BODIES FROM THE BOG: METAMORPHOSIS, NON-HUMAN AGENCY AND THE MAKING OF ‘COLLECTIVE’ MEMORY

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Abstract. This essay is about bog bodies – the preserved remains of prehistoric humans, often interpreted as ritual killings, found in peat bogs across northwest Europe. It considers the production of knowledge about the human past as a complex, relational process implicating multiple actors and traversing the terms of any straightforward nature-culture binary. It argues that theorizations of collective memory – and in particular of its ‘collective’ aspect - need to pay closer attention, both to the role of non-human agencies in the shaping of humanly intelligible artefacts and histories and to the relationship between preservation and transformation as a constitutive feature of collective memory. By way of illustration, it traces in some detail the story of one particular bog body, from death and deposition in the ground through rediscovery, excavation, archaeological analysis and subsequent public display.

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1. Who will say ‘corpse’?

Who will say ‘corpse’
to his vivid cast?
Who will say ‘body’
to his opaque repose?

The words are those of the Northern Ireland-born poet Seamus Heaney, from one of a series of poems published between 1969 and 1975, apostrophising both

1 Bog bodies range in date from the Mesolithic period to the twentieth century, the majority of the better known finds dating from the Iron Age (c.500 BC onward in northern Europe). Peat bogs once covered substantial areas of northern Europe, but today have all but disappeared in many areas, due partly to their drainage and reclamation for agricultural use and partly to the cutting of peat to burn as fuel. Many, perhaps the majority, of archaeological finds in peat bogs have occurred accidentally in the course of peat cutting. For the purposes of my argument, I make no distinction here between ‘history’ and ‘memory’.
the bog landscapes of Ireland and northwest Europe and the uncannily preserved human corpses retrieved from their depths (Heaney 1975:36).\footnote{The poem Bogland appears in the collection Door Into The Dark (1969); The Tollund Man and Nerthus in Wintering Out (1972); Belderg, Bog Queen, The Grauballe Man, Punishment, Come to the Bower, Strange Fruit and Kinship in North (1975).} The poem in question, The Grauballe Man, takes its title from one such find, an Iron Age man uncovered in 1952 in the course of peat-cutting at Nebelgård Fen, a peat bog close to the village of Grauballe in Jutland, Denmark. The body is currently on display in the Moesgård Museum of Prehistory near Århus. (see Plate 1, Photo 1).

Heaney’s poem recounts a scene of simultaneous recognition and non-recognition. The dead man confronts the modern spectator both as a contemporary presence and as a figure indelibly marked by signs of otherness: his darkened, leather-like appearance, his distorted features, the head partially flattened by the weight of peat over the intervening centuries. Heaney lingers over the details of these metamorphoses, allowing the still discernibly human form to be further transfigured through metaphor into new and fantastic shapes, suggesting the body’s gradual re-absorption by the natural world to which it had been consigned:

As if he had been poured
in tar, he lies
on a pillow of turf
and seems to weep
the black river of himself.
The grain of his wrists
is like bog oak,
the ball of his heel
like a basalt egg.
His instep has shrunk
cold as a swan’s foot
or a wet swamp root.
His lips are the ridge
and purse of a mussel,
his spine an eel arrested
under a glisten of mud.

(Heaney 1975:35)

2. The Bog People

The Grauballe Man and its companion poems were inspired by Heaney’s reading of The Bog People, a popular work by the eminent Danish archaeologist Peter Vilhelm Glob, who was involved in the excavation and subsequent investigation of a number of peat bog corpses, including the Grauballe Man. Glob’s study, first published in Danish in 1965 (and in English translation in 1968) became one of the principal channels through which information about bog bodies
and other finds first reached a wider, non-academic audience. Glob’s book provides an overview of archaeological discoveries in bogs across Northern Europe, along with more extended descriptions of some of the better-known Danish bog bodies. Glob and later researchers have noted that many of the bog people appear to have met with violent deaths: pinned down in the peat by wooden hurdles, their skulls smashed, their throats cut or leather nooses tightened around their necks (Beuker 2002, Glob 1969:144–192, Van der Sanden 1996:154–165). This has prompted many (though not all) archaeologists to conclude that they met their deaths as human sacrifices, intended to ensure the fertility of the land for the coming year. Such a view has found support from the wide variety of other ancient artefacts, including gold and other jewellery, weaponry, battle armour, drinking vessels and musical instruments, retrieved from peat bogs and widely interpreted as votive offerings to the spirits and divinities associated with the bog (Davidson 1988:62–63, 131–133).

The word 'bog' derives from the Irish bogach, meaning soft or marshy ground. The surface of a bog consists of a thin layer of living vegetation, mostly sphagnum moss. Underlying it is a much thicker layer of peat, made up of a combination of water and the compacted remains of un-decayed or semi-decayed plant matter, accumulated over centuries or millennia (Feehan 1996:153–197). The peat layers contain millions of pollen grains, seeds and remains of plants and insects, providing a record of thousands of years of climate and vegetation history. The distinctive chemical properties of the bog environment are responsible too for the preservation of human remains and artefacts from the remote past. The preservation of bodies in bogs is due to the presence of a substance called sphagnan, a

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3 These include: the Tollund Man, uncovered during peat-cutting, at Tollund Fen, Jutland on May 8, 1950 and currently displayed at Silkeborg Museum, also in Jutland (Glob 1968:18–36); the body of a man, found in Borre Fen, in the parish of Aars in 1946 (Ibid: 86–91); the body of a woman, also from Borre Fen, discovered in June, 1947 (Ibid: 91–93); and the severed head of a girl, from Roum Fen in Himmerland, discovered in June, 1942 (Ibid: 98–100). Outside Denmark, notable discoveries have included the Lindow Man, found in 1984 in Lindow Moss, to the south of the English city of Manchester (Stead, Bourke and Brothwell), and the Yde Girl, a teenage girl, discovered in 1897 by peat cutters in the village of Yde, close to northern Dutch town of Assen and featured in an exhibition, The Mysterious Bog People, which toured Europe and Canada in 2004-5 (Beuker 2002, Van der Sanden 1996: 51, 60, 138, 153). The exhibition aroused considerable controversy in Canada, where it was strongly criticized for its display of human remains belonging to an indigenous population (Gill-Richardson 2004). More recently, two bog bodies from the Midlands of Ireland, Old Croghan Man and Clonycavan Man, both discovered during peat cutting in 2003, have formed the centrepiece of another exhibition, Kingship and Sacrifice, which opened at the National Museum of Ireland in Dublin in May 2006.[0][3]. The title of the exhibition calls attention to the fact that numerous bog finds have been uncovered in close proximity to ancient tribal boundaries, suggesting a possible link with rituals of kinship and sovereignty.

4 For a critique of this interpretation, see Briggs (1995).

5 Further corroboration of the ‘sacrificial’ hypothesis has been provided by written sources, notably the Roman historian Tacitus who wrote, in a work first published in 98 AD, that votive deposits in rivers, lakes and other bodies of water were common among the Germanic tribes on western frontiers of the Roman Empire (Kehne 2002, Tacitus 1970:134–5).
polysaccharide (or sugar chemical) contained in the cell walls of the sphagnum moss growing on a bog’s surface and released slowly below the surface when the moss dies. Here it is gradually converted to brown humic acid via a series of intermediate compounds. Sphagnan, humic acid and their intermediate compounds bind selectively with calcium and nitrogen contained in the bog environment. Calcium is thus extracted from a body immersed in the bog, inhibiting the growth of bacteria that would otherwise promote decay. Decalcification results too in the softening of the bones, which can then be subject to distortion by the overlying weight of peat, or, under highly acidic conditions, the skeleton may dissolve altogether, leaving only an outer envelope of skin. The presence of sphagnan and its associated compounds also initiates a series of chemical reactions through which the body’s skin becomes tanned. As a result, the body’s skin (and all or parts of the skeleton) along with hair, nails, brain, organs such as the kidneys and liver and items of clothing made from wool, skin or leather can survive in the bog, although garments made from plant fibres will dissolve (Van der Sanden 1996:18).

3. The Grauballe Man: from rediscovery to public display

Thus preserved, a body can lie undisturbed for centuries or millennia, until re-awakened to history by the archaeologist’s trowel or the peat cutter’s spade. In the case of the Grauballe Man, the re-awakening took place on a Spring Saturday in April 1952, when two peat-cutters from the village of Grauballe came across a well-preserved body in nearby Nebelgård Fen. They brought news of their discovery to the local doctor, an amateur antiquarian, who in turn contacted Moesgård Museum of Prehistory. Glob, who arrived on the scene the following morning, takes up the story:

_The bog lay in the bright, slanting morning light, the dew drops sparkling like millions of diamonds. A large crowd of local inhabitants had already gathered. As it was Sunday they had time off from their work on the land. They were tightly grouped in a ring around a dark-coloured human head, with a tuft of short-cropped hair, which stuck up clear of the dark brown peat. Part of the neck and shoulders was also exposed. We were clearly face to face again with one of the bog people_ (Glob 1969:37).

The Grauballe Man lay in a very old peat layer. The overlying peat had once been much thicker, but had been cut away over the centuries “to feed the fires of the neighbouring houses and farms.” The body was naked and lay on its chest, slightly aslant, the head and upper body raised and facing north, the left leg extended and the right arm and leg bent. The head had been fully exposed by the peat cutters, but in doing so they had damaged it with their spades. Its shape had also been affected by the weight of peat pressing down on it over the centuries.

The body was lifted from the bog still encased in a block of peat and transported for excavation to Moesgård Museum, where it was discovered that the cause of death had been a deep cut across the throat from ear to ear. An autopsy
was performed and the stomach and intestines were removed for further analysis, revealing that the Grauballe Man’s last meal, eaten shortly before his death, had consisted of a porridge or gruel made from corn, along with the seeds of more than 60 herbs and grasses and traces of the poisonous fungus ergot. The liver was removed for carbon-14 dating, which suggested that the Grauballe Man had died in around 310 AD, possibly in winter, as indicated by lack of berries and fresh herbs in the last meal. A later C-14 dating, taken in 1996 using a sample of hair, would revise this result, pushing the time of death back still further to around 290 BC. X-rays of the body revealed fractures on the skull and right tibia. The fingerprints were recorded and the 21 remaining teeth removed and a set of dental X-rays taken. The results of these initial examinations were incorporated into a display at Moesgård Museum, along with contemporary newspaper clippings relating to the discovery and photographs documenting the examination process itself (Ansigh 2001:50–51, Glob 1996:45–56).

Glob (1969) describes the methods used to preserve the Grauballe Man, the first of the bog people to be preserved in his entirety using modern techniques. This involved replicating in the laboratory the effects of long-time immersion in the bog. A cross-section through the skin taken during the autopsy had revealed a light-coloured core with dark-coloured inner and outer surfaces, indicating that preservation in the bog had been the result of a tanning process. Glob and his colleagues decided to continue this process in the laboratory using a solution of oak bark, renewed at intervals over a period of one and a half years. When the body was finally removed from the solution and the bark-slime washed off, a further cross-section through the skin showed a uniform brown, confirming that the tanning process was now complete. Finally, celluloid, a coagulating synthetic resin, was injected under the skin to replace shrunken muscles (and two missing toes) in order to preserve the body’s shape and volume. The body was then exhibited in a glass case in Moesgård Museum, where visitors could encounter, in Glob’s words “one of the Iron Age people almost as he was nearly two thousand years ago, when he was deposited in the bog after ritual sacrifice” (Glob 1969: 58–59).

In 2000, as part of a renewal of the Grauballe Man exhibit, the body was re-examined over a three-day period at the University Hospitals in nearby Århus. This included the taking of further X-rays and a total of 1362 CT cross-sections. The CT scans revealed for the first time that four lumbar vertebrae were missing and that the fracture to the skull revealed by the 1952 X-rays had occurred after death and had been caused not by a blow, as was originally thought, but by pressure in the bog (or possibly at the time of removal from the bog, when a

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CT scanning, or computed tomography (from the Greek tomos, meaning slice) is a more sophisticated form of radiography. Scans are taken at intervals of 1–2 mm and are produced on monitor rather than film. The varying densities of different tissues generate contrasts that result in sharp images of the anatomical structures within individual sections. When combined, the sections yield an accurate image of body’s internal structure; and thus afford a means of examining a body without further damaging it.
bystander at Nebelgård Fen had accidentally stood on the Grauballe Man’s head). The re-examination also included further analysis of the stomach contents (removed in 1952 and preserved in a glass of ethanol); re-examination of the teeth (also removed in 1952); MR-scanning of the intestines; endoscopic investigations (using the opening from the 1952 autopsy) and skin analyses. Comparison of the more recent X-rays and CT scans with the published versions of the 1952 radiographs (the originals had since been lost) revealed some of the ways in which the body had changed over the intervening decades, including shrinkage of the brain and spinal cord, along with transformations wrought by the original conservation process, such as the cellodal injected under the skin to preserve the body’s shape, which showed on the radiographs as an impenetrable mass. Although the Grauballe Man is now too fragile to be turned over, CT scanning enabled the production of 3-D computer generated reconstructions of the various body parts, making it possible to visualize and investigate not only the skeleton, but also skin, muscles and tendons. CT scans of the head were also used to produce a model of the skull, correcting for distortions due to the pressure or the overlying peat, which served as the basis for a clay reconstruction of the Grauballe Man’s head and face (Ansigh 2001:52–55, Van Der Sanden 1996:60).

The results of the re-examination have been incorporated into a redesigned exhibit at Moesgård Museum. This includes a microscope through which visitors can examine a sliver of bone extracted from the Grauballe Man’s leg, along with the pollen grains comprising his last meal, and a video installation documenting the process of facial reconstruction. The exhibit also features an interactive touchscreen display, enabling the visitor to select and view computer generated reconstructions of individual body parts, including the skull and brain, hair, teeth, arms and feet and genitalia (see Plate 2, Photo 2).

4. Collective memory: which collective?

The topic of collective memory is the subject of an extensive literature and has been defined in a variety of ways. In much of this literature, however, it has been assumed that the collective referred to consists principally or solely of human beings. One recent challenge to this view has come from approaches sometimes referred to as actor-network theory and associated with, for example, the French sociologists of science Bruno Latour and Michel Callon and the English sociologist of science John Law. Actor-network theory proposes that the collective

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7 See, for example, the classic exposition of the concept of collective memory, the French sociologist Maurice Halbwachs who follows his former teacher, Durkheim, in defining memory with reference to what he takes to be the distinctive attributes of the human collective. Thus, remembrance of the dead is assumed to be contingent upon the persistence of the human group of which they once formed a part or (where the immediate contemporaries of the dead person are similarly deceased) on the continued practice of an ancestral cult by the living members of that group (Halbwachs 1992:73).
of humans envisioned by Durkheimian sociology be replaced by what Callon and Law term a ‘hybrid’ collective, composed of shifting networks of associations between humans and non-humans and cross-cutting what is taken to be an artificial (modern, Western) distinction between the ‘natural’ and ‘social’ realms (Callon and Law 1995). Non-humans might include animals, plants and micro-organisms, along with a range of humanly devised objects and technologies, in so far as these are capable, under the right circumstances, of assuming an agentive role – that is, as Latour puts it, of “making some difference to a state of affairs” (Latour 2005:52).

Actor-network theory offers a valuable reminder that the preservation of the past is not an exclusively human project. The story of the Grauballe Man exhibit reveals a crucial interdependence between the contemporary experience of the Iron Age past and an assortment of latter-day investigative and imaging technologies, including photography, radiography, microscopy and, more recently, CT scanning and computer modelling, which actively transform the ways in which the Grauballe Man is seen and experienced, creating new perceptual objects and new sets of relationships between bodies and machines. The presence of the Grauballe Man is thus multiplied and dispersed across different media. He exists not simply as a body in a glass case, but also in the form of photographs, films, texts, microscope slides and interactive digital displays.

It is important to remember, however, that the humanly devised technologies of the research laboratory and the museum display space are not the only agents of memory at work here. The body’s preservation and transmission to posterity are the product too of chemical processes unfolding unseen below bog’s surface, as a result of which the body is not only preserved but also transformed, both its appearance and its chemical composition being decisively altered. The Grauballe Man emerges into historical legibility through a movement that confounds any rigid distinction between the natural and social realms by traversing and linking conventionally distinct domains: the Iron Age practice of sacrificial violence, the depths of the bog, the archaeology laboratory and the museum space. Interpretations of the past generated from the excavation and analysis of bog bodies and other finds are, in turn, projected back onto the landscapes from which the finds in question were first retrieved, these same landscapes being re-imagined in the present as onetime sacred spaces and sites of ritual sacrifice.

8 Latour suggests that if such a distinction has tended, since the 17th century, to be maintained in the organization of academic knowledge (for example, in the institutionalised separation between the natural sciences and the humanities and social sciences), it has often been flouted at level of practice, as modern scientific and technological advances have spawned a proliferation of nature-society ‘imbroglios’ (knowledges, technologies, manufactured objects etc.) the presence of which has, finally, become impossible to ignore (Latour 1993:1–3, 13–15, 49–51).

9 This theme is made explicit in one of the wall displays at Moesgård Museum (Treacherous and Alluring Bogs), which describes the bog as a threshold between the human and supernatural worlds:

“The bog is a strange and dangerous place, neither land nor water – a desolate landscape with neither roads, nor paths, nor fixed points, just a bottomless deep waiting to engulf the trespasser.
5. Memory and metamorphosis

If I have lingered in the preceding pages over the details of this two-way movement (including what might be considered its ‘technical’ aspects), I have done so in an attempt to displace an exclusively human centred perspective and to convey instead something of the inescapably relational character of memory, understood not as a faculty exercised by individuated human subjects (whether singly or in groups) but as a continuously unfolding process involving shifting and heterogeneously composed collectives, the constituent elements of which might include, in no particular order of precedence, human beings, technologies, philosophies of history, architecture, chemical reactions, animals, plants, micro-organisms, landscape, geology and climate. Perhaps the most important lesson to be drawn from the story of the Grauballe Man, however, is that collective memory is, above all, a process. Even when its collective aspect is understood in the expanded terms proposed by actor-network theory, the elements of the collective are not static but constantly changing, constantly re-arranging themselves. Collective memory might be thought of as what ‘happens’ as a result of these always ongoing interactions and re-alignments. In this sense collective memory is indissolubly linked to transformation – the preservation of the past is the outcome of an opened series of transformations, just as the contemporary retrieval and articulation of the past is always also a transformative intervention in the present (think, for example, of archaeological scholarship’s rediscovery of bog landscapes as ritual and sacrificial spaces).

It is the transformative aspect of collective memory that is captured so effectively by Heaney’s bog poems, in which poetic imagery and linguistic tropes appear to extend and carry forward the preservative and transformative work of the bog. Heaney responds to the bog people as uncannily metamorphic beings, who are able, for that very reason, both to materialise the Iron Age past in the present and to inspire new cultural imaginings. A further series of transformations attends the Grauballe Man’s passage from his underground resting place to the laboratory, the hospital and, latterly, the museum. Some of these involve further physical alterations to the body itself – the completion in the laboratory of the tanning process begun below ground, the injection of cellodal under the skin to preserve the body’s shape – others are additive – the accumulation of photographs, X-rays, CT scans, videos and computer-generated images, which are subsequently incorporated into the museum exhibit. In tracking these transformations, we are again made aware, both of the essentially metamorphic character of the memory.
process and of the redundancy of any a priori distinction between the realms of 'nature' and 'culture' as a basis for understanding its dynamics.

Understood in these terms, there is no reason to suppose that the logic of collective memory is fundamentally altered or disrupted by the advent of what we are accustomed to think of as modernity, a view sometimes voiced in contemporary media scholarship. Far from impeding our access to the past, new visual media simply allow the past to be known and experienced in different ways. What distinguishes the ‘modern’ era is not the onset of collective historical amnesia, nor a radical shift in the nature and functioning of memory, but rather a series of specific changes in the composition of the memory collective – for example, scientists instead of scribes, computer screens instead of parchment and ink, along with bodies and senses attuned to these different media and practices. It is surely to these kinds of shifts, rather than to assumed epochal transitions, that a history of collective memory and its modes needs to attend. At the same time, other non-human agents of the memory process may continue to function in the present much as they have always done. Bogs (or at least those of them that remain intact) continue their work of preserving (archiving?) whatever finds its way into their depths, preparing the way for future, perhaps as yet unimaginable collectives and collective memory projects. The Grauballe Man exhibit at Moesgård Museum of Prehistory, comprising the body in its glass case, the various human and non-human actors involved in its preservation, along with the display space and the accompanying texts and images, is one such possible collective, one distinctively early twenty first century version of what ‘collective’ memory has always been.

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See, for example, Feldman (1994) and Buck-Morss (1997).
References


Plate 1

Photo 2. Touch-screen menu for interactive display based on CT scans of Grauballe Man, Moesgård Museum of Prehistory. Photo by Stuart McLean.