*Sentient Archaeologies*

# 5. Storied landscapes in the Palaeolithic? The view from the cave

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## Abstract

*It has long been accepted that European Palaeolithic societies of the last interglacial/glacial cycle were likely linked in social networks that connected individuals and groups in information flows to spread risk and provide access to resources and mates. Building on this, Michelle Langley (2013) argued that European Neanderthals inhabited 'social landscapes' of this kind but Modern Humans imbued their physical environments with symbolic meaning to create 'storied landscapes'. In this paper we consider these arguments in terms of the archaeological records of three caves we have investigated, all outside Europe: the Niah Cave in Borneo used by Modern Humans since c.50,000 years ago, the Haua Fteah in Libya used by Modern Humans from c.140,000 years ago, and Shanidar Cave in Iraqi Kurdistan used by Neanderthals until c.45,000 years ago and then by Modern Humans. Reviewing the evidence in terms of Langley's principal criteria of landscape marking, personal identities, raw material transport, and norms and customs tied to the landscape, we conclude that the evidence, whilst often ambiguous, serves to widen the debate about Palaeolithic social networks and 'storied landscapes'. At least for the Palaeolithic people using these three caves there were different ways of being human and different ways of envisaging the landscape beyond that do not map onto the Archaic/Modern dichotomy that is such a cornerstone of evolutionary studies based on the European archaeological record.*

Keywords: Haua Fteah Cave, Niah Caves, Shanidar Cave, social landscapes, storied landscapes

## Introduction

It is an enormous pleasure to contribute to a volume dedicated to Chris Gosden's contributions to archaeology. Earlier in our careers we (GB and CH) worked together on three landscape archaeology projects: the Biferno Valley Survey in central-southern Italy (Barker 1995), the UNESCO Libyan Valleys Survey in Tripolitania, northwest Libya (Barker 1996) and the Wadi Faynan Landscape Survey in southern Jordan (Barker *et al*. 2007). In the past two decades we have collaborated in the re-excavations of three caves with deep habitation sequences (Fig. 5.1): the Niah Caves in Sarawak, the Haua Fteah in Libya and currently Shanidar Cave in Iraqi Kurdistan famously excavated several decades ago by, respectively, Tom and Barbara Harrisson (B. Harrisson 1967; T. Harrisson 1970), Charles McBurney (McBurney 1955) and Ralph Solecki (Solecki 1971). But whether we have been walking around a landscape, or looking out at one from a cave, our shared abiding interest has been in how people have shaped landscapes and landscapes have shaped people. Cultural landscapes of this kind have been central to Chris Gosden's research. As a Sheffield undergraduate he was a member of the team of students who mapped the ploughzone archaeology of the Biferno Valley, so perhaps GB can claim some small credit for launching him on his landscape trajectory. And 30 years later all three of us worked together in the Kelabit Highlands of Sarawak in the Cultured Rainforest Project (significantly, Chris G came up with the title) that was the successor to the Niah Cave excavations (Barker *et al*. 2017). Whether reading his books and papers or talking archaeology with him as we walked down a rainforest path (Fig. 5.2), like all the contributors to this collection of essays we have been hugely influenced by his ideas and by the ways in which he has put those ideas into practice and – jargon-free – communicated them to the rest of us. Stimulated by these, and in the spirit of this book, in this paper we offer some reflections on the challenges of trying to access the 'sentient landscapes' of far distant Palaeolithic peoples, in particular the Pleistocene members of own species *Homo sapiens* ('[Anatomically] Modern Humans' or 'Moderns' in archaeological parlance) and Neanderthals, our closest evolutionary cousins, through the fragmentary archaeological materials they have left behind in the three caves we have explored. We use the term 'Moderns' hereafter as a convenient and common descriptor for a physical type without any *a priori* connotations of 'modern' versus 'ancient' or 'archaic' behaviour.

[Figures 5.1 and 5.2 about here]

**Social landscapes and storied landscapes**

It has long been argued that both Neanderthals and Moderns were likely linked in a variety of social networks that connected individuals and groups in information flows that spread risk and provided access to resources and mates. Gamble (1998), for example, postulated that by the last interglacial 100,000 years ago Palaeolithic societies would have shared in 'intimate' networks of 3–7 persons, 'effective' networks of 10–25 people and 'extended' networks of 100–400 persons. In an influential review, Langley (2013) argued that both European Neanderthals and Modern Humans inhabited 'social landscapes' or 'socialised landscapes' of this kind but that Modern Humans actively *socialised* their landscapes to create what she terms 'storied landscapes'. She defined 'social landscapes' as "people to people interactions…mapped onto and over the physical landscape and which join various locales together through paths and trackways" and 'landscape socialisation' as "the direct social interaction between people and topography where meaning is imbued into the physical features of the terrain by its human viewers and inhabitants" (Langley 2013, 615). She cited examples from the ethnographic record of *Homo sapiens*' propensity to "turn the wilderness into our friend or enemy through imparting thoughts, feelings and meanings into it", attaching stories specially to outstanding topographical features such mountain peaks, rivers and prominent caves. We encountered such 'storied landscapes' in the Cultured Rainforest Project's fieldwork (Barker *et al*. 2017): the Kelabit, who combine foraging with rice farming, distinguish between the 'Big Forest' (primary forest) that is imbued with a great spirit that only males can enter with safety, and the 'Small Forest' (secondary forest) where women and children as well as men were safe to hunt and gather (Janowski 2003); for the Penan foragers, in contrast, the entire forest world in which they live and of which they are a part is a spirit-animated universe to nurture through their stewardship or *molong* (Janowski and Langub 2011).

How might we distinguish between 'social landscapes' and 'storied landscapes' in the Palaeolithic archaeological record? Langley focuses on the major categories of material culture such as site types and distributions, landscape modification, the transport of material from source to point of use, and items of personal ornamentation (Table 5.1). She acknowledges that several of the 'archaeological signatures' of the two landscape types overlap, in particular the use of personal ornamentation and the long distance transport of raw materials, but argues that cumulatively they divide in terms of scale and frequency. She concludes that, whilst Neanderthals had great technical skill, were capable of surviving in extremely difficult climatic conditions, and showed some but limited evidence of ritual behaviour and the use of ornament,

their archaeology in Europe suggests a different approach to interaction with the physical landscape than that of Moderns. In this conclusion she builds on Burke's argument that European Neanderthals likely relied on detailed local knowledge for moving around their habitual territories, and on local patterns of social interaction, whereas Moderns dispersing from Africa must have been able to maintain spatially extensive well-integrated social networks (Burke 2006, 2012).

[Table 5.1 about here]

There are obvious dangers in generalising about the behaviour of Neanderthals given their chronological range getting on for half a million years and geographical range extending from the Atlantic to the Urals, but there is general agreement that they were physically, genetically and cognitively capable of language, and that some Neanderthals engaged in a degree of symbolic thinking on the evidence for the occasional use of pigments, the making of abstract marks on various raw materials including cave walls, examples of the use of bone and shell beads, eagle talons and bird feathers for personal ornamentation, and ritual behaviours associated with the dead such as the much disputed 'Flower Burial' in Shanidar Cave (Leroi-Gourhan 1975; Solecki 1971) and cases of cannibalism. But even cumulatively, Langley argues, this record of Neanderthal 'behavioural complexity' is strikingly less abundant than the evidence of similar behaviours in the archaeological record associated with contemporary or near contemporary populations of Moderns in Africa, Eurasia and Australasia. These relative differences in the frequency, regularity and abundance of indicators of symbolic behaviour in the archaeological record, she argues, cannot be explained by factors such as differential survival or methods of excavation. In short, she concludes, Neanderthals may have had social landscapes but their Modern contemporaries had – just as we have – 'storied' (i.e. meaning-imbued) landscapes.

## Caves in Palaeolithic landscapes

The assumption is that most Neanderthal and Modern lives were highly mobile, because except in very unusual circumstances a foraging group of around 25-50 individuals staying in one place would have exhausted gatherable resources including fuelwood as well as food sources and depleted or scared off game. In these mobile lives, caves would have been fixed and

dependable points in seasonal rhythms of movement. In practice, in most environments, both Neanderthals and Moderns would have spent virtually all their lives under the sky, because except in some limestone landscapes, habitable caves are very unusual landforms. Open air Palaeolithic lives are extremely difficult to recognise, of course, because of the geomorphological disruption of soils and their contained archaeologies by the repeated climatic events of the Late Pleistocene stadials (cold phases). As a result, a very large proportion of what we know about Palaeolithic people comes from excavations in caves. Most of these were carried out a generation or more ago, when resources permitted large-scale excavations (as in the case of the three caves we have re-investigated) but when few of what we would recognise as modern excavation or scientific techniques were available.

Dateable stratified sequences with great time depth, rich in material culture and biotic remains, are preserved in caves. Through most of the Palaeolithic, most caves were prosaic shelters for living, sleeping, and repairing equipment. In the European Upper Palaeolithic, however, a few caves seem to have been significant places for many people, for instance as meeting points (Bourdier 2013; Conkey *et al*. 1980), burial sites (e.g. Aldhouse-Green and Pettit 1998; Geiling and Marin-Arroyo 2015) and shamanistic locations (e.g. Clottes and Lewis-Williams 1998; Lewis-Williams 2002), activities that have resulted in material culture sets that fit Langley's criteria for the 'storied lives' of the people who used them. She argues that the reasons for their paucity amongst European Neanderthals could be threefold (singly and in combination): taphonomic, with evidence for such activities having been removed by the geomorphological consequences of the climatic events of the Last Glacial Maximum; analytical, if storied lives were expressed through types of material culture that we do not recognise or which were made of impermanent materials that have not survived; or behavioural, the factor that she prefers, i.e. that the capacity to live storied lives had not fully manifested itself amongst Neanderthals. Here we reflect on these arguments from the perspective of the three deeply-stratified Palaeolithic caves that we have investigated, all outside Europe (Fig. 5.1): the Niah Cave in Island Southeast Asia, occupied by Modern Humans equipped with stone tools that poorly fit the expectations of the European Middle and Upper Palaeolithic; the Haua Fteah cave in North Africa, containing European-type Middle and Upper Palaeolithic material culture but all manufactured by Moderns; and Shanidar Cave in the Zagros mountains of Southwest Asia, containing European-type Middle Palaeolithic culture manufactured by Neanderthals and European-type Upper Palaeolithic material culture manufactured by Moderns.

**The cave occupation sequences**

The Niah Cave is in fact a complex of caves dominated by a series of interlinked cathedral-like caverns, some 20 km from the present coast of the South China sea in Sarawak, Malaysian Borneo. Between 1954 and 1965 Tom Harrisson, the Director of Sarawak Museum, assisted after the initial season by his second wife Barbara Harrisson, explored many of these caves but their main focus was the West Mouth of the magnificent Niah Great Cave, where they exposed several metres of guano-rich sediment that contained a rich habitation and burial archaeology. The lithic implements were mostly crude flakes that compared poorly with the fine flint-dominated technologies of Europe, and famously separated from the latter by the 'Movius Line' (Movius 1948). They were associated with the skeletal remains of anatomically modern humans, notably the 'Deep Skull', so called because of its location in the basal levels they investigated about 5 m below the present ground surface, that radiocarbon dating of adjacent charcoal suggested was some 40,000 years old, the oldest *Homo sapiens* skull in the fossil record of the time (Brothwell 1960).

[Figure 5.2 about here]

Our own excavations in the West Mouth and other entrances were undertaken in four campaigns between 2000 and 2003 (Barker 2013; Barker and Farr 2016). New radiocarbon dates on charcoal using ABOX pre-treatment indicated that occupation in the West Mouth began around 50,000 years ago, or 50 ka (Higham *et al*. 2008), and we were able to obtain a direct U-series date on the Deep Skull of *c*.35.2 ka (Table 5.2). The first phase of Palaeolithic occupation in the West Mouth (*c*.50–35 ka) falls within the climatic phase termed Marine Isotope Stage 3 that is dated globally to 57–29 ka and was generally a period of significant cooling and drying. This was succeeded by evidence for denser occupation within the markedly cooler Marine Isotope Stage 2 (dated globally to 29–16 ka), even during the extreme phase of glaciation termed the Last Glacial Maximum *c*.20 ka when plant and animal species now restricted to Mount Kinabalu *c*.4000 m above sea level were around Niah. Occupation continued at similar density into the Early Holocene (11.4–8.2 ka) but amidst the occupation layers now was a series of extended burials. This burial form continued into the Mid and Late Holocene when these burial types, together with new crouched forms, were associated with Neolithic pottery.

[Table 5.2 about here]

The Haua Fteah cave was excavated between 1951 and 1955 by Charles McBurney of the University of Cambridge (McBurney 1955). The cave is a handsome hangar-like karstic cavern looking northwards to the Mediterranean sea about a kilometre distant, with an entrance about 20 m high and 60 m wide and with an interior roofed area about 80 m across. It lies on the maritime edge of the Gebel Akhdar (the 'Green Mountain'), an isolated massif in the middle of the North African coast that rises to almost 1000 metres above sea level and measures some 350 kilometres west/east and 50-100 kilometres north/south, forming an island of green surrounded by desert on its landwards sides. McBurney excavated a stepped trench that eventually reached some 14 metres below the present ground surface, exposing a deep sequence of occupation that he divided into seven major phases: A. earlier Middle Palaeolithic ('Pre-Aurignacian'); B. later Middle Palaeolithic ('Levalloiso-Mousterian'); C. Upper Palaeolithic ('Dabban'); D. Late Upper Palaeolithic or Epipalaeolithic ('Oranian'); E. Mesolithic ('Capsian'); F. Neolithic ('Neolithic of Capsian Tradition'); and G. Historic. In the terminology of African prehistory, Phases A and B would now be classified as Middle Stone Age and Phases C-E as Late Stone Age. Two mandibles in Phase B were originally classified as 'like Neanderthal' but later shown to belong to archaic *Homo sapiens* (Hublin 1992). Radiocarbon dates indicated that the Dabban began around 40 ka and with dating earlier than 50 ka beyond the reach of radiocarbon dating, McBurney estimated an age for the start of the Middle Palaeolithic at the site of perhaps 80 ka.

In the new excavations (2007–2014) we emptied the McBurney trench of the backfill placed there at the end of the 1955 season and collected sediment samples down the trench walls for re-dating and for palaeoecological data such as pollen and landsnails to inform on climate and environment. We then excavated a *c*.2 m x 1 m trench from top to bottom on the southern side of the McBurney trench to collect larger sets of chronological and palaeoecological data and collect archaeological materials such as stone tools and food refuse (eg butchered animal bone, marine molluscs, plant remains), to compare with the very large datasets from the original excavations curated in Cambridge's Museum of Archaeology & Anthropology. We were able to extend the 14 m deep sequence downwards by about a metre, and our basal OSL (optically stimulated luminescence) dates on feldspars indicate that initial occupation began around 140 ka (Douka *et al*. 2014; Jacob *et al*. 2017). Although hominin fossils were not found in the Late Stone Age layers by McBurney or in the new excavations,

the assumption is that both the MSA and LSA occupations can be ascribed to Moderns, whose origins in Africa on current dating can be placed at around 350 ka (Hublin *et al*. 2017).

The occupation of the cave was in fact highly episodic. The main early phase of MSA occupation ('Pre-Aurignacian) dates to MIS 5 and especially to MIS 5e (*c*.130–123 ka), the period when the earth's climate was significantly wetter and warmer than today and when the present-day Saharan desert was transformed into grassland interspersed with lakes and rivers (Drake *et al*. 2011). The main MSA 'Levalloiso-Mousterian' occupation was *c*.80–67 ka, across the MIS 5a/4 boundary. The two human mandibles date to *c*.80 ka at the start of MIS 4, a period when the world's climate began to trend towards drier and cooler conditions. After a significant hiatus there was further, less intensive, MSA occupation *c*.45–38 ka that transitioned into the first phase of the Dabban *c*.38–29 ka, both of them falling within the cooler and drier MIS 3. After a hiatus of several thousand years there was another Dabban phase *c*.24.2–23 ka. The Oranian Epipalaeolithic falls within MIS 2, the phase of maximum glacial conditions, and consists of a series of short but very intense occupations separated by significant gaps within the overall period 19–14.1 ka.

Shanidar Cave, similar in size to the Haua Fteah, is located at around 800 metres above sea level in the western foothills of the Zagros Mountains and faces south to the valley of the Great Zab River, a tributary of the Euphrates. Between 1951 and 1960 Ralph Solecki of Columbia University excavated a trench of similar depth to that of the Haua Fteah, exposing a Middle and Upper Palaeolithic/Epipalaeolithic sequence that he termed Layers D, C and B respectively. Spectacular discoveries of the skeletal remains of several Neanderthals indicated that Neanderthals were the makers of the Layer D Middle Palaeolithic material (Solecki 1971). No human fossils were found within the Upper Palaeolithic Layer C (the material from which was called Baradostian from the name of a local mountain), but the similarities between these Baradostian lithics and Aurignacian lithics in Europe and elsewhere in the Middle East indicated that they were made by Modern Humans. Solecki's radiocarbon dates suggested that the latest Neanderthal skeletal remains dated to around 50 ka and that there was a 10,000-year hiatus between the Middle and Upper Palaeolithic occupations, the latter beginning around 35 ka. The lower Neanderthal layers could not be dated.

Our own excavations began in 2015 and still continue, using the same methods as for the Haua Fteah. So far we have exposed parts of Solecki's trench wall down to about 10 m below the present ground surface. An OSL date places this level at around 83 ka, at the end of the MIS 5 interglacial. Photographs in the Solecki archive indicate that the 4 m of sediments he exposed below where we have currently reached probably formed in the interglacial

conditions of MIS 5, implying that the length of occupation of the cave may be not so different from that of the Haua Fteah. Unexpectedly we have found further Neanderthal remains, including articulated bones, about 6 m below the present ground surface that we have shown belong to Solecki's Shanidar Neanderthal no.5 (Pomeroy *et al.* 2017) and, about 9 m below the present ground surface, the crushed but articulated upper body (skull, upper limbs, thorax) of a new individual we have termed Shanidar Z (Pomeroy *et al.* 2020a). The latter was positioned immediately adjacent to where Solecki found a group of Neanderthal skeletal remains including Shanidar 4, the skeleton famously identified from pollen in its surrounding sediment as having been buried with flowers (Leroi-Gourhan 1975). Shanidar 5 dates to around 55–60 ka and Shanidar Z to *c.*73 ka. The latter date places the Shanidar 4 cluster of skeletal remains at the end of MIS 5, and our various palaoenvironmental proxies (sediments, land snails, microfauna) indicate a climatic regime somewhat similar to that of today. The sediments at this depth also contain evidence for quite intensive occupation compared with much more ephemeral occupation evidence associated with the period of the upper Neanderthal skeletal remains within MIS 3. Our radiocarbon dates and stratigraphic evidence indicate a 'blurred' transition from the Mousterian to Baradostian occupations around 45–40 ka within MIS 3, with no evidence of a significant hiatus. The Baradostian occupation evidence consists of short-period camps (single-use hearths) dating to c.45–30 ka, especially to 42–38 ka, also within MIS 3. The lack of evidence for the use of the cave in MIS 2 suggests that, with the high Zagros mountains glaciated, the cave and its surrounding landscape were too marginal to access.

## The view from the cave

### *Marking the landscape*

Langley's suggested evidence for 'storied landscapes' under this heading includes rock art, cairns, monuments and scar trees. Interestingly the Kelabit forager-farmers of interior Sarawak have traditionally marked their presence in the forest through such activities: carving prominent stones, building a variety of burial monuments and cairns, and cutting ditches and forest breaks across ridges, as well as cutting clearings in the forest for growing hill rice and making wet rice fields. This is in contrast with the Penan foragers in the same part of Borneo, who aim just to 'leave footprints' (Janowski and Langub 2011), though they do in fact change the landscape by their protection (*molong*) of the sago plants that are their primary source of carbohydrate – removing competitor vegetation, for example, activities that have created distinctive sago

groves that can be identified in 1940s and 1960s air photographs. Likewise the Moderns who used the Niah Caves, from the earliest evidence of their presence around 50 ka, made marks on the landscape by using fire to enhance clearings in the rainforest to encourage the growth of the tuberous plants that they consumed, and to attract to those clearings the main game they hunted, bearded pig (*Sus barbatus*), including with traps and nets at the clearing edges as well as pursuing them with spears (Barton *et al*. 2013; Piper and Rabett 2016; Reynolds *et al*. 2013). There is no evidence at Niah for painting cave walls at this time, though hand stencils and animal motifs elsewhere in Borneo and in Sulawesi have been dated to around 40–35 ka (Aubert et al. 2014, 2018).

We cannot discern such 'landscape marking' activities by the Middle and Late Stone Age foragers using the Haua Fteah cave, though the unusual dominance of pine in the cave pollen throughout the Pleistocene sequence hints at vegetation-burning regimes. In both periods everyday activities extended across a broad segment of terrain: people hunted a variety of game and foraged for plants on the northern slopes of the Gebel Akhdar and coastal plan (the extent of which was little affected by sea level lowering), collected land snails around the cave and shellfish and crustaceans from the coast, fished for species that included deep water ones, collected fuelwood and, around the time of the two human mandibles, brought large quantities of grass into the cave probably for bedding.

The Shanidar Cave data likewise provide no clues as to the physical impact on the surrounding landscape of the Neanderthals and Moderns using the cave, whose subsistence activities included a similar range of hunting, gathering and fishing to those at the Haua Fteah, the fishing in this case involving the capture of large species from the Greater Zab river. On the other hand, there are indications that the location of the Shanidar Z body was marked by special stones (Pomeroy *et al*. 2020a), as Solecki observed for some of the Neanderthal skeletal remains he found, and the Shanidar Z/4 cluster of bodies were all placed within touching distance of a prominent rock pillar (fallen from the cave roof before the burial activities) that would have been a prominent landmark within the cave and likely visible from its entrance.

It should also be noted that like many caves preferred for repeated occupation by Palaeolithic people these three caves all have spectacular entrance arches that are very prominent landmarks (Fig. 5.1). Another characteristic of long-inhabited caves can be soot-stained or soot-encrusted ceilings from campfires, as in all three of our caves but especially Shanidar Cave, and sometimes this firing extends to the cliffs above the entrance and is visible from a distance. Shanidar Cave in spring is also a good example of how a prominent feature of such caves can be brighter and/or thicker vegetation growing on the talus below the entrance,

enriched and fertilised by organic-rich midden that has cascaded or been throw down from the entrance rampart (Fig. 5.3).

[Figure 5.3 about here]

*Personal identities*

The intensive flotation and residue searching regime practised in the new excavations in the Haua Fteah and Shanidar Cave has yielded a series of tiny shell beads from both sites. In the Haua Fteah they occur as early as in the MSA Pre-Aurignacian levels dating to MIS 5, ascribed to archaic *Homo sapiens*, significantly earlier than the larger perforated shell beads from sites such as Blombos Cave in South Africa (Henshilwood *et al.* 2004) and Grotte des Pigeons in Morocco (Bouzouggar *et al.* 2007) and about the same age as the beads found more recently in Bizmoune Cave in Morocco (Sehasseh *et al*. 2021). In the case of Shanidar Cave most are in Baradostian layers but the earliest ones found so far are from around the level of the Shanidar 5 Neanderthal skeletal remains, dating to before 50 ka and in secure stratigraphic contexts in which it is very difficult to dismiss them as Baradostian artefacts that have slipped downwards into Neanderthal layers as a result of bioturbation, water flows, burrowing animals etc. No such beads or similar artefacts of personal ornamentation have been found in the Pleistocene occupation levels in the Niah Caves, but cutmarks on bones suggest the taking of birds of paradise, presumably for their feathers for adorning headdresses or personal equipment (Piper and Rabett 2016). Feather fragments were also found within organic residues attached to stone flakes (Barton 2016). The continued preference of both MSA and LSA hunters using the Haua Fteah to focus on the pursuit of the highly agile *Ammotragus lervia* (Barbary sheep) rather than on antelopes and bovids could conceivably be an indication of similar person-centred conspicuous display, and the same might apply to the focus of both Neanderthals and Moderns using Shanidar Cave on hunting ibex.

*Raw material transport*

The stone tools used in the Niah Caves were from locally available cherts and there is little indication that tools were extensively curated and carried around. The main technology was probably of organic materials: alongside the crude stone flakes are pieces of bone and pig tusk fashioned into points (Rabett 2016), stingray barbs were fashioned into harpoons in the Late

Pleistocene, and usewear studies of the stone tools and attached organic residues indicate the likelihood of an elaborate hunting and gathering technology of organic materials collected from the forest (Barton 2016; Barton *et al*. 2016; Rabett 2016). Evidence for long distance transport and/or exchange networks consists of clear shiny quartz crystals found inside the Deep Skull that were collected from a source in inland Borneo hundreds of kilometres away from Niah (Hunt and Barker 2014). Even more remarkably, the palaeoecological record indicates the very long-distance translocation of starchy plants across the Wallace Line from Australasia to northern Borneo, including to the interior highlands, by 25 ka and possibly well before (Hunt 2020). The stone tools in the Haua Fteah, both MSA and LSA, were mainly from chert outcrops on the northern slopes of the Gebel Akhdar and there are few indications of cultural linkages beyond the Gebel Akhdar until the Oranian, after the peak of glacial aridity (see below). In the case of Shanidar Cave both Neanderthals and Moderns mainly used what we assume were local river cobbles from the Greater Zab, but artefacts made of bright-coloured stones that may be exotic occur from the Shanidar Z layers upwards. The sources of the latter are unknown as yet, but the indications from the plant and animal remains are that both Neanderthals and Moderns largely used the cave in the spring and autumn months, in climate conditions much like those of today, probably moving to lower valleys in the winter and into the high Zagros in the summer (Reynolds *et al*. 2018, 2022) and these raw materials may derive from the latter. The best indication of long-distance transport of raw material to Shanidar Cave is tiny pieces of obsidian in Baradostian layers that have been sourced to eastern Turkey and Armenia (Reynolds *et al.* 2018).

*Norms and customs tied to the landscape*

Langley suggests that highly socialised landscapes in the Palaeolithic might be identified by material culture, including artefacts identified as redolent of symbolism, of an emblematic and geographically circumscribed style. There were fragments of human skull and turtle shell dated to *c*.42 ka in the West Mouth of Niah Great Cave that appear to have been used as some kind of palettes as they are stained red from tree resin (Pyatt *et al.* 2005, 2010). There are no other Palaeolithic sites in Borneo of comparable richness, but the broad similarities of the material culture and subsistence data from Tabon Cave and other caves in Palawan, the island of the southern Philippines that was connected to Borneo by sea level lowering at the time of Niah Cave's Palaeolithic occupation, might indicate some kind of broadly coastal inter-linked cultural entity (Dizon *et al*. 2002). Certainly Niah was linked to its local landscape, from coast

to inland hills, in terms of the sources of the animals, molluscs and plants brought to it for consumption by Palaeolithic foragers (Barker 2013) and this linkage extended into the symbolic realm as well: in addition to the human skull and turtle shell 'resin palettes', the Deep Skull and associated limb bones are likely to be the remains of a secondary burial placed near the lip of the West Mouth around 35 ka, perhaps from primary burial activity involving exposure of the corpse in the forest as the Penan do today (Hunt and Barker 2014).

The rounded condition of the human jaws from the Haua Fteah dating to *c*.80 ka suggests some kind of recycling, but their mortuary significance is unclear. What is striking about most of the Palaeolithic record of the Haua Fteah and other sites in the Gebel Akhdar, though, is their cultural distinctiveness with respect to the rest of North Africa: whilst the Gebel Akhdar was accessible to other parts of North Africa during the 'Green Sahara' phases of MIS 5 (Drake *et al*. 2011), the dominant characteristic of the Pre-Aurignacian lithic technology of the period is its lack of similarities with the contemporary Aterian technologies that were widespread across North Africa. The same applies to the Levalloiso-Mousterian technologies that were used as aridity developed in MIS 5a and MIS 4 (Scerri 2013, 2017; Scerri *et al*. 2014) and even more so to the ensuing blade-based 'Dabban' industry: especially in its early manifestation *c*.38-29 ka it is in many respects a mix of MSA and LSA technologies quite unlike the contemporary industries of the rest of North Africa. Significant linkages with the Maghreb (northwest Africa) only became apparent with the development of the Oranian after the Last Glacial Maximum.

The Zagros Mousterian and the Baradostian are also recognised as distinct cultural entities straddling the mountain range (Reynolds *et al*. 2018, 2021), with the Shanidar Cave skeletal remains providing unique evidence of Neanderthals' ties to landscape. Our new work at the site suggests that the distinction that Solecki drew between individuals accidentally killed by, and buried underneath, rockfalls and individuals buried with funerary rites does not hold, the likelihood being that bodies, or parts of bodies, were in most cases carefully placed in restricted areas (Pomeroy *et al*. 2020a, 2020b). The accumulating evidence, including newly-found fragmentary remains underneath Shanidar Z, accords with Pettitt's argument that for the Neanderthals who brought their dead to them, sites with multiple skeletal remains like Shanidar Cave, Krapina in Croatia, and L'Hortus and La Ferrassie in France suggested "the transmission of mortuary tradition…centred around a fixed point in the landscape that could be used, if not exclusively, to hide, process, and bury the dead" (Pettitt 2011, 122). "To the groups of La Ferrassie and Shanidar", he commented in another paper, "the dead had not quite departed [implying that] religious thought *sensu lato* emerged prior to, or at least not exclusive to, *Homo*

*sapiens*" (Pettitt 2015, 273-274). Whether the placing of the Shanidar Z/4 cluster of bodies spanned days, months, years, decades or centuries (even many centuries), the rock pillar and grave marker stones, along with the evocative characteristics of the cave entrance itself (Fig. 5.3), look to be strong candidates for components of a storied, memory-imbued, Neanderthal landscape.

## Conclusion

There is ample evidence, well summarised in Langley's 2013 paper, in support of the argument that, whilst European Neanderthals may have engaged in symbolic behaviour especially in the later millennia of their long history, the archaeological record associated with the Upper Palaeolithic Moderns that entered Europe around 45–40 ka represents a step change in the range and diversity of symbolic indicators compared with the evidence ascribed to Neanderthals. These changes underpin the arguments of Burke (2006, 2012) that Neanderthals operated within spatially more constrained social networks than Moderns, and of Langley (2013) that Moderns not only lived within far more extensive social networks than Neanderthals ('social landscapes') but also imbued their landscapes with symbols and stories ('landscape socialisation'). Outside Europe, though, at least in terms of the archaeology of the three caves we have explored, the evidence for how Upper Pleistocene humans (that is, humans living through the MIS 5–2 interglacial/glacial cycle) related to the landscapes in terms of the main categories identified by Langley (Table 5.1) is more ambiguous.

Palaeolithic Moderns using the Niah Cave in MIS 3–2 certainly marked their landscape by the impact of their foraging activities on the surrounding rainforest. Whether the Moderns using the Haua Fteah in MIS 5–2, the Neanderthals using Shanidar Cave in MIS 4–3, and the Moderns using Shanidar Cave in MIS 3, did so is less clear, though all three caves are prominent places in the landscape likely all the more visible at the time of Palaeolithic occupations from soot-staining and richly-vegetated taluses. Langley draws the distinction between Neanderthal personal ornamentation primarily for ingroup and outgroup members within social networks and landscapes, and Moderns' personal ornamentation serving to transmit information about their interactions with landscape features within storied landscapes, but in the case of the three caves it is difficult to see significant temporal or between-species differences in the complex ways that personal identities seem to have been marked by the Moderns of Niah Cave and the Haua Fteah and the Neanderthals and Moderns of Shanidar Cave. Distant raw materials were acquired by the Niah Cave Moderns and the Shanidar Cave

Moderns and perhaps also by the Shanidar Cave Neanderthals. There is clear evidence for symbolic behaviour linked to the placement of bodies, or parts of bodies, practised by the Niah Cave Moderns around 40 ka and the Shanidar Cave Neanderthals around 75–55 ka, and the two human mandibles dated to *c*.80 ka in the Haua Fteah might hint at something similar. The Niah Cave Moderns were likely part of a distinct sociocultural entity that linked northern Borneo to modern Palawan at the times of lowered sea levels and the Haua Fteah Moderns appear to have developed successive technologies in MIS 5–3 that were markedly distinct from those used beyond the Gebel Akhdar. The Neanderthal and Baradostian assemblages of Shanidar Cave have both been regarded as specifically Zagros manifestations despite their broad linkages with, respectively, Mousterian and Aurignacian technologies further afield (Reynolds *et al.* 2018, 2022).

Much of the commentary in this paper is avowedly speculative but we hope serves to widen the debate about Palaeolithic social networks and 'storied landscapes' beyond the Neanderthal/Modern dichotomy that is such a cornerstone of evolutionary studies based on the European archaeological record. That dichotomy is further questioned by archaeobotanical evidence that Neanderthals and Moderns in Shanidar Cave both processed – cooked – plant foods in the same way (Kabucku *et al*. in press). As well as widening the focus geographically and chronologically, we have also tried to emphasise that all facets of the archaeological record can hold potential information about symbolic behaviour and not just the 'usual suspects' of art, beads and burials. In the case of Niah, marking the landscape has been inferred from the cave's palynology, the long-distance transport of valued plant resources (and presumably the knowledge of how to use them) has been inferred from lake sediments, and personhood display from cutmarks on bird bones. Perhaps most intriguing – and challenging – of all regarding our attempts to capture how these distant Palaeolithic societies thought about the landscapes they inhabited is the evidence observed in the Niah Cave butchery practices that these foragers divided up the animal kingdom in ways quite alien to our own Linnean taxonomies (Piper and Rabett 2016). The evidence of our three caves emphasises that at least for the Palaeolithic people using them there were different ways of being human and different ways of envisaging the landscape beyond.

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BARKER AND HUNT: CAPTIONS TO THE FIGURES

**Figure 5.1**. *The locations of the Haua Fteah cave (Libya), Shanidar Cave (Iraqi Kurdistan) and the Niah Caves (Sarawak) with images of the caves: looking south towards the entrance of the Haua Fteah, north into the entrance of Shanidar Cave, and west from within Niah Great Cave towards its West Mouth. Illustration by Vicki Herring, photographs by Graeme Barker.*

**Figure 5.2.** *The sentient archaeologist in the field: (left) (with drawing board) Chris recording a section of Holocene alluvium in the Biferno Valley in 1977; (right) Chris negotiating a plank bridge in the Borneo rainforest during the Cultured Rainforest Project fieldwork in 2008. (Images: Graeme Barker.)*

**Figure 5.3**. *The entrance to Shanidar Cave in spring 2022, showing dark green vegetation growing on the talus below the entrance arch. The image also shows the wealth of wild flowers at this season, including several of those identified by Leroi-Gourhan (1975) in the Shanidar 4 'Flower Burial'. (Image: Chris Hunt.)*