

The Earliest Dated Pictures in the Dispersal of Psychologically Modern Humans: A Middle Paleolithic Painted Rock Shelter (C. 45KA) at Wadi Defeit, Egypt

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Abstract

The paper reports the discovery in 2018 of a Middle Paleolithic painted rock shelter (dubbed “The Hunter’s Shelter”) in the remote upper reaches of the Wadi Defeit in far southeastern Egypt (just north of the climatologically significant latitude 22° N) by a team from the University of California at Berkeley. The paintings depict two elephants being attacked by encircling human beings wielding spears, in dangerous procedures documented by ethnohistorical accounts of indigenous elephant hunts in central Africa. One of the elephants is partly superimposed on a running or leaping lion (not in scale with the figures of humans and elephants), which might have been made in an earlier episode of painting. The paintings can be dated in three ways: acacia gum inserted into gouges in one elephant’s belly yielded calibrated radiocarbon dates of c. 45 ka; the lion was partly covered by an oxolate crust dated by Uranium-Thorium decay to 60–45 ka; and windswept sand that partly covered the paintings yielded OSL dates of 45–40 ka. At present, the shelter is the earliest known dated painting site in the global prehistoric record. In addition to reporting the motivations and parameters of the project and its preliminary results, the paper discusses the “naturalistic” and “realistic” elements of the configurations and evaluates the regional MP cultural affiliations of the site and the people who likely made the paintings. It explores the idea, given the shelter’s location, that the makers were a Middle Paleolithic population of anatomically and “psychologically” modern humans who moved out of central East Africa through the mountains and wadi systems of the western Red Sea coast in a wave of dispersal dated to c. 75–45 ka; ultimately some of them left the continent altogether by way of land and/or sea travel

to the Levant and/or Arabia at the tip(s) of the Red Sea, eventually populating much of the world with modern humans. The second half of the paper considers methodological and theoretical issues raised by the empirical findings of the project, speculating that picture making played a role in effecting the global dispersal of psychologically modern humans, presumably by helping them to remember and communicate lifeways and to understand and adapt to new environments and ecologies as they moved into them, though these possibilities remain to be investigated in detail on a global scale.

Keywords

Depiction · Egypt · Middle Paleolithic · Modern humans · Naturalism · Pictoriality

Wadi Defeit (alt. Wadi Dūfāyt; lat. 22°13′18″ N, long. 34°9′50″ E) is a tributary of the massive Wadi Allaqi in the eastern desert (Nubian Desert) of the Arab Republic of Egypt, a system of ancient river- and streambeds that arises in the Red Sea Mountains 50 km north and south of latitude 22° N and debouches in the Nile valley 200 km to the east and about 180 km south of the city of Aswan (Figs. 11.1 and 11.2). One of the most remote regions of Egypt, Wadi Defeit lies immediately north of the still-contested 1902 British administrative line between Egypt and the Republic of Sudan. (The political boundary lies directly along latitude 22° N). Over its approximately 70 km length, it falls approximately 260 m from its origins (at heights of approx. 600 m above MSL) in the western Red Sea Mountains to the Wadi Allaqi (at 360 m).

At present, the area is sparsely traversed by Beja Bishariin people, a long-established nomadic pastoralist “Bedouin” (“desert dweller”) group who have recently reoriented their

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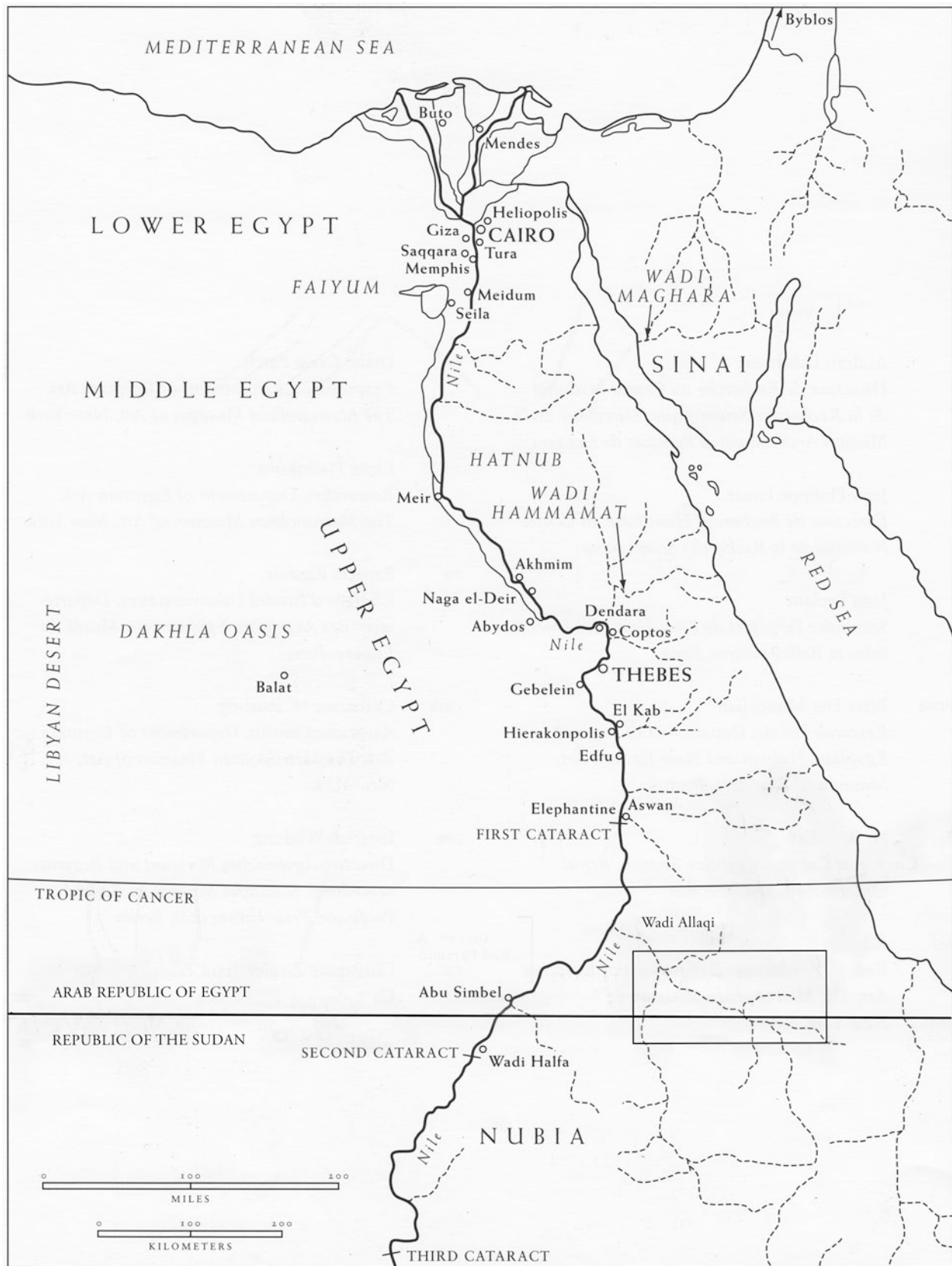


Fig. 11.1 Map of Egypt and Sudan, indicating the area (in the rectangle) mapped in Fig. 11.2

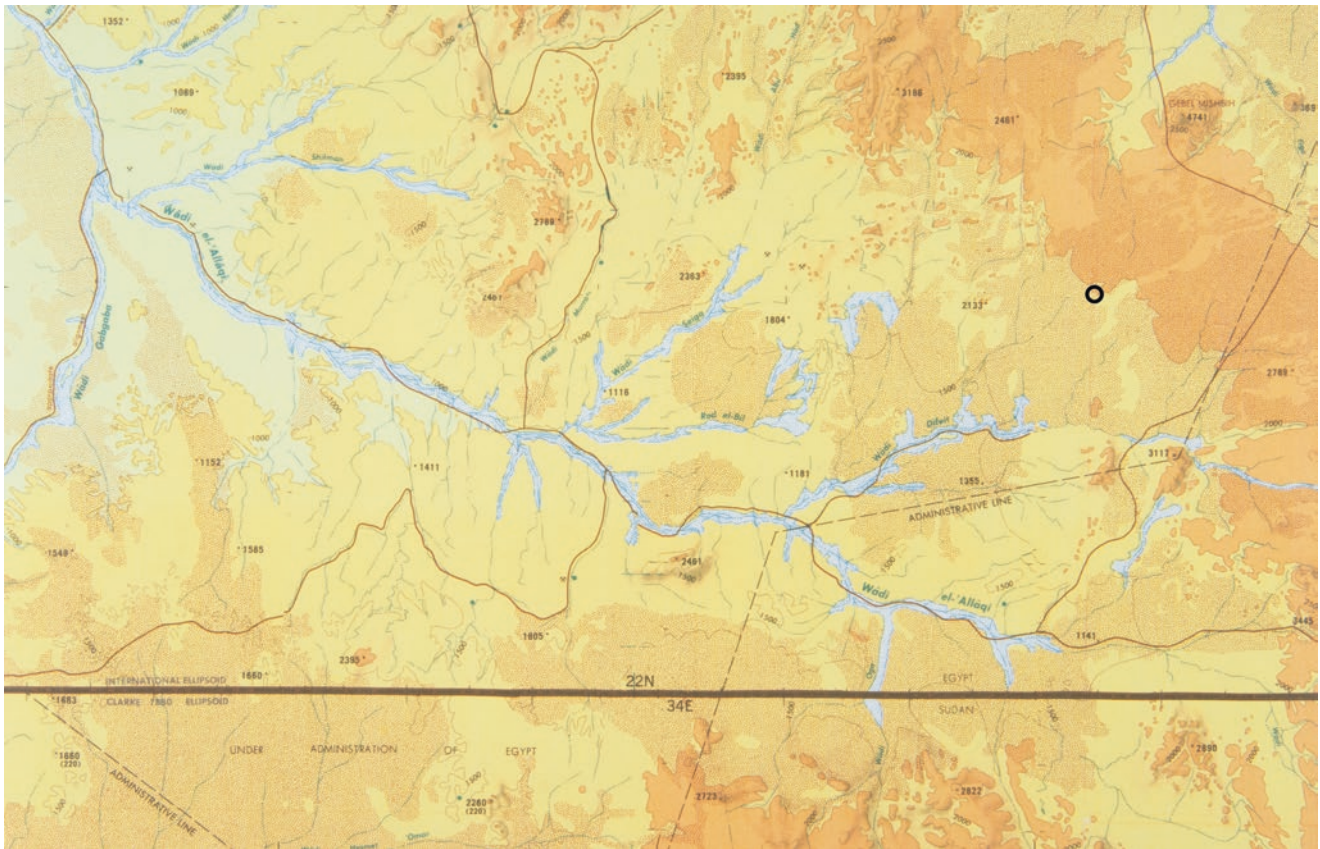


Fig. 11.2 The Wadi Defeit area of the eastern stretches of Wadi Allaqi system. The location of the Hunter's Shelter at the upper end of a streambed feeding into the wadi is marked with a circle. Both the

administrative line and the political border between Egypt and the Sudan are indicated. Topography and elevations derived from the current United States high-altitude survey

economy toward seasonal employment around Aswan at the head of Lake Nasser in southern Egypt and northern Sudan, which also affords medical and educational opportunities. Indeed, the eastern desert territories of the Bishariin have been substantially depopulated in the last three generations (Krzywinski and Pierce 2001).

In ancient times, the Wadi Allaqi system had been penetrated among others by military forces serving the Egyptian pharaoh Amenhotep III in the New Kingdom (c. 1375 BCE) seeking control over gold sources and gold mining in the “land of Wawat” (as the Egyptians named the vast desert region around the Wadi Allaqi and Wadi Gabgaba systems)—a resource exploited continuously from Early Dynastic times at the beginning of the third millennium BCE (if not before) through the Roman and Islamic periods and continuing into the present day (Klemm and Klemm 2013). However, the Wadi Defeit area of the far eastern reaches of the Wadi Allaqi system evidently never yielded possibilities of productive gold extraction—the nearest cluster of ancient mines lies on the coastal side of the Red Sea Mountains 100 km to the east—and consequently the succession of powerful states in northeast Africa and the eastern Mediterranean paid little or no attention to it.

In the twenty-first century, increased scientific interest in the archaeology of the eastern deserts of Egypt and the Sudan has included research along the 1000 km-long north-south “Korosko Road,” which crosses the Nubian Desert from the Aswan area to Khartoum (Davies 2014), and research focusing on Roman activities along the eastern flanks of the Red Sea Mountains around the port city of Berenike as well as along the east-west desert roads connecting it to the Nile valley (Sidebotham and Gates-Foster 2019). But in the wide area around Wadi Defeit, archaeological investigation has been minimal, including the prehistoric archaeology that has been active in northeastern Africa since the 1930s and which greatly expanded during the salvage campaigns instituted in the 1960s in response to the construction of the new Aswan High Dam and consequent formation of Lake Nasser, which flooded Wadi Allaqi more than 50 km inland from the former riverbed.

From 2015 to 2018, a team from the University of California at Berkeley carried out exploratory investigations in the Wadi Defeit. Initially we were motivated partly by an interest in building on a previous anthropological study of contemporary Bishariin botanical knowledge of eastern desert flora specifically in the Wadi Allaqi system (Kandal et al.

2016; see generally Barnard 2019; Barnard and Duistermaat 2012; Sadr 1991). We planned to explore the complementary issue of Bishariin local knowledge of potentially significant archaeological indices in the present-day desert environment—that is, significant to them (see Barnard 2019; Wendrich 2008, and especially Friedman and Hobbs 2002; Hobbs 2003 for highly suggestive studies). We were especially interested in Bishariin experts' knowledge of and opinions about human activities in “rock shelters.” Along the desert roads connecting the Red Sea port of Berenike to the Nile cities of Edfu and Koptos, such shelters have been visited more or less continuously from pharaonic times to the present day by a variety of peoples, both travelers and locals, and frequently they exhibit numerous rock drawings and inscriptions (e.g., see Sidebotham and Gates-Foster 2019, 269–71, for a long-term shelter site with petroglyphs of many vintages, originally described by the pioneering ethnologist Hans Alexander Winkler (Winkler 1938, 10); for the rock pictures of this region of the eastern desert of Egypt, see also Červíček 1974; Judd 2009; Marton and Danyi 2010; Morrow et al. 2002; Žába 1974, 223–42). The practical participation and intellectual contribution of Bishariin and other Bedouin guides and experts has been acknowledged (though perhaps insufficiently) by many Western industrial investors, geological and other scientists, and academic scholars as well as by Egyptian government and cultural heritage officials working in the Nubian Desert, and it was probably essential to the travel of wary non-locals on the ancient desert roads (Sidebotham and Gates-Foster 2019, 70). But to date little attempt had been made to collate Bishariin experts' terms and concepts for what they might perceive as features of the human “prehistory” of their habitat, which extends to an awareness of long-ago Roman (and sometimes even pharaonic) activities.

We set out to survey the upper reaches of the Wadi Allaqi on the western flanks of the Red Sea Mountains in part because early twentieth-century British military maps of the then-Anglo-Egyptian Sudan marked several potentially interesting sites (as “ruin[s],” to be distinguished from known “mine[s]”) that did not appear on more recent maps. This area of the Nubian Desert along latitude 22° N due east from Wadi Halfa at the Second Cataract of the Nile had been surveyed by British engineers employed on the railroad rapidly flung by Lord Kitchener's forces across the desert from Wadi Halfa in the north to Khartoum in the south during the empire's drive to quell the Mahdist uprising in the Sudan in the 1880s and nineties and to avenge the death of General Charles Gordon at the Battle of Khartoum in 1884. (Some evidence suggests that the British also contemplated a complementary road or rail line that would cross the eastern desert by way of the Wadi Allaqi over the hills and descend to the small Red Sea port town of Halayeb—one reason why they mapped thoroughly as far east as the Wadi Defeit). In

addition, it seemed logical to suppose that the kind of rock shelters in which we were specifically interested would be found on the western side of a range of the mountains on the eastern side of which they were already known from Leo Frobenius' expedition in the mid-1920s, which remains only partly published (Červíček 1974; Resch 1967).

In the first season of the project, a painted rock shelter was discovered at the far end of the Wadi Defeit. Due to the unusual importance of this site, the project was reorganized to focus on it in the time available and in two succeeding seasons.

The shelter sits on a ledge at the head of the Wadi Defeit where it emerges from the escarpment at approximately 610 m above MSL, commanding a wide view. Above it, the escarpment rises another 150 m, punctuated by the dramatic height of Gebel Mishbih at 1445 m, the most prominent visible feature in the landscape at 20 km distance. Like many desirable rock-shelter locations and natural “caves” in the eastern desert (e.g., see Winkler 1938, Sites 12F, 13, 15, 18, 24B, etc.), it is well shaded for most of the day. Under an overhang and partly blocked by a rock fall, the opening of the shelter faces almost due west; at its highest, its “ceiling” is approx. 7 m, and a sloped “wall” of smooth sandstone at the rear, approx. 5 m deep, is approx. 7 m at its broadest, sheltering a “floor” of approx. 35 sq. m (unexcavated) (Fig. 11.3).

Excavation of the floor deposits to a depth of 150 cm to bedrock revealed a prehistoric encampment area probably in part devoted to the preparation and conservation or repair of hunting equipment (tools and debitage) as well as the manipulation of parts of animals (all manuports) presumably killed and dismembered therewith. The lithics are datable on typological and other grounds to the late Middle Paleolithic, with closest affiliations to the Middle Paleolithic Site E82–5 in Wadi Kubbaniya, dated to 89 ka (Midant-Reynes 2000, 35–36); to an early industry of the “Buhen Complex” dated to older than 36 ka at Site 6G30 of the University of Colorado prehistoric excavations on the west side of the Second Cataract (Irwin et al. 1968, 109); and to the “Khormusan” industry in the same region, dated to 41–33 ka, a predominantly Levallois lithic assemblage with a distinct preference for burins “suggesting bone, wood, and reed were being worked perhaps to provide hafts for the many tiny tools” (Midant-Reynes 2000, 34). In addition to the tools and debitage, faunal remains included bones of antelope, gazelle, elephants, and white and black rhinoceros—the latter suggesting grassy and/or brush-covered savannah.

The wall of the shelter bears paintings in red, black, and yellow pigments depicting human hunters attacking two elephants (*Loxodonta africana*) with spears, other human figures, a single running or leaping lion, and a series of red handprints and black and red “hand stencils” and blots (Figs. 11.4 and 11.5). (“Prints” were made by pigmenting the hand and pressing it to the rock, and “stencils” by painting

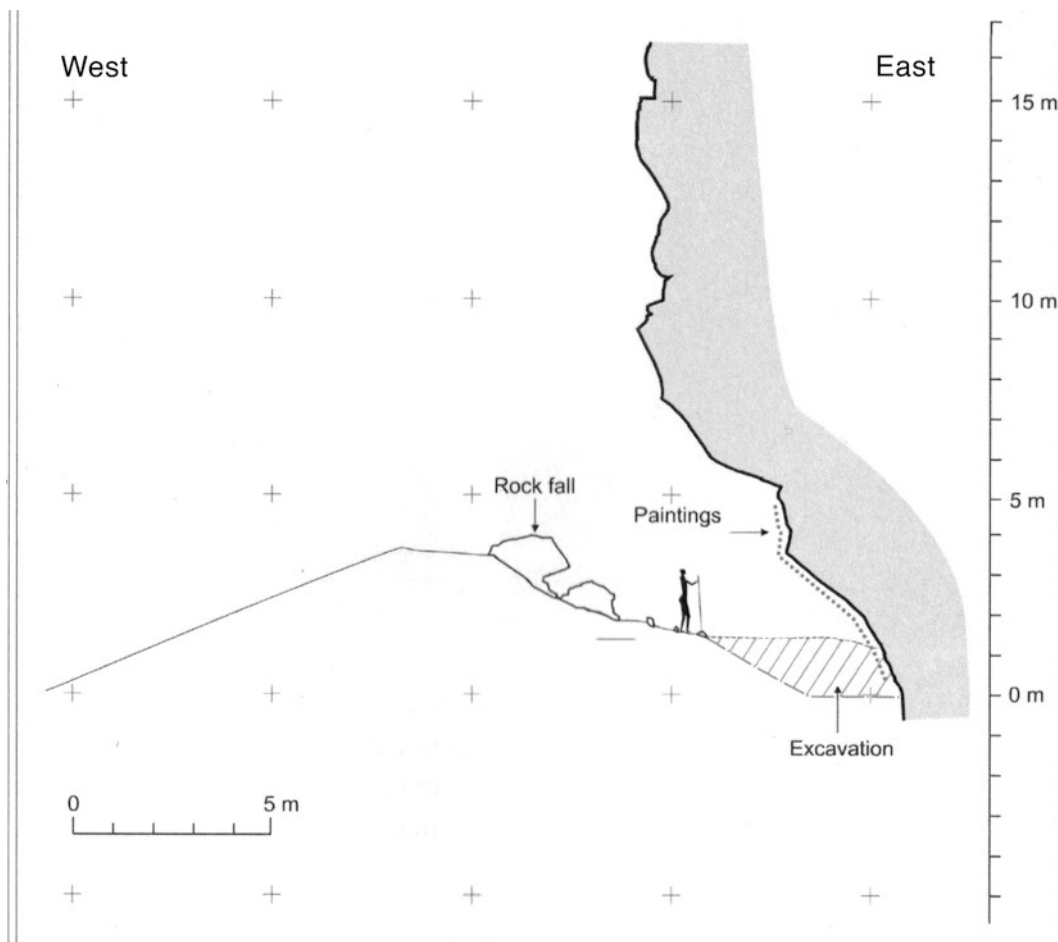


Fig. 11.3 West-east section of the Hunter's Shelter, indicating the location of the paintings in relation to the floor deposits



Fig. 11.4 Detail of the paintings in the Hunter's Shelter: humans hunting an elephant by attacking it with spears from several directions

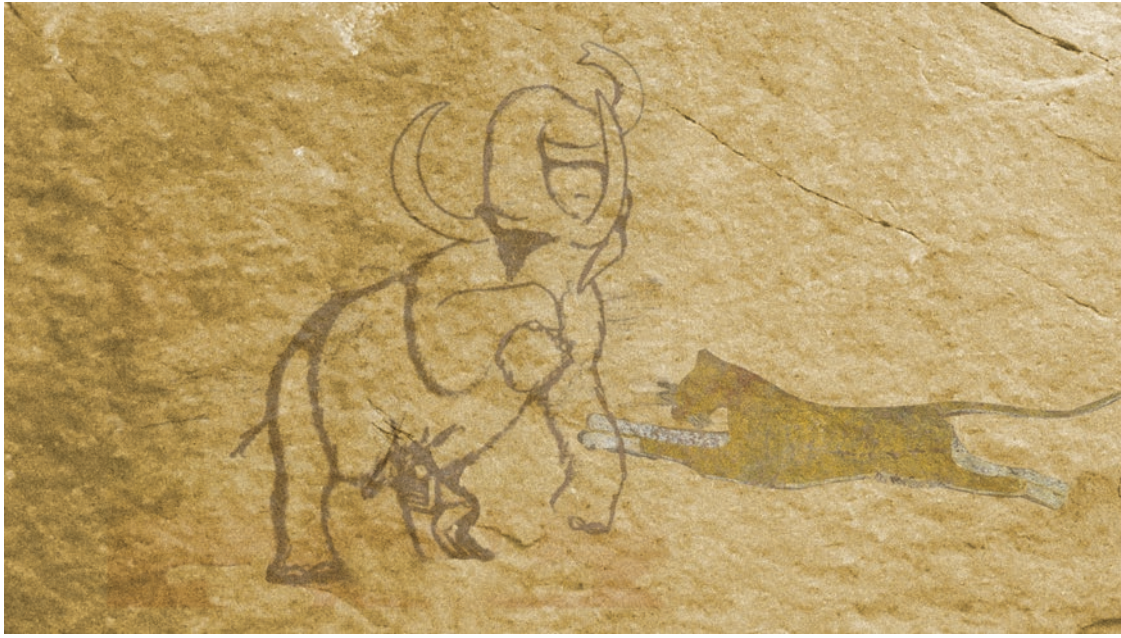


Fig. 11.5 Detail of the paintings in the Hunter's Shelter: a human spearing an elephant in the belly, indicating the gouges that were filled in with acacia gum. The lion on the right is partly superimposed by one of the elephant's legs

around the hand pressed to the rock, though “hands” can also be painted as well—neither printed nor stenciled). The shelter acquired the sobriquet “The Hunter’s Shelter,” not only because of the iconography of the paintings but also because Winkler’s 1930s study of rock art in the eastern desert of southern Upper Egypt (Winkler 1938) had proposed to identify the “Earliest Hunters” of the region as the makers of some of the rock engravings he documented—a term that has continued to guide concepts of research in the Nubian Desert. In the event, however, it became clear that Winkler’s ethnological attribution and proposed date range for his Earliest Hunters (probably fifth and fourth millennia BCE) could not be applied to the Hunter’s Shelter.

While the hunters and elephants clearly constitute a coherent narrative composition probably painted all at once by one or a small number of pictorialists, the associations of the other human and animal figures and the other marks with this group (and with one another) are less obvious graphically and iconographically. Still, there might be reasons to consider all the configurations to be thematically interrelated, though this does not imply they were all made contemporaneously or by the same individual pictorialists. The lion’s forward paws are superimposed by the left foreleg of the righthand elephant, which must have been painted later—though perhaps in the same day’s episode of painting. (Without additional evidence, such as a patina difference at the point of overlay, the evidence of mere superimposition is insufficient for dating beyond the most literal fact of the relative chronology of the under- and overlaid marks; Davis *n.d.-a*, *n.d.-b*, but cf. Judd 2008).

The depictions of the elephant hunt are strikingly “naturalistic” in rendering the death-throes of the two rearing beasts as well as “realistic” in specifying the particular action of each individual hunter in the moment of the kill. The daring and dangerous strategies of the assaults on the giant animals are convincingly relayed, and indeed they can be documented among the known techniques of spear-wielding elephant hunters (using stone points) in the periods of Western ethno-historical and ethnographic representation of them (Agam and Barkal 2018).¹

¹The visible particulars of elephants continued to attract the attention of northeast African pictorialists. It has been argued, for example, that in the late fourth millennium BCE Egyptian predynastic pictorialists—in drawings on pottery and in carvings in ivory and on slate palettes—differentiated three distinctive elephant morphologies (Bremont 2018). Still, the giant creatures weren’t always easy to understand visually, given their wont to congregate under trees in the shade such that even the “big game” hunters and photographers of the nineteenth century were puzzled by their looks and behavior. In our area of the Nubian Desert, some rock-art pictorialists at Gebel Abrak in the Egyptian predynastic period were confused about the elephants’ several protrusions—how to identify and differentiate their trunks, tusks, head bumps, and ears (Resch 1967, 55)—though other pictorialists were careful to lay out the trunk, tusks, and ears in different orientations on the plane, suggesting that they were concerned for zoöconomic specificity (Winkler 1938, pls. 27.2, 28.1, 31.2). Later, as represented at the Temple of Musawwarat in the first millennium BCE the great Meroitic god Apedemak is shown leashing both an elephant and a lion, avatars of his divine kingliness and emblems of his absolute mastery. And still later, the Roman overlords exported elephants from the Red Sea ports, though by then the animals were extinct in the vast areas of the northeastern continent of Africa in which the pictorialists of the Hunter’s Shelter had formerly hunted them; they had to be fetched by land from the south.

Still, “naturalism” is not a term that art historians and picture theorists would now prefer, though it is still commonly used by specialists in prehistoric rock arts. It is devoid of analytical purchase in describing the crucial configurative aspect and visual behavior of a picture’s necessary construction of “virtual” or “pictorial” space as relatively “continuous” or relatively “discontinuous” with the beholder’s real standpoint in the visual space of the actual siting and display of the depiction (Davis 2017a). In theoretical terms, if any configuration is to be a *picture* at all it must always have a definable quotient of “naturalism” conceived as an organization of iconism in or of the configuration toward a beholder’s standpoint. “Realistic” representation of the morphological attributes of the represented object(s) is a different consideration. A relatively discontinuous and therefore less naturalistic configuration can be extremely informative about the real features of depicted things, as in the canonical pictorial style of ancient Egypt (Davis 1989), while a relatively more naturalistic continuous pictorialization can readily obscure the very same details (Davis 2017a). At the Hunter’s Shelter a relatively naturalistic continuous pictorialization is also adept at relaying realistic features and details of the scene, seamlessly merging quite different capacities of pictoriality.

In the terms of picture-theoretical formal analysis, the volumetrically imagined construction of the beasts’ torsional configuration plastically captures the African elephant’s characteristic sway-backed gait and posture when moving rapidly, around which the pictorialist(s) arrayed a spatial plotting of the hunters’ coordinated assault. This plotting includes a graphically coherent differentiation of the orientations of the depicted hunters’ postures and actions by giving them variously rotated aspects on a continuum from fully frontal to fully dorsal. (The “rotation” of a depicted object, and therefore its apparent location in virtual pictorial space relative to standpoint, is a crucial determinant in the construction of its particular species of naturalism (Davis 2017a)). These configurations of circumambulation around the dying prey relay not only the hunters’ specific positions relative to the elephant but also their own different “points of view” on it—both orientations established with implicit reference to the “depiction point” or internal pictorial viewpoint constructed by the pictorialist, regardless of the actual viewing standpoint of the beholder (Hopkins 2004).

These configurative and pictorial effects of “virtual pictorial space” (Summers 2003; Davis 2017a) cannot be readily paralleled in the (later) rock art of the eastern and western deserts of Egypt and Sudan, in which rock *painting* is restricted to Gebel Uweinat and the Gilf Kebir in the far southwestern desert of Egypt—such sites as the “Cave of the Swimmers” and “Cave of Beasts” (Almásy 2012; Förster and Scheid 2018) in Wadi Sura in the Gilf Kebir, the “Cave of the Hands” (Darnell 2002, 161), a few sites along the Nile from Seyala to Korosko below the Wadi Allaqi (e.g., Resch

1967, pls. 59–60; Suková 2011), and at only one site in the eastern desert (Winkler 1938, Site 4). (The predynastic [Nagada III] *engraving* of a hunter painted entirely red at Wadi Subeira near Aswan seems to be a unique occurrence (Kelany 2018, fig. 6); it is possible that the paint is a modern addition). And it certainly cannot be paralleled in—perhaps it should be contrasted with—the configuratively “aspective” pictorial style of the canonical drawing and painting of pharaonic Egyptian pictorialists, which is founded on a rigorous “section-contour” construction of the depicted object (Davis 1989, 2017a, sometimes mistakenly called “profile” construction)—a drastic abstraction that eliminates *both* internal depiction points (that is, the spatialized directedness of depicted objects toward an imaginary viewer of the picture plane, to which the actual beholder might accommodate) *and* external viewpoints (that is, the real spatial orientation of actual beholders toward the “plane of the format,” the surface of the artifact on which virtual pictorial space is configured). In fact, and in global terms, in the Hunter’s Shelter the pictorialist’s vivid realization of motion and action, plastic treatment of shape and volume, and sure and economical rendition of outline configuration and particulars of anatomy (such as the distinctive “fingers” at the end of each elephant’s trunk and the curvature of their full-grown tusks) would seem to be most similar to certain cave paintings produced in Europe by early Upper Paleolithic pictorialists, notably in the famous Aurignacian cave of Chauvet (c. 33 ka).

Fortunately, the unusual paintings in the Hunter’s Shelter can be directly dated in no less than three ways. (Direct dating of the “desert varnish” frequently found on engraved petroglyphs (Huyge et al. 2001) is, of course, inapplicable in this case).

First, the contour of the belly area of the stabbed elephant on the righthand side of the panel was deeply gouged several times by a sharp stone point, which was dropped on the floor immediately below the wall, retaining traces of pigment. The point is closely to similar to others found in the excavated deposit, datable in that context. (The paintings themselves, of course, were made with different implements). The gouges were then partly filled in with an organic paste, likely acacia gum (the dried exudate sap of *Acacia senegal*, widely distributed in the African sahel, and known today in the Wadi Allaqi Biosphere Reserve, where it is still exploited (Springuel and Mekki 1994)) admixed with ochre, which gave calibrated radiocarbon dates of 45 ka.

Second, an oxalate crust that formed in prehistory over part of the body of the lion can be dated by Uranium-Thorium decay to 60–45 ka.

Third, the group of hunters and elephant on the lefthand side of the panel was partly covered by the Aeolian sand swept

into the shelter, deposits which yielded several OSL dates clustering around 40–45 ka (for the method, see Huyge et al. 2011).

On the basis of this concatenation of dates, the group of hunters and elephants and the associated lion can be securely dated to around 45 ka (or before for the lion). The other human figures and the stencils and blots likely also belong to the period of late Middle Paleolithic use of the shelter, which displays no evidence of other periods of use, but they cannot be directly dated at the moment. Setting aside some dubious and contested cases in other global contexts, this date for the paintings in the Hunter's Shelter is the earliest known date (by about 10–15 ka at least) for prehistoric depiction worldwide and therefore for hominin behavior of this distinctive kind.

As a perceptual and cognitive visual culture, pictorialism should be sharply distinguished theoretically from other forms of what are sometimes described as intentional “aesthetic” activities and possibly “symbolic” mark-making among archaic humans, such as the “aesthetic” use of small sea shells to produce the personal ornaments found at Qafzeh, Israel, c. 92 ka (Mayer et al. 2009) and the possibly regular and “patterned” incision of possibly “symbolic” artifacts observed at Blombos Cave, South Africa, dating to c. 77 ka (Henshilwood et al. 2009). Though these expressions have been widely taken to index behavioral modernity in *Homo sapiens*, the sites in question do not include picture making in any of the various possible media of drawing and painting, such as we can document at the Hunter's Shelter, and of “sculpting,” as in the example of the “lion-person” figurine from Ulm, Germany, dated to c. 35 ka (Wynn et al. 2009). Previously, the earliest known picture making in Africa—the enigmatic drawing of an “animal-person” from Apollo XI Cave, Namibia—could be dated to c. 20 ka (see Huyge 2018 for the “earliest” north African anthropomorphs).

Given its location and date, the pictorialists at the Hunter's Shelter presumably belonged to the wave(s) of anatomically, behaviorally, and psychologically modern humans migrating out of densely forested central east Africa. Documented anatomically at Omo Kibish just north of Lake Turkana, Kenya, c. 195 ka (Haile-Selassie et al. 2004; McDougal et al. 2005), between about 95 ka and 45 ka their worldwide dispersal was well underway—a migration sometimes called “Out of Africa IV,” including the process of occasional intermixing with (and the eventual extinction of) competing archaic humans who had migrated out of Africa in earlier waves. Archaeogenetic data suggests that mitochondrial DNA haplogroups L0 and L1 appeared in Africa around 100 ka; with L2 and L3 they are restricted to Africa. But descendants of L3, including the large mtDNA groups M and N, appear outside of Africa on the order of 60–50 ka. The Y chromosome haplogroup (that is, the male lineage) A dates to more than

100 ka and is restricted to Africa while the later groups B, E, and CR date to after 70 ka and are found outside Africa (Pugach and Stoneking 2015; Wei et al. 2015).

Occurring during the Oxygen Isotope Stages 5 (warm), 4 (cool), and warm (3) that would have opened up the active drainage of many rivers between East Africa and the Mediterranean/northwest Africa (see generally Bubenzer et al. 2007), the route of this dispersal of the most recent anatomically modern humans in the last 100 ka has been much debated (e.g., Beyin 2006; Derricourt 2005; Vermeersch 2001). But at present one might accept *both* a “Southern Route” of human migration across the Bab al Mandab strait at the mouth of the Red Sea between present-day Djibouti and Aden *and* a better-documented “Northern Route” of migration utilizing the Nile valley corridor and/or a route along the western Red Sea coast, crossing into the Levant at the southeastern Mediterranean coast of the Sinai Peninsula (Van Peet 1998). Though it doesn't preclude raftable cross-water voyages of approx. 10 km in the Southern Route, the location and date of the Hunter's Shelter tends to confirm that the all-land Northern Route was used and specifically that the area of the Nubian Desert between the second cataract of the Nile and the Red Sea Mountains was traversed by Middle Paleolithic communities of modern humans, possibly because the wadi systems enabled them to conduct surveillance, tracking, and driving of game in predictable ways and afforded convenient stopping points. Indeed, Wadi Defeit lies along Lat. 22° N, which marks the intersection of two globally defined climatic zones in northeast Africa, namely the northern zone characterized by Mediterranean winter rains to the northeast and the southern zone affected by tropical summer rains to the southeast—“an ‘invisible line’ that would have been crossed two times every year in opposite directions by several animal species, including man, to exploit the resources available to the north and south of it in different periods of the year” (Manzo 2017, 15). This intersection zone perhaps proffered exceptional opportunities.

The documentable northeast African cultural affiliations of the Hunter's Shelter are few and far between. Datable to c. 115 ka, the Middle Paleolithic ashy hearth stack left by modern humans and discovered at Sodmein Cave at the northwestern tip of the Gulf of Suez included elephant remains (Mercier et al. 1999). Somewhat further south, but still along the Red Sea coast, the site of Taramsa Hill 1, datable to c. 55 ka, yielded the burial of an anatomically modern human child “similar in appearance to the [later] Mechtoid populations of the north African Epipaleolithic” (Vermeersch et al. 1998; Van Peet et al. 2010), possibly manifesting a cultural expression of the same peoples who painted the Hunter's Shelter c. 45 ka. At the chert-quarrying site of Nazlet Khater 4 in Middle Egypt c. 34–31 ka (Leplongeon and Pleurdeau 2011; Vermeersch et al. 1990), a man was buried along with a bifacial axe (of a type “hitherto unattested in

‘Upper Paleolithic’ industries which occur from 20 ka onwards” (Midant-Reynes 2000, 43)). Though said to have certain “archaic” features including a thick mandible (Thoma 1984), this “experienced quarrier” was an anatomically modern human with a cranial capacity of at least 1400 sq. cm.

Though the temporal gap is immense, it is possible that the Hunter’s Shelter was painted by the same people who evolved in northeastern Africa over the next twenty thousand years into the semi-sedentary inhabitants of Wadi Kubbaniya (c. 20 ka; Wendorf et al. 1989) and eventually into the agriculturalist and nomadic-pastoralist populations of Egypt and Nubia. Still, the possibility remains that the Hunter’s Shelter was a “one-off” manifestation. Unconnected to the much later populations of the region, who possibly powered still later migrations out of Africa c. 10 ka (in an “Out of Africa V”; Rose et al. 2013), it indexes the lifeworld of an early population of psychologically modern humans moving up into and making use of the rivers, wadis, and coastline of northeast Africa and (for some of them) eventually making their way out of the continent altogether—just as other contingents of such modern humans migrated southwards and maybe westwards across the vast continent in the same era (Osborne et al. 2008). (Of course, in the region described here perhaps some of these people stayed behind and some continued on).

Regardless, picture making behavior and true pictorialism of the kind documented at the Hunter’s Shelter c. 45 ka is currently not documented again globally until the seeming cultural efflorescences—sometimes called a “revolution”—of the modern humans who had arrived in southern Africa, Indonesia, Australia, and southwestern Europe by c. 33–28 ka (overviews in Fritz et al. 2017), and in those environments *pictorially* relayed and recorded their perspectives. (This efflorescence is usually considered to be an “Upper Paleolithic” phenomenon, but the Hunter’s Shelter places pictorialism in the late Middle Paleolithic as well). Therefore one legitimately might wonder whether picture making was part of the technological, cognitive, and aesthetic equipment of the globally definitive dispersal of modern humans “out of Africa.” Did it confer a decisive advantage in adapting people (in their global dispersal) to their ever-different global environments by enabling the pictorialists among them to represent each new region and its novel ecology (to them) by way of a referential system predicated on the instantaneous recognizability of the signs?

Unfortunately, however, the Hunter’s Shelter does not exist, though in some ways it *could* exist, and perhaps even *should* exist. I have conjured it imaginatively here—using some pertinent “real” data and knowledge of “real” contexts, and simulating a certain kind of existing discourse—in order to make methodological and analytic points, especially about the possible role of depiction in the global dispersal of modern humans.

I hasten to say that I don’t do this as a hoax, such as the fraudulent “missing link” “Piltdown Man” (overview in Price 2016) and any number of forgeries created for the modern trades in art and antiquities. (I have sprinkled in a few give-aways for specialists; I’m not trying to fool anyone). Nor do I do it (entirely) as a spoof or parody intended to be wholly critical and destructive, such as now-well-known parodies of academic “postmodernism” by Alan Sokal and others (overview in Mounk 2018), and certainly—I hope—not out of any malice. And malicious spoofs are not unknown in archaeology. In 1966, Lewis Binford and Sally Binford published an article in *American Anthropologist* as a spoof of Robert J. Braidwood, the distinguished archaeologist of the ancient Near East (a conceptualist of both the “agricultural” and “urban” revolutions as revealed by the excavations he pursued at Jarmo, Iraq, and other Near Eastern sites), about whom Binford continued to make hostile (and maybe somewhat unfair) remarks even at the height of his own fame, which eventually was as great as Braidwood’s. The Binfords’ “The Predatory Revolution: A Consideration of the Evidence for a New Subsistence Level” began, Binford said, as a “joke” done “over a weekend ... search[ing] the writings of Braidwood for every silly statement ... and [weaving] them into a plausible sounding argument.” (Supposedly the editor of the journal “recognized it as a put-on but accepted it anyway.” The academic referees, however, had “taken the article seriously”; “that proved what a state archaeology was in”; Binford 1976, 7).

In order for my performance of archaeological writing to work sufficiently well for the purposes of this essay, I have, of course, temporarily simulated a certain strand of avowedly empirical and highly positivistic writing in paleoanthropology, rock art studies, and elsewhere. I take no grand stand for or against such empiricism and positivism *as such*, for which I have great respect when they are functioning appropriately in their domains—a more specific matter engaged critically in my thought experiment, as I’ll explain. In addition, and more specifically, the thought experiment (putatively discovering “the earliest dated pictures” in current worldwide documentation) deliberately enacts the problematic “search for origins” that characterizes much of prehistoric archaeology (see especially Gamble and Gittins 2004) as well as art history (see Davis 1996)—a search that transpires at both empirical (or ontological) and metaphysical (or epistemological levels). These issues need some untangling, to which I now turn, with the proviso that neither the thought experiment nor its explication could possibly resolve them fully—my intention being, instead, to raise limit questions for current practice and theory in rock art studies.

My first point—partly in qualified homage to Binford—is taphonomic and stochastic. It’s easy and common enough to say that the record of human “symbolic” behaviour in the multitudinous forms of human “symbol systems” (Goodman

1968)—from gesture and language to counting and cartography to dance and decoration—often doesn't directly fossilize in an archaeologically accessible way, though “cognitive archaeology,” “forensic art history,” and other dubious inferential procedures have emerged to address the gap. Often these procedures in archaeology are analytically indistinguishable from the highly developed inferential procedures of art historians (see Davis 1996, 2011a), who claim to reconstruct (and when necessary to deconstruct) the intentionality of individual makers and the culture of a historical visuality on the basis of the tiniest involutions of a brush-stroke or a chip from a quarry-side, after these traces have been studied (and clarified forensically) by skilled conservators trained in the most subtle morphologies of soil samples and the chemical behaviors of complex pigments, oils, and glazes over time (to speak only of the case of Western painting since the fourteenth century).

But certain limitations and consequences of the underlying positivist attitudes can be troubling. Certainly a taphonomy can clarify the material data (as understood by both archaeologists and art historians) that will then be subjected to diverse methods of historical analysis—from behaviour of the “reduction sequence” (in prehistoric archaeology) to the practice of “*Kopienkritik*” (in classical archaeology), possibly the most highly developed analytical procedures among scholars who must deal explicitly with style and depiction in any global context. As Binford urged, taphonomy might, for example, disentangle “natural” non-human processes in the formation of a behaviour, assemblage, or site and “intentional” human processes (for critical discussion, see Davis 1992). But taphonomy has nothing much to say about what isn't there at all materially—that is, about what doesn't survive archaeologically as a behaviour, assemblage, or site, or even in other forms of trace and memory such as stylistic replications and iconographic traditions. It acknowledges there are—must be—vast blank spaces in our chronologies and topographies. But it's reluctant to *fill in* those spaces in advance of the consolidation of a material archaeology of the territory. My thought experiment of the Hunter's Shelter, then, simply enacts what taphonomy *knows* but usually doesn't *do*.

The thought experiment also engages another commonplace, closely related to the previous—namely, that artifacts made in certain media, predominantly subtractive media such as “engravings” and other “incisions,” have a greater chance of survival over the very long term (or at any rate they *have* survived differentially), whereas artifacts made in other media, predominantly additive media such as painting, have less chance of survival (or at any rate they *have not* survived differentially) (see Davis 2013). Perhaps this is a truism in prehistoric archaeology, given its seemingly necessary focus—at least in the not-so-distant past of the discipline—on sticks and stones and pots and bones. But it would not be

taken for granted in archaeological art history, in which there is a plethora of evidence in many cultural traditions for assiduous long-term curation and conservation of (relatively fugitive) *additive* media (for example in the long-term preservation of medieval Chinese “literati” paintings) and, conversely, for dedicated efforts to eradicate and exterminate the products of (relatively permanent) *subtractive* media (for example in the Egyptian pharaohs' obliteration of monuments of previous rulers). It's probably fair to say *in general* that additive media as ancient as the Pleistocene—such as pigments painted on rocks in the open air—probably had far lower survival rates (from our point of view) than subtractive media. Still, the thought experiment posits a *particular* survival given certain circumstances, namely, preservation in a sheltered place and partly covered by sand. It's not wholly incredible, then, for me to insert my Middle Paleolithic shelter into the general mix as an exceptional example of painting that *could* have been preserved—substantially qualifying the supposed general taphonomic rule.

A more theoretical or analytical point should be made in this regard. Because a behaviour doesn't survive materially doesn't in itself entail that we know nothing about it. (I set aside the self-evident case, beloved by art historians, in which “lost” artifacts were nonetheless documented in pictorial representations and discursive descriptions of them—veritable cornerstones of *Kopienkritik* in classical archaeology). The very fact that a behaviour has a style and, if pictorial, that it must manifest some kind of iconography requires that it belongs to a set, sequence, tradition, and/or corpus of artifacts with which it shares syntactic and semantic “forms of likeness” (as well as whatever the entire set of forms might be “likened to” in the wider world) (see Davis 2011a). In theory, then, it should be possible for us to project from what *does* survive of the set (the sequence, tradition, corpus ...) to what *doesn't* survive. Indeed, archaeologists and art historians do this all the time, though mindful of such factors as stylistic drift (Riegl 1893) and iconographic disjunction (Panofsky 1962) and sometimes cautious about possible anachronisms (though see Nagel and Wood 2010).

Of course, perhaps the *entire set*—sequence, tradition, corpus—has completely vanished from the face of the earth, including all later representations and descriptions of it as well as nonmaterial traces and memories. But one could still project the possibility of the entire set itself from the existence—even the mere likelihood—of *other* sets with which it overlaps, intersects, and/or nests within. This was the basis of George Kubler's “seriation” approach to the “history of things,” though he himself felt that he had to posit what he called “prime objects” as a kind of primordial virgin birth or Big Bang in the material development and dissemination of the real series of material things (Kubler 1962; see discussion in Davis 2011b). Elsewhere I have advocated that such series—traditions, corpora, etc.—are “unruly” and therefore

to an extent unpredictable and ungoverned by the projection of pre-existing “cultural” conventions (Davis 2011b), and indeed that human cultural behaviour in general is not well described in terms of rules and conventions at all, whether local or more global (Davis 2011a). Still, the “bending,” “spreading,” and “breaking” of a rule or convention is a material historical process in its own right—even if it leads to what might be called “queer” cultural formations (Davis 2010). Indeed, I’ve suggested that paradoxically the material evidence for this unruliness might be more plentiful than the evidence for normative rule-following: intense replicatory activity, I’ve argued, often accrues to and accumulates around the objects, sites, and agents of conflicts in, contradictions about, and dis-coordinations, deconstructions, and devolutions of rules and norms (styles, iconographies, traditions, cultures). Rules unfold smoothly in social enaction, practically unremarked—as not marked—by their practitioners. Unruly replication leaves a palpable mess behind. Arguably the mess—a kind of palimpsest—should be the primary forensic and methodological focus of art historical archaeology. In my thought experiment, I have side-stepped this deeply important problematic. As suggested, the Hunter’s Shelter can be plausibly related to real sets and series of artifacts. But its relationship to a cultural convention, rule, or norm—to a pre-existing tradition, iconography, etc.—nonetheless remains out of view. (*Ex hypothesi*, there are no earlier pictures anywhere in the world that could be cited as a precursor possibility or cognitive-historical context). Indeed, I have imagined that as a work produced in the context of the migration and dispersal of a population—and its necessary traversal of territories to which it was not phenotypically adapted in its anatomical, behavioural, and psychological “origins”—the pictures cannot be said, on the (fictive) evidence, to belong squarely to a stabilized visual culture.

Given the concern of this volume with “Rock Art,” the case of “art” is intriguing with respect to specifically replicatory histories. According to a philosophy or theory of art—an “aesthetics”—that I’d be inclined to accept (Davis 2022), there’s nothing that an artwork must possess and display at a material, morphological, and/or formal level. Any old thing can be or can become an artwork, coming to carry and relay its numinous, enigmatic, and/or striking aspects and affects. This perspective would put paid, of course, to some paleoanthropologists’ quixotic attempts to discover the evolutionary-developmental origins of human art-making in artifacts that do indeed *look* a certain way—regularly patterned, decorative, non-instrumentally though intentionally concerned with non-functional features, and so on. Art need not look any way at all; though pattern and visibly non-instrumental intentionality might say something about perception and cognition, they say nothing about art in the terms of this particular philosophical definition (not the only one, of course). Rather, what makes an object “Art” (again according to this

account) is a network of analogical and other conceptual relations attaching it perceptually and cognitively to what already has properly been taken as “art” in the past and to what can successfully be proposed to be taken as “art” at its given time and place. (This approach must generate an analytic regress in which art could be immemorially ancient in the primate phenotype whereas pattern, symbol, and picture might be relative newcomers as modern-human practices; I have urged elsewhere that pictures might be seen as one the modernisms of “psychologically modern humanity” (Davis n.d.-c)). Perhaps one of the ironies of the current world-wide globalization of art studies—that is, the interdisciplinary emergence of “World Art Studies” as the world-wide frame of analysis of a class of artifacts provisionally described as above—is that the *more* we admit different forms and definitions of “art” into the canon of world art (nowadays often by way of post-colonial critiques of existing canons of what has counted as art in the past) the *less* art we actually have—that is, the more spaces of “prehistory” open up as the necessary condition of any arts that we actually possess historically and that any known historical process can constitute. But in this paper I’m not especially concerned with arthood as an aspect of a behaviour. Insofar as my interest is with the history of picture making, whether or not as art making or to be described as artistic, it’s not especially interesting to me whether the pictures at the Hunter’s Shelter were (or are) also art.

However, I do want my thought experiment to dramatize certain other conceptual and disciplinary tensions. Above all, at the moment there’s a tension in world-wide art studies and in globalized studies of visual culture between, on the one hand, positivist historicist chronotopography—in it, as I’ve already noted, supposedly we include only what there’s material evidence for—and, on the other hand, the potential role of projections, reconstructions, visualizations, virtualizations, and pure imaginations and fictionalizations of what we might call the “logically necessary” and “cognitively required” artifacts, styles, and traditions for which “material evidence” is paltry or nonexistent, possibly even limiting and misleading. (Elsewhere I have called this approach “counterfactual”; in analytic philosophy, counterfactuals are used to clarify the facts of the world (Davis 1996, Chapter One)). This tension has been vastly increased by powerful automatic and digital technologies for generating images and for manipulating them under almost any conceivable algorithms of transformation. Employing whatever degree of imaginative license we might allow ourselves, with the press of a button we can repopulate entire prehistories that we have projected must lie in the vicinity of the actual archaeological histories—the artifacts, art, styles, iconographies, traditions, and cultures—that we *do* have.

The question is: *should* we do this? Though it’s possible for me to produce a pretty convincing Hunter’s Shelter that

could be out there, is it *right* for me to do so? If I do so, might I contaminate someone's understanding of actual human culture and creation? (For example, by suggesting a considerably earlier vintage for pictorialism than has been generally accepted to date). But, by the very same token, if I do *not* do so, might I compromise someone's opportunity to understand human culture and creation? (For example, by obscuring the relations between psychological modernity, pictorialism, and population dispersal; we deal with pictures only in their many different chronotopographical "contexts" rather than as a condition of their traversals). These questions are too complicated and open-ended to be answered by a single author. Perhaps this volume will bring a number of possible answers to view.

At this point we reach the internal argument of the thought-experiment itself. As I've already intimated, the "archaeological" point of the thought-experiment imagines the recursive interaction between the migration of modern humans "Out of Africa" c. 70–40 ka and their production of pictures as an epigenesis of their modernity in that dispersal. The premise—and the imaginary implication of the thought experiment—is that among anatomically and behaviorally modern humans, already evolved in and adapted to central east Africa, pictures were a *psychological* condition—the on-going platform—of their dramatic mobility on the global stage, which was accomplished relatively quickly across dozens of different ecologies world-wide. For pictures make a decisive difference in "the world" not only by multiplying it into "worlds"—that is, visions of what can only be seen and fully known in pictures—but also by converting the world itself into a field of pictorializations, that is, understandings of—and interventions in—the world relayed to human minds in virtue of their having made pictures of it. (The history of art is chock-full of examples, which I have argued are the proper subject of visual culture studies; one example would be the influence of the landscape settings in paintings by Salvator Rosa, Claude Lorrain, and other mid-seventeenth century European painters on subsequent aesthetic conceptualizations of the "picturesque" in nature, in turn enacted in actual garden and landscape design in the eighteenth century—in the nineteenth century more or less naturalized as "the English countryside" (Hussey 1927 remains a classic study)). This recursion ramifies exponentially. Pictorial imaginativity sustains human dispersal throughout the world while at the same time human dispersal generates pictorial productivity.

Of course, in a sense it is difficult to demonstrate my proposition. It is possible that picture making practices and traditions developed independently of one another (in Middle and/or Upper Paleolithic prehistory) in different contexts throughout the world, generating the current global chronotopographies of "earliest" documented pictorial efflorescences in different regions of several continents (Fritz et al.

2017), leading in turn to the notion that picture making—as a putatively pan-human phenomenon today—was and is a pan-human capacity that was and is activated psychologically and historically in multiple ways in multiple places at multiple times. But the very same current global chronotopography also supports the narrower point, which is not contradictory: that picture-making was carried in a global migration as part of early humans' equipment for navigating such dispersal out of central east Africa ca. 95 ka to c. 45 ka, helping them adapt to new locales as they encountered them (new geology, new climatic regimes, new flora and fauna). In other words, one possible *explanation* of the pan-human capacity and its distribution today can be found in the history of human dispersals and migrations, whether one species-wide spread ("out of Africa") or many spreads (in more local if still transregional contexts) or most likely both. (Our approach, then, could stress both *conjunction*, examining the intersection of the human species with its proximate visual and other environments, and *disjunction*, insofar as such conjunctions, one to the next, are likely disparate and diverse—even singular). In itself, the thought experiment does not *resolve* this question, but rather *raises* it: All known psychologically modern human cultures are wholly *within* the recursions of pictoriality in constituting the world as internally "depicted" (Husserl 1982)—as having-been-pictured. And therefore the *pre*-pictorial prehistory of modern humans (that is, human prehistory "before pictures") is an uncharted territory. To use the title of this volume, it is a truly "deep time" not yet analytically conceptualized in modern anthropology and philosophy—which assume pictures as much as natural languages in characterizing "psychological modernity," insofar as we can suppose that complex grammatically differentiated linguistic ostension points not only to the real world, whatever that might be "before" pictures, but also to the *depicted* world, to the classes and types and the universals and particulars represented to human perception and cognition by pictures.

On the basis of the available global evidence, I have speculatively placed the "depicting revolution" in the context of modern-human dispersal "Out of Africa," and I have dated it accordingly. Implicitly, then, I commit myself to the claim that archaic humans, such as the Neanderthals, didn't make *pictures*. Though archaic humans might sometimes have made marks that could be taken to resemble an ostensible referent, in itself this wouldn't be *depiction* in the fullest sense. Depiction demands the material replication and variation of that pattern in order to *preserve* the resemblance—therefore securing its cognitive status precisely as a "reference" rather than a "resemblance"—despite the inherent material modifications entrained in the reiteration of the configuration and the artifact (Davis 1996, Chapter Two).

As readers will have noted, I have imported into the Hunter's Shelter some of the most subtle capacities of picto-

riality, such as my imagined confluence in the paintings of both “naturalism” and “realism”; of both the real beholder’s standpoint and the internally constituted “depiction points” (of the virtual pictorial space) and the “points of view” (of the virtually realized human agents in the picture); and of both the picture as a record of “what is seen,” whether in the real world of the pictorialist’s visual space or in their pre-pictorial imaginative and visionary consciousness, and as a provocation for such seeing.

It could be that the pictorialists at the Hunter’s Shelter were remembering the elephants and lions known to their African ancestors, though reconstituting them pictorially in their new world in their migration—a world in which the elephants would have been just as hard to see and as hard pictorially and linguistically to describe as their ancestral prototypes in central east Africa. Could it be, in fact, that making pictures was provoked by the ways in which the humans dispersing “Out of Africa” had lost their phenotypic calibration to their environments of original adaptation—which as immediately visible and intelligible to them in a sense needed no pictures to be navigated? That in traversing and migrating through new worlds their pictures were both a life-line to the past and a life-boat for the future? In other words, I have endowed the Hunter’s Shelter with all the work of pictoriality that art historians have documented in the world-wide history of pictorial art. And I have also imagined it as a crossroads of the dispossessed and the transient—an account that must reflect my own present-day historicity as an art historian. (In the framework of this essay an explicit exploration of this unavoidable sociopersonal, intellectual, and rhetorical context had to be somewhat left aside for the purposes of the simulation, but see, Davis 2016, 2017b). Pictures can anchor people despite their removals, whether voluntary or forced. Let’s imagine pictures that can help to make such migrations as productive as possible, despite displacement and loss.

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