










Ancient Britain

2

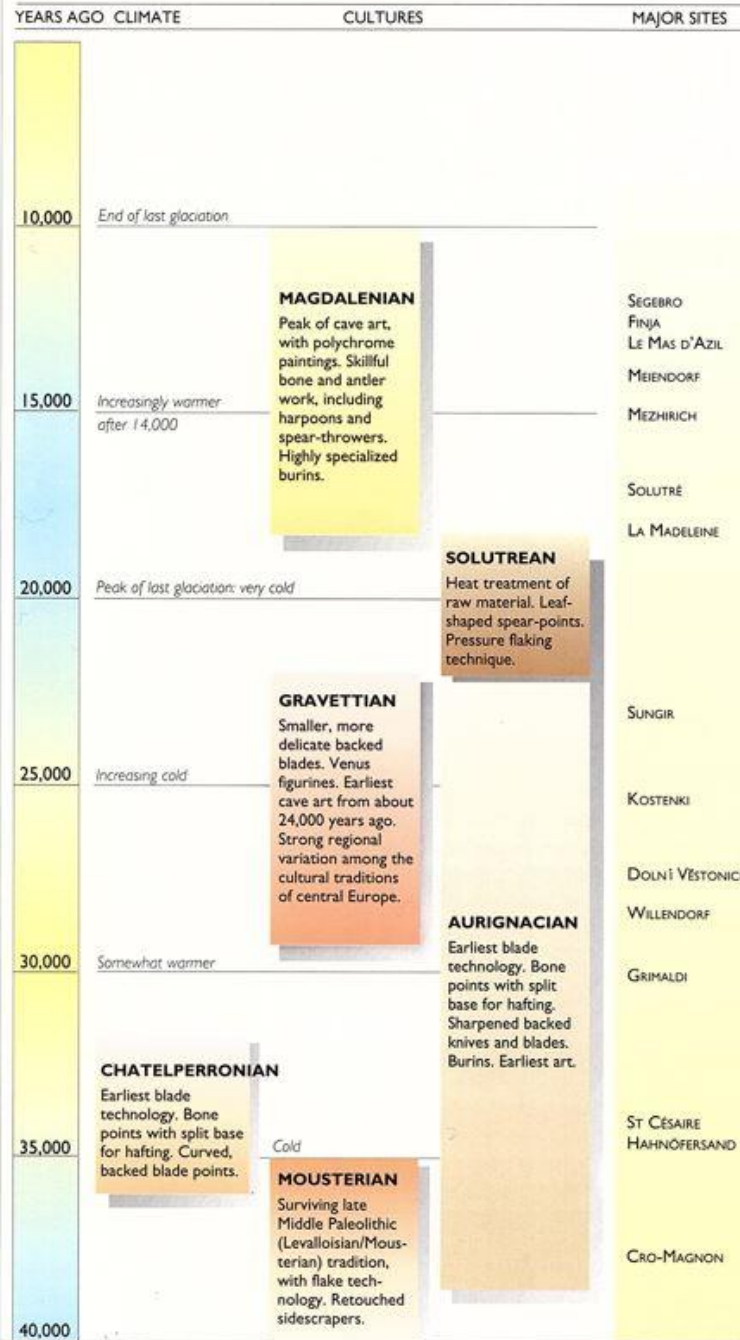
After the Ice

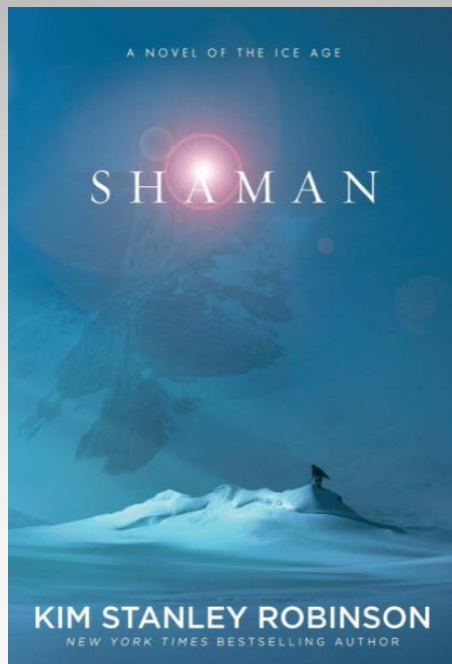
Limit of last glaciation (Devensian glaciation) c.18,000 years ago
Limit of ice sheets c.10,000 years ago

-  Limit of last glaciation (Devensian glaciation) c.18,000 years ago
-  Limit of ice sheets c.10,000 years ago
-  Coastline c.18,000 years ago
-  Coastline c.10,000 years ago
-  Major Lower and Middle Palaeolithic site
-  Early human fossil
-  Major Upper Palaeolithic site
-  Major Mesolithic site
-  Island Site with Mesolithic human remains



UPPER PALEOLITHIC CULTURAL TRADITIONS OF EUROPE





Modern humans replaced Neanderthals in Europe, but not necessarily by violent conflict. If they were more effective hunters/gatherers than Neanderthals, then in times of severe food shortage they would “just barely” survive.

In such times, the difference between “just barely” and “not quite” is the difference between life and death.



Europeans are 97 to 98 percent descended from Africans and 2 to 2.5 percent descended from Neanderthals.







Homo sapiens

This is a *Homo sapiens* from around 30,000 years ago, inspired by burial remains found in Paviland, Wales. *Homo sapiens*, our species, evolved in Africa and started to spread into other parts of the world around 60,000 years ago. We came to Britain at least 40,000 years ago. We probably evolved from the earlier human species, *Homo heidelbergensis*.

Physique

Early modern humans, both men and women, were taller and more linear than Neanderthals, probably built for endurance running rather than short powerful bursts. Body proportions were similar to those who live in hot conditions today.

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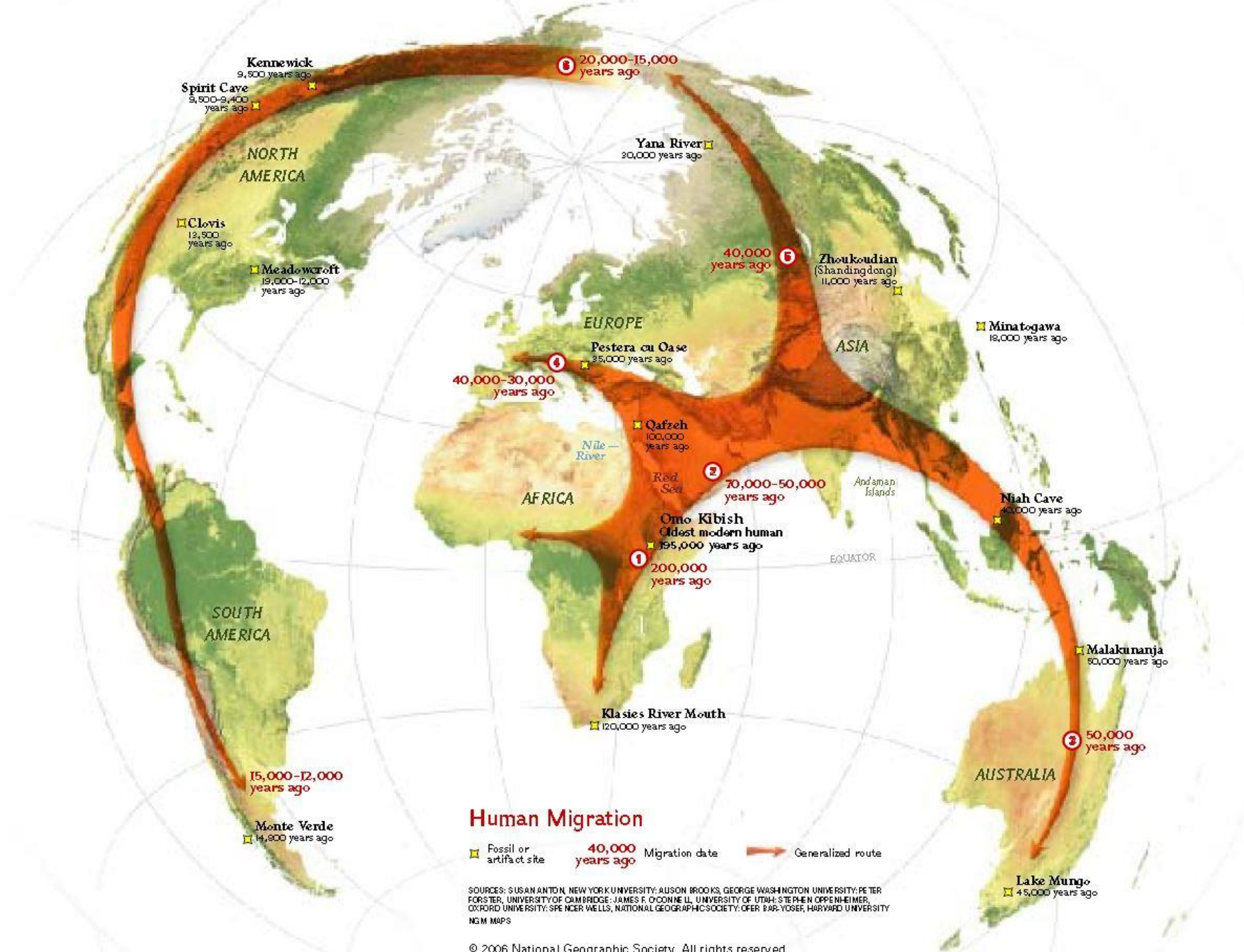
Clothes

Our *Homo sapiens* is naked to show his physique. In the cold climate of Europe leading up to the last glaciation, both Neanderthals and *Homo sapiens* would have worn animal skins to survive. Finds of needles suggest *Homo sapiens* created clothes that were more fitted. Neanderthals probably wrapped skins around them in some way.

Creativity

There was, and still is, something different about the brains and minds of *Homo sapiens*. These early modern humans created representations of their worlds in carvings, paintings and sculptures. Their meanings are uncertain, but they may have had a ritual or spiritual significance. Although Neanderthals were complex intelligent beings, they did not create these forms of representations. At least not in any way that survives.





Kennwick
9,500 years ago

Spirit Cave
9,500-9,400 years ago

NORTH AMERICA

Clavis
13,500 years ago

Meadowcroft
19,000-12,000 years ago

6 20,000-15,000 years ago

Yana River
20,000 years ago

40,000 years ago

5 **Zhoukoudian**
(Shandong)
11,000 years ago

Minatogawa
18,000 years ago

EUROPE

Pestera cu Oase
35,000 years ago

40,000-30,000 years ago

4

Qafzeh
100,000 years ago

Nile River

AFRICA

2 70,000-50,000 years ago

Omo-Kibish
Oldest modern human
195,000 years ago

1 200,000 years ago

Andaman Islands

Niah Cave
40,000 years ago

SOUTH AMERICA

15,000-12,000 years ago

Monte Verde
14,800 years ago

Klasie River Mouth
120,000 years ago

EQUATOR

AUSTRALIA

3 50,000 years ago


Lake Mungo
45,000 years ago


Human Migration


Fossil or artifact site **40,000 years ago** Migration date Generalized route


SOURCES: SUSAN ANTON, NEW YORK UNIVERSITY; ALISON BROOKS, GEORGE WASHINGTON UNIVERSITY; PETER FORSTER, UNIVERSITY OF CAMBRIDGE; JAMES F. O'CONNELL, UNIVERSITY OF UTAH; STEPHEN OFFENHEIMER, OXFORD UNIVERSITY; SPENCER WELLS, NATIONAL GEOGRAPHIC SOCIETY; OFER BAR-YOSEF, HARVARD UNIVERSITY; NGM MAPS


Human fossils in Europe


 *Homo erectus* and *Homo heidelbergensis*,
c.800,000–300,000 years ago


 Pre-Neanderthals,
300,000–150,000 years ago

 *Homo neanderthalensis*,
c.150,000–28,000 years ago

 Modern *Homo sapiens*

 Conjectural spread of
physically modern humans

 Glaciation 18,000 years ago

 Coastline 18,000 years ago





Llanelli

Swansea

Port Talbot

Swansea Bay

Goat's Hole Cave
Paviland



Goat's Hole Cave Paviland

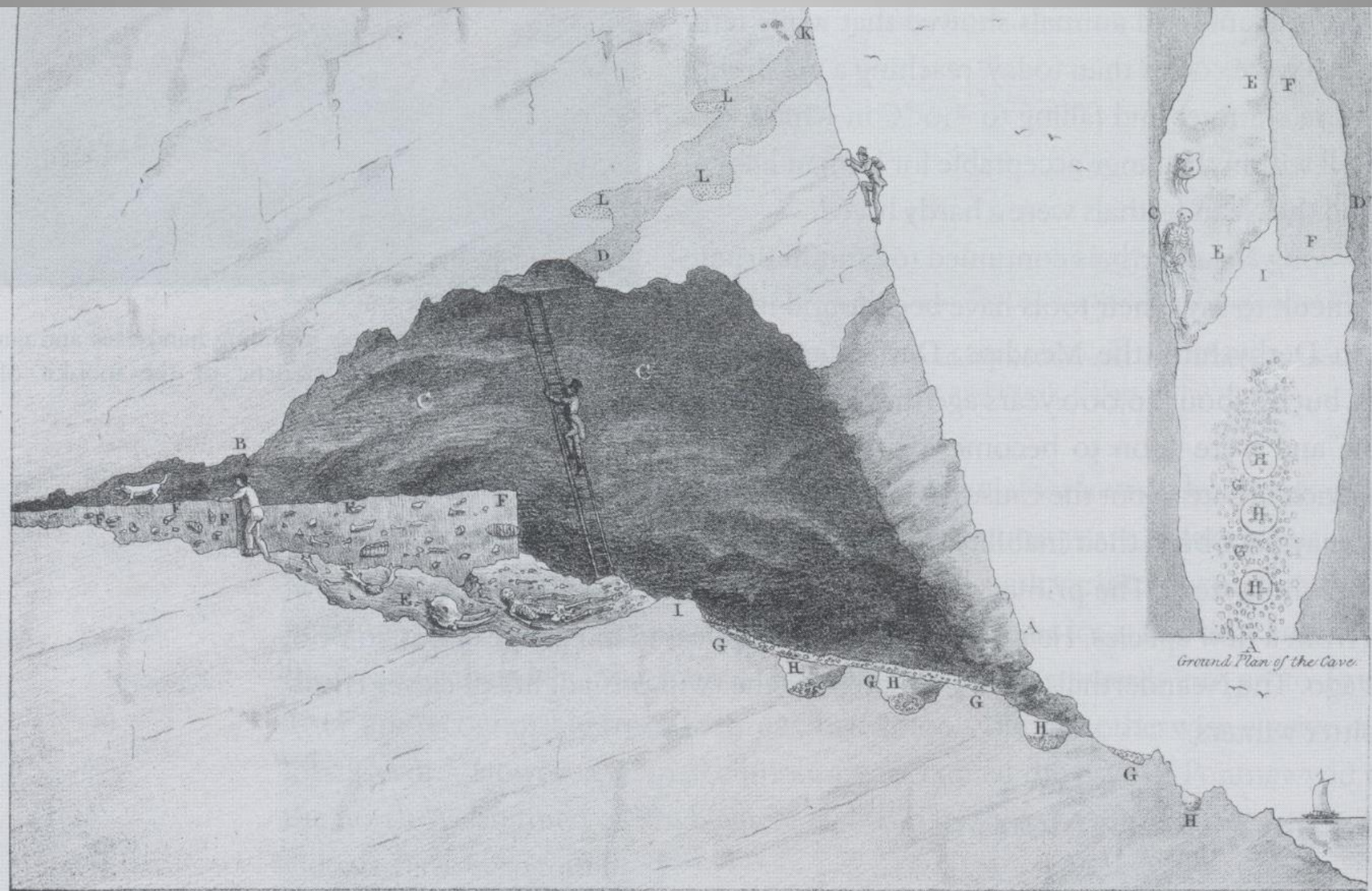








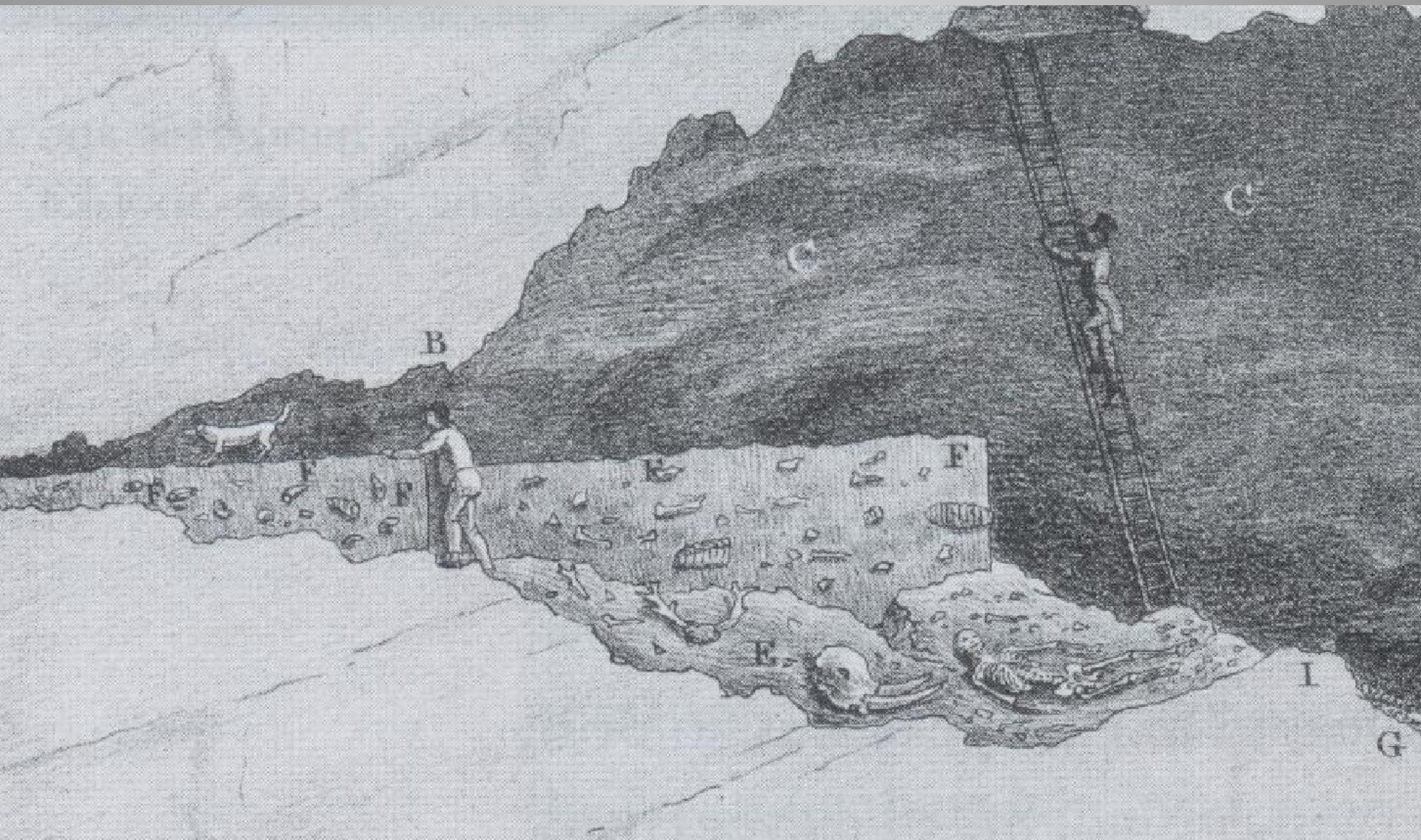




Drawn by T. Webster from a Sketch by Prof. Buckland.

SECTION OF THE CAVE CALLED GOAT HOLE.
In the Sea Cliffs 15 Miles West of Swansea.

G. Scharf Lithog. Printed by C. Hallmandel.





The 'Red Lady of Paviland' was discovered in a limestone cave in Gower in 1823 by a geology professor at the Oxford University, where it is kept. Here, Museum Assistant Lisa Roberts is pictured with the remains when they were on show at the National Museum and Galleries of Wales in Cardiff

Oldest known burial in Britain

This man was buried in Paviland Cave, Wales. His body was decorated with periwinkle shells, red dye and jewellery made from mammoth ivory and discovered around 33,000 years later in 1823. This is the earliest known evidence in Britain of modern humans treating their dead with some form of ritual.

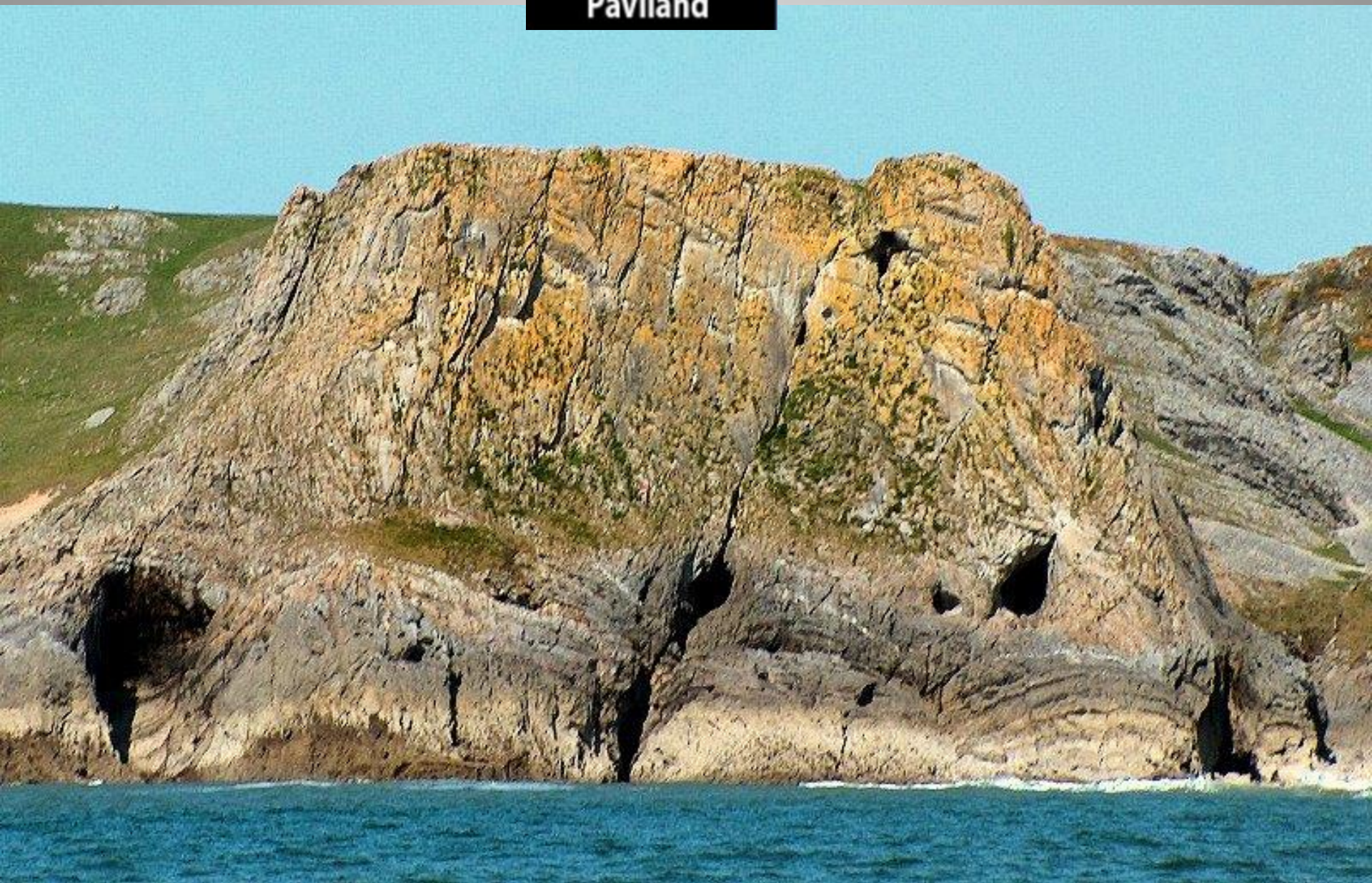
New techniques developed by scientists at the Oxford University radiocarbon unit recently showed the burial was 4,000

years older than previously. Tom Higham, deputy director, explains.

'We used a method for removing contamination from bone collagen, which some parts of the skeleton. This technique allowed more accurate dating than had been possible. As a result, we know that this person died during a warmer stage, not as cold as we thought earlier.'




Goat's Hole Cave Paviland







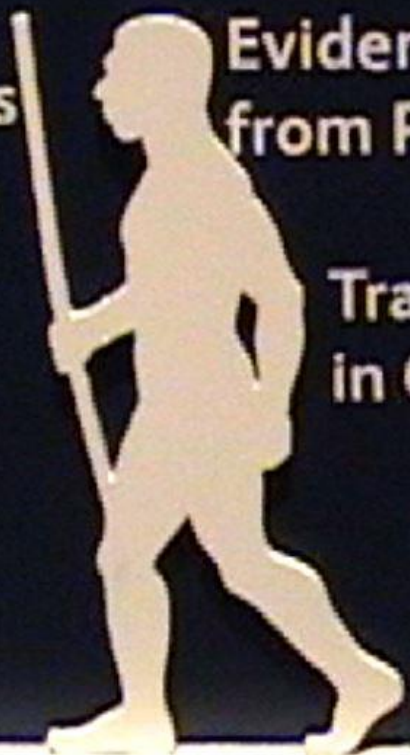


Earliest remains of a modern human
found at Kent's Cavern, Devon.

burial tools
at Lynford,

Evidence of a *Homo sapiens* burial
from Paviland Cave, Wales.

Traces of cannibalism discovered
in Gough's Cave, Somerset.



00
Today



1. Skull cup of a male, with human-made cut marks

Cut marks and dents reveal that this skull was thoroughly cleaned of any soft tissues shortly after death. After removing the bones of the face and the base of the skull, it was painstakingly shaped into a cup.

Homo sapiens. Gough's Cave, Somerset, England, around 14,700 years old.
M54143

Loan and display made possible thanks to the generosity of the Longleat Estate.

2. Cannibalised face

More evidence of the complex culture of butchering human remains at Gough's Cave can be seen on this teenager. There are cut marks on the upper jaw, where flesh was removed.

Homo sapiens. Gough's Cave, Somerset, England, around 14,700 years old.
M54130, M54130b

Loan and display made possible thanks to the generosity of the Longleat Estate.





Meet Cheddar Man

This is the reconstructed head of Cheddar Man based on the shape of his skull and DNA analysis. DNA research carried out with scientists from the Natural History Museum revealed that he was blue-eyed and had dark skin pigmentation. DNA was also able to confirm that he was male, which was suspected because of the shape of his skull and pelvis. Scientists think that the hunter-gatherer population Cheddar Man belonged to died out as farming communities spread across Britain.

Cheddar head model by Kennis & Kennis Reconstructions.

CHEDDAR MAN

Cheddar Man was a descendant of a hunter-gatherer population that started to spread across western Europe around 14,000 years ago. Some of them settled in Britain and represent the first Britons to inhabit the UK continuously through to the present day. Objects found at archaeological sites show a change from hunting and gathering to farming around 6,000 years ago. Scientists wanted to know if farming had been adopted by hunter-gatherers or if a new group of people had arrived in Britain, bringing farming practices with them. By analysing DNA from a number of skeletons including Cheddar Man's, scientists discovered that the farming communities were a new population.



Cheddar Man

At around 10,000 years old, this is the oldest nearly complete human skeleton ever found in Britain.

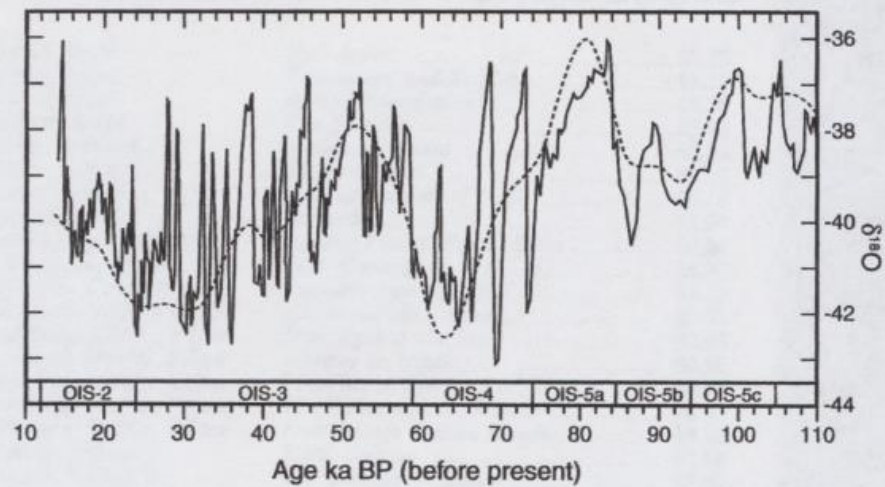
From studying different parts of the skeleton, we can tell that Cheddar Man was between 19 and 23 years old. Looking at the pelvis, you can see that the skeleton was still developing. The pelvis grows in several parts that fuse together when they reach their full size. Cheddar Man's ilium and sacrum had finished growing but were not yet fully fused. Because his wisdom teeth were present but had very little wear, we can tell that he was a young adult.



1. Iliac bone
2. Sacrum
3. Wisdom teeth

Homo sapiens. Gough's Cave, Somerset, England, around 10,000 years old. M54137

Loan and display made possible thanks to the generosity of the Longleat Estate.



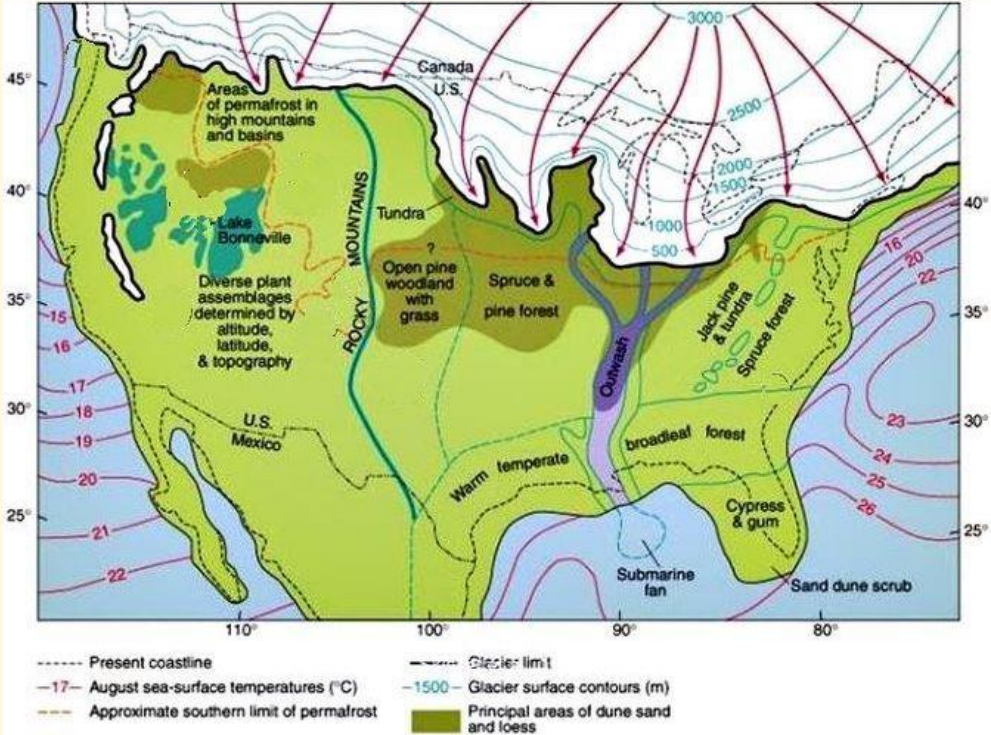
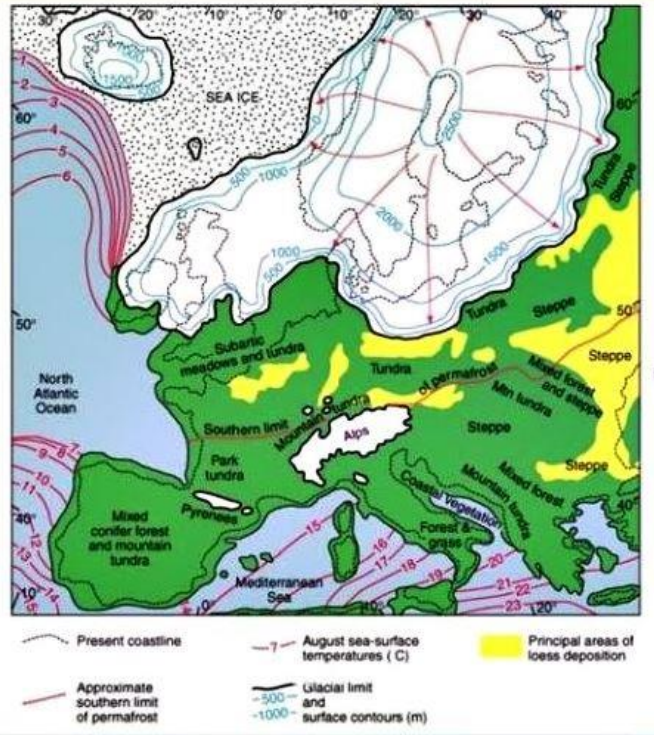
LATE ICE AGE CLIMATE CHANGE

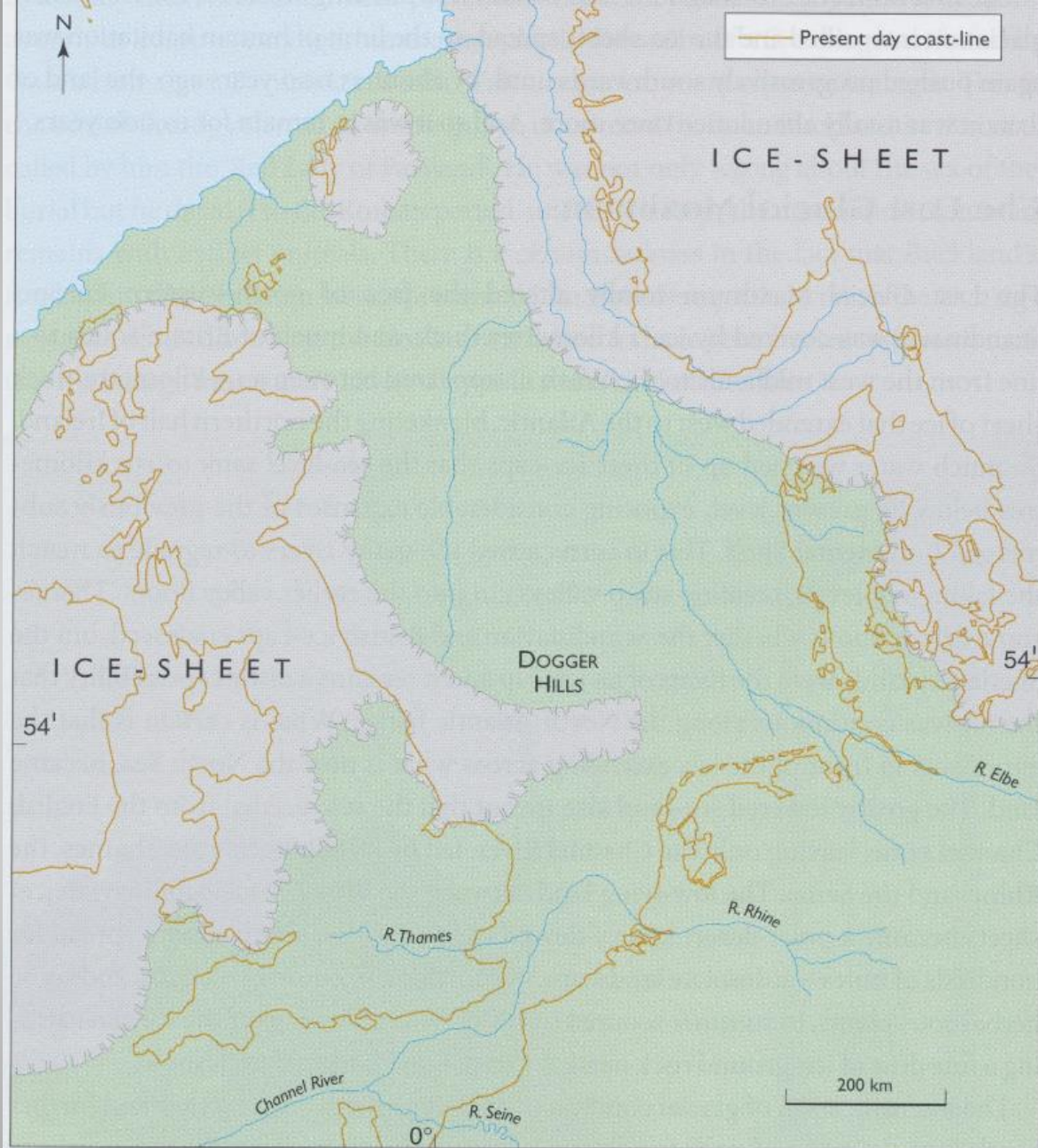
Years ago	Event	Conditions
12,000	Onset of Holocene: modern times	Warming
13,000	Younger Dryas cold event	Near-glacial
15,000	Oscillating climate.	Irregular warming
25,000	Last Glacial Maximum	Very cold
30,000	Gradual cooling with some warm intervals.	Neanderthals extinct
45,000	Irregular climatic shifts.	Some intensely cold moments.
60,000	Brief warm interval	Modern humans arrive
74,000	First intense cold period.	Neanderthals
115,000	Beginning of slow climatic deterioration	
Before 115,000	Last interglacial—warm/temperate	

Figure 6.1 *Climate change during the late Ice Age. (top) A diagram of the zigzag climatic shifts from 110,000 to 10,000 years ago, as reconstructed from a variety of sources, especially Greenland ice cores. The relevant Oxygen Isotope Stages (OIS) are shown. (bottom) A summary of major events.*

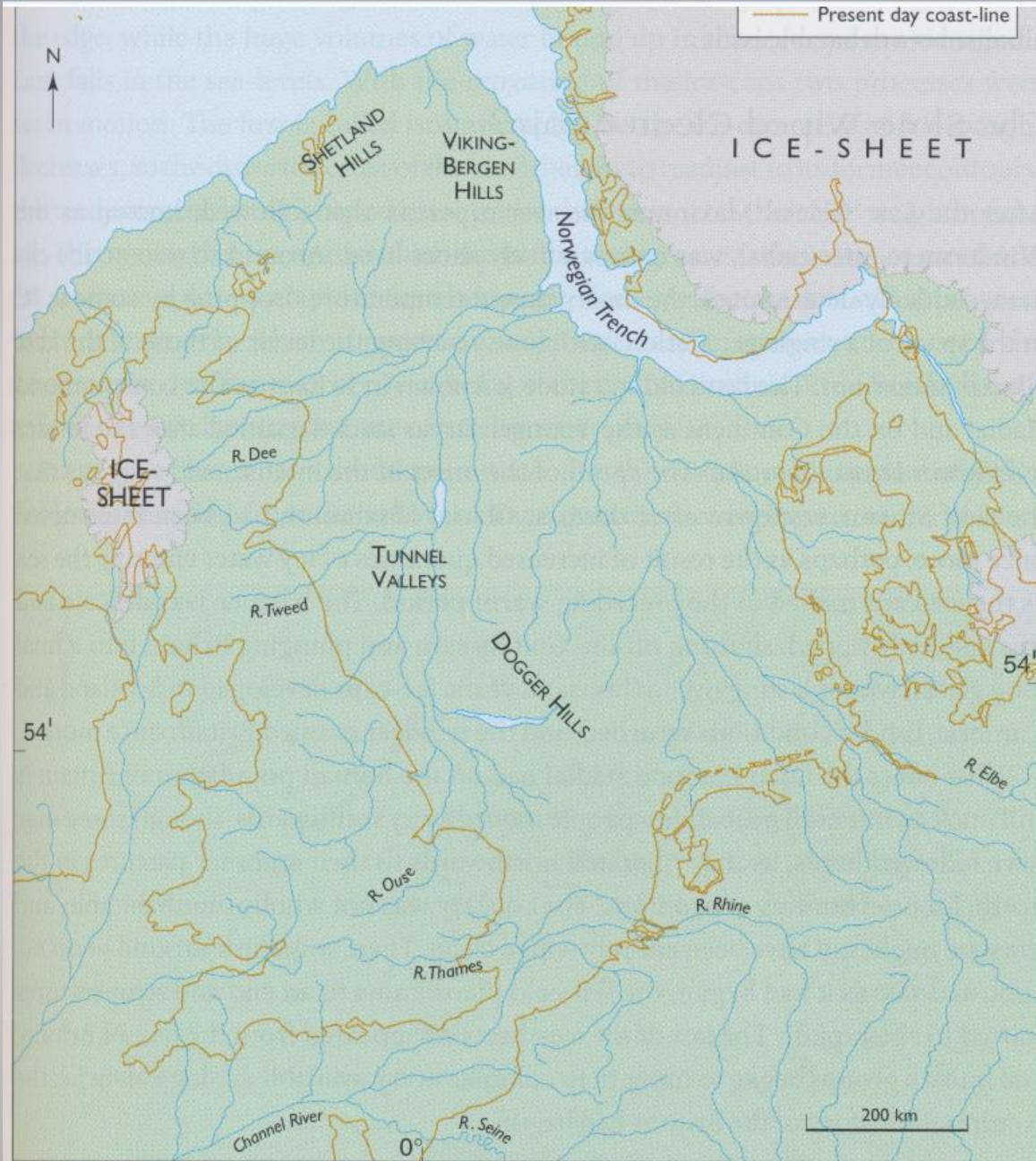
During Last Glacial Maximum, the World became cold and dusty

The Weichsel glaciation set in its final sprint about 30,000 years ago. The Period between 23,000 and 19,000 years before present is re that about 30% of Earth's land masses were covered with ice. Glaciers could be between 1.5 and 3.0 km thick on the highest places, and so that the sea surface level in the oceans dropped to 120 meters below today's level, some say 140 meters.





2.12 Reconstruction of the region later to become Britain and Ireland as it would have appeared during the height of the Devisian glacial period around 30,000 years ago when ice-sheets covered most of the country and the sea-level was very much lower



2.13 The region later to become Britain and Ireland during the Late Glacial (or Dimlington) stadial around 15,000 years ago. The ice-sheet covering Britain has now shrunk, but the sea-level is still low so that Britain and Ireland are one with continental Europe



12,500 BC

① 1—10 cave paintings, major finds

🏠 1—4 mammoth bone houses



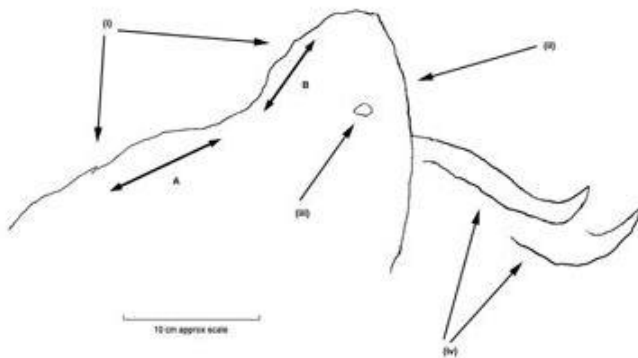
Though Britain had a busy Stone Age culture, no cave paintings or carvings had been found – unlike the famous examples in neighbouring France and Spain. Recently, the discovery of prehistoric carvings of animals and humans at Cresswell Crags (Current Archaeology 197), near Sheffield, and and of probable Mesolithic age on Mendip (CA 197 and 199) launched a new hunt for prehistoric cave art.



Graham Mullan and Linda Wilson, of Bristol University, have spent several years minutely examining various Cheddar Caves, using sophisticated new lighting techniques. Experts believe the carving, in an isolated niche, may have been used by tribal shamans in religious rituals, as it lies beyond the main living area of the Stone Age tribe who inhabited the cave. The creature's huge tusks are the clearest feature.










Unfortunately, conditions in the Cheddar caves are not particularly conducive to the survival of Palaeolithic art. Much of the original rock surface was damaged or removed during the exploration of Gough's Cave in the late 19th century and the remainder is still subject to frequent flooding. Experiments in 1999 demonstrated that pigment survival was unlikely, and calculations by geomorphologists showed that the rock surface itself was subject to water degradation. However, despite these problems, Mullan and Wilson noted a feature which appeared to be a partially engraved figure of a mammoth. Careful recording was carried out by drawing, photography and laser scan, and a close examination led to the conclusion that the drawing is prehistoric. According to Jill Cook, Deputy Keeper in the British Museum's Department of

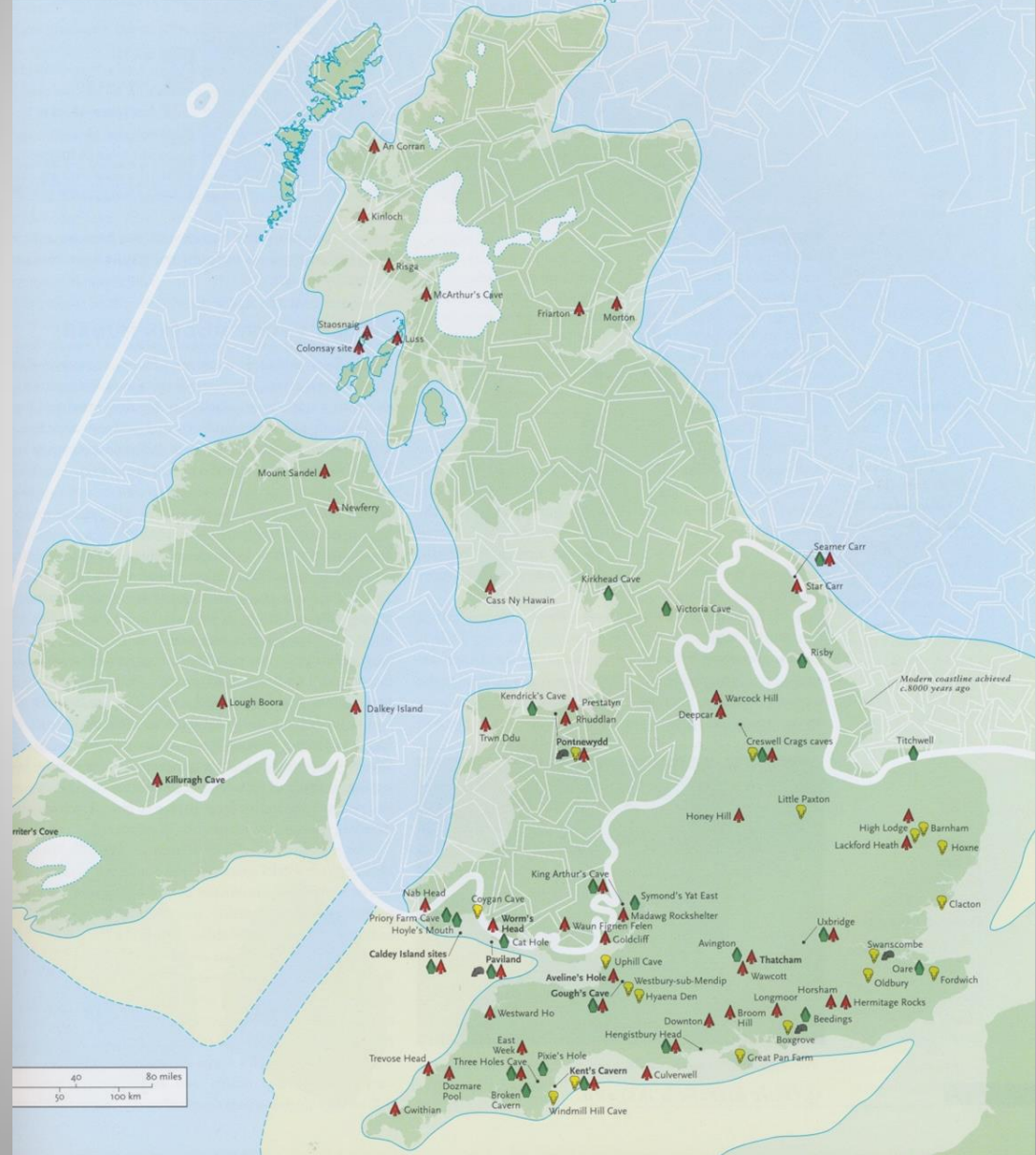
Prehistory and Europe:












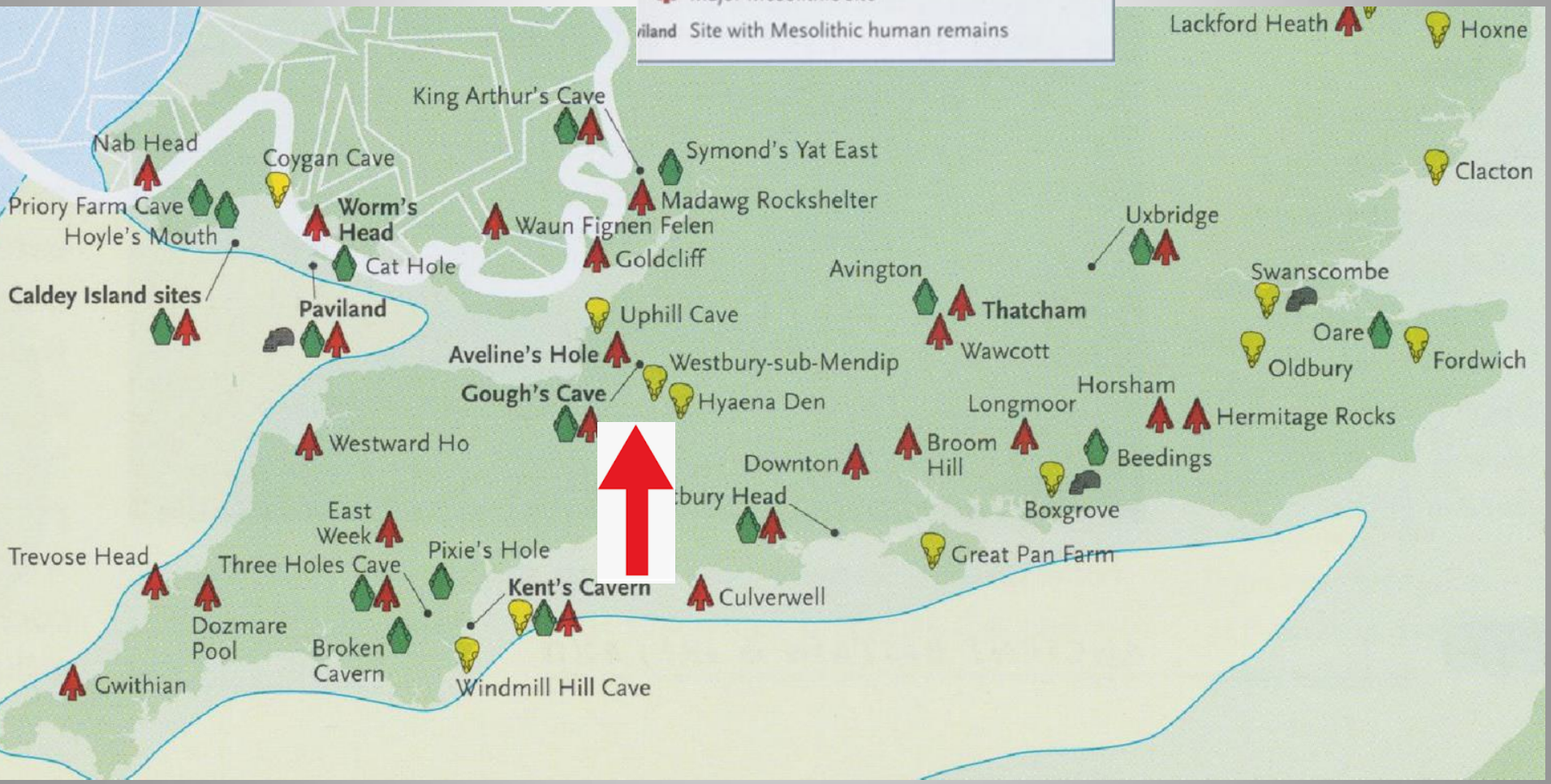
Left: a line drawing of the image shows interpretation of the natural and engraved parts. i) the line of the dome of the head and the back, ii) the face and trunk, iii) the eye and iv) the tusks. Sections indicated by the arrowed lines A and B most clearly show human workmanship. Drawing: Graham Mullan. Photo: Mullan, Andrew

Atkinson, and Steve Cottle.

-  Limit of last glaciation (Devensian glaciation) c.18,000 years ago
-  Limit of ice sheets c.10,000 years ago
-  Coastline c.18,000 years ago
-  Coastline c.10,000 years ago
-  Major Lower and Middle Palaeolithic site
-  Early human fossil
-  Major Upper Palaeolithic site
-  Major Mesolithic site
-  Site with Mesolithic human remains



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-  Major Mesolithic site
-  Paviland Site with Mesolithic human remains





CHEDDAR GORGE MAP



X-TREME

- ADVENTURE caving
- ROCK climbing

CAVES

Gough's Gave (Audioguides)

Information

Gorge Gull Shop
(Cashback Available)

Costa Coffee



- Ticket & Information
- Cheddar Man
Museum of Pre-History
- Wheelchair Access

CAVES

Gox's Gave & The Crystal Quest

Ticket & Information

Collectors of Fantasy Shop
(Cashback Available)

- 274 Steps to Lookout Tower
- Cliff-top Gorge Walk

- Ticket & Information
- Gorge Tour Bus
Boarding Point
April - Sept



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WELCOME**

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Questions & answers


Ask a question

Q: It's made out of limestone not cheese, I was highly disappointed. Will not be returning

A: Well wouldn't advise you to visit Caerphilly either 😊





CHEDDAR
CAVES & GORGE
CHEDDAR MAN

MUSEUM
OF PREHISTORY

PASTIES • ROLLS • BAGUETTES • SALADS • BEVERAGES

OWAR
MUSEUM


AWRIGH
N ARE
All right there
are you!

ANSOME
Lovely
Beautiful

WERZEEBIN
TOO!
Where have
you been?

AREE
GAW
Are you

Tin Pot Pasty T



WARNING
Parental
(or Teacher) Guidance
is recommended for
Children.

This exhibition is unsuitable
for the politically correct and
those of a nervous disposition!

Our ancestors lived in the caves of
Cheddar Gorge for 40,000 years.
Richard Gough lived here in Lion Rock
House and discovered Gough's Cave,
blocked with silt in 1890. While
digging out the cave, to show off its
beautiful stalactites and stalagmites to
wealthy Victorian tourists, he and his sons
unearthed the world of our Late Upper
Palaeolithic ancestors, which led to the
discovery of

CHEDDAR MAN
& the shocking evidence of
CANNIBALISM!

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STONE AGE SURVIVAL SKILLS

Demonstration area



DANGER
Hot Rocks



DANGER
Deep Water



DANGER
Sharp Flints



PLEASE
Keep Out





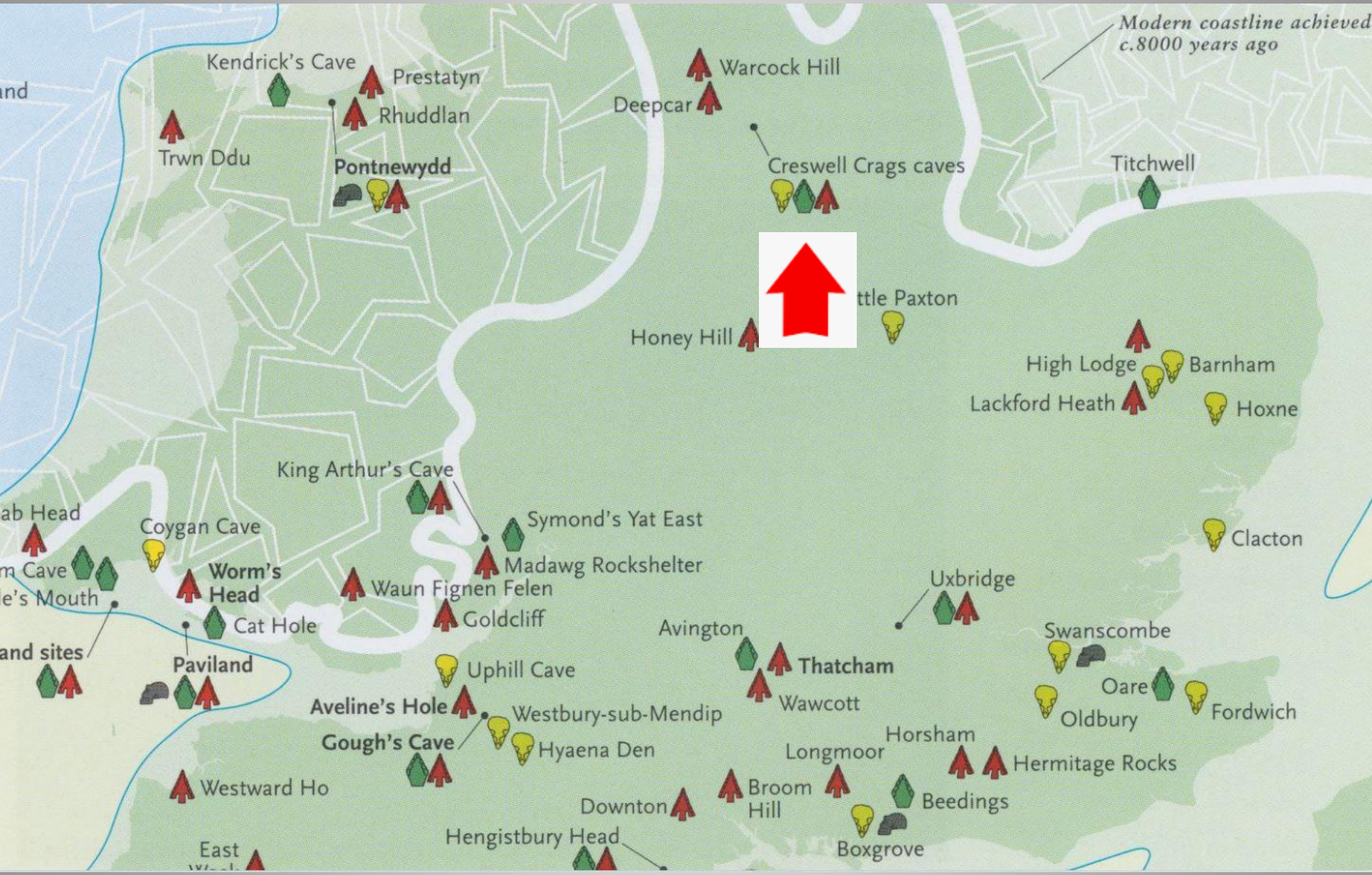


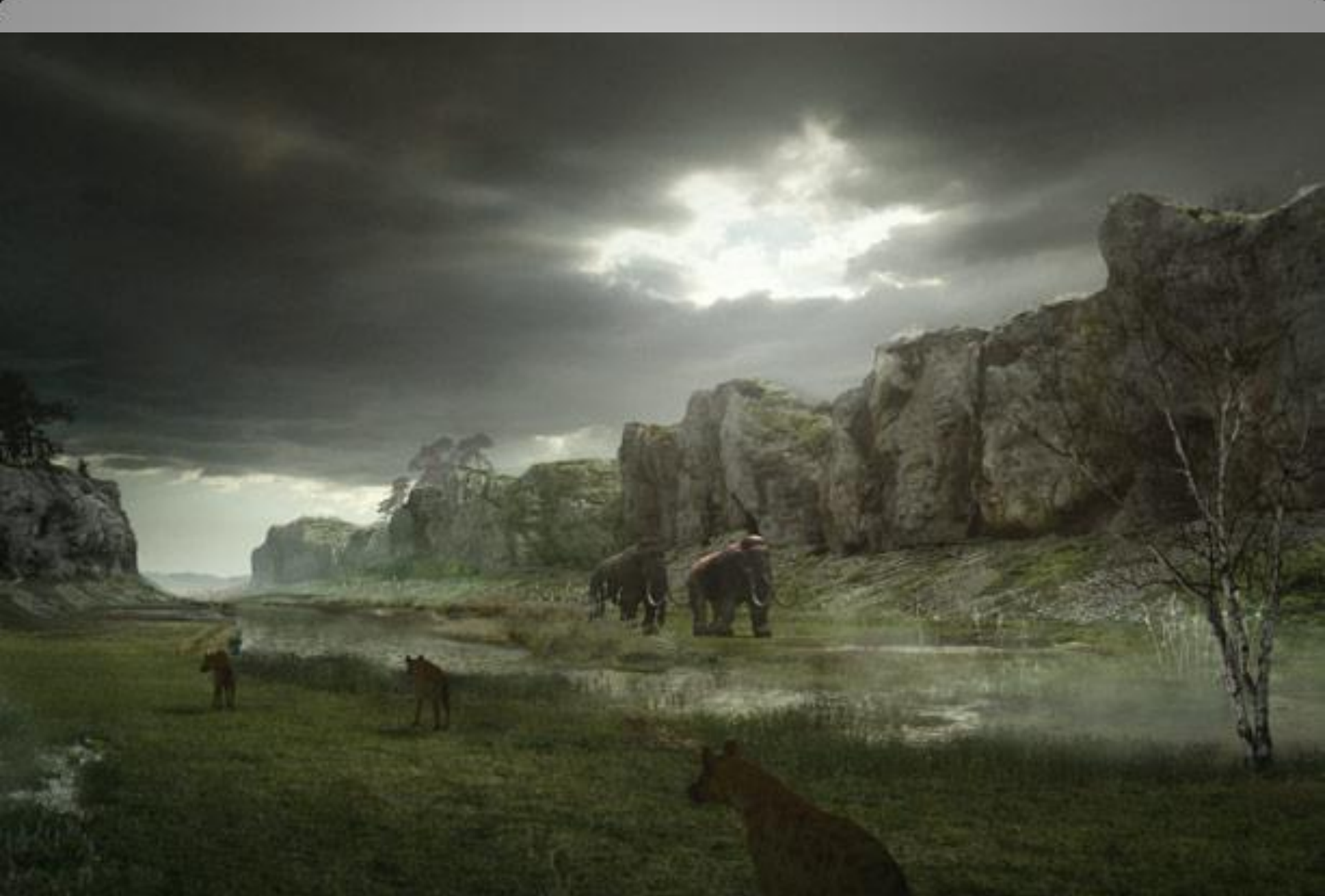


Cheddar Man—the original find



Cheddar Man—today's reproduction





Creswell Crags in prehistoric times

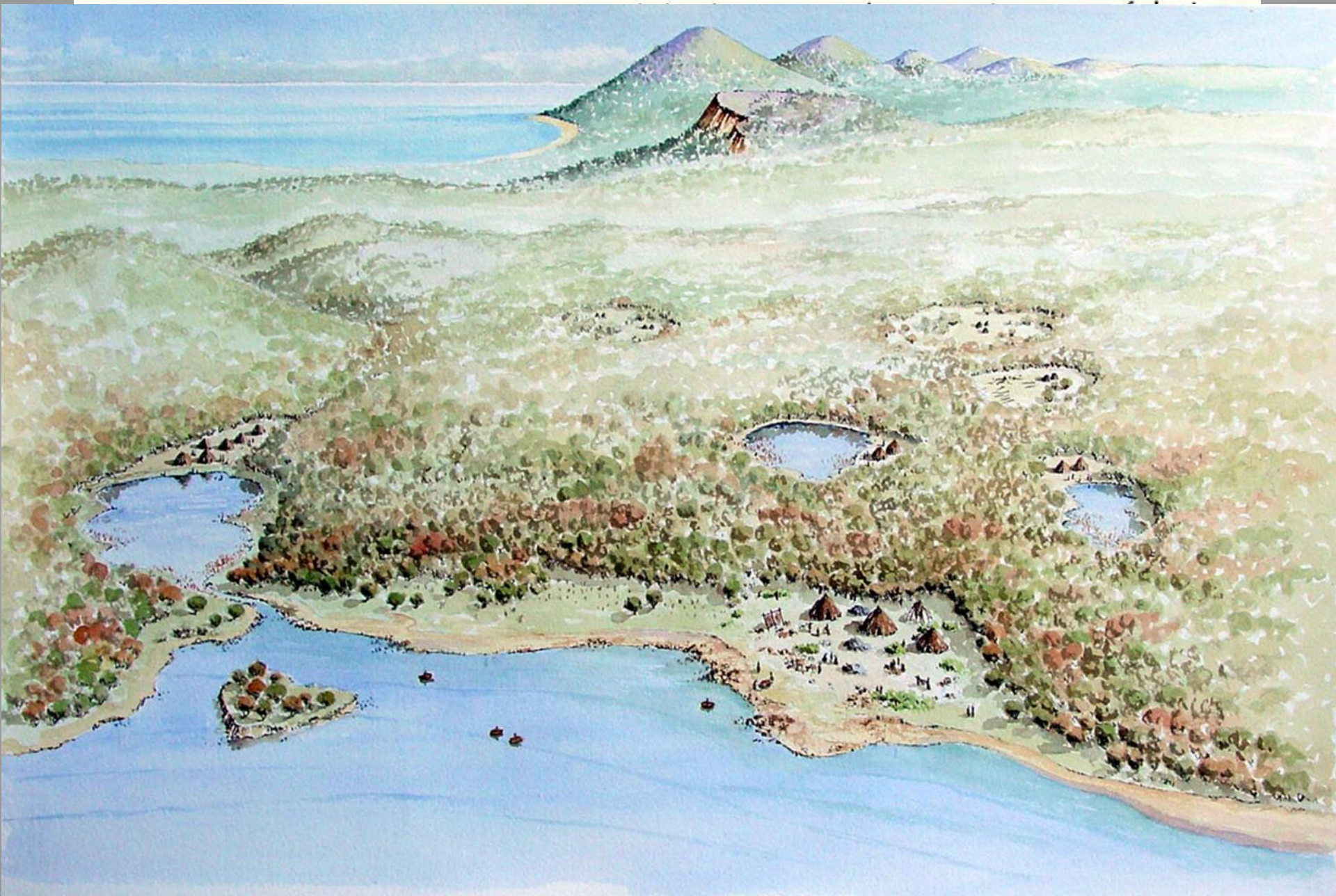


People in Paleolithic and Mesolithic times really didn't live in "simpler" times than our own. They used every bit as much of their minds as we do, for essential knowledge needed for survival. All the details of every plant, animal, mineral, weather condition and sky feature had to be learned for use or avoidance.



A good example of this is shown in Kim Stanley Robinson's "Shaman," a novel set at the end of the Ice Age with characters of the Aurignacian culture. The 66-page opening section, "Loon's Wander," follows a young man in his rite of passage to adulthood. He is sent out naked into the forest for two weeks at the end of winter, with snow and ice still on the ground, and told to return only when the moon is full, not one day earlier or later. His "wander" shows his mastery of wilderness survival skills.

The Mesolithic (9500BC to 4000BC)



PALAEOLITHIC & MESOLITHIC AGES

c.800,000BC to c.4000BC

The Palaeolithic (800,000BC to 9500BC)

In the time scale of the Palaeolithic, which stretches from the appearance of the earliest humans in Africa some 2.5 million years ago through to the end of the last Ice Age around 12,000 years ago, the human occupation of Britain is relatively brief, though recent discoveries have extended it greatly. For much of this time the area we know as Britain was still connected to continental Europe. As the ice sheets retreated, hunter-gatherer communities, pursuing a nomadic existence, would have followed their prey north and west across the area that is now the North Sea.

The harsh environment of the Pleistocene Ice Ages, with a succession of

The Mesolithic (9500BC to 4000BC)

Mesolithic communities continued the hunter-gatherer existence of their predecessors after the last Ice Age. However, stone tool technologies included tiny flint objects called microliths (used to create composite tools) and more bone artefacts survive from the period.

In addition to cave sites, archaeological excavations are revealing evidence for open occupation sites, comprising flint scatters, occasional structural remains and minute traces of food remains. This has enabled archaeologists to reconstruct a fuller picture of Mesolithic economies, to place a greater emphasis on gathering plant foods over the traditional ideas of hunting societies and to identify seasonal occupation sites.

structural remains and minute traces of food remains. This has enabled archaeologists to reconstruct a fuller picture of Mesolithic economies, to place a greater emphasis on gathering plant foods over the traditional ideas of hunting societies and to identify seasonal occupation sites.

CHANGING VIEWS OF THE MESOLITHIC

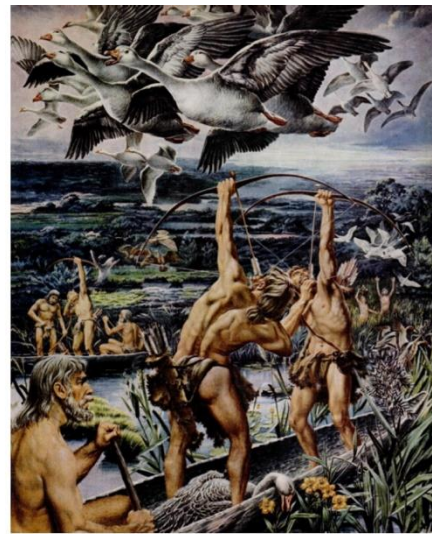
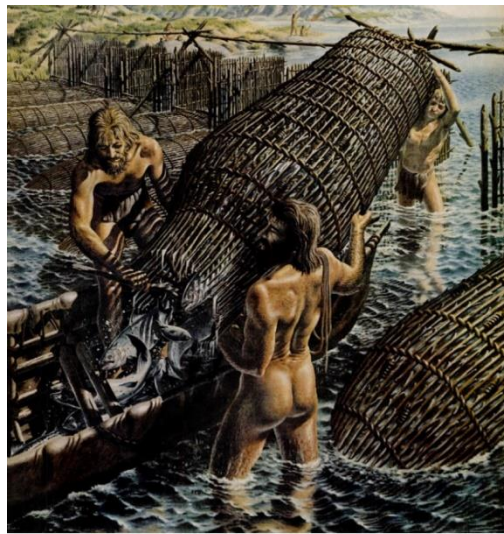
Before 1950, the Mesolithic period was regarded as a short and dull interval between the dramatic Paleolithic of the Ice Age and the important Neolithic with the arrival of farming and herding.

Current views are that the Mesolithic was very significant in its own right, for several reasons—

—Radiocarbon dating shows that it was much longer than previously thought: 6,000 years (from 10,000 to 4,000 BC), longer than the Neolithic, Bronze Age, or Iron Age.

—After the ice, Mesolithic people showed great adaptability in developing new ways of life to match changing and diverse environments.

—In modern times, hunter-gatherers were seen as crude and marginal strugglers for survival. This is because for thousands of years our more numerous farming ancestors had pushed them into poor and undesirable habitats. It was hard to imagine hunter-gatherers flourishing in areas rich in resources, animal, vegetable and mineral.



CHANGING VIEWS OF THE MESOLITHIC

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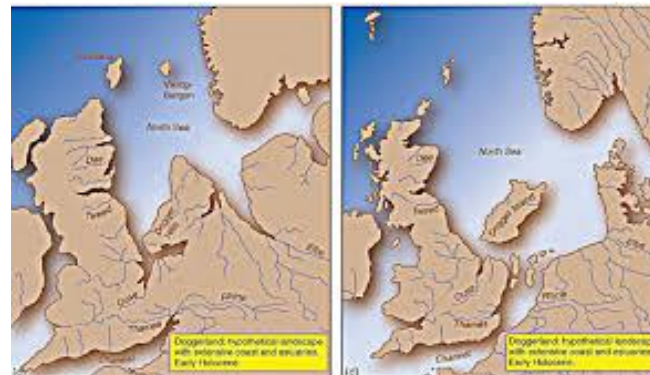
—The Mesolithic period was also important in showing how human cultures responded to

two great geological/geographical events:

—c. 6200 BC: The Storegga Slide produced a gigantic tsunami, sweeping over Doggerland (the flat land in what is now the North Sea) and smashing into the east coast of Britain, drowning all human and animal life there.



—c. 6000 BC: the final opening of the English Channel, turning Britain into an island for the rest of its history and reducing the easy flow of new peoples and ideas to that land.



Map of Doggerland in the North Sea (after Bryony Coles)

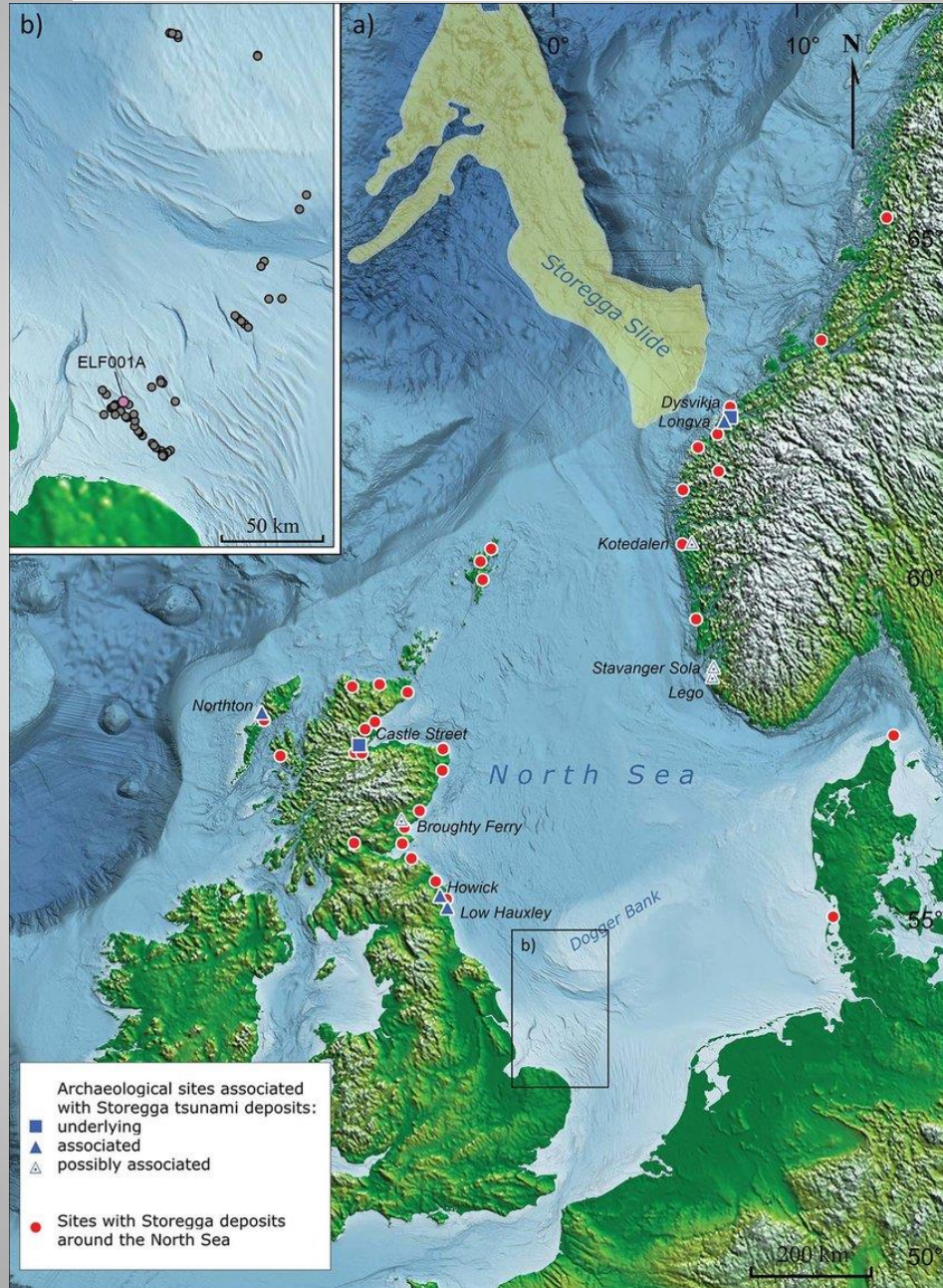


-  *Extent of land approx. 10,000 years ago*
-  *Doggerland study area 2007*
-  *Liverpool Bay study area 2010*
-  *Bristol Channel study area 2010*



A small Paleolithic flint hand axe - one of many prehistoric artefacts discovered during dredging in the Doggerland area (Photo Jan Glimmerveen)

c. 6200 BC: The Storegga Slide







8. Map showing some Late Glacial and earlier mesolithic sites, mostly referred to in the text.







Pl. 4. *The Nab Head: reconstruction scene.* The scene is set in around 9,000 BP, on the coastal plain below the Early Mesolithic site of the Nab Head, St Brides Bay, Pembrokeshire (the wooded hill seen in the left background). A range of activities is being undertaken including manufacture of a tree trunk canoe using a tranchet adze, making barbed antler points, smoking fish and meat over fires, practising archery and, in the distance, sea-fishing from boats. Painted c. 1980 by Giovanni Caselli working from a brief devised by Stephen Green. (By permission of the National Museum of Wales)



(Above right) Pl. 5. *Graig Llwyd rough-outs and polished Neolithic axehead: stages of manufacture.* (Photo Douglas Madge, UWB)

(Right) Pl. 6. *Some of the large flint flakes from the Late Neolithic Penmachno board, Caernarfonshire. These are undoubtedly mined flints imported into Wales.* (Photo Frances Lynch)

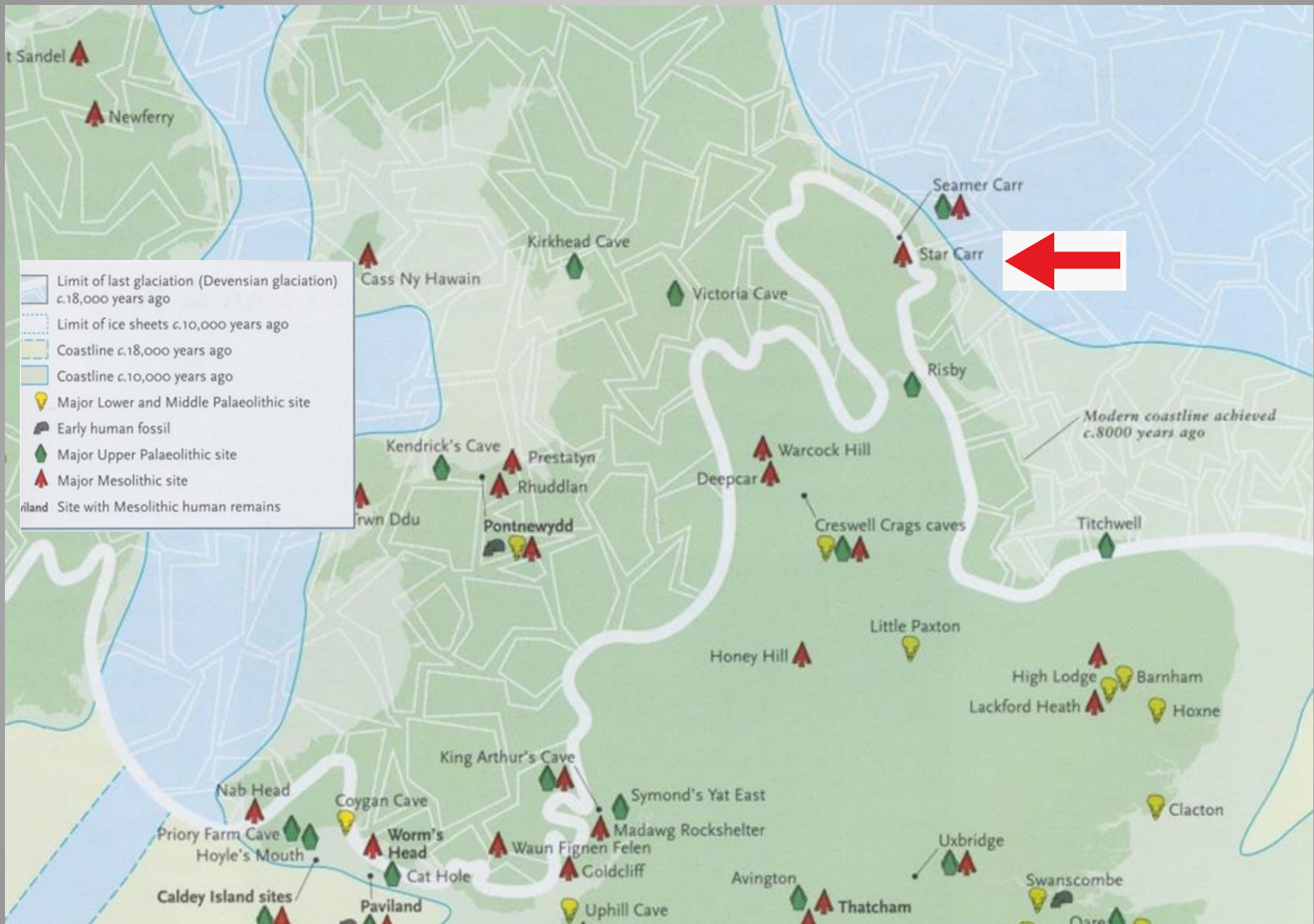


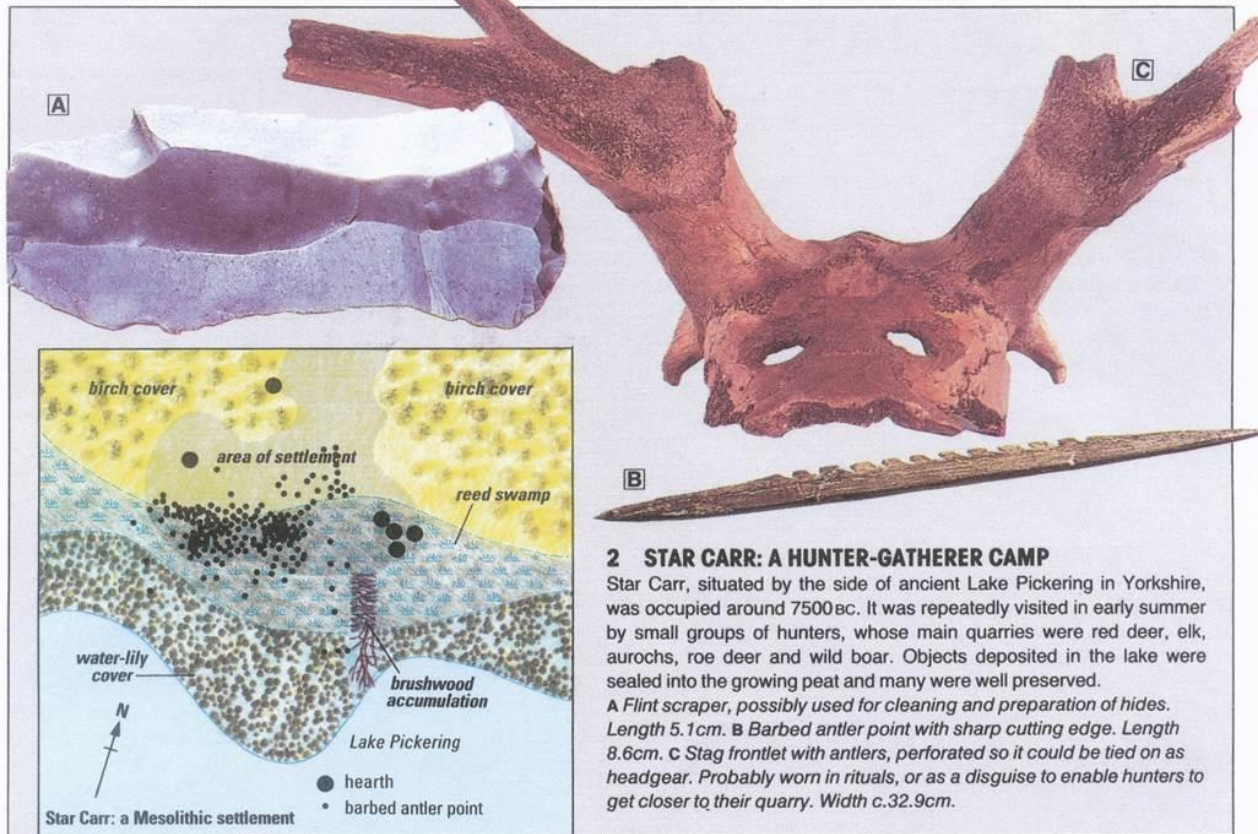








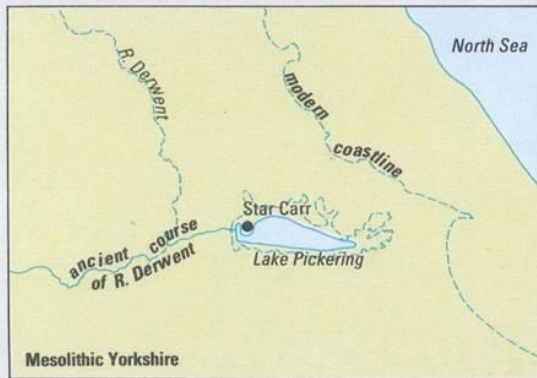




2 STAR CARR: A HUNTER-GATHERER CAMP

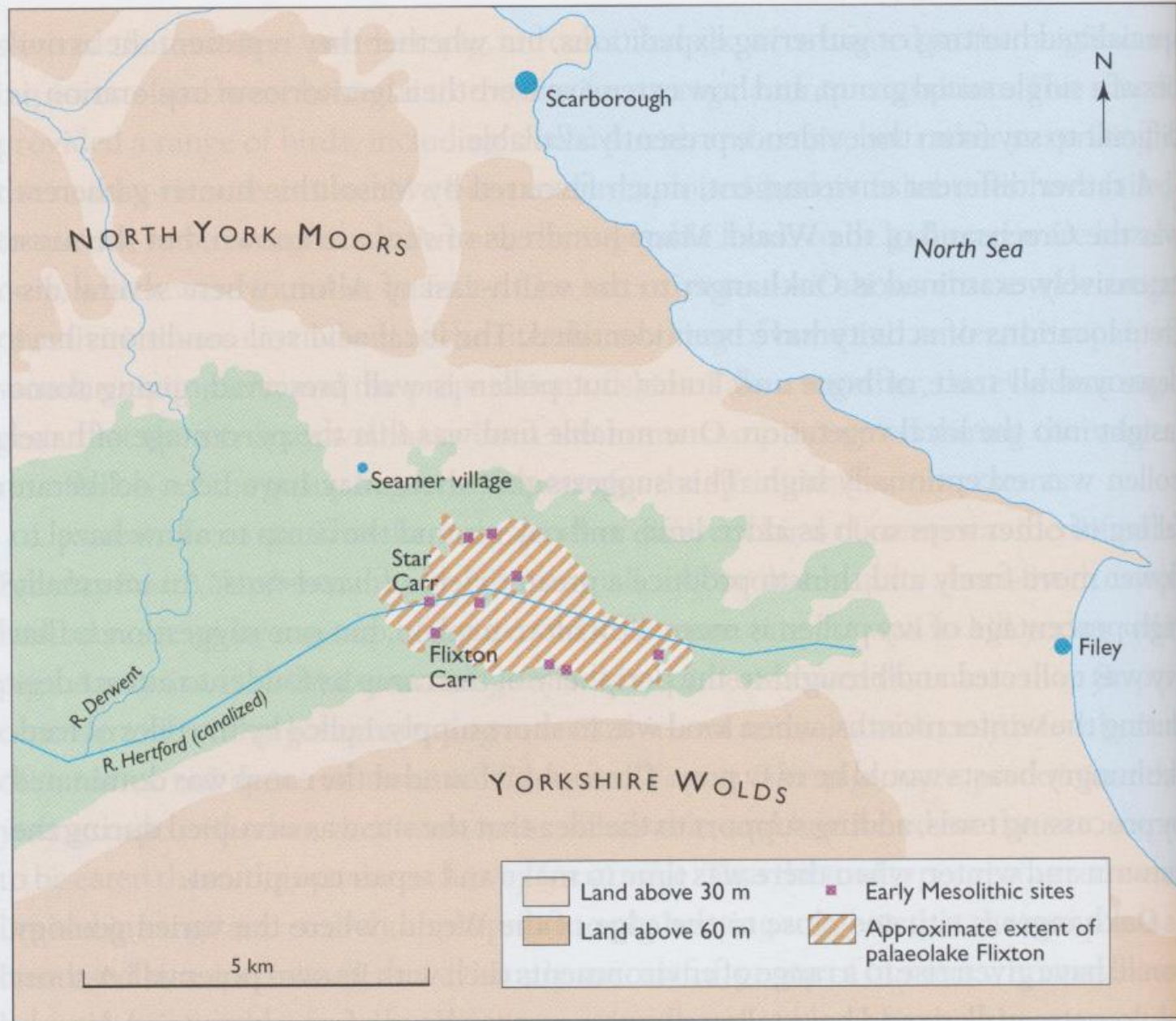
Star Carr, situated by the side of ancient Lake Pickering in Yorkshire, was occupied around 7500bc. It was repeatedly visited in early summer by small groups of hunters, whose main quarries were red deer, elk, aurochs, roe deer and wild boar. Objects deposited in the lake were sealed into the growing peat and many were well preserved.

A Flint scraper, possibly used for cleaning and preparation of hides. Length 5.1cm. **B** Barbed antler point with sharp cutting edge. Length 8.6cm. **C** Stag frontlet with antlers, perforated so it could be tied on as headgear. Probably worn in rituals, or as a disguise to enable hunters to get closer to their quarry. Width c.32.9cm.

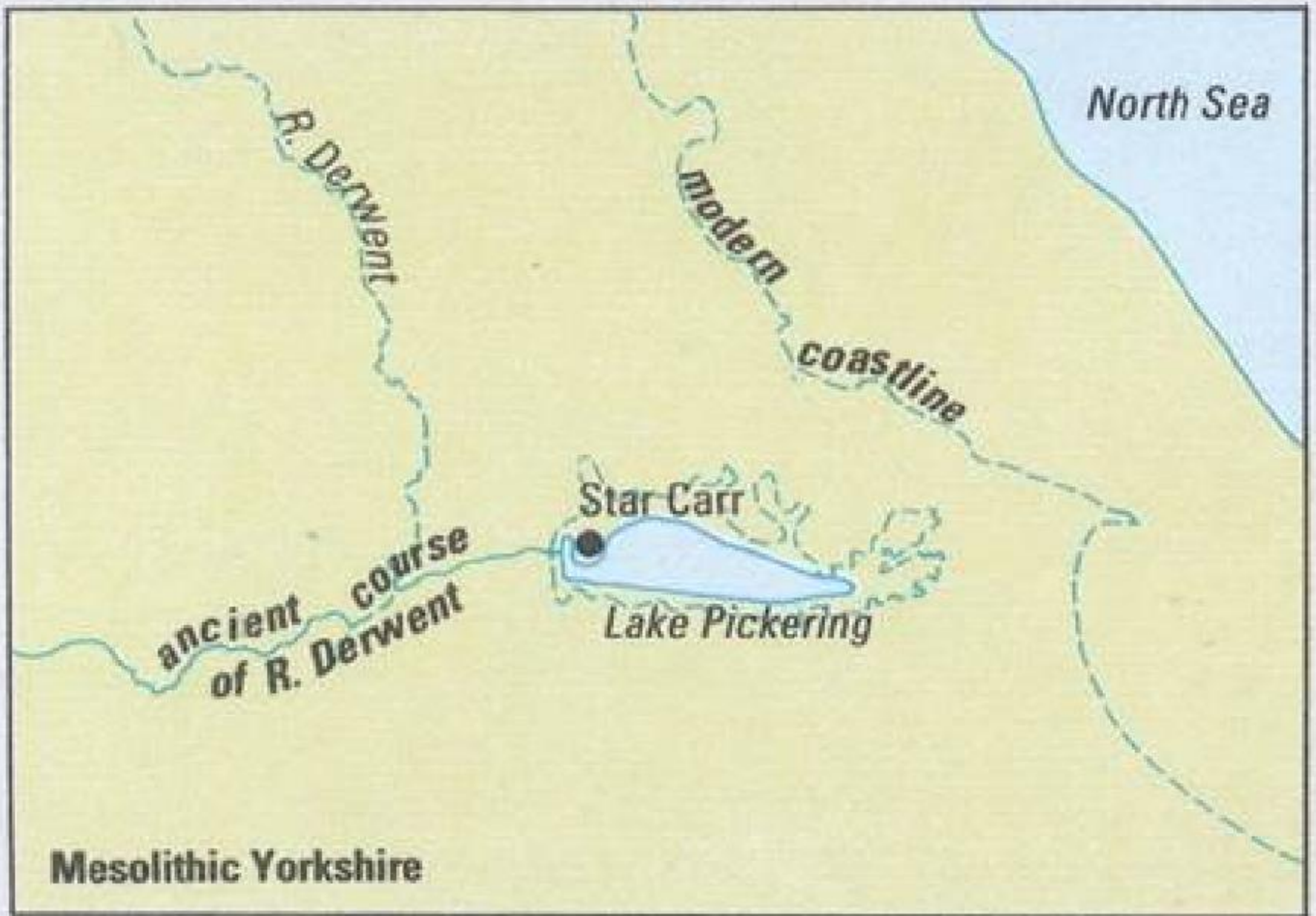


Mesolithic Yorkshire

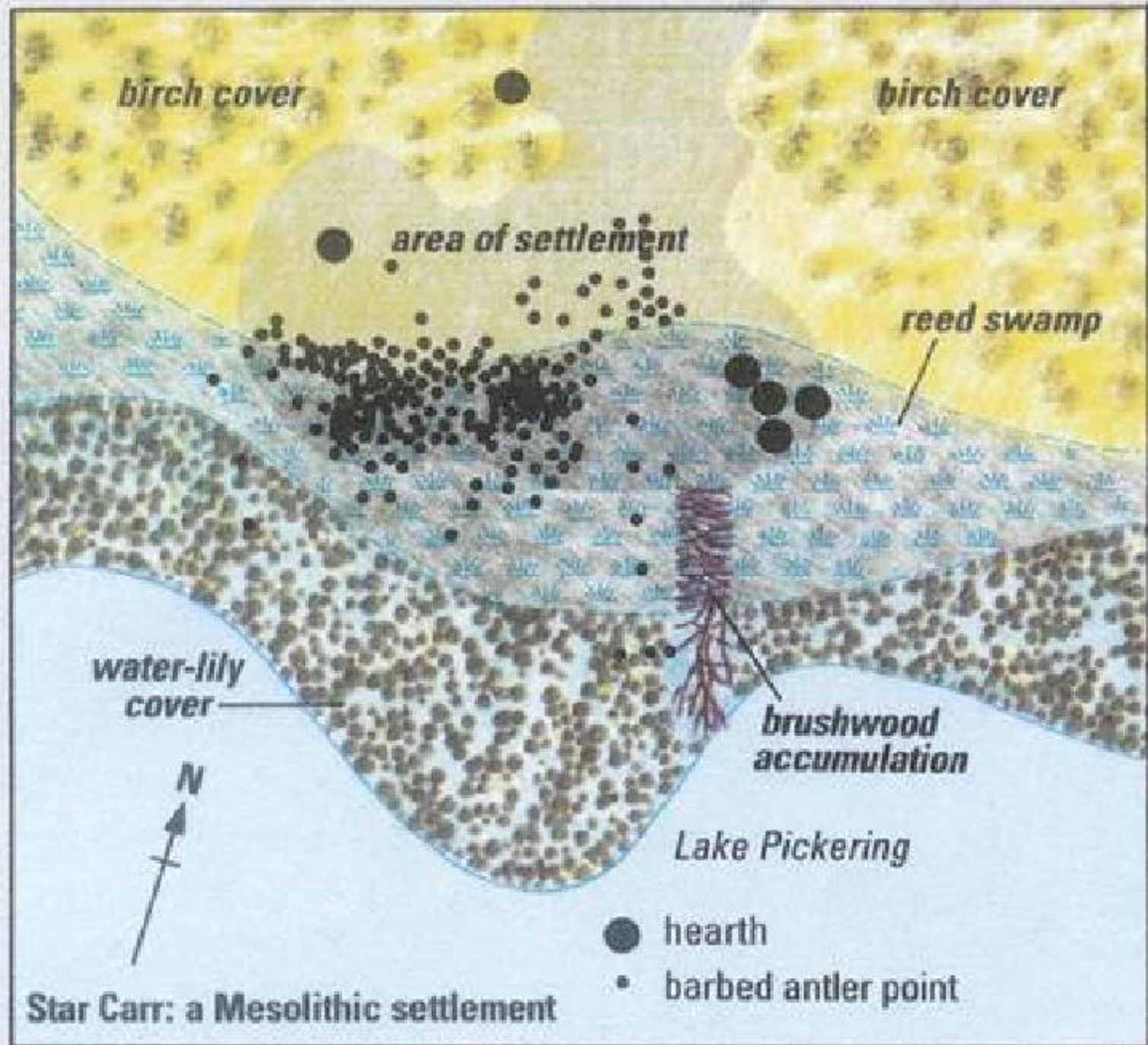
Star Carr: a Mesolithic settlement



4.7 The palaeolake at Flixton in the Vale of Pickering was extensively used by hunter-gatherer communities and was close to a range of other ecological zones, including the sea, which could easily be reached. The famous site of Star Carr lay on the lake edge



Mesolithic Yorkshire





A PRIMITIVE FACTORY, set up every autumn beside an English lake, turns out quantities of assorted Mesolithic tools and weapons of flint and horn.



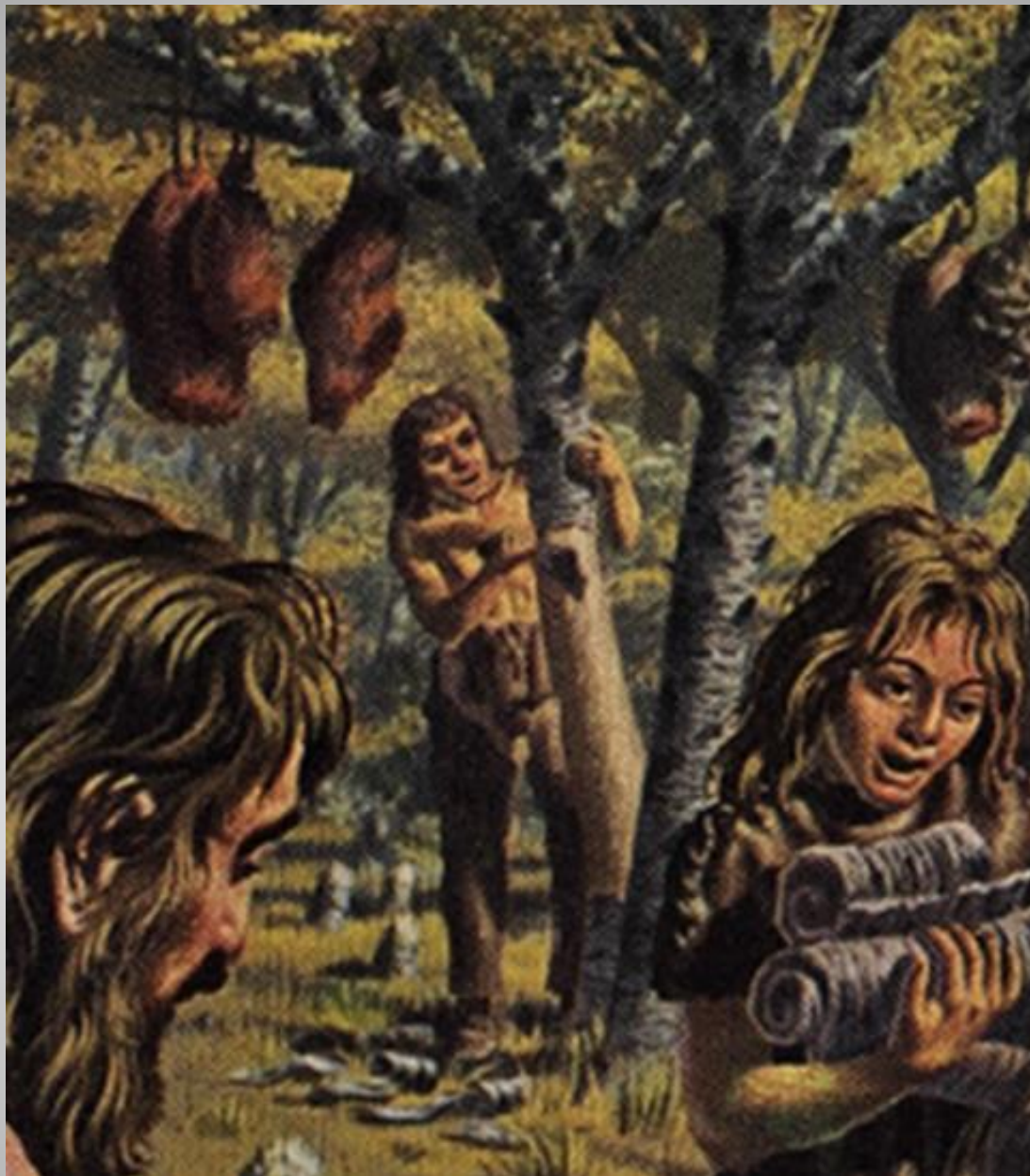
This painting of the period around 7500 B.C. shows a craftsman (*far left*) attaching tiny flint barbs to spears with pitch from heated rolls of birch bark.



An old woman tends the fire and a girl brings more bark rolls.



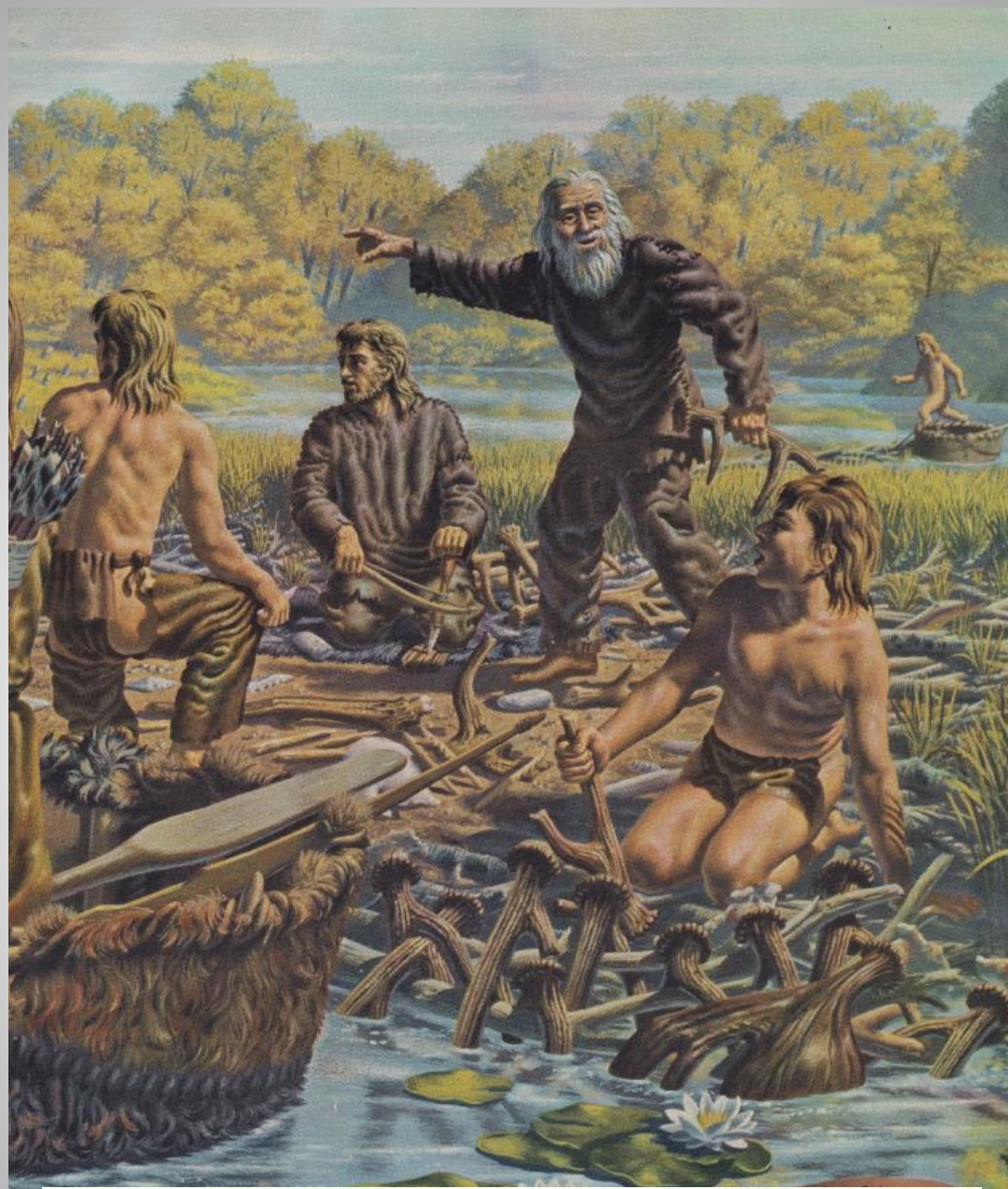
Another woman (*left*), with a mattock over one shoulder, carries a basket of mosses used for steaming antlers.



In the background, a man strips bark from a tree, on which chunks of venison hang.



In the center, two hunters, one wearing his antler camouflage and holding a bow, return with a slain deer and a captured fawn.



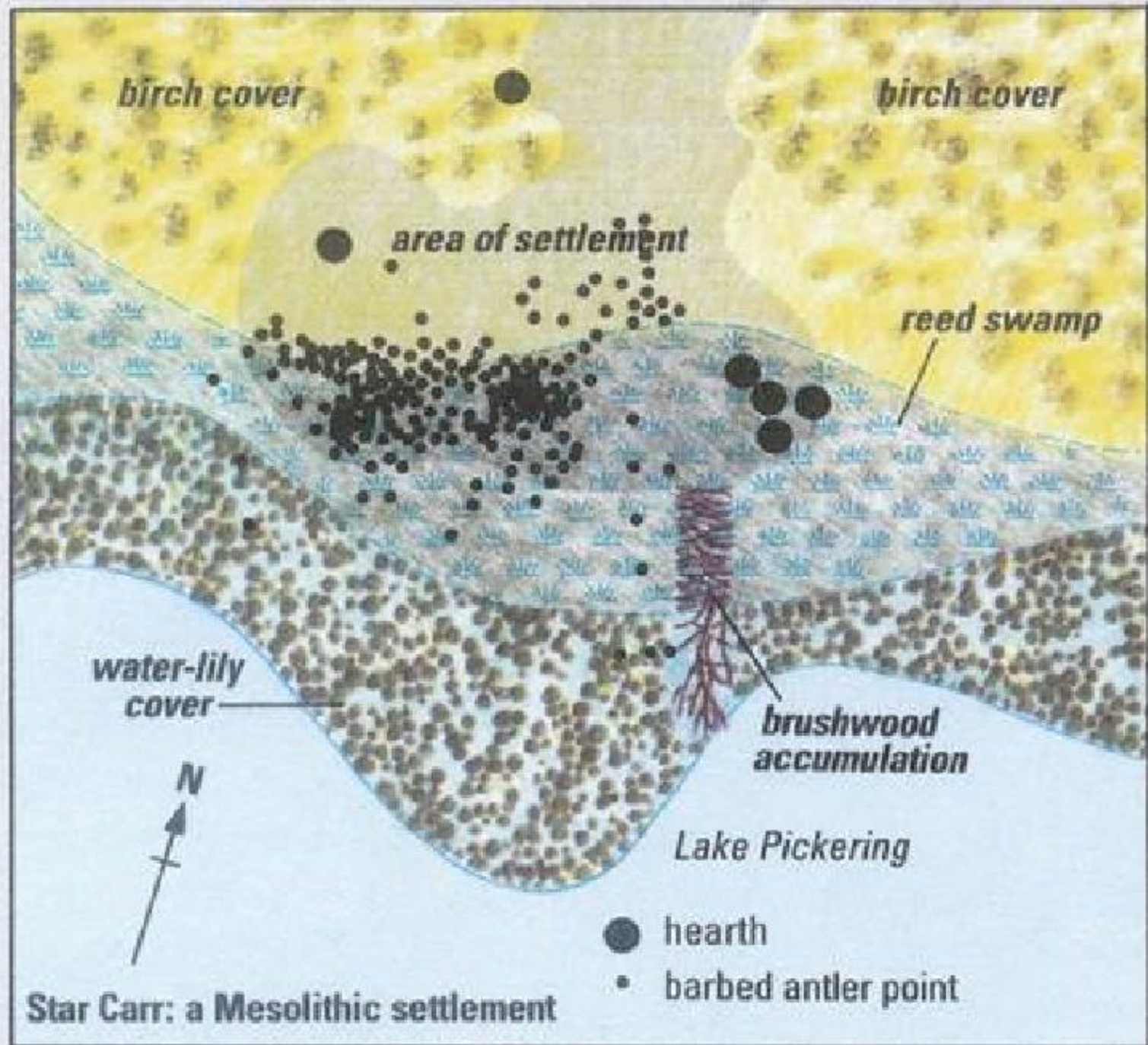
The sight diverts two workmen (*far right*) from their task of making spearheads out of water-softened antlers.



In the foreground, a woman and a man unload more antlers from a skin-covered coracle.

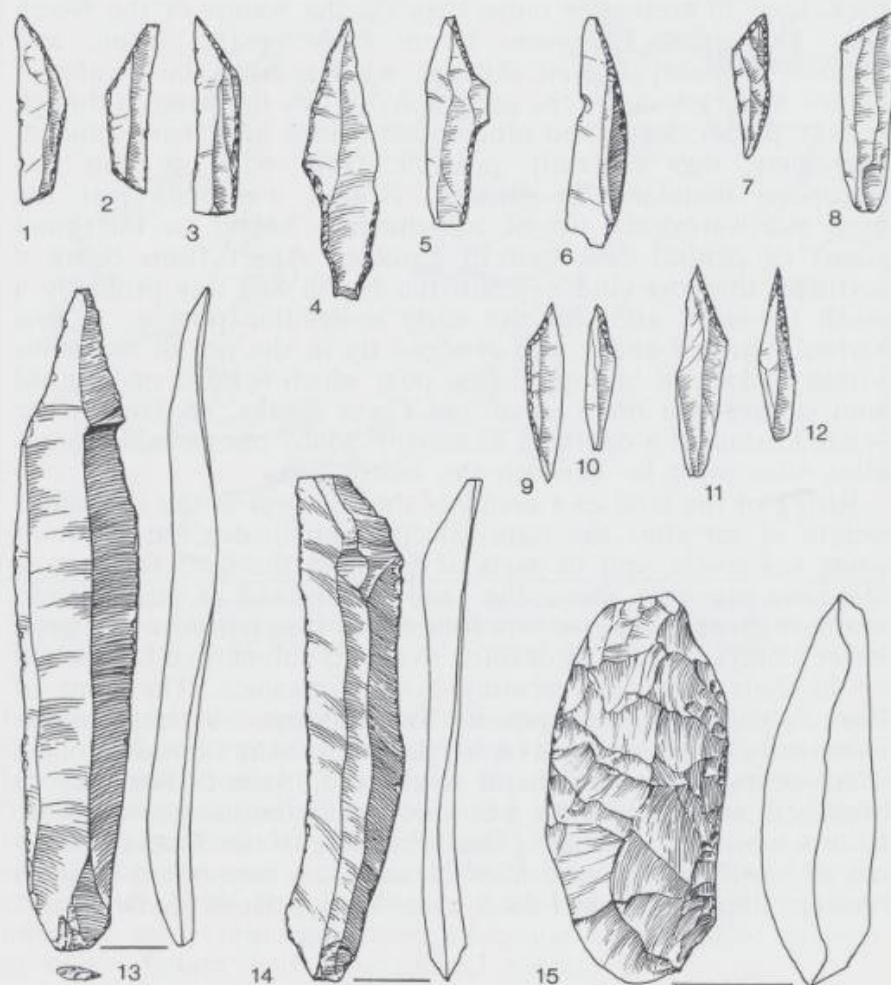


S. GRECO

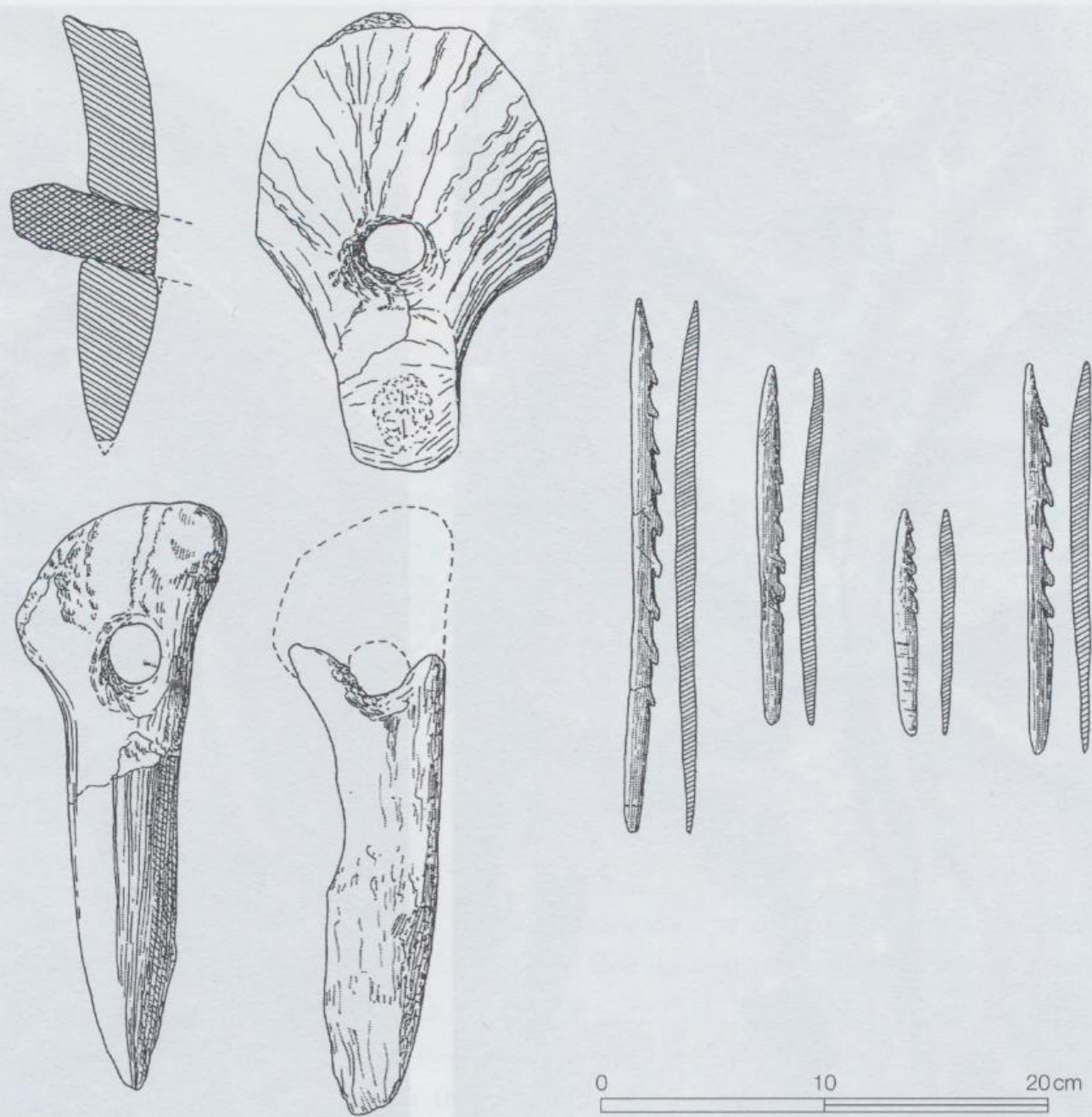




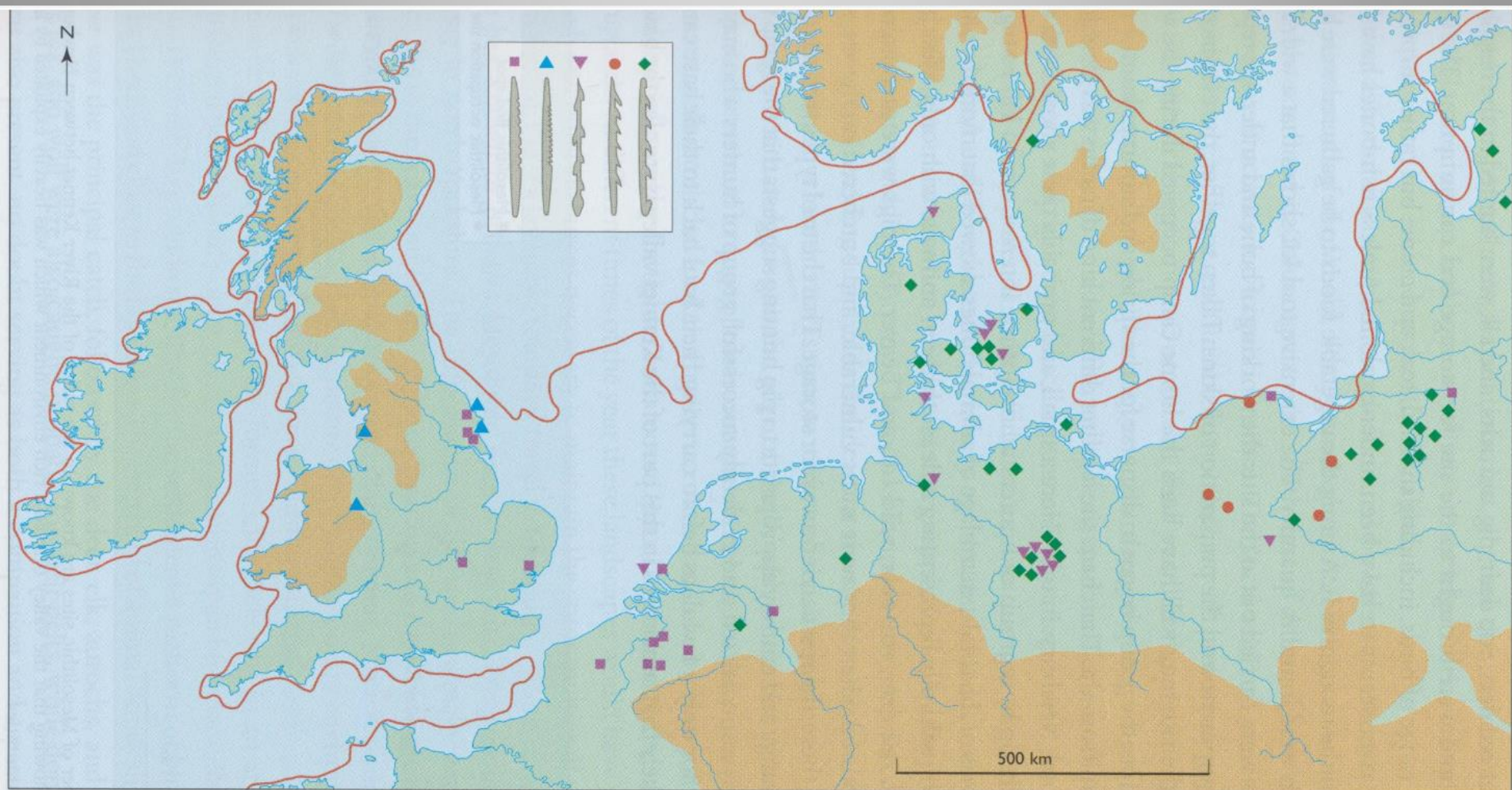
4.8 A tree felled in the Mesolithic period lying on the edge of the lake at Star Carr. The left-hand photograph shows the tree as excavated in the 1930s. The right-hand photograph shows the trench re-excavated in 2010 to check the rate of deterioration caused by the lowering of the water-table



6. Late Glacial and earlier mesolithic flintwork. The occurrence of distinctive assemblages of types of flint tools and weapons (referred to as industries by archaeologists when they occur repeatedly at different sites) suggests that during this period various groups of people with their own traditions were occupying or travelling around and between Britain and north-west Europe. Late Glacial: (Creswellian points) 1, Aveline's Hole; 2, Gough's Cave; 3, Robin Hood's Cave, Creswell Crags; (tanged point) 4, Hengistbury Head; (shouldered point) 5, Hengistbury Head; (penknife point) 6, Crown Acres, Newbury. Late Glacial or earlier mesolithic: (Creswellian-like points) 7, Titchwell; 8, Hockwold; (long blades) 13-14, Titchwell. Earlier mesolithic: (microliths) 9-10, Star Carr; 11-12 Thatcham; (axe) 15, Broxbourne. The earlier mesolithic industry, comparable to the Danish 'Maglemosian', may have originated in the area now covered by the North Sea. At first it was probably contemporary with other industries surviving from the Late Glacial but by the end of the eighth millennium it was the only one present in Britain. All half size.



4.9 Antler mattock heads and antler barbed points from the ninth-millennium camp site of Star Carr, North Yorkshire



4.5 Distribution of different types of antler and bone harpoon heads in the period 10,000–7500 BC. The brown line shows the approximate coast-line at the time. Each type tends to be specific to a distinct territory but some types are more widely distributed, indicating interconnections between the various hunting groups







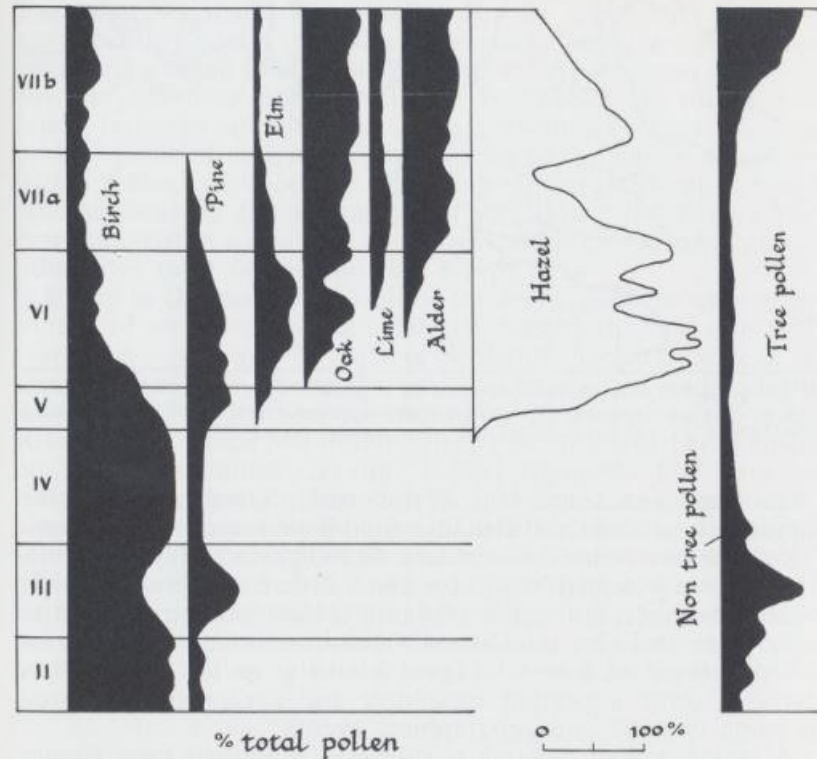


CARROLL
JONES

Years bc	Chronozones	Pollen zones and climatic periods	Events	Position of key sites as indicated by radiocarbon dates
3000				Wawcott Oronsay shell middens Eskmeals Low Clone
4000	Early-temperate	VII Atlantic (warm and wet)	Lower peat of East Anglian fens	
5000	FLANDRIAN STAGE	VI Late Boreal (warm and dry)	English channel breached	Culver Well Cherhill Shippea Hill Westward Ho!
6000		V Early Boreal (increasing warmth)	Rise in sea level	Filpote Beacon Oakhanger 'Cheddar Man' and Aveline's Hole cemetery
7000	Pre-temperate	IV Pre-boreal	Sea line beyond Dogger Bank	Star Carr Thatcham
8000	LATE GLACIAL	III Younger Dryas (cold)	Last ice in Scotland	Sproughton barbed points
9000		II Allerød (warmer)		
10000	DEVENSIAN STAGE	I Older Dryas (cold)		Gough's Cave Robin Hood's Cave Creswell Poulton-le-Fylde barbed points
11000	Dimlington Stadial			
12000	Windermere Interstadial			
	Loch Lomond Stadial			

2. Chronology of the Late Glacial and mesolithic period.

ferent times during the five thousand years they were present. There were great changes during this time. Figure 2 shows the chronology that has been established, mainly by a combination of pollen analysis and radiocarbon dating. There was an open steppe-like landscape in the wake of the Late Glacial with



3. A simplified pollen diagram from a dried-up lake at Hockham Mere, Norfolk. The level thought to be contemporary with nearby mesolithic occupation shows some deforestation and, among the herb pollen, a rise in ivy (*Hedera*). This may have been brought in by the people to feed or attract deer. Such pollen analysis gives an accurate record of the local vegetation through time and the tree pollen clearly indicates the gradual change from a birch-pine forest to the deciduous woodland of the later Atlantic period (zones VIIa-b). Note the high frequency of hazel (*Corylus*) from zone V. The curve for hazel is usually left open in pollen diagrams as it is classified as a shrub rather than a tree. Although the same general sequence can be found over most of Britain, similar pollen diagrams from different sites do not necessarily imply that they are contemporary, for many factors have to be considered, such as geographical situation, local climate, types of soil, the activity of grazing animals and also the interference of human groups.







A remarkably direct link to these people is provided by the preservation of their footprints at coastal sites such as Formby Point, in Northwest England, Goldcliff East on the Severn Estuary, and Lydstep, Pembrokeshire. Over 200 trails of human footprints, many dated to the late Mesolithic, have been recorded at Formby Point. Further Mesolithic family groups are apparent by their surviving footprint tracks at Goldcliff East, the earliest made some 7,500 years ago. A high proportion of children are evident, perhaps helping the adults forage for seafood and also playing.



Mesolithic footprint of a child aged 10-12 from Goldcliff East.
Photo M. Bell.

CLOSE X



35. Footprints of a mesolithic beach-comber preserved in mud beneath peat at Uskmouth, Gwent, in the Severn estuary. (Photograph: D. Upton.)

