, make stone tools and protect their dependents, whereas females tend to the children, scrape hides and gather berries; peripheral and irrelevant to the main action (Wiber 1997; Gifford-Gonzalez 1993). There are some notable exceptions to this visual strategy, but they remain the anomaly, not the general rule.

Some museums in this analysis, namely NHM, London and NMW, Cardiff continue to make the unfounded assumption that the greater part of material culture (the ‘true’ distinguishing feature between ‘us’ (modern humans and males) and ‘the other’ (Neanderthals and women), has been created by men and for men. This classic female (nature) versus male (culture) dichotomy portrays females as almost animalistic, less-than-human in nature which is reminiscent of the classical iconography of ‘primeval man’ and the ‘primitive savage’, who was thought to live in a state of barbarity incapable of contributing to the status of humanity and the civilised West (Gifford-Gonzalez 1993; Moser 1993; Wiber 1998). Women, from this perspective have become the background against which man acts; his success through the ages is dependent on ‘her’ passive presence and subordination (Wiber 1994, 1997). These behavioural traits are consistent across the ordering practices of the museum and the traditional display canon of human origins. Females remain shackled to timeless notions of childbearing, nurturing, food preparation and dependency on males (Gifford-Gonzalez 1993 and 1998; Wiber 1997). This gendered approach ultimately presents modern man as the pinnacle of human evolution and places him at the top of our dynastic evolutionary tree (Iriki et al 2021; Renfrew 1996: 11-15). Anomalies to the traditional display canon for portraying women are present in hyperrealism, the temporary exhibit and site-specific examples.

### 7.9. Seeing Women: Notable Exceptions.

The very few models of Neanderthal women and/or children come from recreations of specific individuals and/or sites. Most notably, Nana and Flint at Gibraltar Museum, and Kinga at the Musée de l'Homme, Paris and a Neanderthal child discovered at Pontnewydd Cave, Wales, reconstructed at St. Fagan's Museum. These models are representative of an anomaly to the traditional approach of female invisibility, and the androcentric core-periphery models of social and biological evolution. Patriarchal social structures rest upon the opposition of male and female (another dualism), and the association of the former with culture and the mind and the uncritical association of the latter with nature and the body. I propose that a rejection of dualisms is scientifically more accurate, politically relevant and ethically sound in the current socio-historical circumstances. It has become abundantly clear that a dualistic style of thinking is no longer tenable within Palaeolithic archaeologies and human evolution. The situation presented thus far paints a bleak picture for the changing portrayal of females in human evolution. However, hyperrealism has for the first-time placed women as central to archaeological investigation and representation with the reconstruction of sculptures including, *Kinga*, the main character of a travelling exhibition created by the Musée de l'Homme, Paris and *Nana and Flint*, at Gibraltar Museum.



Figure 108: 'Kinga', located at the Musée de l'Homme, Paris, created by palaeoartist Elisabeth Daynes. The model was exhibited in the entrance of the temporary Neanderthal galley. Kinga is a central and commanding feature of the space. She is instantly recognisable as human, with a playful and smiling expression and perfectly coiffured hair. She is dressed in a royal blue shirt, black trousers and white leather sneakers designed by renowned fashion designer 'Agnes b' (Source <https://www.sortiraparis.com/en/what-to-visit-in-paris/exhibit-museum/articles/159330-neanderthal-the-compelling-exhibition-at-the-musee-de-l-homme-in-paris>).

Neanderthals are famous across a multiplicity of visual mediums, including pictorial images, sculptures, literature and digital media. The celebrity culture they inhabit is epitomised in the hyperrealistic model created by palaeoartist Elisabeth Daynes, named Kinga. She was the central character in a travelling exhibition created by the Musée de l'Homme, Paris, France. Kinga wore an elegant king blue cardigan, black trousers and white leather sneakers, designed by renowned fashion designer 'Agnes b'. Her hair is free, but perfectly coiffured and thoroughly kempt. The eyes are clear and alert, crucially with an outward looking gaze that demands the viewers' attention in a reciprocal relationship (Wragg Sykes 2021). Kinga epitomises the 'celebrity culture' that the Neanderthals inhibit. She is basking in paparazzi flashes, holding onto an edition of women's magazine with herself as the cover as the 'millennial women' (Wragg Sykes 2021). She is placed against a backdrop of headline media that focusses on Neanderthal brands, referencing beers and perfumes, rather than a backdrop of ice, stone tools, caves and mammoths. This strategy focusses on themes of connectedness and relatability, placing Neanderthals in an unfamiliar but applicable, modern and relatable context. This challenges previous misconceptions and assumptions about their role and

contribution to human evolution, whilst also placing females at the centre of archaeological investigation and representation. Essentially, Kinga challenges common prejudices and misconceptions concerning the behavioural and cognitive abilities of Neanderthals and the female role in evolution and society.

Here, the Neanderthals have been brought much closer to us because of her physical and relatable appearance, dressed in modern clothing and holding modern objects (magazine). These details are important because they create the emotion that one feels in front of these sculptures, they are conceptualised as living beings imbued with agency and emotionality. Here, we can identify the visual mechanism of juxtaposition: the fact that Kinga is dressed in modern clothing highlights a disciplinary and visual trend of portraying the Neanderthals as essentially human, but this is not a new approach. The idea behind such representations is that if you met Kinga in a public place, you would not identify her as a separate and distinct species. This visual strategy highlights our similarities, rather than supposed differences just like the famous image of a Neanderthal in a hat, created by anthropologist Carleton Coon in 1939 (Coon 1939).



Figure 109: 'Nana and Flint'. Two life-size hyperrealistic models of Neanderthals, created by the Kennis brothers and located at Gibraltar museum. This reconstruction is important for two reasons. First, it centralises women, Nana is presented as a strong matriarch and the head of the family. It is the combined vulnerability of the child and the strength of Nana which I personally find enlightening; this is a representation of an emotional relationship. Second, it subtly challenges the so-called cognitive revolution of the Upper Palaeolithic and the advent of behavioural modernity. It effortlessly reflects the current archaeology of Gibraltar with the incorporation of bird feathers for personal ornamentation (Finlayson 2019: 1-10). However, this model is the exception and represents a site-specific approach. Furthermore, the archaeological remains have been divorced from their original context (Source <https://www.visitgibraltar.gi/see-and-do/natural-attractions/gibraltar-national-museum-and-moorish-baths-73> Accessed September 2023).

Nana and Flint provide an exceptional example of the changing situation that casts females as the main characters in human evolution, by exploring the sociality and emotionality of Neanderthal populations and their communities. The museum curator Clive Finlayson asked Kennis and Kennis to create a composition which had two Neanderthals together. This was a first for them and a risky decision for the museum since the skulls of Gibraltar 1 and 2 are not contemporaries, but it was a way of telling a story (Finlayson 2019: 5). By naming the sculptures 'Nana and Flint', there is an assumption of language, kinships, relationships and modern behaviour, representing an exciting attempt by the museum to use hyperrealism as a strategy for humanising Neanderthals by focussing on relationships and family units (Finlayson 2019). This visual strategy successfully challenges the traditional invisibility of

females. But, gender-coded iconographies are still present which restricts women in models of evolution to the role of primary caregiver, and their reproductive roles.

#### 7.10. The Lens of Natural History.

Previous literature has criticised the so called ‘arctic lens’ that presents the Neanderthals as monolithic and unchanging, encapsulated within mammoth and ice myopia. (Wragg Sykes 2019, 2020). I suggest, instead that the problem lies in the context of natural history and the direct artefactual association of Neanderthals, stone tools and extinct fauna represented within a unilinear and progressive framework, encapsulating other humanities within a mausoleum of extinction. Consequently, I argue that the epistemological and ontological framework of natural history is potentially actually the problem; not the technology of representation, but the institutional frameworks at the heart of the evolutionary museum (Bennett 2004, 2010). This was revealed during my specialist interview with Wragg Sykes where she encouraged me to question the validity of a natural history context. I have provided excerpts of the conversation below.

Speaker 1 (Author). *‘Personally, I think the reason St. Fagan’s is so thought-provoking and ground-breaking is because the model is placed within the Wales Is gallery. It’s not surrounded by extinct fauna, it is surrounded by Bronze age burials, ethnographic research’....*

Speaker 2 (Wragg Sykes) – *‘By human history’* (pers. comm. Wragg Sykes 2021: Appendix B).

Speaker 1 – *Exactly, as soon as you enter the gallery you see them as human, but when you see them in a natural history museum surrounded by geological formations, vanished environments, extinct fauna and flora, dinosaurs and animals you almost see them as a fossil*

*in themselves, an object of study (a part of nature) rather than agential individuals with complex behavioural and cognitive abilities.*

Speaker 2 - *'It instantly puts them at a removed status, it removes them from us. It removes the familiarity'* (pers. comm. Wragg Sykes 2021: Appendix B).

This conversation raised a significant question, *'should we be presenting Neanderthals in a natural history, very sort of 19<sup>th</sup> century view of things or should they be more in a museum like the British museum where it is much more about history and culture?'* (pers. comm. Wragg Sykes 2021: Appendix B).

When a Neanderthal is placed in a gallery as a single entity (subject) surrounded by extinct beasts, animals and dinosaurs we simply feed the popular fallacy that a) cavemen and dinosaurs lived together, b) Neanderthals are a dead past tense phenomena and c) they lack familiarity and relatability. This is a pertinent concern in the context of hyperrealism, since the museum and surrounding gallery play a significant role in filling in the gaps and disseminating the museum narrative. The museum/gallery has become the background scene for hyperrealism. This matters because the museum as an institution is far more resilient to transformation and change. In the context of the evolutionary museum, the background scene and seminal motifs are display cases full of stone tools, bones and extinct fauna. This remains the primary encounter between the visitor and prehistory. The only significant addition to this encounter is the integration of palaeogenetics. This is reflected in the humanness of modern looking Neanderthals compared to the traditional primitive savage or brutish caveman.

The relegation of Neanderthals to nothing more than a strange variant of our own species (and an evolutionary dead end), renders them of little note; a mere evolutionary

epiphenomenon, or a minor appendage to the history of *H. sapiens* (Tattersall and Schwartz 1999; Peeters and Zwart 2020). This is not simply a matter of taxonomic hair-splitting. As members of a distinct (but not separate species), the time has come to present and understand Neanderthals (and other humanities) as individuated historical entities and social groups that demand that the museum analyses and presents them on their own terms (Tattersall and Schwartz 1999: 7117-7119). This is a radical and controversial strategy for changing the portrayal and understanding of Neanderthals. However, I have demonstrated throughout this thesis that the NHM, London and the NMW, Cardiff (evolutionary museums), remain problematic in both the visual and artefactual schemas used for conjuring ‘otherness’ and the ordering of space, time and things (Bennett 1995, 2004, 2010). Therefore, I argue that the Neanderthals should be divorced from the context of natural history and chronological frameworks of progression and instead placed in the context of human history.

This strategy raises significant and important issues about the boundaries of humanity and where archaeologists and/or the museum draw the line. I suggest that to avert the inevitable perpetuation and redefinition of new boundaries or the displacement of current boundaries further back in time and space, that the hominisation process (as a whole) should be divorced from the context of natural history, not just Neanderthals or the genus *Homo*. This approach seems radical in the context of Britain, since the story of human origins has been told within an evolutionary context since its inception here, but this is not how our European counterparts present or categorise the hominisation process. Museological examples that incorporate other humanities into the story of human history, archaeology and ethnography include the Musee de L’Homme, Paris, the Museum of Prehistory, Dordogne, France, Moesgaard Museum, Denmark, the Museum of Human Evolution, Burgos, Spain and finally a little closer to home at St. Fagan’s Museum, Cardiff, Wales.



### 7.11. Conclusion.

Hyperrealism as a visual strategy and technology of representation has in most instances, successfully challenged the primitive iconographies and seminal motifs for depicting ‘the other’ in human evolution. Hyperrealism has brought the Neanderthals closer to us; they are now instantly recognisable as human, but the dichotomous framework of modernity remains unchallenged and unhindered. I argue that the pendulum has simply swung towards the representation of Neanderthals as cultural and behaviourally modern, but the pendulum will swing back again. It appears the museum continues to frame other humanities within a dualistic ontology. Furthermore, their static and object nature continues to portray the Neanderthals as an object of study, lacking contextualism that hinders our archaeological horizon and understanding of Neanderthal societies and how they lived their lives.

This thesis demonstrates that the Victorian ideals of progression towards perfection and the ontological protection of our superior metaphysical position remain operative in the context of the museum (Finlayson 2019). The traditional framework of slow modernity continues to inform and form our perceptions of what the Neanderthals are and are not. Theoretical models such as behavioural modernity and the supposed cognitive revolution of the Upper Palaeolithic continue to plague Neanderthals and other humanities. Human exceptionalism and replacement models retain a firm grasp in the re-telling of human evolution.

Consequently, this chapter concludes that hyperrealism alone is insufficient to successfully re-imagine the Neanderthals - their world, behavioural and cognitive capabilities. What is needed is a re-imaging of their portrayals and a re-conceptualisation of their variability in a dynamic and relational world. The museum must abandon the view that the study and visualisation of human origins and Neanderthals is a celebration of progress (Gamble in Moser 1998: XXIV). Therefore, the next chapter attempts to disentangle the complex

ontological and theoretical frameworks, to produce a unified and relational framework that centres on affective biographies in the re-telling of the hominisation process. Essentially, the situation will not change if we continue to place other humanities within a Lamarckian evolutionary framework together with iconographies of extinction.



## Chapter Eight: Strategies for Change. Visual and Theoretical.

### 8.1. Introduction.

Human origins research is in a constant state of re-writing and refuting of allegedly indisputable textbook wisdom, suggesting there is something wrong with the traditional narrative of unilinear progression. The theoretical approach of slow modernity (the natural law dictates that social progress is both slow and cumulative) and behavioural modernity (suite of behavioural and cognitive traits used to distinguish modern humans from other humanities, hominins and primates) in the context of the museum needs not just some re-writing but a major re-thinking (Bennett 2004; Ravi 1998). Therefore, this chapter proposes a new way forward that challenges the traditional museum narrative, forcing us to reformulate how we think and feel about the Neanderthals and the familiar scenarios in which we place our closest ancestors. Consequently, this chapter explores strategies for change through the utilisation of temporary exhibitions and new theoretical approaches that centre on relational rather than dualistic ontologies. The objective here is to provide an affective interaction between ‘us’ and ‘them’, and between the sexes to counter the above issues, whilst remaining open about the archaeological, scientific and artistic processes (Dunbar et al 2014; Williams 2009).

This chapter will provide examples of a relational approach and close with an analysis of the special exhibition held at Moesgaard museum, Denmark, titled ‘Neanderthals’. The exhibition is presented as an example that demonstrates ‘affective biographies’ in action by providing alternative ways of viewing the ‘other’. It highlights what is possible with different technologies of representation and theoretical approaches. Hyperrealism is presented as the answer to the many problems surrounding habitat dioramas and the traditional display canon of human origins. In the same way, the temporary exhibit is presented as the answer to the

challenges surrounding the museum narrative and epistemological purpose. Hyperrealism is seen as the solution conceptually, portraying our ancestors as essentially human and the temporary exhibit is seen as the solution to the problem theoretically. However, both approaches fail to address the underlying and hidden assumptions, visual trends and museological practices that maintain a highly restrictive and formulaic understanding of Palaeolithic archaeology (Moser 2003, 2010).

I propose a new theoretical and unification framework that of affective biographies. This is provided as a conceptual apparatus that facilitates the museum to ‘move on’ from dualisms, and the androcentric/Eurocentric core periphery models of human evolution and the progressive tendencies of the evolutionary museum. It is suggested that new scientific techniques require a critically updated theoretical framework to deal with the new possibilities and realities that recent archaeological and scientific data is revealing. It appears the evolutionary museum remains constricted by a familiar narrative of progression and a set of ‘familiar’ scenarios that have been deemed appropriate in the sequential back-telling of evolutionary narratives (Moser 2003, 2010; Bennett 2004).

I argue, the benchmark of what makes us human simply shifts. Humanity as a concept has been re-worked and re-made several times throughout modern history and continues to be re-defined today. Most notably from divine creation to evolutionary mechanisms of natural selection, but complex behaviours and cognitive abilities remain the ever-changing hallmark of humanity, and the Victorian ideal of linear progression culturally remains unchallenged and unhindered. It was not a streamlined process of *australopithecines*, steadily evolving into modern humans, but a messy, haphazard and complex journey of inter-dependence and intra-activity of interwoven ancestries of many different hominin groups and different

environments (Dunbar et al 2014). Returning to the Neanderthals, it is recognised that they have been drawn closer to us and humanised within the context of hyperrealism, but from a museological perspective they are not recognised as fully human in their cultural and symbolic abilities, thus, they remain the same, but other (Wiber 1997).

## 8.2. Re-Imagining Neanderthals. Temporary or Permanent.

*‘Temporary exhibitions are the answer to many problems, you are not obliged to tell the whole story, you can pick a highlight, or one artefact and make something exciting from it.... You can make it topical, choosing things that engage your audiences’* (Moser 2010).

The temporary exhibition provides the museum with the medium and theoretical space to push ontological boundaries that challenge outdated codes and conventions for depicting ‘the other’ in human evolution (pers. comm. Moser in Beresford 2016). From this perspective, the temporary exhibit allows the museum to take unconventional risks in the representation of archaeological and scientific knowledge – risks that the museum would usually be uncomfortable taking because of a didactic expectation, founded on authenticity and accuracy. Therefore, temporary or travelling exhibitions offer a unique opportunity to reframe how we think about Neanderthals and keep things fresh, rather than perpetuating the same age-old stereotypes and recycled scenarios for depicting Palaeolithic archaeology (Strack 2023).

The problem with temporary exhibitions is that by their very nature they are fleeting manifestations of current archaeological and scientific knowledge. Ultimately, they represent the exception to the traditional representation of Neanderthals, rather than the general rule. This is evidenced with the prevalence of women in temporary exhibitions compared to permanent galleries. The reality is unless the visitor is in the right place (different museums)

at the right time (different locations for brief periods of time), the general narrative of human evolution has changed very little. Furthermore, although prehistory is now a part of the primary school curriculum in the UK, it is the permanent exhibition that facilitates this educational role within society, and the permanent exhibit continues to disseminate a traditional and out-dated approach to human evolution.

Permanent galleries define an institution. They often serve as the cornerstone upon which museums build their reputation and their identity as an institution establishing themselves as centres of conservation, learning and progress (Strack 2023). In this context think of NHM, London and ‘Dippy’ (discussed in detail in chapter five). The nations favourite dinosaur became an emblem of the NHM ever since its initial installation in 1905. ‘Dippy’, welcomed visitors to the museum in Hintz Hall from 1979-2017, setting the conceptual and epistemological agenda for the museum upon entering this cathedral to nature. For over a century, dinosaurs have been considered as a seminal motif of natural history and this association in proximity blurs the boundaries between supposed cavemen and dinosaurs, reinforcing the fallacy of the comic tradition that depicted cavemen and dinosaurs as living together and sharing the same geological epochs. This thesis suggests, in the context of the permanent exhibition, Neanderthals are presented as emblems of vanished worlds, landscapes and histories. At this ‘dead circus’, surrounded by other humanities, nature and animals, they are simply encased within a mausoleum of extinction and are immediately placed at a removed status from us (Bennett 2004; pers. comm. Wragg Sykes 2021: Appendix B).

At first glance the temporary or special exhibition seems like the perfect solution to keep up with the ever-changing archaeology of Neanderthals. However, I argue that unless permanent exhibitions are re-designed to incorporate new inter-disciplinary discoveries and innovations,

the narrative of human evolution will not change because they simply revisit the same canonical icons and restrictive scenarios for prehistory. A further criticism of the temporary exhibition is that these exhibits and spaces are usually at odds with the aims and objectives of the museum as an institution. To elaborate on this point, I will provide a comparative analysis of the permanent exhibition ‘Stairway of Evolution’ and the special exhibition ‘Neanderthals’, located at Moesgaard Museum, Denmark. The permanent exhibition presents the canonical icons of evolution, that of the ladder and cones of diversity whereas the temporary exhibition presents an alternative and ‘affective’ (emotionally embedded) biography of Neanderthals.

### 8.3. The Stairway of Evolution, Moesgaard Museum, Denmark.



Figure 110: ‘The Stairway of Evolution’ located at Moesgaard Museum, Denmark. The stairway displays seven hominins, starting with the 3.2mya ‘Lucy’ and the sequence ends with the Koelbjerg Man, the oldest known bog body, and the oldest set of human remains in Denmark, dating to c.10,000ya. This approach evokes the canonical icons of evolution, that of the ladder and cones of diversity (Gould 1987, 1995a). The hominins are presented in chronological order and the three modern human reconstructions at the top of the staircase are interpreted to represent our diversity as a species (Source: <http://arqa.com/en/arganews-archivo-en/moesgarard-museum.html>, nd. Accessed 2023).

‘The Evolutionary Stairway’ at Moesgaard Museum, Denmark is a fundamental element of the architecture itself, which leads to the different exhibitions of the museum. The installation is titled ‘Meet the Family’, and it provides visitors with an opportunity to come face to face



with a series of meticulously reconstructed models of seven hominins, from the 3.2mya ‘Lucy’, to the Koelbjerg Man, who lived in the Mesolithic, representing the oldest bog body and human remains found in Denmark (Moesgaardmuseum, nd: Accessed 2023). On the way to the permanent prehistory galleries, the visitor descends the stairway of evolution, meeting their ancient ancestors along the way. The museum website emphasises the scientific accuracy of these models stating that, ‘these life-like sculptures are anatomically correct reconstructions of our ancestors, and they are created in accordance with the most recent bone findings from all around the world’ (Moesgaardmuseum, nd: Accessed 2023). The statement reads as a testimony of authenticity and objectivity, which ultimately presents the models as objective databanks, immune to criticism, and void of an epistemological meaning and purpose (Moser 2003).

This permanent gallery offers two distinctive experiences. Firstly, up close and personal with our family history, the visitor can literally ‘look their ancestors in the eyes as they proceed down the stairs’ (Moesgaardmuseum.dk, nd: Accessed 2023). Secondly, from the upper balcony, the visitor can view their hominin ancestors via mounted headsets that use detailed three-dimensional animations to show how they may have looked in their original environments. The Neanderthal male is yet again reconstructed against the backdrop of a cave. Although, the three-dimensional reconstruction is faithful to the archaeology of Spy, Belgium, it inadvertently reinforces the caveman stereotype.

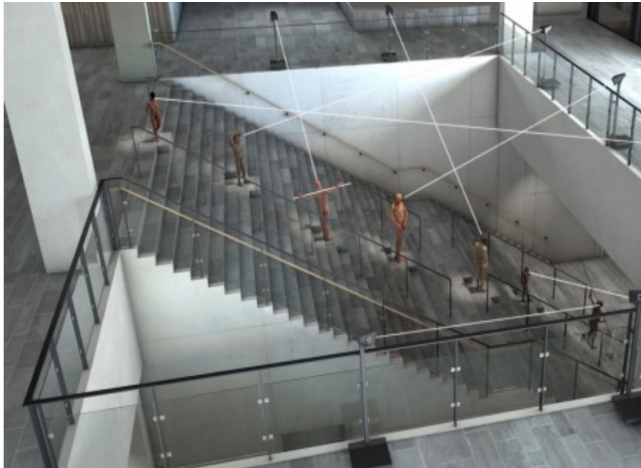


Figure 111: ‘Virtual Reality and Hyperrealism’. The image shows the stairway of evolution and the fixed virtual reality headsets on the upper level that look down onto the hominins. This digital technology meticulously reconstructs three-dimensional animations of their original environment (Source Artcom Studios 2014: <https://artcom.de/en/?project=evolutionary-stairs>: Accessed 2023).



Figure 112: ‘Virtual Environments’. The image shows the hyperrealistic models within their animated ‘original’ environment. Look closely and you will see that the adult male Neanderthal is reconstructed within the seminal environment of a cave, inadvertently reinforcing the ‘caveman’ stereotype (Source Artcom Studios 2014: <https://artcom.de/en/?project=evolutionary-stairs>: Accessed 2023)

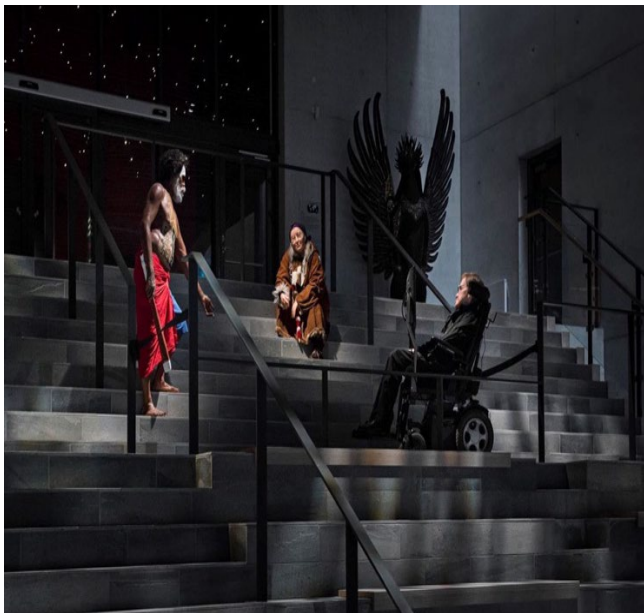


Figure 113: ‘The Evolutionary Stairway and *H. sapiens*’. The image illustrates the diversity of modern humans. Here, at the very top of evolutionary stairway the visitor is greeted by three humans on route to the ethnographical collections and permanent galleries. Taken together with the seven hyperrealistic models presented in chronological order and the reconstruction of three different ways of being human. The installation, despite its modern appearance is reminiscent of the ladder and cones of diversity (Gould 1987, 1995a; Source Artcom Studios 2014: Accessed 2023).

Hyperrealism in the context of permanent exhibitions on human origins casts females as the main characters only in the earliest chapters of our evolutionary story (dependent and

subservient to nature), whilst modern European males head the evolutionary process from nature (female) to one of independence through culture (male) (Wiber 1994, 1997; Bunz 2017). The general message conveyed by the exhibition practices of exclusion and inclusion of females perpetuates the myth that men are the hunters, tool makers and problem solvers (Beresford 2016). This is demonstrated by the permanent installation at Moesgaard museum, and the interim gallery of human evolution at NHM, London (Hager 1997; Scott 1994).

#### 8.4. 'Neanderthals': A Special Exhibition.

The special exhibition titled 'Neanderthals' at Moesgaard Museum, Denmark opened on the 17<sup>th</sup> of November 2020 and closed on the 1<sup>st</sup> of August 2021. It was part of a large-scale dissemination project covering 900sq metres. The project focussed entirely on the changing portrayals and conceptualisation of Neanderthals that incorporated the most up-to date archaeological evidence available to museum professionals and archaeologists. The primary purpose of this exhibition was to counter common prejudices and myths surrounding the traditional conceptualisation of 'them' as the 'very essence of the primitive human' particularly in popular culture (Bjarno and Nielson 2020: 5). The exhibition does not present a site-specific or evolutionary approach, rather it beautifully encapsulates how new data and new interpretations are challenging the traditional denigration of Neanderthals as brutish and unintelligent beings.

This analysis will focus on the illustrations within the exhibition created by paleo-artist Tom Bjorkland who worked in collaboration with the museum to create six portraits. He is described by Trine Kellberg Nielson (project leader) in the Symbiosis Conference, Session Paleoart 2020, as a sign of the times in the re-representation of prehistoric people, demonstrating the new image of Neanderthals that is divorced from the context of natural

history. The exhibition features six portraits projected onto stone. These portraits are described as ‘coming to life’ using very subtle animations to portray tiny movements in their hands, hair and facial expressions. The objective here is to produce a gallery of ‘living’ Neanderthals to counter traditional museological approaches of representing ‘dead objects’ such as stone and bone, reinforcing the new notion that Neanderthals were humans like us (Symbiosis Conference – Paleo-art: 2020).

Traditionally, Neanderthals were portrayed as primitive cavemen and brute savages in the context of popular culture, academic publications and the museum. In the context of the museum, myths, cliches and facts have become fused together, but these types of images/approaches refer to the Neanderthal as some kind of reflection of ourselves, rather than reflecting the archaeological data (Bjarno and Nielson 2020). ‘Neanderthals’, the exhibition can be understood as a representation of ‘affective biographies’ (Harris and Jones 2019) in the sense that this exhibition focusses on presenting the Neanderthals through a relational lens of entanglements and connections that are emotionally embedded and experienced within their society (Hodder 2011, 2012, 2014; DeLanda 2006; Witmore 2008; Harris and Sorensen 2010). The special exhibition abandoned a chronological and typological approach to explore, instead, new data and new ideas on Neanderthals that highlights their variability and adaptability across different environments. They are presented as strong, skilful and capable not as unintelligent, brutish or backward (Madison 2016). This approach challenges the traditional display canon and the ontological divide between ‘them’ and ‘us’ (Finlayson 2019).



Figure 114: 'A Young Neanderthal Woman Butchering a Deer' created by Tom Bjorkland. Crucially, this image places a young female at the centre of a key evolutionary scenario which is traditionally associated with males, that of butchering animal remains. The image represents a classic example of role reversal to challenge gender-coded iconographies of human evolution. The image places women in a prominent role, forcing the viewer to critically re-think the notion of secondary sexual difference (Bjarno and Nielson 2020).



Figure 115: 'Learning Stone Tools'. An adult Neanderthal teaching a young member of the social group how to make stone tools. The child holds the hammer stone and intriguingly observes what the older Neanderthal is doing. Most representations demonstrate men making and using stone tools (technological innovation). Here, the primary objective is to highlight learning through observation and performative engagement. Therefore, this image attempts to portray the sociality of Neanderthals by focussing on social relations and mechanisms of learning (Source Bjarno and Nielson 2020).





Figure 116: 'Birch Tar Technologies'. Left. A Neanderthal man carefully putting birch tar onto a stone tool. This portrait represents an original image within the context of the museum to include this adhesive technology of transformation and adaptation. The image presents the Neanderthals from an alternative perspective that of innovation and creativity, and complex cognition. Right. A miniature habitat diorama showing a small group of Neanderthals collecting birch for the creation of birch tar adhesives. The portrait and diorama are accompanied by birch and birch tar to illustrate technological innovation and the behavioural complexity needed to create it (Source: Bjarno and Nielson 2020).



Figure 117: 'A Woman Breastfeeding her Child' while an older child sleeps soundly next to them. Although, the image is gender specific in its association of women and children, it nevertheless presents the female as a strong and capable provider and protector, roles that are typically reserved for men. The child clutches a bone rattle in its hand imagined as a toy and comforter for the child and personal ornamentation for the mother. The beauty of this interaction rests on the subtle but theatrical consideration of everyday objects and our connections and interactions with them. Notice, how this is an emotional and intimate relationship between a female and her children, reinforcing new approaches that highlight the sociality of Neanderthals (Bjarno and Nielson 2020).

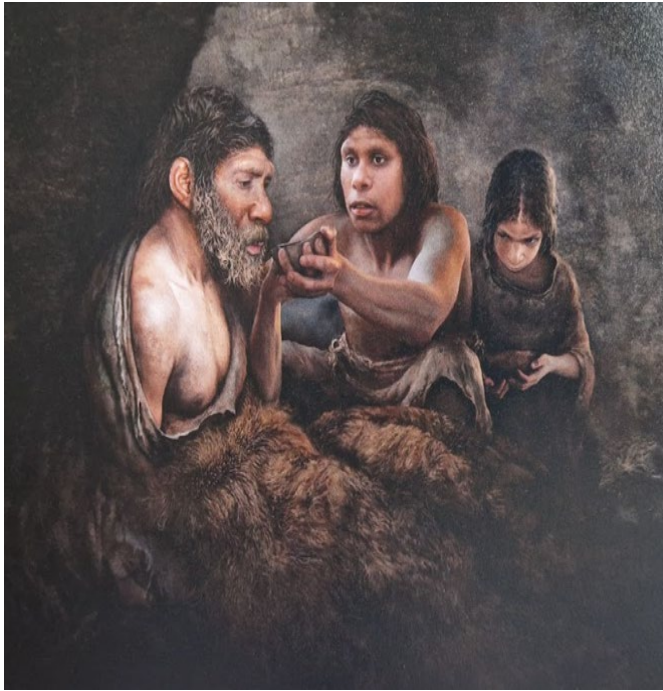


Figure 118: 'Caring Neanderthals'. The portrait depicts an elderly sick man being cared for by a young Neanderthal male and female child. The image is inspired by the Shanidar Neanderthals and highlights altruism within their social groups. This is traditionally a characteristic reserved for modern human populations. The image demonstrates a softer side of Neanderthals and challenges their brutish persona (Source Bjarno and Nielson 2020).



Figure 119: 'Playful Neanderthals'. An elderly grandmother and four children playing with pigments. This is a highly original image and one of the first of its kind to portray Neanderthals as artists and individuals with emotional and cognitive complexity. Here, the children are depicted as the first artists, playfully adorning their grandmother with personal ornamentation. The children are smiling and curiously experimenting with the use of red ochre. The male child in the background of the image can be seen leaving the first impressions upon stone with his ochre stained hand leaning against the cave wall. The exclusive association of art and modern humans is cemented within our consciousness that the visitor has to double take to identify this image as Neanderthal, that is demonstrated by subtle anatomical differences, such as no chin, pronounced brow ridge, large nose and a stockier build (Bjarno and Nielson 2020).

The portraits within the exhibition are projected onto stone with subtle animations that deliberately portray the Neanderthals as living and ‘in-action’. This visual strategy is in stark contrast to the traditional approach of presenting Neanderthals as objects of scientific study, either in the form of fossils in glass display cases, artistic reconstructions or hyperrealistic models. The portraits within the gallery fuse together new scientific techniques and the new types of archaeological data currently available to the museum. They represent an alternative view of Neanderthals as being essentially human and the same as us. This is achieved by focussing on ‘emotional connections’ to explore social groups and life cycles. This theatrical approach presents the Neanderthals as well adapted, intelligent, strong and playful that effectively counters the entrenched idea of a brute savage (Madison 2016, 2019, 2021).

Within this exhibition palaeoartist Tom Bjorkland focussed on representing the archaeological data both faithfully and theatrically rather than focussing primarily on anatomical correctness and scientific accuracy. This visual approach has profound and welcomed implications for the interpretation of other humanities, seeing them through a relational lens that provides an emotional and relatable connection between ‘them’ (Neanderthals) and ‘us’ (modern humans). The artist brings our ancient ancestors to life, through emotions and relationships, constituting a genuine attempt to re-imagine their being and sociality (Harris and Sorensen 2010; Gamble 2011).

The series of images are important because they highlight many firsts in the context of the museum and the representation of Neanderthals. Firstly, we have examples of role reversal where a young woman butchers a deer carcass, placing women at the centre of a key evolutionary behaviour, that of hunting and butchering animal remains. Second, the museum focusses on making stone tools, representing a familiar scenario in the sequential back-telling of human origins. However, this image does not simply represent males making and using



stone tools, instead, the image takes a more subtle approach that focusses on learning through observation and performative engagement. This approach essentially explores social relationships within Neanderthal communities, a feature that is often neglected within the context of the evolutionary museum. The third image is accompanied by a miniature habitat diorama that presents the Neanderthals as masters of their environment, rather than victims of nature waiting for their eventual and inevitable failure as a species. The image presents Neanderthals as technological innovators by including the archaeology of adhesive technologies of transformation and adaptation. This display places Neanderthals in unconventional settings and roles since they are presented as affective individuals with complex technologies of adaptation. Furthermore, their world is reconstructed as a forested environment rather than the typical arctic tundra, successfully challenging the arctic lens by exploring regional variation, and behavioural and cognitive complexity.

The fourth image is of a woman breastfeeding her baby, while an older child sleeps soundly next to them. Although, this image is gender-specific in its exclusive association of women and children, it nevertheless presents the female as a strong and capable provider and protector, roles that are typically reserved for men. Interestingly, it is not the classic association of women and children that interests me here, instead it is the theatrical and emotional connection between the mother and her children. The beauty of this reconstruction rests on the subtle consideration of personal ornamentation and everyday objects that the artist has presented as a toy or comforter for the child. The difference here is the emotional and intimate interaction between a mother and her children. The fifth image titled 'Caring Neanderthals', depicts an elderly sick man (Shanidar Neanderthals) who is being cared for by a young Neanderthal male and a female child. The image highlights altruism within Neanderthal social groups. This is traditionally a characteristic reserved for modern human

populations. Therefore, this image successfully challenges the brutish persona of Neanderthals and the hard life aspect of hunter and gatherer societies that is often etched into their bones. It presents a softer (social) side of Neanderthals that is often left unconsidered or under-explored in the context of the evolutionary museum. Here, the sociality of Neanderthals is highlighted rather than the brutality of their harsh and supposed miserable existence.

The final image titled 'Playful Neanderthals' is perhaps the most important, since it associates Neanderthals with a cognitive behaviour that until recently has been exclusively associated with the arrival of modern humans in Europe. In fact, the association of modern humans and art is cemented into our consciousness that the visitor must 'double take' to realise this is an image of a Neanderthal social group. Only the subtle anatomical differences such as a small chin, a pronounced brow ridge, large nose and stockier build reveals that the image is depicting Neanderthals. This is a highly original image and one of the first of its kind to portray Neanderthals as artists with emotional and cognitive complexity. The image flawlessly portrays the sociality of Neanderthals by focussing on children as the first artists who playfully adorn their grandmother with personal ornamentation using pigments. The children are simply playing, smiling and curiously experimenting with the use of red ochre. Furthermore, the male child in the background can be seen leaving the first impressions (handprints) on stone with his ochre stained hand leaning against the cave wall (Bjarno and Nielson 2020).

The only seminal motif to go unchallenged and unchanged within this exhibition was the representation of animals and mammoth myopia (Wragg Sykes 2020). There was still a heavy reliance on extinct beasts such as the iconic woolly mammoth. The relationship between

Neanderthals and animals is limited to one of two contexts: animals as antagonist or a resource. The only consideration of Neanderthals and animals was that ‘they shared a landscape with and hunted that what has now disappeared’ (Bjarno and Nielson 2020). Therefore, the inter-relationships between Neanderthal communities and animals within their shared landscape remains under-explored and under-represented in the context of the museum and Palaeolithic archaeology as a discipline. Note, however that this exhibition is a temporary installation and is no longer currently on display in this form. The exhibition was designed as a travelling display to allow individual institutions to engage with the core materials in different ways, ultimately providing alternative perspectives. Its current location is in Canada, and Wragg Sykes has been in communication with the NHM, London to attempt to bring the collection/exhibition to the UK, but the practical considerations of space and the loaning of artefacts has hindered the possibility of the exhibition being displayed at the NHM, London, and although it is not impossible, it is not likely to make its way to the UK in the immediate future (pers. comm. Wragg Sykes 2021: Appendix B).

#### 8.5. Harnessing Emotion.

This study has demonstrated that there is more to other humanities and their life patterns than stone tools and extinct beasts and the time has now come to present the driving force of evolution not in terms of material development, but rather a focus on emotions and co-evolution of other humanities, environment and materials (Dunbar et al: 29). Therefore, visual displays should emphasise the importance of social behaviours including learning, music, sound, dance and performance as a means of harnessing sociality in the reconstruction of other humanities (Dunbar et al 2014: 33). An example of this interpretative development in Neanderthal archaeology would be to display a Neanderthal community around a fire, not for practical reasons such as warmth and food, which often reinforces the caveman stereotype

of roasting megafauna over an open fire, but fire could be used theatrically to demonstrate a social dimension of Neanderthals in the form of storytelling (Wyn and Coolidge 2012).

The most striking feature among hyperrealistic models and portrait artists such as the Kennis Brothers, Elizabeth Daynes and Tom Björklund, is their realistic and profoundly affective portrayals of Neanderthals. These recent images/sculptures are imbued with individualism and personality. Kennis and Kennis were responsible for creating the first smiling Neanderthal sculpture, based on the original Feldhofer find, located at the Neanderthal Museum, Mettmann, Germany. This model demonstrates how far-removed modern portrayals are from their nineteenth century origins when evolutionary studies began (Wragg Sykes 2021). A feature that has improved greatly in exhibitions of Neanderthals is the expression of emotion. There is now a sense of personality and happiness on the faces of our kindred and emotion has been made an integral aspect of hominin reconstruction (Daynes 2015).

Modern palaeoartists have revolutionised our understanding and portrayal of Neanderthals in relation to the primitive iconography applied to our ancient ancestors not only during the establishment of human antiquity, but also in relation to the gender specific roles and the traditional invisibility of females and children in the hominisation process. They have depicted male Neanderthals interacting and engaging with children and even though these types of illustrations are extraordinarily rare to see, recent artists have made a genuine and welcomed effort to challenge gender and ancestor stereotyping through affectionate interactions. These recent images are imbued with emotion, and this is the key difference between 19<sup>th</sup> and 21<sup>st</sup> century portrayals of Neanderthals and the portrayals we see readily in the press, the museum and on the internet. Our ancient ancestors are no longer miserable beasts incapable of complex thought, they are now people with living histories and affective

agency. What remains to be visualised in the context of the evolutionary museum is a sense of social interaction and intimacy between different hominin populations, of individuals within their community and the different sexes, reinforced by the utilisation of new theoretical models that express social interactivity and shared parenting as key factors in the evolution of humanity (Dunbar et al 2014). To conclude this section, it is imperative that ‘we put our hands on the table and say this is what we think. We need to analyse how we are doing it and where we get our information from including history, the natural sciences and images from the Renaissance, all of which feed into our modern portrayals of other humanities’, rather than presenting Neanderthals and their behaviours as didactic truths known about the past that are ultimately uncritically considered (pers. comm. Moser in Beresford 2016).

#### 8.6. Emotion in Archaeology.

My approach to this topic draws on another major archaeological trend that of ‘emotion’ and explores how we might harness the emotional capabilities of our ancient ancestors in modern representations of the past (Bell and Spikins 2018: 23-39). There has been huge interest recently in the concept of emotion and its relevance in the interpretation of past peoples and their life patterns. This led me to a comparative analysis, utilising emotion, to demonstrate that relational and ‘affective biographies’ can be utilised to effectively portray the ‘other’, modern humans, things, animals and materials as equal participants in the construction of social worlds. This provides the necessary theoretical ‘room’ for a multitude of scenarios and interconnected relationships to be visualised (Harris and Sorensen 2010).

It is not within the scope or remit of this research to define emotions. Instead, I advocate newly developed museum exhibitions and heritage sites that facilitate an understanding and appreciation of emotion and material culture as demonstrated at St Fagan’s Museum, Cardiff,

(Tarlow 2000; Harris and Sorensen 2010; Bell and Spikins 2018). This may provide archaeologists, curators, designers and artists with the theoretical space to present human antiquity not through the tinted lens of anthropocentric modernism, but instead through the many inter-connected relations between individuals, matter, substances and materials (Ingold 1993, 2007; Tilley 1999). This approach intends to demonstrate that the properties of materials and the identity of past peoples, are *not* fixed attributes, rather these attributes are emotionally embodied and relational. To visualise these properties is to provide more than an object's biography; the museum should explore affective biographies within their socio-historical and political context (Ingold 2007: 1-17).

Thus, emotion here should not be understood as a checklist criterion, where research seeks to merely identify specific emotions within the prehistoric record, or present key evolutionary behaviours in sequential and progressive contexts. Instead, the time has come to present the driving factor of evolution not in terms of material or technological progression, but the becoming and unbecoming of other humanities, entities and materials. Museological representation should focus on 'affect' and our capacity to create embodied experiences (Harris 2016; Harris and Jones 2019; Crellin and Harris 2021). This approach critically considers the invisible, that which is rarely visualised or expected - a sense of social interaction and intimacy between different individuals including males, females and children but also between different species including hominins, animals and plants (Zihlman 2012; Dunbar et al 2014). This is not to suggest that our emotional capabilities, responses or consequences are the same now as they have always been, nor is the purpose of this study to suggest that cultural and social difference do not exist spatially or temporally. Instead, this research intends to demonstrate that difference is understood within a hierarchal structure that privileges specific beings (modern humans – white European males), and specific types of

evidence (cultural and symbolic), and that this association and categorisation remains prevalent in Neanderthal studies today. Scientific reconstructions of hominins and our earliest ancestors have played a pivotal role in communicating a relatable and personal understanding of evolution, but to truly challenge age-old stereotypes and common misconceptions about the Neanderthals we must incorporate a tri-partite, rather than dualistic understanding of being. The museum must attempt to understand their bodies, minds and spirits, spirit here being understood as ‘agency’, their personality, and their character (Breyll 2020).

Initially, I had wanted to label the proposed theoretical framework as ‘emotional biographies’, but it was brought to my attention that ‘emotions’ is a risky term in Palaeolithic archaeology that is founded on palaeontological research and a geological and scientific framework. The emotional turn in the study of history has been gathering momentum, building on other disciplines and critically applied to later prehistoric periods such as the Mesolithic material from Star Carr and Neolithic archaeologies more generally. An appreciation of emotion in later periods of prehistory has been incorporated into the museum, however, the ontological and material turns remain peripheral to human origins research (Boddice 2018; Lewis 2020: 121-129). Although, archaeologists and archaeological theory is beginning to incorporate emotionality into their readings of the past, ‘emotions’ as a conceptual framework traditionally invokes Hawkes ladder of inference, referring to the unknowable. In response to this valid critique, I have opted to label the conceptual framework presented here as ‘affective biographies’, by affective I simply mean relational with a consideration of emotions, not as a checklist criterion of desired behaviours but as a way of conceptualising Neanderthal being. I accept we may never be able to identify specific emotions within the Late Pleistocene record, or glimpse into the minds of the Neanderthals to understand how they thought about their world, identity, others, animals or the relationships

and connections they were a part of. However, it is now possible to identify ‘embodied experiences’ not merely to compare the emotional capabilities of Neanderthals with the emotional capabilities of modern humans. Instead, I believe that what is missing from the 21<sup>st</sup> century portrait of Neanderthals is a sense of intimacy, intentionality and/or interconnectedness.

#### 8.7. Human Exceptionalism and Extinction Discourses.

*‘It could have been just as easily a Neanderthal on the moon’* (Wragg Sykes 2020).

Behavioural modernity has served as a conceptual mechanism for dividing and separating the Neanderthals from modern humans. Although, they are now afforded a more prominent role in the evolution of humanity, they remain encased in Cartesian philosophy. The cultural yardstick of symbolic behaviours and cognitive complexity continues to hinder our understanding of the Late Pleistocene and the ‘becoming’ of Neanderthals (Scott 2011). Therefore, I argue post-humanism is essential to understanding evolutionary mechanisms and the reality of multi-speciesism (Barad 2003; Harris 2016; Crellin and Harris 2021; Braidotti 2013). Whilst a full description of the multiple post-humanist approaches is beyond the remit of this thesis, they all share a rejection of the central tenants of humanism: the conceptualisation that humans hold unique ontological status (Kristiansen 2017).

When the Neanderthal genome was decoded over a decade ago, the initial aim and purpose of that research was to better understand ourselves and to identify what makes us human, unique, different and special. Within this framework of human exceptionalism Neanderthals are judged and pitted against modern humans in a sequential line up of key evolutionary behaviours that essentially boil down to which species acquired specific (namely cultural) characteristics first. Such an approach is reminiscent of the culture-historic ideals of the



1950s. The age-old culture historic questions and interpretations linger on, as key evolutionary developments are explained by notions of population migration or plain old invasion. The problem is that there is a lot at stake here, namely, our own superior and unchallenged position. It is difficult, if not impossible to comprehend that something as simple as luck may have ensured our survival and secured our position at the top of the food chain and technological advancement (pers. comm. Wragg Sykes 2021: Appendix B). Nevertheless, we are at a very interesting crossroad, with political activist groups such as Extinction Rebellion and international treaties such as The Paris Agreement intent on curbing the current climate crisis. There is a growing recognition that we are destroying our earth and home. Our superiority has and is thus being called into question. This political backdrop provides archaeologists and scientists with an opportune moment to successfully decentralise humans from the discussion of Neanderthal histories and evolution, more generally.

The problem and conceptualisation of extinction should not be equated to inferiority or a lack of evolutionary success. Darwin's theory doesn't presuppose any direction in evolution. Unfortunately, illustrator Edward Linley Sambourne's popular caricature of evolution 'Man is but a Worm', published in Punch's Almanack in 1881, combined two concepts that were never linked in Darwin's theory: gradualism and linearity. This association has endured as an organising principle and display canon for the depiction of human antiquity in the museum (Wheeler et al 2019). In the context of human origins, the idealised and iconic representation of this is of course the depiction of an assumed ape-to-human-progression through the ages. Variations of all kinds have been made of the march of progress including many in a humorous spirit. Their initial visualisation by most was initially made to ridicule the monkey to man hypothesis as demonstrated by the ill-famed caricature of Darwin, as an ape. To complicate this matter further Darwin spoke in terms of biological evolution, but linearity and

progression are often uncritically associated with cultural and technological differences. Consequently, technological and cognitive complexity are deemed desired characteristics on the great road of evolutionary progression, towards perfection. The direct conflation of the biological and cultural processes in human evolution has led to adverse consequences in relation to social structures and hierarchies. Contrary to Sambourne's depiction, evolution is better understood as a process of becoming, the branching and divergence of populations and organisms. The problem here stems from a lack of understanding about geographical, regional and cultural variation and how variation has been equated to difference within a hierarchal structure of society and creation (Wheeler et al 2019).

#### 8.8. Neanderthals 'Matter': A Theoretical Revolution.

This section explores how relational ontologies such as post-humanism, new materialism, feminism and 'intra-activity' can successfully challenge the unjustified and dichotomous relationships of same/other, human/non-human, nature/culture, primitive/civilised and male/female. These dualities have plagued the interpretative frameworks at the heart of our displays on human origins and Neanderthals. This relational approach to Palaeolithic archaeologies and vanished worlds opens new ways of thinking about other humanities, things, matter, substances and critically considers how these different elements emerge from a world of becoming (Barad 2003, 2007, 2012).

Relationality is defined by Christopher Watts as a 'suite of approaches aimed at conflating the abstract and immutable dualities of modernist ontologies' (Watts 2013:1). It is this essence of relations that affective biographies try to capture, I propose that what is needed is a new vocabulary and artefactual grammar to explore the 'affective' qualities of relations that offer a new vantage point for viewing the Neanderthals. This is necessary to overcome the

progressive narrative of the evolutionary museum and the highly restrictive and formulaic scenarios utilised in the sequential back-telling of human origins (Moser 2003; Bennett 2004, 2010). My approach here draws on recent archaeological concepts of new materialism and postmodernity. It suggests the focus of archaeological research should centre on the specific set of relations (mesh-works) and be specific about the westernised processes involved in the shaping of knowledge in museums (Hooper-Greenhill 1992).

New materialism is a theoretical approach that redefines matter as active and engaged in intra-active becoming. It challenges anthropocentric approaches that prioritise modern humans over other beings and entities. New materialism has several goals that focus on interrogating boundaries, particularly between humans, animals and other things in the world, seeking non-dualistic ontologies that examine things as more than just objects made only for and by humans, but rather as a gathering of things, assemblages, and material forms living together (Bennett 2010; Barad 2003, 2007). Proceeding from the philosophical works of Gilles Deleuze, Felix Guattari and others, there are several approaches to a post-humanist assessment of things that add a whole spectrum of new perspectives, that of relational entanglements, other ontologies and notions of vibrant matter. These approaches are summarised under the term ‘the ontological turn’ (Deleuze et al 1987). Ontological research considers the inter-connected and woven biographies between other humanities, modern humans and objects, critically considering how matter, materials and space relate. These theoretical approaches are united in what they reject – cartesian philosophy. Cartesian philosophy is an ontology based on the work of French philosopher, mathematician and scientist René Descartes. Cartesianism is a form of rationalism that upholds a metaphysical dualism between two finite substances, that of the mind and matter. This ontological division

has had profound and lasting impacts on the interpretation and portrayal of other humanities in the hominisation process that has firmly placed Neanderthals in the domain of nature.

To move beyond binaries and dualistic ontologies and towards the application of ‘affective biographies’, (emotional connections) we must take a relational approach. What however does a relational approach mean and how can we apply this ontological apparatus to the archaeological data of the Late Pleistocene? Archaeologists have increasingly stressed the importance of relations, yet these central relations/meshworks, often remain under-explored and omitted from the narrative of Neanderthals. In ‘What Do We Mean by Relational Anyway’, relational archaeology is defined as ‘a means of conceptualising the world not as distinct sets of opposing categories or bounded and monolithic entities, but rather focussing on how ‘people, places and things emerge through their connections to one another’ (Crellin and Harris 2020). This radically relational approach to the world opens new ways of thinking of the ‘inter-relationships’ of humans and animals (Harraway 2008), humans and things (Braidotti 2013), humans and materials (Ingold 2000), humans and fungi (Tsing 2015), and humans and emotions (Tarlow 2000). However, many of the above relational approaches often privilege humans, despite focussing on the ‘other’. The central proponents of human exceptionalism remain unshaken. The museum continues to demonstrate our supposed unique ontological status as a means of understanding how the world and all its components (animals, flora, things, materials, substances and matter) come into being, from the perspective of humans and to the benefit of humans.

Harris argues that relational approaches can be divided up into three broad categories: ‘relations as epistemology; relations as methodology; and relations as metaphysics’. We talk about relationships all the time and Harris illustrates the many problems there are in how we

define them (almost seen as living entities in themselves) (Harris in Crellin et al 2020).

However, Harris's new language and careful consideration of what relations are and how we can define them, doesn't quite capture emotions. One might suggest that he provides a technical framework for describing/exploring the body and the mind, but nothing to help us describe or navigate the 'spirit' of relations.

Therefore, I propose a fourth category, that of 'relations as ontology' as a means of conceptualising Neanderthals, their properties, the material and natural world and the relations between them. A relational ontology is a philosophical perspective that argues that the relations between entities are more fundamental than the entities themselves. It emphasises the interconnectedness of all entities, and that existence is defined by relationships rather than isolated attributes (Wildman 2006). This fourth category opens new ways of thinking about the abstract and immutable dualities of modernist ontologies. Instead of understanding the world as a set of bounded entities, we can focus on the multiplicity and variability of Neanderthals and other hominin species. Post-humanism is thus essential in understanding evolution and the becoming of Neanderthals must begin with a flat ontology. A flat ontology is a complex philosophical model that suggests all entities and objects have the same degree of being, and that the ability to affect other entities/objects is the key factor in determining ontology. It is often used as a theoretical mechanism to break down classificatory schemas that result in hierarchal or binary modes of archaeological thinking (Ash 2020). This is particularly relevant in the context of human origins research that often centres on the symbolic expression and supposed uniqueness of modern humans.

The problem with relational ontologies is that many appear to still work within a framework of dualisms. On the one hand they focus on the other and the messy and complex

entanglements in the middle, but on the other hand they often and unintentionally strengthen the very boundaries they attempt to deconstruct (Crellin and Harris 2020). I would argue, this is because relations are not merely agential, they are also emotionally embodied and experienced. The aim here is to challenge the misconception that processes and/or relations are directional, presented sequentially with an inherent forward momentum that reinforces the progressive tendencies of the evolutionary museum. We must consider not merely the becoming of Neanderthals, but also the unbecoming of Neanderthals. It is necessary to the unbecoming of humanity ‘the inhuman that therefore, we are’ (Barad 2001). This is where Barad’s concept of agential realism comes into play that can be attributed to many if not all actors in the Palaeolithic visual frame. For Barad, there are no fixed categories of being; everything from the atom to the universe is in a continual state of becoming and un-becoming (Barad 2003, 2007, 2012).

#### 8.9. New Vocabularies. New Theoretical Frameworks and New Stories.

Affective biographies draw on Karen Barad’s central theory of agential realism which collapses any *priori* division between matter and meaning and between different kinds of matter, human or non-human, animate and inanimate (Barad 2003). This conceptual framework essentially breaks down the central dichotomy between ‘them’ and ‘us’ in Palaeolithic archaeologies and provides a mechanism for deconstructing the progressive machinery of the museum narrative. Barad states ‘*we are not outside observers of the world. Nor, are we simply located at particular places in the world; rather we are part of the world in its ongoing intra-activity*’ (Barad 2003: 801-831). We know the world and these ‘pasts beyond memory’ not because of our analytical structures of hierarchal knowledge, rather we know it, because we are of the world. Crucially, we are part of the world in its differential becoming, as opposed to the sequential narrative of evolutionary progression, representing

nature as either a passive surface awaiting the mark of culture or the product of cultural performances (Barad 2003: 827-8).

For some time, archaeology has been working to articulate a relational and social understanding of past peoples, their lives and material culture informed by feminist theory, representing a conceptual shift in archaeology toward relational approaches to both the social and material (Alberti 2001, 2002; Gosden and Marshall 1999; Marshall 1998, 2000, 2013; Alberti and Marshall 2014). Archaeologists have employed a wide variety of theoretical perspectives and drawn on a range of theorists such as Ingold, Latour, Whitehead, Deleuze, Harman and Barad, to broaden our interpretative and representational horizon (Conneller 2011; Fowler 2013; Hodder 2012; Ingold 2007; Jones 2012; Lucas 2012; Olsen 2010, 2012; Witmore 2012; Alberti and Marshall 2014: 19). Alongside this disciplinary development and rebuttal of dualisms, there has been a revival of interest in the centrality of objects in the form of artefactual histories or biographies. The active engagement of materials in relational processes is understood to create a meaningful experience for both past and present people. Much of this work is examined for its ontological implications and ability to overcome the binary opposition and categorisation of people and things, extending this notion to overcome the ontological division of nature and culture, non-humans and humans, 'them' and 'us'. The ontological turn questions the epistemology of hidden, seemingly justified, but unsustainable ontological divides. Within an ontological framework the relationship between the material and the social has shifted from a type of dialectic to one of ontological equality, where neither category of humans nor materials takes precedence. Terms such as a 'symmetrical archaeology' and 'entanglement' theory, demonstrate how significant these changes in archaeology have been in presenting non-humans and things as equal partners in the creation of social worlds (Alberti and Marshall 2014: 20).

Of all the concepts that are associated with posthumanism in archaeology, the notion of a flat ontology, is perhaps the most polarising and misunderstood. Cipolla in 'Posthuman Potentials' (2021) argues for the diversity and promise of posthuman approaches in archaeology by dispelling blanket critiques of a flat ontological perspective. The key problem centres on the competing conceptions of its flatness and purpose, suggesting that a flat ontology often results in 'an undifferentiated concept of being' (Morelle 2016: 463) which leaves the archaeologist unable to judge 'the great inequality of things' (Durham 2015: 30). Critiques of posthumanism approaches concern themselves with the flat ontology's supposed obliteration of ontological difference (Cipolla 2021). This thesis suggests that boundaries and/or differences between modern humans and other humanities did and must exist but the intention here is to provide a narrative of evolution that begins with a flat ontology but doesn't necessarily end with one.

This thesis uses posthumanism to challenge the faults and 'taken-for-granted' aspects of Western epistemologies, namely the assumed primacy of only certain kinds of human – modern humans, usually western, white male; the assumed primacy of humanity particularly human exceptionalism; intentionality and agency and finally dualistic ways of seeing and being in the world (Braidotti 2018; Crellin 2020; Crellin et al. 2021; Cipolla 2021). Critics often equate symmetrical archaeology with posthumanism. The initial proponents of a symmetrical approach demonstrated that social archaeologies operated on false, modernist divides between people and world, thoughts and things, and nature and culture (Webmoor and Witmore 2008). I use symmetrical archaeological approaches to demonstrate that the progressive machinery of the museum or artefactual associations in the context of human origins operate on distinctly asymmetrical grounds that further the evolutionary divide



between ‘them’ (other humanities) and ‘us’ (modern humans). Consequently, a flat ontology is used in this thesis to highlight the anthropic fallacy (anthropocentrism) that assumes that modern humans are at the centre of the world, or that the world is most important in the ways in which it relates to and is experienced by humans. This approach has had a harmful and lasting impact on the conceptualisation of the hominisation process and the role and contribution of other humanities to our evolutionary journey.

The rationale behind the term ‘biographies’ is in line with current developments in museum studies. It is acknowledged that ‘everything has a history as every person has his own biography’ (Briggs 1988: 27). This approach, however is at odds with Barad’s conceptualisation of ‘intra-activity’ and the notion of becoming and unbecoming, since within her theoretical framework there are no fixed attributes or biographies. Everything is always in a constant state of entanglement and intra-activity. From a museological perspective this seems like the easiest term for visitors to understand and engage with. Furthermore, these are the relationships visitors want to explore as demonstrated by my specialist interview with museum curator Elizabeth Walker at the NMW, Cardiff (pers. comm. Walker 2021: Appendix A).

*‘At the heart of the notion of biography are questions about the links between people and things: about the ways meanings and values are accumulated and transformed’* (Gosden and Marshall 1999: 172). Therefore, *‘biographies are relational and an object biography is comprised of the sum of the relationships that constitute it’* (Joy 2009: 552). Thus, I use the term biographies to capture relational ontologies in the context of the museum, with an appreciation of emotion. The museum must consider the differential becoming of Neanderthals as opposed to a sequential narrative of evolutionary progression and becoming

human. I argue, Palaeolithic archaeology must present a tapestry of interpretation, rather than a singular dominant narrative to pose new questions that centre on relationships, intra activity, ‘becoming’ and dwelling within the Pleistocene.

Currently, the evolutionary museum continues to work within a single ontology of dualisms, not different paradigms; they are merely facets of the same ontology. Each approach weighs in significantly on which side of the dualism is most important. There is a general spirit of anti-dualisms within the academic community and Neanderthals have been brought much closer to us in recent times, but I suggest they remain encased within Cartesian philosophy and the pendulum has simply shifted towards culture (Harris and Jones 2019). I propose it is not the role or purpose of Neanderthal research to bring Neanderthals closer to humans or portray them as human. Differences (boundaries), do and must exist. It is a contextual understanding of their fixed and fluid construction that is needed or how they emerge from a flat ontology through relations and practices (Barad 2003).

#### 8.10. Defining the Neanderthals. New Terminologies and Language.

The Neanderthals do not simply represent a literal bridge between ‘us’ and the apes and evolution does not follow an arrow-straight hominin highway leading to modern humans. However, this thesis has demonstrated that the categorisation of bounded and typological chronologies condition museum practice, representation and the interpretation of archaeological data. The time has come to re-write the Neanderthal story from one of ‘otherness’ to one of familiarity and similarity but in order to achieve this archaeology/palaeoanthropology must also re-formulate how we think and define the Neanderthals, their being, world and contribution to human evolution.

Neanderthals are defined by the Oxford English Dictionary as

1. Noun. 'An extinct species of human that was widely distributed in Ice-Age Europe between c.120,000 and 35,000ya, with a receding forehead and prominent brow ridges. The Neanderthals were associated with the Mousterian flint industry of the Middle Palaeolithic'.
2. Adjective. 'An uncivilised, unintelligent, or uncouth person (typically used of a man)'.

The need to re-define Neanderthals and perhaps petition the Oxford English Dictionary to change their interpretation of Neanderthal was highlighted during conversations with Wragg Sykes during my specialist interview. The comments are provided below.

Speaker 1. Author. *'I found that one of the major problems is not just theory but the language we use.....I think one of the most striking things in doing my research was the current definition of Neanderthals. To successfully challenge the traditional view of Neanderthals we need to do more than just change the images we use to portray them, we need to change the very definition of Neanderthals'.*

Speaker 2. Wragg Sykes. *'Yes. I agree. It has just occurred to me that it might be worth petitioning Oxford dictionary to change its definition of them..... I don't think we are going to get rid of the word Neanderthal as an insult because it's kind of become separate to what it is, to the actual reality of it. I think it would be helpful to have a new dictionary definition'* (pers. comm. Wragg Sykes 2021: Appendix B).

The terminology of the Palaeolithic and prehistoric archaeology furthers the divide between 'them' and 'us'. The term prehistory has been used as a mechanism of difference and division to separate, the civilised from the primitive since the beginning of its inception as an archaeological discipline. The categorisation of the Palaeolithic into, Lower, Middle and Upper, subconsciously places us above them (other humanities). To make matters worse this

situation is harder to challenge in relation to the classic Neanderthal who are almost exclusively associated with the Middle Palaeolithic and diagnostic lithic industries of this period. Traditionally the Neanderthals were pushed into the position of a missing link between the primates and us. Although, this view has largely been challenged scientifically and academically, in the context of the ordering practices of the museum this misconception is still perpetuated within an evolutionary framework, and they remain an intermediate species.

The major difference to the narrative of slow modernity is that hyperrealism has brought the Neanderthals closer to us, representing the last stop en route to civilisation, reflecting the scientific realisation that they come much later in our story of evolution (Wragg Sykes 2020). I suggest the museum has become comfortable with this position because of the sheer diversity of our hominin family tree, now including thirty-two species, suggesting a multi-species approach to evolution is necessary. This has just provided more evidence for ‘slow modernity’ and the Victorian notion that progress makes no jumps. We have simply filled in the gaps with many (instead of one) intermediate species. Ultimately, we must change how we think and talk about Neanderthals as well as our portrayals of them. I would suggest one effective way to do this would be to conduct research to critically assess and challenge popular culture, relating to Neanderthals and the caveman stereotype. The museum has a moral and educational responsibility to challenge misconceptions and hidden assumptions, but they only cater for specific social and cultural groups. Popular culture has the largest reach and to the most diverse actors within society from all walks of life. For example, films such as ‘A Night at the Museum’ and ‘The Croods’; books, such as ‘*Clan of the Cave Bear*’ and ‘*Kindred*’; games such as ‘Poetry with Neanderthals’ and cartoons such as ‘The

Flintstones' have all had a significant (if not fundamental) impact on the portrayal of Neanderthals and the public and professional imagination of their world and being.

### 8.11. Conclusion.

In summary what will a new approach to Neanderthals require?

First, we need to situate our understanding of evolution within an approach that does not divide the world into opposing categories. Instead, a relational approach is required which draws on assemblage theory and posthumanism as a means of presenting both an accurate understanding of 'becoming Neanderthal' and to prevent the imposition of modernist ways of thinking being uncritically mirrored onto the past (Scott 2011). I propose that an affective biography of Neanderthals is better achieved in the context of human history, archaeology and ethnography as opposed to a natural history context that immediately places 'them' at a removed status from 'us'. Second, 'affective biographies' does not allow one strand of evidence (stone tools, anatomical remains, aDNA) to ride roughshod over others. The museum cannot adequately present the past if it continues to privilege specific forms of knowledge that serves to merely restrict what can be known and knowable. Current visualisation strategies have resulted in a set of highly formulaic and restrictive scenarios for depicting the 'great journey from animal-like dependence upon nature to a human level of interdependence through culture' (Wiber 1994, 1997). Finally, this thesis advocates an approach to gender that does not privilege euro and androcentric models of human evolution or a particular mode of being human (white European males remain the main protagonist in the evolutionary process), and specific types of evidence (cultural). It is the radical and arbitrary separation of males from females that reduces the latter to the status of nature, and thus males are presented as the essence of culture (Beresford 2016).

Although we are progressively working towards a better understanding of who the Neanderthals were and their invaluable place and role in evolution and the becoming of humanity, the irony is that to truly understand their position we must understand the un-becoming of humanism, androcentrism, racism and all the other ism's. We must decentralise ourselves from the discussion and focus on the inter-relationships of things, matter, substances and individuals (humans and non-humans) even down to the cellular level (Barad 2001, 2003). We should attempt to place relations and their stories, connections, moments of change at the centre of archaeological discourse and museum representation. This does however require a social and theoretical revolution, understanding the world, the environment and organisms as living narratives – 'affective biographies' if you will.



### Glossary of Terms.

*Agential Realism* – Agential realism is a posthumanism performative ethics proposed by Karen Barad that uses the insights from quantum theory to reconceptualise cartesian philosophy and our understanding of subjectivity, agency, and causality. For Barad, there are no fixed categories but rather phenomena are the result of the ontological inseparability of intra-acting agencies. This approach centres on the becoming and un-becoming of all phenomena and their intra-actions (agential relations) (Barad 2003, 2007, 2012).

*Affective Biographies* – Affective traditionally relates to moods, feelings and attitudes. In the context of palaeoanthropology and museum representation, I use the term to refer to an archaeological perspective that is founded on an emotional and relational awareness rather than modernity or human exceptionalism. Biographies is used here to counter use-life approaches to objects and instead critically consider the inter-relationships of objects, humans, non-humans and materials (Crossland 2018).

*Behavioural Modernity* – Behavioural modernity is understood within this thesis as a suite of behavioural and cognitive characteristics that are traditionally used to distinguish and separate modern humans, other humanities, hominins and primates (Ravi 1998). In the context of palaeoanthropology behavioural modernity has been used as a conceptual mechanism of difference and separation between ‘them’ and ‘us’. The suite of symbolic behaviours includes but is not limited to: innovative technologies (blade production, composite tools and bone materials for tools), broad-spectrum diet and subsistence strategies including plant and marine exploitation, abstract thought and planning including burial, the use of pigments and jewellery for decoration and self-ornamentation, cave paintings and symbolic sculptures and finally language. These characteristics are closely related to the



supposed cognitive revolution of the Upper Palaeolithic which is traditionally and exclusively associated with the arrival of modern humans in Europe.

*Cartesian Philosophy* – Cartesianism is the philosophical categorisation of the world into opposing categories attributed to *Rene Descartes*. It refers to a way of thinking that is founded on dualisms and the acceptance of binary oppositions such as culture/nature, mind/body, primitive/civilised (to name a few), that continue to plague archaeological theory and museological practice. This theoretical approach is sometimes referred to as the cartesian cut (Barad 2003, 2007).

*Culture* - Richerson and Boyd define culture as ‘information capable of affecting individuals’ behaviour that they acquire from other members of their species through teaching, imitation and other forms of social learning’ (Richerson and Boyd 2005: 5). Here, culture is understood as a ‘signifying process which is bound up by value judgements’, a social construct rather than learned characteristics (Mason 2006: 17).

*New Materialism* – New materialism can be understood as a return to things within archaeological theory. It is part of the material turn, a paradigm shift which is currently occurring in the humanities and social sciences that focusses on the social and cultural life of materials, matter and substances. New materialism is one of the most important emerging trends in the humanities, but it is a term of ongoing contestation because it has no single definition. In the context of this research new materialism is used as a contemporary philosophical and theoretical movement that is characterised by a shift away from human-centred approaches in evolutionary narratives and investigation to a theoretical and practical turn to matter and materials within the Neander world. New materialism is closely related to

relational approaches and posthumanism because it cuts across the boundaries between the natural and social worlds (Fox and Alldred in Atkinson et al. 2022).

*Posthumanism* – ‘Posthumanism decentralises the position of humans above other life forms and rejects the dichotomous foundation of modernity. Instead, it treats ‘the human’ itself as an assemblage, co-evolving with other forms of life, enmeshed with the environment and technology’ (Nayar 2013: 9). It rejects the placement of humans at the centre of scientific investigation and archaeological discourse. It challenges the notion of our superiority and questions the placement of humans as the pinnacle of evolution and our dominance over other lifeforms. Posthumanism is a highly eco-conscious discourse (Oxfordreference.com, nd).

*Postmodernity* - A movement away from modernism which represents a departure from grand meta-narratives. ‘Postmodernism as a philosophy rejects concepts of objectivity and the notion of universal truths. Instead, it emphasises the diversity of the human experience and represents a multiplicity of perspectives and approaches’ (Note 2011: 61-86).

*Slow Modernity* – Bennett coins the term slow modernity that refers to a visitors experience in the evolutionary museum. Darwinian liberalism that implies ‘the natural law dictated that social progress could only be and must therefore inspire to be, slow and cumulative’ (Bennett 2004: 150).

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## Appendix A

### Transcript of Interview with Curator of St. Fagan's Exhibit on Neanderthals titled 'Wales is 2% Neanderthal'.

Facetime Interview following Covid restrictions.

Date 30/06/2021 at approximately 12pm.

Speaker 1. (Curator) – Introductions.

Speaker 2. (Author) – Firstly, I would just like to say, I'm glad to see the Neanderthals made it into the new galleries. I remember when I initially made contact it was a little bit up in the air whether they would make the cut. So, it is refreshing to see that it did go ahead.

Speaker 1 – Yes. It was a fun project to work on in the end. Especially printing the model. It was brilliant. Yeah.

Speaker 2. My first question is how the prehistory collection (more specifically, the neanderthal remains) come to be displayed at St. Fagan's rather than their traditional home with you at the National Museum at Cardiff.

Speaker 1 – This was part of a big scheme that the museum started on back a long time ago. To revisit all the spaces to try and maximise the amount of space we had for art. So, the Upper part of the national museum Cardiff was earmarked to go over to art, and that's where archaeology originally sat. We were moved in 2007. We moved temporarily down onto the ground floor and the plan then was for this to be a temporary move, which ended up lasting about seven years. Prior to the St. Fagan's development. The idea being, then, that the ground floor and the national museum, Cardiff would become Natural history and a temporary

exhibitions space, basically. The whole human story would be told in one place, some fun stuff was the premise behind it.

Speaker 2 – Was this a welcomed change? Do you think the change in context from an evolutionary and natural history setting, do you think this enabled you to tell different stories about Neanderthal life?

Speaker 1 – It was a bit of a challenge for dealing with early prehistory, because it really bridges the gap and, the human part of the story was the bit that got cut from the evolution of Wales. You will notice, if you have been in that gallery, that the human story is truncated, it was the plan to have the early humans and evolution in that space originally, that was back in 2003, so quite a long time before. But that got truncated there. So, in the absence of any plans to upgrade that display, it made sense to make sure that it was prominent again, as this part of the story in the gallery at St Fagan's.

Speaker 2 – I think even the title itself. 'Wales is 2% Neanderthal' almost immediately, or how I interpreted it is as an attempt to bring the Neanderthals closer to us. So rather than a kind of separation and distinction between us and Neanderthals. It seems that this exhibit is more focussed on the similarities, and bringing them into the fold of humanity rather than seeing them as a missing link. Do you think this is a fair observation?

Speaker 1 – Yes. I think behind the Wales is Galleries, the whole premise is that everything is rooted back into the present and that you've always got a connection with today and your encouraging people to look at today and the past down to make the connections between the two, so that was one way. But there are other devices though, as well, for example the mirror

and looking at your face and comparing it. That again it is intended to bring the present person into the bumps of the past.

Speaker 2 –I must say the interactive features like comparing your height, comparing your features was refreshing. It was nice, very simple but it was an effective method to encourage active participation of visitors. In your opinion what is the main aim of the exhibit. What would you like visitors to come away from the exhibit feeling? What new information would you like them to know, really what was the nitty gritty. What was the main point you really wanted to get across?

Speaker 1 – I should perhaps explain that I didn't curate or write the text for any part of the gallery. What was done was, the curators provided expertise and made the selection of artefacts that they would wish to see. And then they went to an editorial committee that then did all the writing. So, they basically got us to write a script, with the big key facts that we wish to portray. We had no authority other than to check the facts. The museum decided on this occasion that it wanted a much more consistent approach, so that's the background.

I think the key thing for me was to basically to ensure that the Neanderthal remains which are so important, firstly, made it out into the public view. I had hoped we would have more stone tools, animal bones, but they were edited down. I think we could have got quite a lot more in those cases. I think my aim really was to tell the story of the people in the landscape and the environment of which they lived at that time. I think through the decision to include this in the Wales Is gallery, as opposed to, perhaps the Life Is gallery, which it could have sat in as well. It gave that the opportunity to make those comparisons between the person today and the person of the past as well.

Speaker 2 – I think even though you wanted more animals remains and stone tools, by focussing on the landscape and environment, I didn't get the feeling that the Neanderthals was arctic specialist. Traditionally the Neanderthals are conceptualised as arctic mammals who survived in cold and harsh environments. But, in the new display even the expression on the models face kind of gives the impression that a) it wasn't a harsh life, he looks quite mischievous and playful. I thought that was refreshing and even though it was only the outline of the animals, the fact that it was things like a deer and lion as opposed to the wholly mammoth and wholly rhinoceros, sparked the idea not everything, not all landscapes were the ice age and I think this is quite important in challenging traditional misconceptions surrounding Neanderthals.

Speaker 1 –It is important to understand that the Pontnewydd Neanderthals, aren't Ice Age Neanderthals. So, these are much earlier and the landscape they lived in would have been much warmer than it was with the classic Neanderthals. So, we don't have a mammoth or wholly rhino because those would be cold animals. We were trying to focus on those animals in the open steppe species, which are more open landscape animals, like the lion, the leopard and the horse as best as we could from an extinct species as well. So yes, we were trying to hint at that I think through that wall. The suggestion came from, I think one of our education teams to create a gamma wall, rather than just have pictures of the animals, to have what we believe to be actual life-size.

Speaker 2 – I thought it was effective and the visitors appeared to engage positively and constructively with the interactive features. That leads nicely onto my next question. Could you explain the significance of this site and what it reveals about Neanderthal life in Britain.



Speaker 1 – Well, these are amongst the only early Neanderthal fossils that we have from mainland Britain. These are an evolutionary, early form of Neanderthals so there still bridging that the gap. We have got quite a range of different tools. Yes, it is really a significant site. These teeth are all the remains we have so far recovered from the site, and we have 100% of the recovered remains out on display in that case. Yes, they are important, and I don't know that we convey their importance in that display, but yes in the bigger story, in the understanding of Britain they are significant.

Speaker 2 – Perfect. Just to clarify then, the teeth that are on display are the originals. They are not replicas.

Speaker 1 – 17 fossils in total. Yes, one of these has two teeth.

Speaker 2 – The remains represent at least five individuals, and the literature hints at the possibility these may have been a burial. Are there any developments in this regard?

Speaker 1 – We can assume that the dead were very local to the cave, whether they were placed in as burials or not. We simply do not know because of the debris flow and activity that has churned all the deposits so considerably which has caused their severe fragmentation. We simply do not know exactly where the original bodies would have been placed. There would have been no way of retrieving that, given the geological history and the history of what has happened with the site since. So, we are no further along than we were with that. The one thing that we did have, and which were doing around the same time we were putting the exhibition together is the looking if we could extract DNA from one of the teeth, but unfortunately, the preservation just didn't survive. So, there was insufficient preservation to

make that possible which was a shame. There are new techniques starting to come online, like proteomics which we might be looking at that in the future.

Speaker 2 –I was going to ask whether there had been any DNA analysis conducted on the teeth. The most striking feature of the exhibit is the hyperrealistic model. When I was there one of the museum staff affectionately dubbed him ‘Ned’, he has now been given a name even though it is not official. I suppose the key question is why and how did you decided to reconstruct the young boy? Was it because he represents the most complete sample and you have the most information at this individual? Or was it a conscious decision to challenge the traditional invisibility of children in the Palaeolithic? I found this interesting and I just wondered how you made that decision.

Speaker 1 – We settled on the child very early on, I think because again we felt like we were wanting to have some element here, that the children could relate to and to relate themselves to. So, we settled on the child quickly really. And, in part because we have that amazing jaw with the milk tooth and permanent molar as well. That’s the most complete piece of evidence we have. So yes, it was an early decision to recreate a child and to add to that, we have more children represented in the fossil sample than we do adults. So that’s another element to.

Speaker 2 – The model which is important for my research goes a long way in humanising the Neanderthals, because it’s almost relatable. You can see yourself in them, particularly with the choice of expression. Was the process of creating the model a co-operative choice between you and the Kennis brothers? Was you included in the creative process, and was it a joint decision to make ‘Ned’ joyful and a part of history?

Speaker 1 – Yes. We originally were wanting the child to be holding a handaxe and offering it to the visitor. So that was the original idea.

Bad connection.

Speaker 2 – Sorry, before we got cut off, you were saying that you originally wanted the neanderthal child to be handing a hand axe, almost to us as an offering. I think that would have been nice, because when there is trade and exchange it always seems to be us (modern humans) giving it to the Neanderthals, not the other way around. So, I would have found that interesting.

Speaker 1 – Yeah, but that's where we started and then during discussions with the Kennis brothers really started to take the model in slightly different ways. We also really hoped that the child would have been showing its teeth. We wanted those teeth, that's the evidence, but the ones showing the teeth just didn't look quite right. So, in the end we took the view that he looked much better with his mouth closed. So, the expression moved really from being slightly shy, offering the hand axe to being slightly more possessive of the hand axe, but showing that mischievous look that suggested I am willing to let you have a look at it and see it.

Speaker 2 – Perfect. It was achieved very well. I am focussing on hyperrealism and how the details of this type of representation almost increases the accuracy. So, when you listen to visitors in the gallery you hear people say things like this is how Neanderthals looked. There is acknowledgment that this is an interpretation. I argue in the context of the museum, the setting, increases the authenticity of it. I suppose my next question would be are the physical characteristics of the model reflective of the new and current scientific data. For example, Ned has a darker skin tone, usually Neanderthals are fair skinned with ginger hair, a few

freckles, nice blue eyes, ect. And is this reflective of the current directions. Is this why you choose the darker skin tone, hair colour and things like that?

Speaker 1 - I took advice entirely from Chris Stringer of the Natural History Museum. Chris and Tim Colton who had written the specialist report for the Pontnewydd report, they really were my guides. So, I just asked them all the same questions you're asking me and said can you advise me what height, so 134 centimetres was the average height. What skin tone, hair colour and what colour of eyes? So that all came from them, and I know that the Kennis brothers also had direct conversations with Chris Stringer.

Speaker 2 – I take it they chose the hand axe and the fur wrap, because of the direct evidence from Pontnewydd. Obviously, there is evidence of hand axes and of the people there skinning bears, perhaps even for the use of fur wraps since they seem to be interested in the animal's skin. So, is that why you chose to put him in a fur wrap as opposed to naked? And is that why he's got a hand axe?

Speaker 1 – The hand axe was something I was keen that the neanderthal should be holding a tool which was represented from the site. So, this one was an experimental one that someone had knapped using a rock which was recovered from an actual rock from within the cave. So that was nice and easy. The museum education department were really uncomfortable about showing him naked and without any clothes, but it was really clear, early on. So, when I started the discussion about clothing with the Kennis brothers it made sense to use a deer skin, but not to give it any real shape, what we decided was because we've absolutely no idea how they would have been clothed. So, let's just wrap it around and do it simply without any structure to it and without any stitching lines for the mounting of buttons. We opted for deer

because we've got lots of evidence from within the cave and it just seemed a logical species to use, something that was easily accessible without any problems.

Speaker 2 –I must agree with your educational team. At the National History Museum, I've seen a few school trips and the young girls, were ushered through quickly and it was visibly uncomfortable for them. They didn't engage with it whatsoever because of its nakedness. So, I think sometimes clothing makes it more accessible. It's a shame that we are still nervous about nakedness in these models because we don't seem to be concerned about nakedness in art. But when it comes to this kind of three-dimensional life-size reconstructions, there seems to be an uneasy feeling about nakedness.

Speaker 1 – That's right. I think we have gone through a similar thing, a number of years ago there was a BBC series with Charlies Roberts and George, they presented and were making models of different early humans and then did a big reveal ending. It was mainly based in Glasgow, and then the exhibition toured, and we brought it into the National Museum for a long weekend lecture were given by Charlies and George. We had the models in the main entrance hall of the museum. It became apparent that because they were all naked, that there were some difficulties with some cultural groups. We ended up just having someone on the door, to provide warning to the visitors coming in that they were naked models in the main entrance as soon as you come in.

Speaker 2 –I do think it is about accessibility and you want more people to engage with the model and to meet their ancestors face to face. Sometimes we must just bite the bullet between what we want and what is going to be more receptive to the general public. It is also refreshing that he is not behind a glass case. A member of the museum staff did explain that

unfortunately his eye got damaged in his first week, so they had to put up a little sign saying take care I am fragile, but it doesn't exactly stop people from touching him and things like that. I think this is an inclusive element of the exhibit. You are not only being forced to face our ancestors on their own terms but from a child's perspective you can touch it, you can engage with it. I noticed throughout the whole gallery, even things that were behind glass cases, they tended to have replicas out on the front of the display so you can still engage with the material. How did you reconstruct him? Have they basically used, fossils say for example from Gibraltar, because I know there is an almost complete Neanderthal child skull from this location. Are most of the actual physical characteristics, the muscle features and things, are they an amalgamation of different Neanderthal fossils.

Speaker 1 – They went with Chris Stringer who recommended Teshik-Tash was the closest parallel and there was a complete skull and indeed the plastic skull we've got on display there for visitors to handle is a copy of the Teshik-Tash skull (although this is not explicitly stated within the gallery). So, we used that as the model and the Kennis brother then scaled it back to the appropriate size for our model. So that was the basic basis of it, and the muscles and so in they just did in their normal way, with the pegs and the way they reconstruct the muscular features and we just had discussions where necessary on the different features that they did with Chris as well.

Speaker 2 – It must have been special to see it build up over time and them sending you the different aspects of the process, the initial drawings, the sketches and then slowly but surely coming alive, that must have been a very special experience.

Speaker 1 – We got them to send us photographs every month. And sometimes within the month there was quite dramatic changes. Sometimes we had three versions to look at and it was just, they just spend so much time, so attentive to their projects.

Speaker 2 – They are very good, I must admit. The Wales Is gallery is very different to the traditional natural history gallery. So, for example and the National Museum, I remember you start off in the visual display explaining the creation of the earth and then you go through, it's quite dark in places and very linear. Whereas the new gallery for example is not linear at all. I found myself at times quite confused, and jarring the fact the Neanderthals were in a different theoretical and conceptual framework. In a gallery that engages with politics, the museum staff explained that monitoring the post stick notes was sometimes challenging.

Do you think it's a positive move for Neanderthals to not be presented in that kind of linear, progressive framework? I think it allows you to challenge misconceptions about the Neanderthals. But how do you feel about this as a curator? It must be quite a dramatic change, for it to be displayed in a big airy, light gallery with lots of space. How do you feel about unsettling the notion of linear progression?

Speaker 1 – Personally, I didn't like it. I would be far more comfortable telling the chronological story and the history of Wales in that sequence because I just feel, there is no timeline anywhere in the galleries. The timeline that was meant to be on the outside wall of the galleries never quite happened. It got cut to find ways of saving money. So, no it's not easy for visitors to place themselves in time, as you say. And the fact that it is jumbled in terms of what is next to each other. So, you've got the Neanderthal, the Iron Age one side and the Medieval on the other and coal mining opposite.

Speaker 2 – I must say my first impression was this is very different, but I was only there to see the Neanderthal. When I analysed that section it was refreshing, but I do understand, at first it was unsettling and also unfamiliar, but I found it allowed me to view the Neanderthals a little bit differently as well.

Speaker 1 – Yeah, I think, the thing it does enables you to do is focus in one artefact, one object, one story and to explore that in a bit more depth, but what you lose in doing that is you don't get the context and you don't get the bigger picture. That's what I feel is missing and what's lacking. So, we can't tell the story of discovery in that space. So, we're having to try and find ways of doing that through our website, online material. Obviously, that's really increased with the COVID situation over the past year. So, we've been making more resources available that way. Unfortunately, a gallery can only enable you to do it in one way when perhaps there are 20 options you could have, but you cannot take all 20 different routes.

Speaker 2 – Absolutely. I think that's my only criticism of hyperrealism in the museum gallery generally, because although the traditional dioramas are out-dated and traditionally incorporate primitive features. But the stand-alone wax works figures, we lose the archaeological context of the individuals. If the museum could do what it is doing with hyperrealism but also within the context of a diorama, where we have the environment, we've got the animals, and like you say you can create actual scenes, I think it's a balance, isn't it? Between what you get in detail and the intimacy of hyperrealism, but we do seem to have lost, like you say the context.

Speaker 1 – Yes, I think I would agree. In that way, but I also think the way we have tried to create this gallery, in a way that we can hopefully update it and change things. So, if new



stories and new opportunities come to light then we can change it. It's a very modular set up as well, we are already looking at how we can bring more into the space and look at different areas in different ways.

Speaker 2 – I did notice that. So, with the text panels you can change and update them. The kind of questions, the little questions panel, how did the Neanderthals hunt, I think they are stickers so that you can remove them and update them too. I found the interchangeability refreshing also, particularly because Neanderthal research is changing so much, we really are in the golden age of Palaeolithic research. More of a general question, how do you feel the study of aDNA has impacted the kind of narratives you can tell about the Neanderthals and how has this helped you challenge misconceptions of the traditional brutish and caveman stereotype?

Speaker 1 – I think it's doing a phenomenal amount isn't it! You know, just even recent research in the last year with Rebecca Wragg Sykes book *Kindred*.

Speaker 2 – I am interviewing Rebecca next, in about two weeks. I mean I must say the main question I want to ask her is her book is literally, trying to tell the Neanderthal story but through their eyes and on their terms. Well, how do you achieve that? What you've done in a novel but in an exhibit, how do we see them on their own terms. Honestly, *Kindred* blew my mind, it was academic, but then also accessible. The little paragraphs where it's a conjuring of their world, I really enjoyed every minute of it.

Speaker 1 – I agree, and you know I think people read that. I think it just really helps to give us that picture of the real Neanderthals if you like.

Speaker 2 – Exactly we're coming on so far. You did kind of touch on this before I did notice that the text panels were not what I would consider as traditional museum labels. So, for example there is no item number. There was no information about where they were discovered from or that kind of context. It was a bit more about their use, their functionality. Was this a conscious decision to try and be more interactive and is it focussed on children. Is it all part of the new theme, a new direction of the gallery overall? I think it was a positive change.

Speaker 1 – The theme of, and direction of the gallery as a whole and the intention was very much driven by education staff who were driving the interpretation. So, it was really from their perspective what they found interesting, perhaps wrong. So, you know some of the visitors have commented they would like to know more about where things come from, that sort of thing. I don't think it has quite appeared yet because of the COVID restrictions and guidelines. But we have now created handouts which will be in all the galleries which give that traditional information, things like item number.

Speaker 2 - That's good. I mean because, obviously from an academic point of view, you like to know the item number, if you see something interesting you can go and look it up on the internet and the museum catalogue. For example, the cooking tools. This is used for processing carcasses and things like that. It's usually what the material is, where it was discovered, sometimes they might go into how it was knapped. This display feels interpretative rather than descriptive. Museums usually try to be objective and kind of leave the visitor to make up their own interpretations, but it did seem a little more directed in this gallery with the interpretation side of things.

Speaker 1 – I think that's fair. I also think that for the majority of visitors to have things like accession numbers, information about where it has come from, perhaps it doesn't really matter, and they might not know the place anyway. They might be visitors from a far.

We did do several focus groups with the material before we settled on them and some of the aspects of the gallery and they were interesting because we did three of those with different groups. One of those groups was from Cardiff Bay, of mainly ethnic minorities with various cultural origins. That was interesting to see originally, they were really uncertain about whether they wanted to spend time dealing with human remains. Some of them didn't join because they realised, they would be seeing human remains and some opted to go to a different workshop at that point. They were just firing questions. As soon as they were able to handle a cast of a tooth and some of the stone tools. Then it became very much like what was the environment like, what was the climate? What do they do with the items they had made. All the questions were about the people and the relationships. That was interesting. I think that was probably the group that really stood out the most. It didn't really matter to them where the material came from this never really came up. Or when it was discovered, or how we discovered it. It was very much only focussing on the people and the items that they had handled and what people would have done with them.

Speaker 2 – The interesting thing to these people was what is knowable, what can we find out as opposed to the actual kind of process of the archaeology. They seem to have wanted to know the real nitty gritty. What can we tell about these people.

Speaker 1 – I would say so, yes. It was that link to the people really. I think in our previous gallery as well in the origins gallery where you went into the space, you were met by a wall

of skulls showing human evolution. This family tree of familiarity of where we all sit in the evolutionary sequence. That was interesting because we found that when we did dwell times in that gallery, wherever there was either a model or a skull, that's where people dwelled where people had a direct connection with the person.

Speaker 2 – That is interesting. I suppose we are people, and we want to know what other people did, how they lived, and like you say rather than just looking at a stone tool or looking at a case full of artefacts and objects. In relation to Neanderthal archaeology, I argue that in essence that's what must be done. They've been an object of study rather than viewed as individuals, as sentient beings, who made things, were adaptive, and creative. I think that is something this gallery achieves quite subtly, that you view the Neanderthals as human, as a person not an object of study. We have spoken about the interactive features of the gallery, but if you could change anything about the exhibit with the power of hindsight what would it be and why?

Speaker 1 – I would have liked to have had a bit more about the context of the excavation. The easiest way to achieve this would have been a draw, or even an app which would enable you delve a bit deeper into it and have that within the gallery. I'm thinking on my feet, but I think the process really. We had intended to have much more interactive equipment in the gallery, but the funding got cut when we realised, we were going over budget with the display cases. That's why we ended up with post-stick notes rather than touch screens, but the feeling being we could add such things in the future it would be harder to add the cases.

Speaker 2 – Absolutely, and I suppose in other parts of the gallery there is political things. What sort of questions would you want to pose to the public for them to be politically and

ethically involved with the Neanderthals. What sort of questions should we be asking to try and engage the public?

Speaker 1 – Yes, it's quite difficult because we can't really draw those parallel with the Neanderthals. It is much easier with more recent history to ask those types of questions. So, I think we should just be stimulating questions about do you realise you have some Neanderthal DNA in you is sufficient. It's a big enough discovery on its own. Questions like do you think the Neanderthals had language? Do you think the Neanderthals told stories and things like that? I'm trying to think of things for children as well, that aren't too intensive. Something that everyone can relate to.

Speaker 2 - I think for the purposes of my research, the study of Neanderthals until very recently, it's almost been an injustice. Recently we have been bringing the Neanderthals closer to us, representing them as almost human, but not fully, and there is still lots of academic debate about their capabilities and the standard of proof. For example, Alistar Pike and the cave art found in Spain. The same technological methods that have been used to date homo-sapiens cave art, everybody accepts it, but when he stated that these dates indicate they are over 60,000 years old, so therefore must be Neanderthal in origin there was outrage. It was suggested there must be something wrong with the method and testing procedures. It seems the museum remains reluctant to fully accept Neanderthals into the fold of humanity. It seems that material culture is still the difference between us and Neanderthals. Its material culture which makes us fully human and special. Do you think this is because we are used to the traditional narrative of a missing link and the typical caveman stereotype.

Speaker 1 – I think that's really changing through the evidence, and again going back to Rebecca Wragg Sykes book, you can't dispute it. But perhaps what we need to be doing more of in our displays is saying that is the case, and maybe that's something we haven't done in this gallery and perhaps we could have done.

Speaker 2 – This is the final question for you, in your opinion how do we change these misconceptions surrounding the Neanderthals and how do we really challenge that traditional caveman stereotype? What context should we be placing the Neanderthals in? How should we be viewing them in a museum context?

Speaker 1 – It's so hard I think the simplest way is through live interactions, through that engagement with another person in the gallery space. So, if I can spend more time training with the gallery staff and assistants in the gallery to be able to tell the right story and portray that. I have done some training every couple of months, but how many of them we are capturing in that. I just don't know. The aim is to just try and talk to and educate the people who are then conveying information within the galleries is the best way to do it and also doing more live talks with myself and other specialists and again working with focus groups. At the end of the it the feedback was that they would just like me in the gallery talking about Neanderthals. We can't quite do that.

Speaker 2 – Just one other thing the model is so far advanced, but the pictures on the stickers with the questions. How did you decide which images to use? I ask because they are much more traditional in style. So, they are in black and white, they have predominately white characteristics, they are all male. So, I mean from a gender perspective it is quite difficult. You've still got the male hunter, taking down a cave bear. A male knapping the stone tools.

Do you think the museum should include females and perhaps a multi-behavioural hypothesis where you've got different groups doing different things. Do you think that would be helpful?

Speaker 1 – I think we were limited by what was available if I am being honest. We were not able to commission new artwork, which I would have loved, but not a possibility. So, yes, we did end up stereotyping a bit in that respect.

Speaker 2 – Thank you for your time today and championing for the Neanderthals and making sure they made it into the gallery. The exhibit was a little smaller than you were hoping for, but what you have managed to achieve in such a small space has been fantastic. Thank you Elizabeth for your time today. I really appreciate it.

Speaker 1 – Thank you very much.

End of Interview.

## Appendix B

### Transcript of Interview with Dr. Rebecca Wragg-Sykes

Date – 17/07/2021

Speaker 1 (Author) – Hello, thank you so much for allowing me to interview you today. The aspect I loved about your book is the individualism and personality that you give Neanderthals.

Speaker 2 (Dr. Rebecca Wragg Sykes) – Thank you. I am really glad you enjoyed it, because it was very nerve racking to publish it, obviously it is a public book, but I did want archaeologists to find something in there as well.

Speaker 1 – It's not just archaeologists, last week I had a meeting with Elizabeth Walker, curator at the NMW, Cardiff so and when I asked her what kind of directions did, she think Neanderthal research should be going, she replied by asking me if I had read your new book *Kindred*. Museum professionals are also taking an interest in your book. I hope that is good news for you.

Speaker 2 – Yes. That's really nice. I know Elizabeth, the manuscript for the book was over twice as long as the actual book and I would have put lots more information in the book about British Neanderthals and Pontnewydd but I couldn't because of the space.

Speaker 1 – My first question for you would be what were your motivations for writing the book?



Speaker 2 – I think probably two basic things really, one on a personal level I have always had an interest in literature, writing, storytelling, using words creatively to engage emotion. The other just simple motivation I feel incredibly lucky to be somebody who has studied Neanderthals in depth and therefore has had access to all the masses and masses of information that we produce, and I am aware that in general people are very interested in Neanderthals. I think it's a real privilege not just to excavate but to just be aware of all this information we have. I guess I wanted to share the knowledge but also the feeling of doing archaeology and the power of archaeology.

Speaker 1 – Is that why in your opening paragraphs you take a very poetic and a romanticised approach with the image and then the paragraph, they are very emotive paragraphs and not something you expect to find in an academic, scientific book?

Speaker 2 – Yes. It is hard to know whether I would have done that if I hadn't have read other books which have done that. I mean like I say I have had an interest in poetry and literature. For example, 'Ancestral Geographies of the Neolithic' by Mark Edmunds, published in 1999, he does something very similar, he doesn't do it at the beginning of every chapter, but he writes a longer mini introduction to some of his sections. Also, Steven Mithen's book 'After the Ice'. Although all the ins and the outs of the scientific and analytical aspects of papers are important, I find it really difficult to not actually visualise what does that actually mean for what that sites looks like if you were standing there. I wanted to indulge myself and allow myself to write like that, because it's important to me. I had very good advice from somewhere which was basically write the book that you would want to read, so I did. So that included that kind of more visual and imagining stuff but, trying to really keep it very

strongly tied to the archaeological data. This is what we have and question what we can do with that without going into the realms of fiction.

Speaker 1 – I think you did a beautiful job of it. I think you deserve credit for envisioning and creating a Neander world of social interactions that is founded in the archaeological record of Neanderthals.

Speaker 2 – The aim of the book was to make it very readable and scholarly, it's the accessibility and me trying to address quite simple everyday stuff and pull lots of different ideas together as well at a lot of disparate levels and bring it all together into a synthesis.

(authors observation - interpretation of the book is that it attempts to examine the ordinary to reveal the extraordinary).

Speaker 1 – Absolutely, I think the themes that you tackle are relatable themes. In this process of bringing the Neanderthals closer to us there are things that we can imagine ourselves doing. I think that is important because one of the most fascinating things was about the arctic lens and I hadn't quite noticed it as an arctic lens, but I have an unsettled feeling about the direct association of Neanderthals and extinct fauna. This really came to light when I went to the Natural History Museum, London and you literally walk past dinosaurs to enter the Human Evolution gallery and even though they have done a fantastic job within the gallery space, when I go with friends and family because of this close visual and artefactual association they assume that the Neanderthals and dinosaurs must have lived together.

Speaker 2 – That's a really good point.

Speaker 1 – Simply because of the closeness in proximity and continued association. The fact that you walk past them you automatically assume they must have lived together and when we are trying to conjure up these vanished worlds, we always use these extinct beasts as a visual schema to associate them with. I have always found this association damaging to the perception of the Neanderthals and their capabilities.

Speaker 2 – It instantly puts them at a removed status, it removes them from us. It removes the familiarity. Like the idea that they lived with beavers and moles and stuff like that, that's a bit more familiar. I think that's a good point about how museums present them. I think people are trying to do different things at once which is contradictory with Neanderthals. They are trying to show that they are different, but also there is an increasing desire to highlight the similarities, but it is extremely difficult to do that, but I don't think I have heard anybody explicitly state before that having them in association with natural history museums is potentially actually a problem.

Speaker 1 – Personally, I think the reason the Neanderthal model at St. Fagan's is beautiful is because it's in the 'Wales Is' gallery it's not surrounded by extinct fauna, it is surrounded by Bronze age burials, ethnographic research....

Speaker 2 – By human history...

Speaker 1 – Exactly, so as soon as you walk in this gallery you see them as human, whereas when you are in a natural history museum when all you have seen throughout the whole

museum is dinosaurs, extinct fauna and flora, animals, fossils, you almost see them as a fossil in themselves, an object of study rather than individuals.

Speaker 2 – I think that's a super good point and as I say I don't think I've heard people make that point before. This is the thing, which is difficult with prehistory, full stop. In the general school system people are generally like it's older than the Romans and that's about it. There is no chronological framework for people other than Romans and dinosaurs and you know it just floats in the middle and that's not people's fault it's just because they don't have the framework because it's not given to them properly. I agree with you. I think it's a very interesting point should we be presenting them in a natural history, very sort of 19<sup>th</sup> century view of things or should they be more in a museum like the British museum where it is much more about history and culture. I think I agree with you because there is virtually nothing in the British Museum.

Speaker 1 – They have done the odd temporary exhibition, recently they did a prehistoric art display with the Venus figurines that they had on loan. I asked Chris Stringer for my master's should these artefacts be a part of the British museum rather than natural history and it wasn't well received.

Speaker 2 - Is that the topic of your PhD and what is your title?

Speaker 1 – My title is always a working title, but it is focussed on the dualistic construction and separation of 'them' and 'us' that explores the progressive machinery of the evolutionary museum. I am looking at how we portray Neanderthals in different contexts. I am interested in the natural history approach because I feel like that keeps the Neanderthals within that

linear, progressive and distinct framework where they simply represent a service station on route to humanity. Therefore, we are still working within the theoretical frameworks of slow modernity and cartesian philosophy and it's that framework that I challenge. This is something that I think your book achieves flawlessly which brings me to my main question viewing the Neanderthals through their eyes. How do we represent them in a museum on their own terms as individuals, sentient and intelligent beings?

Speaker 2 – Yes. I agree with you. I think the difficulty is in terms of a natural history setting you have got to have some kind of hominin aspect to it but its where you choose to stop that, I think that's the interesting question? Now we have stone tool technology 3.3mya, so do we include the Australopithecus and stop it at that?

Talking about museums have you seen the exhibition at Moussegaard museum in Denmark, you won't have seen it because no one is travelling but do you have a catalogue of it?

Speaker 1 – No, I haven't but I have heard some good things about it.

Speaker 2 – (pulls the catalogue from her bookshelf). I like this because it's got pictures of the exhibition within it. So, it might be worth you getting a copy of that. They have got a lay out but it's very much people doing things and it is just about the Neanderthals. I would really like to bring this exhibition to the UK, but I do not know if that is going to be possible. Let me just show you what I like about it. In particular, they use lots of different scales to look at particular aspects, so like with the birch tar, he has done this lovely picture of a Neanderthal making the birch tar, and this Neanderthal is actually the one from the North Sea which is nice. They've got lots of little pieces to do with how you make birch tar, then they've got this little scene down here which is like one of them old fashioned miniature dioramas. It is quite

lovely. Although it is an old-fashioned museum technique it really works, I think. It has all the different aspects of birch tar, what actually is birch tar technology, what are the actual objects how do you make it, here is some bark, picture of Neanderthal and then there's the little scene and I think that drawing it all together really echo's how we do archaeology.

Speaker 1 –I think it is a shame that the Human Evolution Museum closed quite a few years ago now and that is something that I would love to see come back. Some of the best museums I have been to include the Museum of Human Evolution in Burgos, Spain, that displays the whole archaeological process, the hominisation process and Neanderthals and modern humans together, that was an eye opener.

Speaker 2 – Oh yes, that is lovely. Yes, I have been there.

Speaker 1 – I really enjoyed how this museum started with the archaeological process, the archaeological sites and attempts to reconstruct them, then onto the theory of evolution, then the circular layout of the hominids and finally the landscape. I left the museum feeling like why we aren't doing this in the UK.

Speaker 2 – I really think continental museums sometimes are much more innovative. Although it's not always in the museums, the French national archaeological service 'inwrap', they have good interpretative stuff on their website, there is one for the digs they did for the Neanderthals which is the La Folie site. It shows you all the different layers of archaeology which sort of builds up to the interpretation. But yeah, I think the French are good, some of the German museums are good. I haven't been to the museum at Schöningen (spear site), that looks amazing as well I would love to go.

Speaker 1 – Croatia as well, the Neanderthal Museum at Krapina is supposed to be amazing.

Speaker 2 – Yes, I haven't been to enough of them. Try to buy the catalogue through their website and totally get a hold of that because the text is also really good. It would be a good case study for you I think in terms of how we present them on their own terms.

Speaker 1 – I think it's interesting about the commercial unit of France having very good interpretive things because during my Masters, I attended the Prehistory Museum in Dordogne, which takes a traditional linear and progressive approach that separates 'them' and 'us', symbolically and they exclude Neanderthals from the sacred realm of cave art, despite new evidence from Iberia that suggests Neanderthal did create cave art.

Speaker 2 – The French have no problem with old Neanderthals and old Neanderthals doing stuff because they don't have a problem with Bruniquel. I don't quote 'cave art' evidence very often because I am not a dating specialist, but I know dating specialists have critiqued it and I don't see why those dating specialists would critique it without good reason. When I talk about those sites and people say what about the Spanish sites, you never talk about those. I say well I mention them, but they are debated by other people who have more expertise in dating than me. And, what else do they bring in terms of something new, in the case of the handprint that would be something new, but in terms of the use of pigments and the creation of linear stuff, we have other things that tell us that. I would say I just want to be a bit more patient and see some more sites with a genuine consensus on the dating of these sites, that's why I am hesitant on these findings.

Speaker 1 – But I do think when you look at their use of pigmentation and the mixing of pigments, especially the site where they seem to have incorporated a shiny pigment to it to give it a real kind of lustre. It is not a stretch of the imagination to consider that they would have then put these pigments onto cave walls. There is an article that suggests the first artists could have been bears, and when Neanderthals entered caves, they would have encountered these markings, through bear scratches and if you consider the role and archaeology of Bruniquel the subterranean structure, it appears Neanderthals and deep karst locations for symbolic activities is a possibility. You imply in your book that Neanderthals could have been mimicking cave bear behaviours of making nests. This is an interesting and original way of presenting Bruniquel.

Speaker 2 – Or just an interest in the materials. I mean I don't know what's going on with Bruniquel, nobody does it's weird. I think the issue with the cave art is inconsistent information and dates. I read the paper and I read another of their papers that they wrote about two years earlier where they rejected a load of dates from their own site, but then they published that paper afterwards that had dates that had similarly unordered stratified micro samples. So, I don't understand some of the methodological choices they made. Then when I saw other people critique it. I thought I am going to be cautious about this. I mean it would be nice to see more work, it's interesting that they haven't published anything since then.

Speaker 1 – Why aren't we talking about Bruniquel more, it doesn't seem to be mainstream knowledge. The museum doesn't seem willing to accept that Neanderthals were capable of building structures and being the first monument builders.



Speaker 2 – I would like to see more of the work from Bruniquel. I am sure they are working in there because they wanted to know what was underneath that flow stone layer and I am sure they will probably be doing micro excavation samples down and seeing what's under there, but that's probably ongoing.

Speaker 1 – I believe that one of the major issues in Neanderthal research is that archaeological theory has not yet been updated to keep up with the advancements in scientific technologies and data. There has been a scientific revolution within Neanderthal research, but we are still waiting for a theoretical revolution in the way we perceive and represent them.

Speaker 2 – No, I agree with that. I am working on a chapter just a general updating chapter for the oxford encyclopaedia of cognitive archaeology and that's going to be on adhesives. I am also hoping to write a paper with a colleague that we tried to write in 2015, which was an updated comparison between the Middle Palaeolithic and the MSA in terms of the cognitive stuff and just sort of, again pull out the problem that when you try to compare those records still people will allow a lot more for the MSA in terms of inference than they do for the Middle Palaeolithic. The fact that for the MSA burial record there is just nothing there is hardly anything, we have virtually no idea what they were doing with the dead. You've only got a few bits in the shell middens at Cassies, which is super interesting behaviour. Then you have Border cave and some stuff up in Egypt and that's it for the whole of the African continent, a much larger geographic area than what the Neanderthals lived in, and yet we have so much clear evidence for interesting bodies from the Neanderthals. If this trend was reversed it would be used against them, absolutely. We do need a synthetic approach. That's what I enjoyed doing with Kindred but it's not an academic publication, it's not referenced in the same way that an academic publication is.

Speaker 1 – One thing I found very interesting with your book when you compare Neanderthals to contemporary *Homo sapiens* the differences are minimal, but we seem to have a habit of comparing Neanderthals to modern day humans and our capabilities today. That kind of conceptualisation that we are the only species that could have made it to the moon, we are the masters of our environment, by creating aeroplanes and placing men on the moon simply reinforces the idea that their capabilities were inferior compared to ours. But when you compare the contemporary archaeological record, they were doing many fascinating things with bodies, if not more at that particular time, but the standard of proof seems to be much higher for Neanderthals than it is for us.

Speaker 2 – Yes. That is always the problem when I do public interviews, people will ask me what would have happened if the Neanderthals would have survived? What would they have been like? People are interested in the notion that Neanderthals may have followed a similar evolutionary path to ours, if they had survived. Of course, I do not know the answer to these questions and archaeology may never be able to answer these types of questions. The intersection between neuroscience and genetics may tell us more in the future, but if you compare the Middle Palaeolithic to the MSA, there's no clear hint of the massive divergence that we assume would have happened in the archaeological data.

Speaker 1 – Absolutely. I think one of the key problems is that extinction discourses are associated with failure. So how do we overcome that, because it is automatically assumed that just because they are no longer here that modern humans must be the most successful species because we are the last ones standing. Therefore, it seems like we are almost looking back in retrospect trying to find that difference.

Speaker 2 – Exactly, I completely agree. I think the problem is we are really driven to look for explanations of things and explanations which fit a narrative and as you say just because something is extinct doesn't mean it failed. The popular science book – 'The Ends of the World', by Peter Brannon, is good because it goes through all the mass extinctions that have been and reveals the cruelty of what the earth does by itself to everything alive. He has some nice quotes in places, just this idea that it may have just been luck a lot of the time. Things can be really well adapted, and it is still not enough. So, yes, I think extinction discourses are an important nuance. I agree that people need to, or we need to help people get that a bit better.

Speaker 1 – It is interesting because the public generally accepts that the dinosaurs were a successful species and became extinct because of an unavoidable massive catastrophe that killed them off. I suggest that because archaeologists haven't identified any such events in the archaeological or environmental data for the Neanderthals, we automatically assume that symbolic behaviours and our supposed superior culture and technology must be the defining difference. For example, language, even where people accept that Neanderthals had language, their language abilities are inferior. To demonstrate this popular misconception there is a popular game titled 'Poetry with Neanderthals'. The aim of the game is to answer questions using only one syllable words, it includes an inflatable club that you hit your opponents with if they use two syllables or more. Despite, this being a lighthearted game it has negative and dangerous inferences about Neanderthal capabilities and place in human evolution.

Speaker 2 – Exactly. I completely agree. That is something I do try to communicate when I do interviews is that they had their own history. They were not just sort of hanging around

waiting to fail. I hope that this book does that a bit more. The exhibition finishes in the middle of October, and I don't think I will be getting over to Denmark by then, but I am talking to the people about trying to get it over here, but we need to find venues. The exhibition is designed to be a travelling exhibition but not with all those objects they would have to be discussed again to be brought in, so I don't know what's possible, but I would love to bring it over here. I have so many ideas I would like to make a multisensory Neanderthal exhibition like where you can go in standing in the middle of the room there would be mini rooms that would be all glass and inside you create an Eemian world and there's like little things you can go up put your nose up to and sniff like the smell of hippo poo and stuff.

Speaker 1 – I love that idea. I think the way you engage with the Eemian was fantastic, because again it really challenges that arctic lens. That was a strong way of identifying Neanderthals as individuals but also really break away from that monolithic entity, that they are not the same across all spaces and time. I agree that is something that did come across in your book, there isn't just one archetypal Neanderthals there were different ways of being Neanderthal, again that is something I don't see very often in the museum. In the museum it tends to be a very specific archetypal Neanderthal he has even got his wounds all over him, he has his spear and hand axe and that's it. It appears curators are still a little nervous to challenge the traditional narrative. For example, Elizabeth explained that originally, they wanted 'Ned', the Neanderthal model to be offering his hand axe to the visitors as an act of curiosity. I asked why they didn't do that; it would have been fantastic.

Speaker 2 – That is such a shame because the impression is so different. You should talk to Trina, there was conference last year it's called 'Symbiosis' at the NHM, Oxford and about art. I can send you the link Trina did a talk about the Moesgaard exhibition. I would hope it's

still online if it's not this is the website for this conference. The idea was that NHM's and the intersections with art but there was a human origins angle to it. So, I gave a talk about the history of images of Neanderthals through time because I am writing a book chapter on that, which is connected to another project. Then Trina gave a talk about how she created that exhibition with Tom and stuff they did, just email her and ask to talk to her about how as an archaeologist she choose the different things she was juggling in terms of how you present that.

Speaker 1 – I have sent emails to the Kennis brothers, but I haven't received a reply.

Speaker 2 – I've never dealt with them personally so I don't know what they are like, they might be shy, but there is a good article in the New York Times about their work, have you read that one?

Speaker 1 – Yes, I have and that's how I know they are very eccentric, and all the curators who have worked with them have confirmed that they are very strong characters and have strong ideas about the model's postures, appearance and facial expressions.

Speaker 2 – I like that article so what I also did when I was researching whether we can see a change in the reconstructions of Neanderthals after the aDNA evidence happened basically. I think there is, I think they start to look at us directly but that's just my idea. In that New York Times article what I really liked is how he was touching on how obsessed they are with the postures, and it's all drawn from ethnographic work, and I thought that was so fascinating and really interesting and that's the whole thing that you're talking about, people just living and just representing them as being comfortable in their bodies and stuff.

Speaker 1 – Also, at the beginning of Clive's book he says that as well, he says that originally, they wanted the figures with their hands down, but they resisted and suggested that ethnographic research suggests a different posture and they asked the question where do you put your hands if you have no pockets? And that's why Nana and Flint have their arms folded across their chest but holding their neck. They explained that ethnographically that's how people rest/pose when they haven't got places to place their hands.

Coming back to the DNA question and the explosion of new data and scientific techniques in the past decade of Neanderthal research and how has that affected how we represent them in the museum. I think that first and foremost they are human, like you say they look directly at us. It's very much about us coming face to face with our ancestors and at St. Fagan's they have taken that a step further and you can touch him, but I find that the problem then comes with DNA it's like they have become objectified. When you put that representation in a museum, it's no longer a representation, people assume that must be how the Neanderthals looked and there is no recognition that this is art, or an interpretative process. It is viewed as an objective databank, in the same way that the hand axe is in the glass case next to it. I think this approach does have some potential problems. For example, nowhere in the exhibit at St Fagan's does it explain that Ned is not reconstructed from the teeth and jawbone found at Pontnewydd cave, rather it is from the Israel Neanderthal child Teshik-Tash. Therefore, he is not a Welsh Neanderthal, but the title of the exhibit is Wales is 2% Neanderthal.

Speaker 2 – No Teshik-Tash is quite lightly built and vastly later than the Pontnewydd ones are. No, you are right it is true.

Speaker 1 – So, with the DNA evidence has that given you a lot more freedom in the kind of stories you can tell about Neanderthals?

Speaker 2 – I don't think that it's changed that much in terms of the basics, like the technology the pyro technology, the spatial stuff. I think that would have remained the same really, but it has boosted my confidence in the anatomical aspects of language. The fact of interbreeding has made people pay more attention to the possible variety of processes, social processes around contact, that from my perspective that it's not justifiable to assume that violence is the first option that people would have taken. I also don't believe there is a reason or scientific basis to say that all that interbreeding was a consequence of rape, because that's not supported with what we see in primates. Chimps don't do that, and it's not supported in hunting and gathering communities, some of them do, and there are sometimes some women stealing but it is not the norm. Whereas what we do see universally is an interest and a curiosity and that's also what we see in Bonobo's rather than chimpanzees. They are much more interested in and open to friendly contact. So, I think the fact that we know a) there was interbreeding and b) that some of those hybrids were able to survive and were presumably looked after in some way I think that has been a really powerful angle from which to come from and challenge some of those narratives that the extinction was about a fight for dominance or an outright conflict, which there is zero evidence for.

Speaker 1 – Do you think aDNA helps to explore social relations especially when we consider the fact that they were not just interbreeding with ourselves but also other hominids like the Denisovans. It suggests to me that there must have been some sort of commonality and relatability between these species, and that brings me onto my next question do you think

a multispecies approach rather than an anthropocentric approach would be more useful in Neanderthal archaeology?

Speaker 2 – Yes, I think that is really important. It's not just the genetics and the fact of interbreeding and that legacy in us. I think one of the most powerful things is 'Denny'. That single fossil shows that there was interbreeding between other groups as you say, but it also shows that it cannot have been rare. We could not have found a fossil of a first-generation hybrid. So, in that sense I think it is very important and I think it's a really good point that people in general go on a lot about us and Neanderthals and that to be fair is because we virtually have no idea of the Denisovan archaeological record. In terms of what contact with Denisovans represents that is very important and I think as we get closer to an understanding of what's going on in Eastern Eurasia. I think that's really going to pull some fascinating stuff out because we don't even know how far east the Neanderthals got anyway. There is no reason why Denisovia is the boundary, it's just so happens to be the one we have found so far.

Speaker 1 – Absolutely, I do think that although there is some scepticism over the new hominid that's just been found out of China, 'Dragon Man', I know Chris Stringer takes quite a conservative view the new findings have been based of computer analysis, that it doesn't fit within the ranges of known hominins, but it suggests that a multispecies approach is needed.

Speaker 2 – They've done it with the metrics of the skull, but it doesn't have a jaw, so they have only used it with that, but then they have claimed that it's close to the Tibetan one which is a jaw, but how do they know because they don't have a jaw for this new one. Yes, there are some questions about exactly where it fits in for sure.



Speaker 1 – I do think it shows that the story of human origins is changing we have had to make so many U-turns, and re-writes, suggesting we need a fresh analysis and interpretation to critically consider how and why they have come to be viewed this way. I think one of the most powerful points is centred around reading Savante Pablo's book. He explicitly states that they did not decode the Neanderthal genome to better understand Neanderthals, he decoded the genome to identify what make us different and what make modern humans unique and special. It was an ironic twist that he found these similarities and this continuation and connectedness as opposed to this kind of separability which is what he was looking for. The aim of the research was in essence to find out what makes us human and instead we revealed what makes us Neanderthal.

Speaker 2 – Exactly, I agree. Try talking to Tom, he plays himself down because he is not focussed on being anatomically correct, but he is interested in how we portray people from the past. He would be worth talking to, he might to do it.

Speaker 1 – I do think that would be useful because his work is breath-taking, and I do believe that's how we should be portraying them. I think the museum should take a more theatrical approach and play with the archaeological data to push ontological boundaries.

Speaker 2 – Shows me over the screen artwork created by Tom of the Krapina Neanderthal where she is breastfeeding, it includes the talons and a little baby fiddle toy. Rebecca then suggests why not? Why would it not be that so as far as I am concerned that is archaeologically accurate, these artefacts did exist and it might not have been necessarily jewellery, and taking care of children is important, so yeah why not. His work often provides a different interpretation of the archaeological record. I like his work because of that he puts

the archaeology in, but he does it subtly and like with the birch tar thing, I know that is a piece from the North Sea because I know the birch tar evidence well, but you don't need to know that, but it adds to it if you do.

Speaker 1 – I found that one of the major problems is not just theory but, the language we use. I think one of the most striking things was doing my research obviously I started by doing a little google search and when you google for images of Neanderthals. The images have changed dramatically for the better, but when you look at the definition of Neanderthals, they give them a range of about 120,000 years, they say they are predominantly a European species, they use language such as unintelligent and an uncouth person in their definition. Surely to really challenge the traditional view of Neanderthals we need to do more than just change the images we use to portray them and that we need to change the definition of Neanderthals.

Speaker 2 – Yes. I agree. It has just occurred to me that it might be worth petitioning Oxford dictionary to change its definition of them. I think with images it is interesting that in terms of the ones that come up now in terms of searches it's not just the availability of the images but it's going to be the ones that people click on, because that's how the google algorithm works, so it's those two aspects which are interesting. It's the ones the variety of what is out there but also the ones which people are drawn to, so that's fascinating.

Speaker 1 – What I find interesting is that those images have always been there if you look back at Boule's and Keith's reconstructions, the idea of seeing them as human has been there since 1911, so why did the other images and the primitive iconography prevail for so long.

Speaker 2 – No, it is interesting. I think there is a lot of different things going on. Also, the Spanish guy who did all the Atapureca sites, he's been doing that kind of work since the early 2000's, even 1990's. I think it's only really shifted since the 90's, but before that yeah it kind of went a bit weird. Why that happened I think it's a lot of different stuff in terms of social stuff and post war ideas of wanting to have perhaps more faith in humanity after all the horrific things that we did in the second world war.

Speaker 1 – I do think that the political setting, not only has the science come on so far but I think the political setting almost gives us a real opportunity to reconceptualise not only ourselves but also the Neanderthals, because we are starting to realise that kind of assumed superiority that we have encased ourselves in is beginning to be questioned with the climate movements. We have started to critically consider whether we are truly the most successful species if we are killing the very thing which give all organisms life. Clive says something nice at the end of his book that if there were Neanderthals around today, they would be utterly disappointed in what we have achieved in so far as these concrete jungles, technological advancements yet there are so many animals that are no longer here, extinctions that we could have prevented, the destruction that we have caused or could have avoided. We are starting to challenge the notion of human exceptionalism.

Speaker 2 – It's interesting because people are suggest we should stop using the word Neanderthal as an insult and you know, yes that's true but at the same time it's sort of divorced in people's minds from the actual Neanderthals. I think it's more just a word, there's two people to some extent they have two ideas of what Neanderthals are in their heads. Many people have picked up that Neanderthals were not as dumb as we used to say, just that very basic idea I think that has kind of filtered out, but not everywhere. I don't think we are going

to get rid of that word as an insult because it's kind of become separate to what it is, to the actual reality of it. I think it would be helpful to have a new dictionary definition I think it's a really good idea actually.

Speaker 1 – I was genuinely really shocked about how the Oxford dictionary is still describing them this way. In all honesty it's false, it's not just misleading it's inaccurate. They weren't just around for 120,000 years; they were not just a European species. I think this is important because if we can change the perception of how we see them then we might be able to change the perception of animals and our place within the world. There was a very interesting comment during a conference on Darwin that he did more for animals than he did for billions of people and although Virchow was ultimately wrong in his classification of fossils. I do think he was right about the negative consequences of social Darwinism particularly in relation to race and gender. Originally that's what got me interested in this topic, when I realised that it's about this separation between us and them and no matter how close we bring them, they remain different and lesser.

Speaker 2 – No, I agree. Was that for that book that came out recently, 'a most interesting problem', conference that you saw?

Speaker 1 - Yes, it was about evolutionary mechanisms and what evolution did in its time in challenging religious dogma and undoing biblical chronologies which was fantastic but when you look at the social consequences of evolution, they have been very destructive and damaging. Really, we should have realised that we have a common origin, that we are all the same, but it separated us into hierarchies and caused a lot of social and political unrest and that's why Neanderthals matter, because people think they are just an abstract term, fossil, but

there are real life consequences on people, on women, on children, on race and people don't realise that.

Speaker 2 – One of the people who had a paper in that book, Agustin Fuentes, he has just done an editorial about this exact thing about Darwin's descent of Man and provides a brief laying out of that criticism. We must recognise that racist and sexist attitudes were not necessarily a product of his mind, but instead his epoch.

Speaker 1 – Yes, for women and for race he didn't do that much, in fact it was detrimental. That was a beautiful aspect of your book where the individual of colour gives a lecture clearly stating he can see what this means for humanity, why is nobody else seeing it and again it was our prejudices which really stand in the way of our interpretations. In essence it demonstrates our colonial undertone to the study of evolution and humanity.

Speaker 2 – Yes, it is. That structure whether they would have admitted it at the time, they were using all the different branches of science to justify that to themselves. It's completely clear that's what was going on.

Speaker 1 – Its time that we use science to undo these colonial roots, I think that is a very important point science is still a very masculine discipline, even the language, the way science is framed as objective and based on logic and reason. These are seen as male qualities, so even though science is presented as being multi-disciplinary and inclusive suggesting there are now lots more women in science, but really it hasn't come that far, the way that we word things, the way we structure academic articles is very masculine and male dominated in the way that we present evidence.

Speaker 2 – That's one of the reasons why I wanted to write the book because, although I like the problem solving and the critical thinking and the CSI objectivity of doing archaeology, that's not enough for me, why should it be enough, I want to write like this as well and that's ok.

Speaker 1 – I am trying to create a theoretical framework which, I term 'affective biographies'. Initially, I was going to call it emotional biographies, but it was brought to my attention that emotion is a loaded term, especially in the context of the Palaeolithic and Neanderthals simply because of Hawkes ladder of inference and the idea that emotion is impossible to retrieve from the archaeological record. This critique confused me, because they must have been emotional beings and its biographies because it is relational.

Speaker 2 – That's a very Palaeolithic archaeological attitude because that is not the attitude in later prehistory or other periods of archaeology. There is a whole project, European funded, I think Coleen Morgan from York and Sarah May, now at the Museum of London, it's their project and they have got loads of resources and videos and things, it might be worth you looking it up because there answer is archaeology is fundamentally about emotion, that's why we do it.

Speaker 1 – Absolutely, that is exactly what I am trying to get at, like yourself exploring the Neanderthals as intentional and emotional beings. Not just emotion in the basic sense. If we do discuss emotion its always related to basic survival extinct centred around fear and pain or briefly considering their miserable existence, but what about the social stuff, joy, happiness, comfort, confusion in instances of climatic and environmental change. To make them truly

relatable, truly human we must consider their emotional capabilities, not merely their behavioural capacities.

Speaker 2 – There is a long term split with Palaeolithic archaeology because it has been rooted in Quaternary science and Palaeontology which doesn't use that language at all, people like Clive have tried for a long time to try and bring it in a bit more, but there is a real resistance to it, and it is not what you see when the Palaeolithic is over.

Speaker 1 – My last question Rebecca, thank you so much for your time. You talk about your book trying to paint a kind of 21<sup>st</sup> century portrait of Neanderthals, you touched on this a little bit before when you were saying if you could create the perfect museum exhibit you would include x, y and z, but for you as somebody who specialises in Neanderthals what should a portrait of a 21<sup>st</sup> century Neanderthal look like? And if you could change anything about your book, what would it be, is there anything you wanted to include which you couldn't with this book?

Speaker 2 – Do you mean a visual portrait?

Speaker 1 – Yes. For you what would successfully challenge or unsettle the common misconceptions and prejudices surrounding Neanderthals. How do we challenge the traditional approach to them. So, for example on the cover of your book there are several material items that I am not used to being associated with Neanderthals, the talons, feathers, even your title 'Kindred' emphasises their connectedness and relatability with us.

Speaker 2 – I think if I am honest, I think people are already starting to do what I would like them to do in terms of visual representation of Neanderthals. In terms of surprising ways of dealing with the archaeology itself, maybe that's something that could be done further. I can probably think of ways that I could collaborate with someone like Tom, for example and do something maybe original in terms of something that hasn't been done with how we present the material culture and their lives and things. In terms of the social side of it, what I like most at the moment and what I think has been really revolutionary and really important is the images that he produces of the children, especially with men and it's not just him who does this and the Kennis brother do it, Elizabeth does it as well, where they are smiling and they look confident and they look happy to be alive! Those are the things that I think are the most striking for people who are coming with very old-fashioned preconceptions of Neanderthals. So, I am happy with how artists are using the overall picture of Neanderthals. I think that good, there's emotion, there's bonding, and subtly. I'm not quite sure how, I think any sort of visual representation of a meeting between homo-sapiens and Neanderthals is going to be purely inference because we don't know anything yet, we just don't have the data to base that on, although that would be interesting to do, and I haven't really seen any recently.

Speaker 1 – There is a poster at Torquay Museum which depicts a meeting between Neanderthals and Homo-sapiens, but again it's the Homo-sapiens passing on the culture to Neanderthals. Again, it doesn't really kind of capture the social side of things. It's quite ironic that the Neanderthals are handing over a hand axe and modern humans are handing them beautifully worked beads, something which is hugely symbolic, and the Neanderthals are associated merely with functionality.



Speaker 2 – I think there is a lot that can be done with something to do with that. I think could be fun to work on. But what would I change about the book. Well, obviously it needs updating already, because there is more stuff, especially more genetic stuff. I wanted more pictures, but I couldn't, not just more images like at the beginning of the chapters, but also just images of artefacts and objects, because I could only have that one colour section, because of money, because Bloomsbury sigma doesn't have the same budget as Bloomsbury press. I would like to do a graphic version of this book and work with Tom and so who knows, it's possible, but to have something which is more visually based.

Speaker 1 – Thank you for your time and such an interesting discussion. I will keep in touch.  
Many thanks Rebecca.

