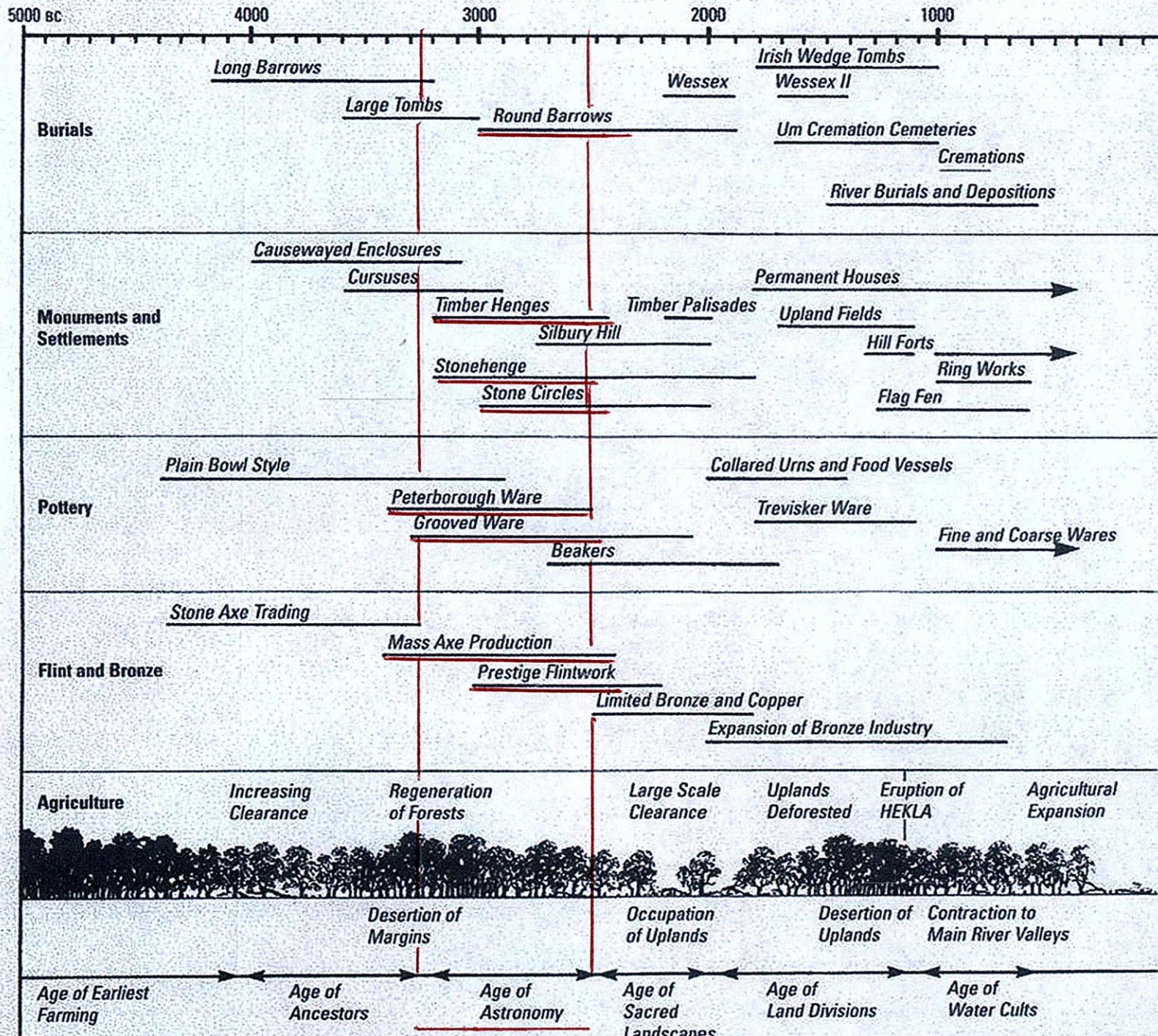


Ancient Britain

4

The Age of Astronomy



What Archaeology can and cannot do—

Early Historic Scotland

To 761

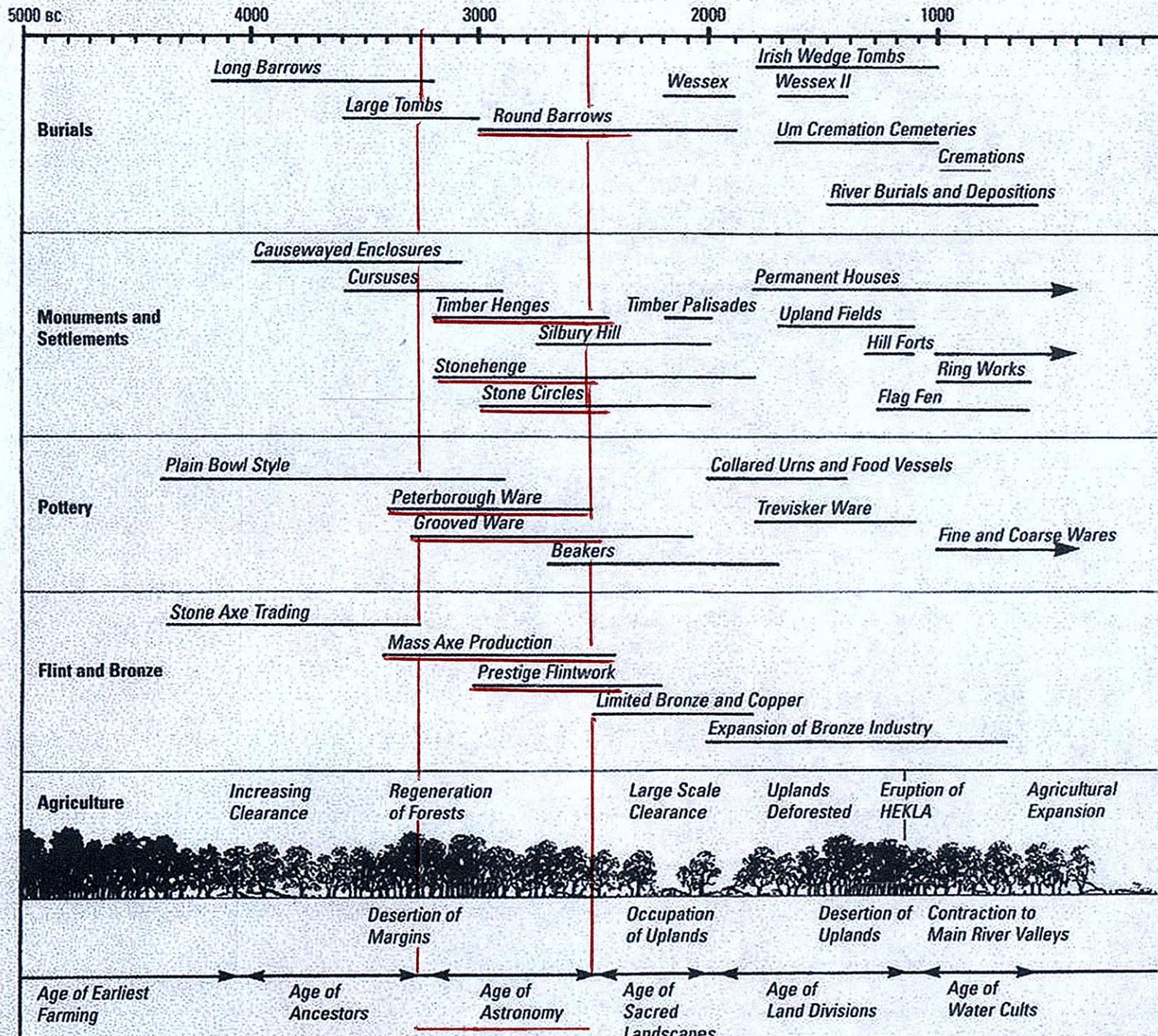
Alex Woolf

The full story of human occupation in Scotland stretches back something in the region of 10,000 years to the period when the first foragers, hunters and fisher-folk settled along the shoreline. Most of this period, however, belongs to prehistory and can only be reconstructed, and then but partially, through the work of archaeologists and palaeo-environmentalists. The nature of the evidence that they have to work with allows them to reconstruct only micro-events on a local scale — the chopping down of an individual thicket or the making of a flint axe-head — or to posit sweeping long-term trends. The study of what might be called medium term events and processes — political, military and social decisions and transformations — only becomes possible when written ‘historical’ sources are available, although even then archaeological and palaeo-environmental research continues to provide valuable complimentary evidence. In Scotland this historical narrative begins with the advent of the Romans in the first century of the Christian era.

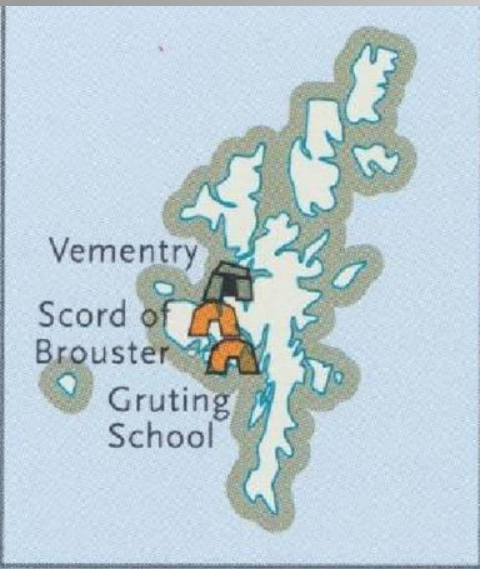


“Political, military and social decisions and transformations” are perhaps the biggest mysteries involving the Ness of Brodgar, Stonehenge, and many other important archaeological sites.

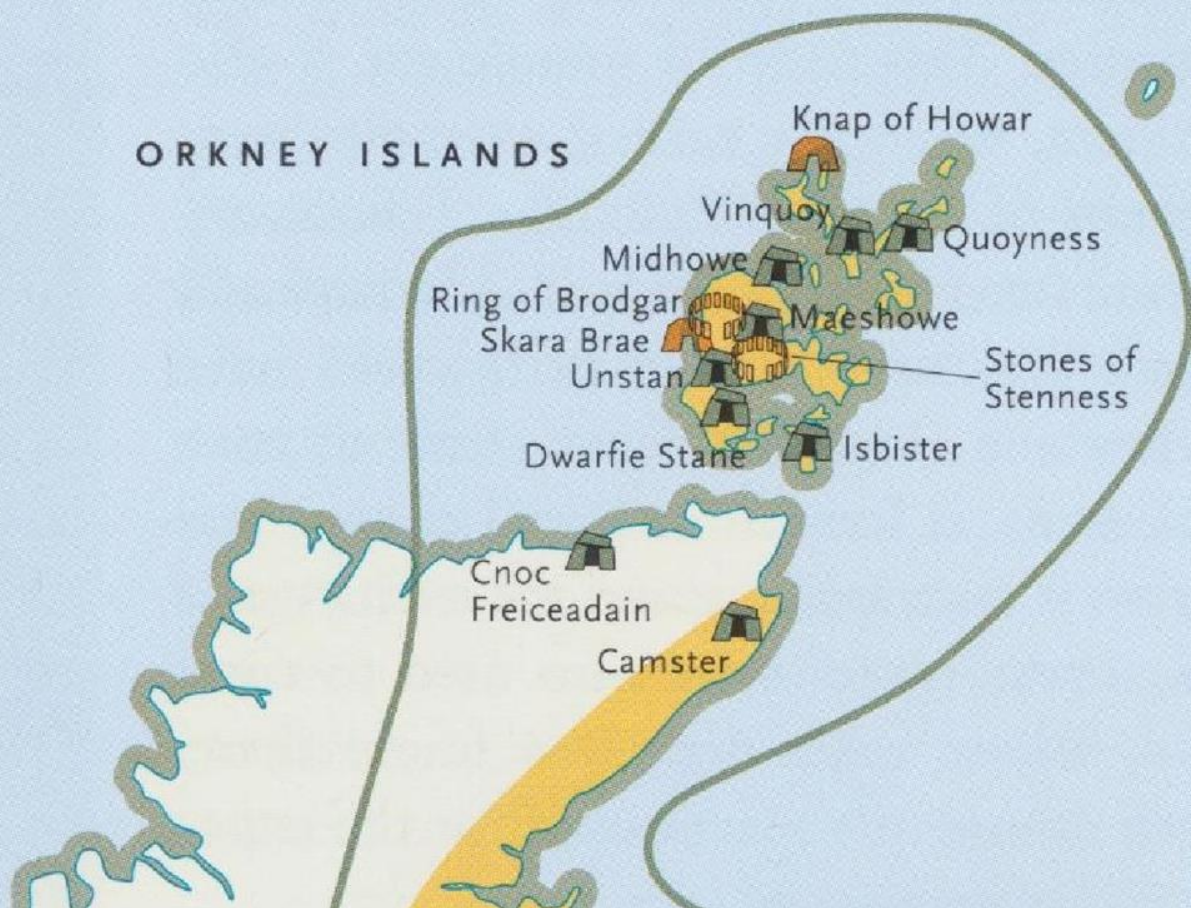








ORKNEY ISLANDS



ORKNEY ISLANDS



- Ulster** Major centre of Earlier Neolithic activity
- Main distribution of long mounds and cairns
 - Main distribution of passage graves
 - Burial monument
 - Rock art
 - Main distribution of causewayed enclosures
 - Flint mine

Anglesey Major centre of Later Neolithic activity

- Settlement
- Linear monument
- Main distribution of henge monuments
- Enclosure or stone circle
- Axe quarry

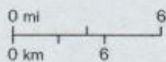
WESSEX Major centre throughout the Neolithic

Neolithic Orkney

Dotted with megaliths, settlements, and tombs, Stone Age Orkney was well connected to the rest of its world, a religious complex and pilgrimage site whose cultural influence stretched far beyond its shores.

Known Neolithic sites of Orkney

- ◆ Settlement
- ▲ Tomb
- Ceremonial ground

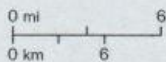


Neolithic Orkney

Dotted with megaliths, settlements, and tombs, Stone Age Orkney was well connected to the rest of its world, a religious complex and pilgrimage site whose cultural influence stretched far beyond its shores.

Known Neolithic sites of Orkney

- ◆ Settlement
- ▲ Tomb
- Ceremonial ground





Fertile soil, few trees, lots of stone



Skara Brae, Neolithic settlement (*Historic Scotland*)





The group of Neolithic buildings at Skara Brae, which was discovered in 1850 when a great storm removed part of the covering sand dune, are amongst the earliest stone-walled houses to have been found in Europe. Radiocarbon dating has shown that the settlement was occupied for some 600 years from about 3100BC to 2500BC. In each house stone beds, dressers, storage boxes and recesses or cupboards are arranged around a central hearth.

Together with the chambered cairn of Maes Howe, the stone circle at Brodgar and the settlement and stone circle at Stenness, it forms part of the Neolithic Orkney World Heritage Site.

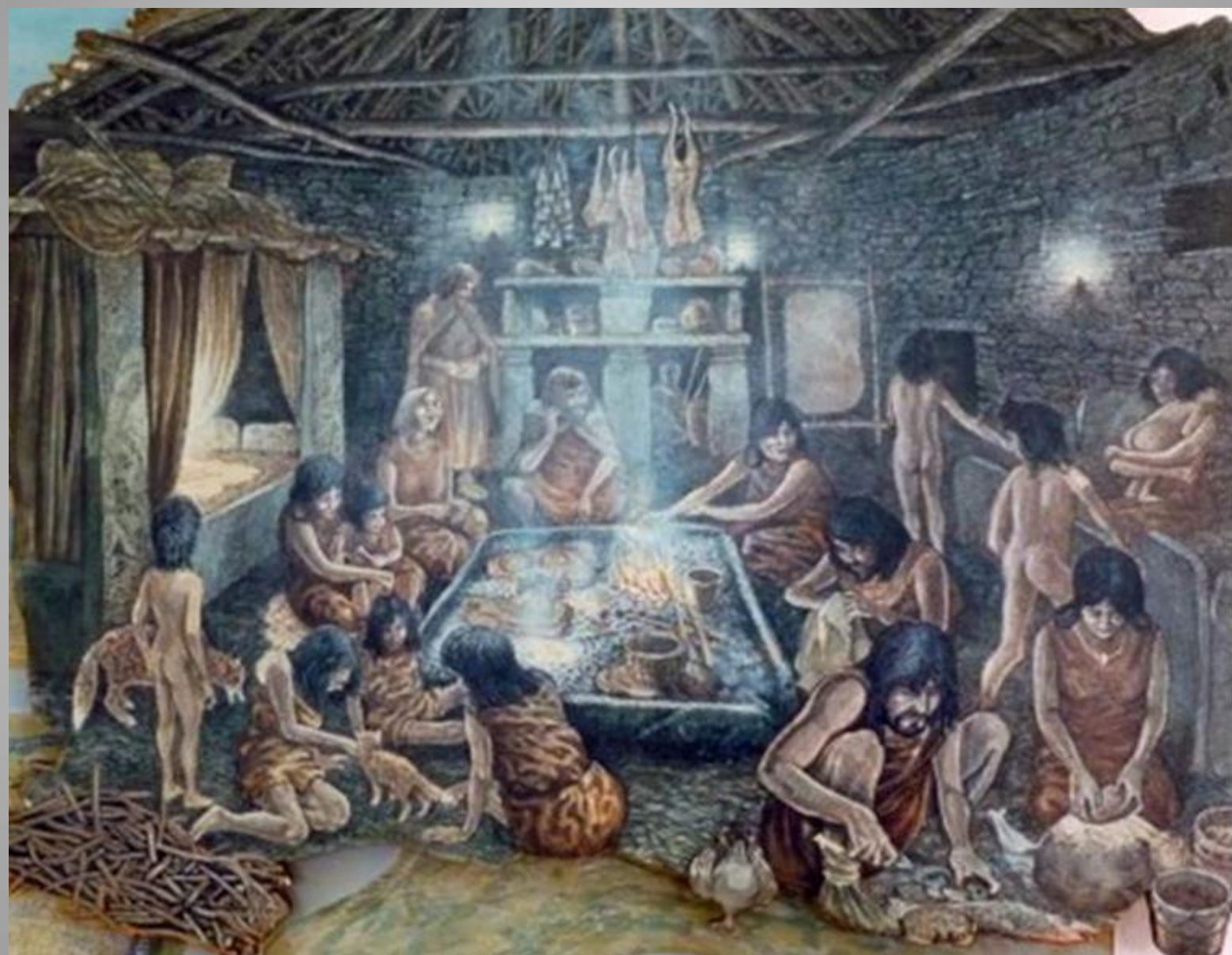


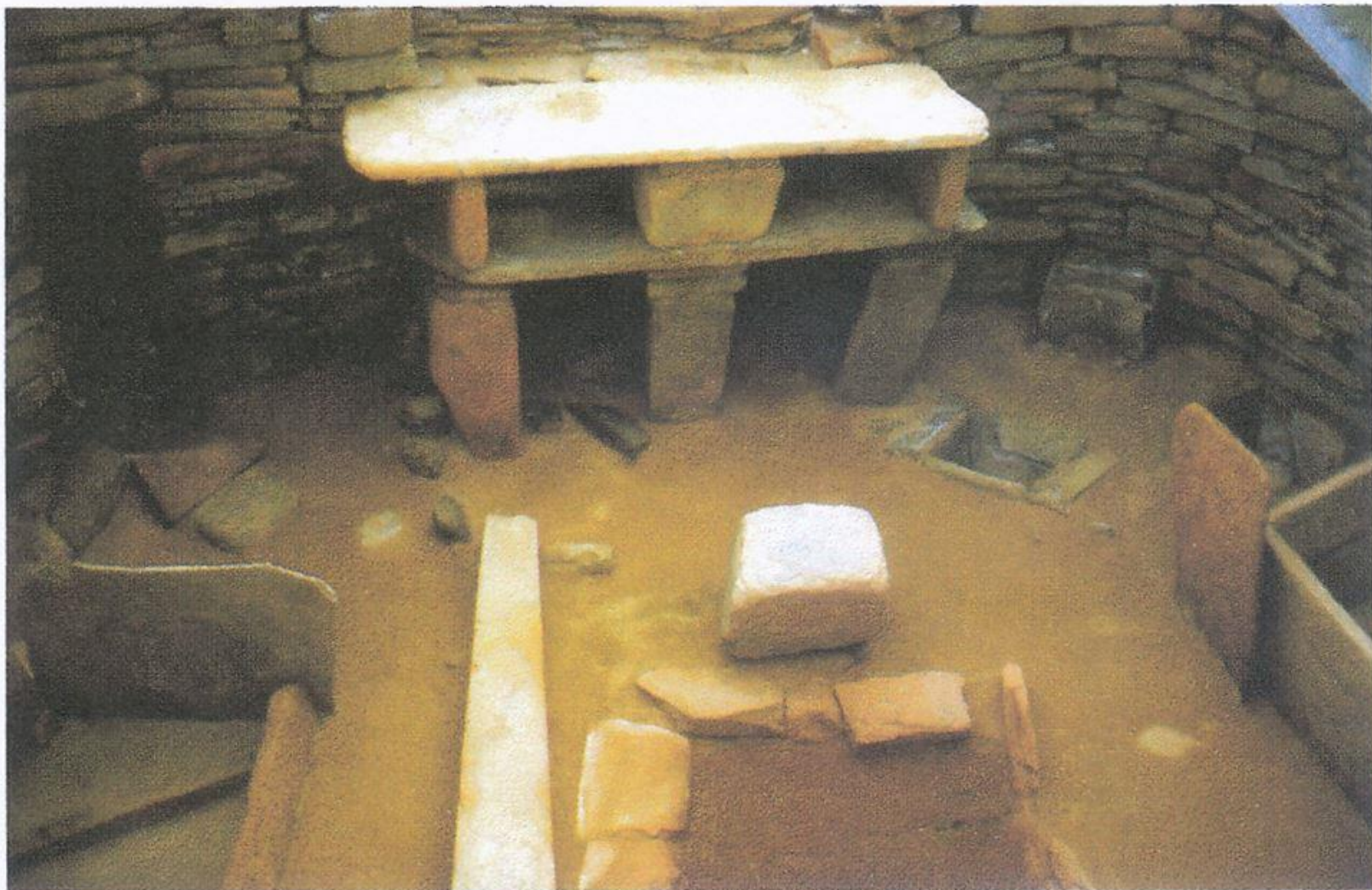
32 (above) The Neolithic stone houses at Knap of Howar, Orkney.

SKARA BRAE

-  Hearth
-  Internal stones
-  Midden and stone infill
-  Wall





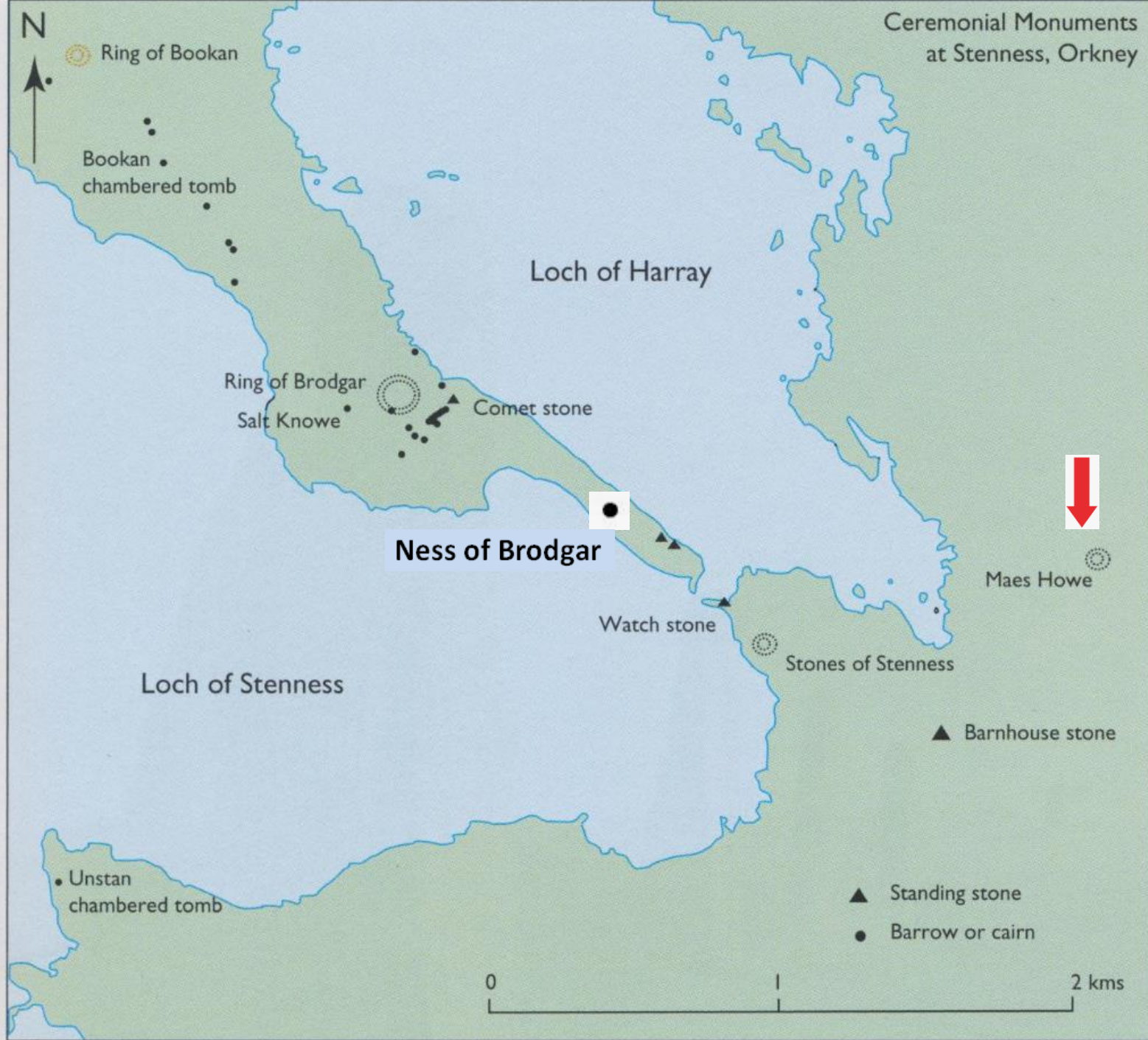


39 (above right) The interior of House 7. at Skara Brae, showing the stone bed frames each side of the hearth.



38 (above) The interior of House 1 at Skara Brae. The hearth is in the foreground, in front of the stone dresser and a water tank.







33 (above) The great chambered tomb of Maes Howe, Orkney, which faces the setting sun at midwinter. The ditch and bank around it are also Neolithic.



At Maes Howe, the last rays of the setting sun at midwinter solstice shine directly into the central chamber at the heart of the great tomb.



Ceremonial Monuments
at Stenness, Orkney

Ring of Bookan

Bookan
chambered tomb

Loch of Harray

Ring of Brodgar
Salt Knowe
Comet stone

Ness of Brodgar

Maes Howe

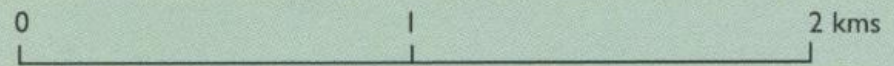
Watch stone
Stones of Stenness

Loch of Stenness

▲ Barnhouse stone

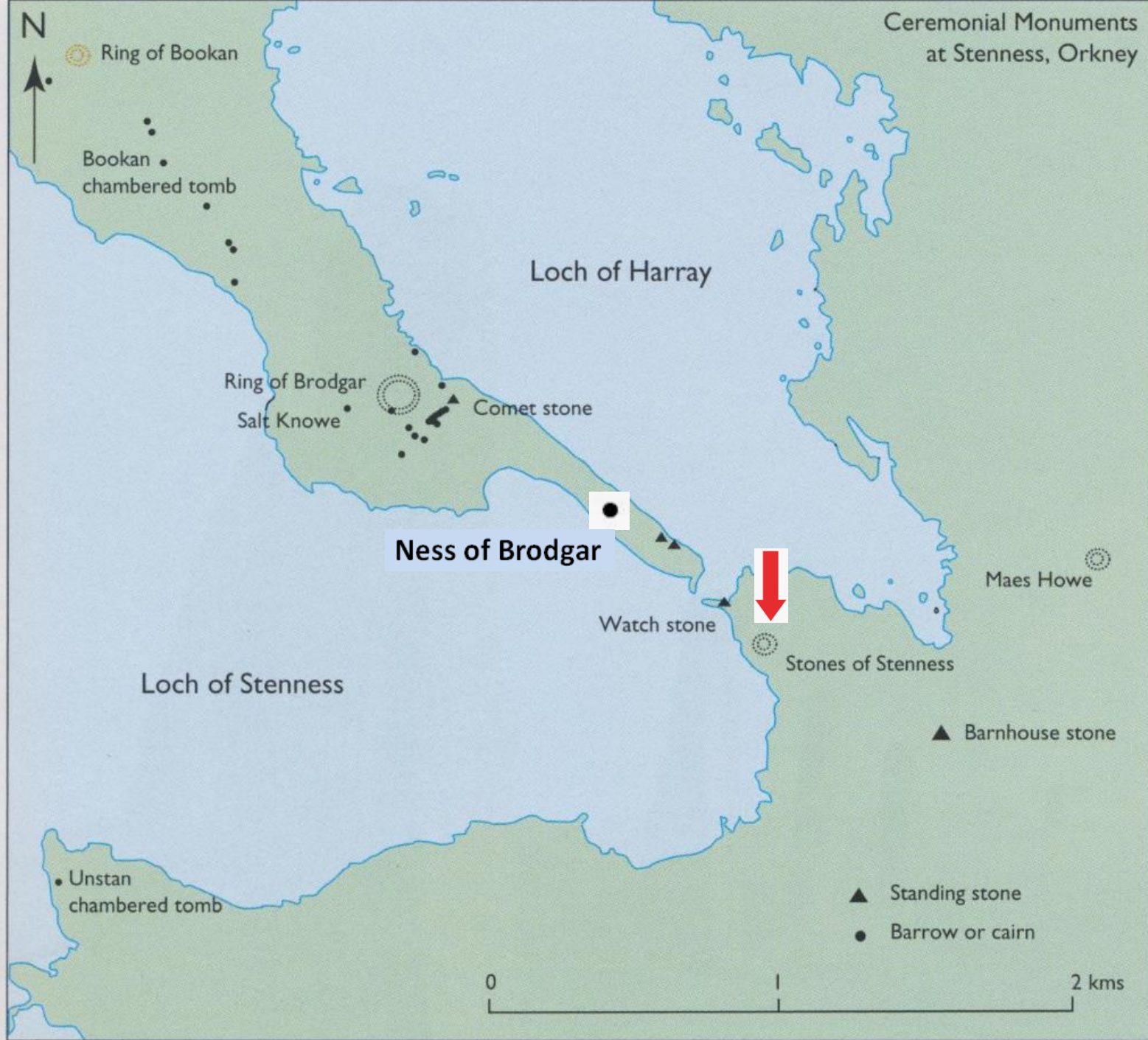
Unstan
chambered tomb

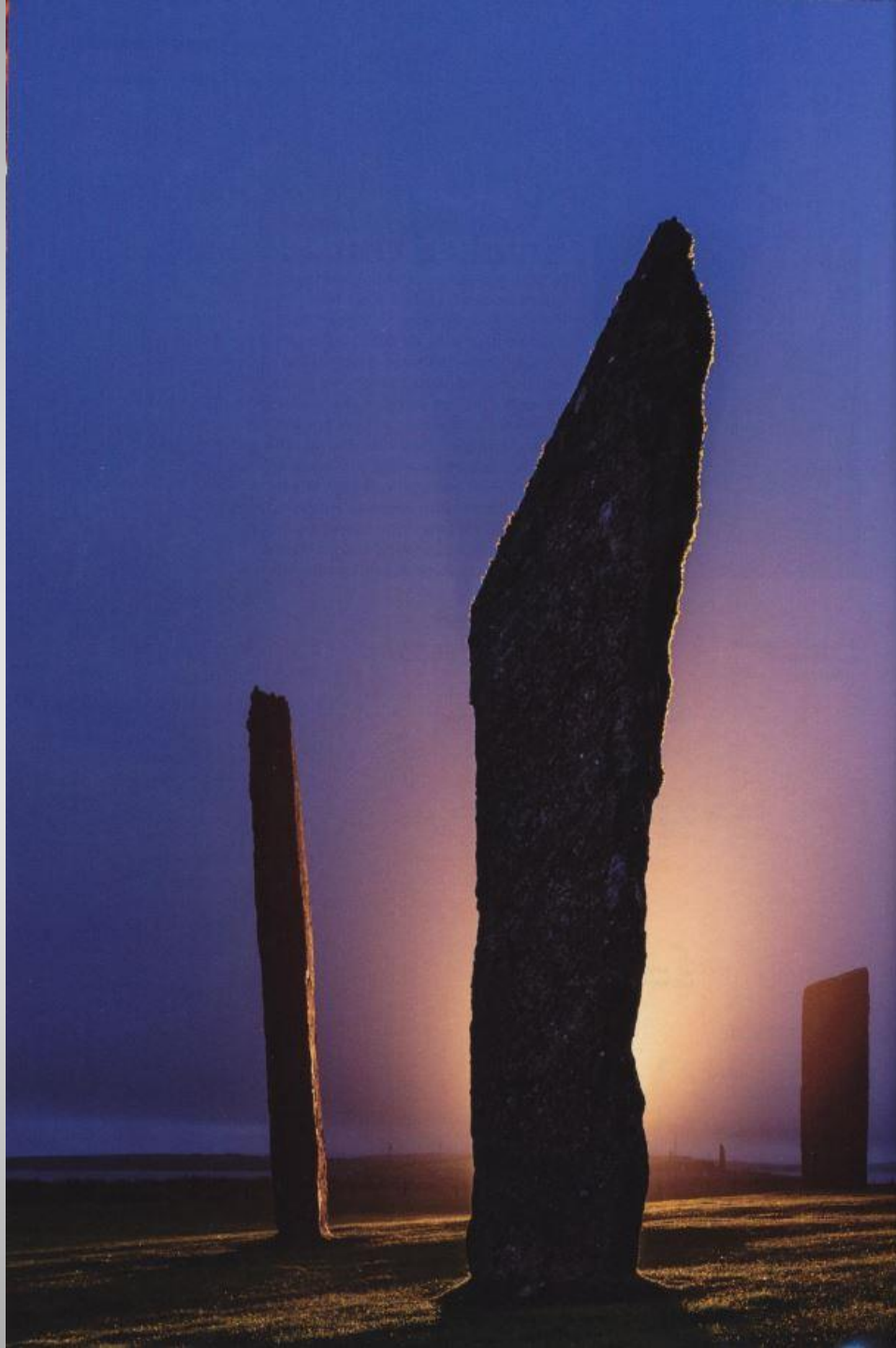
- ▲ Standing stone
- Barrow or cairn

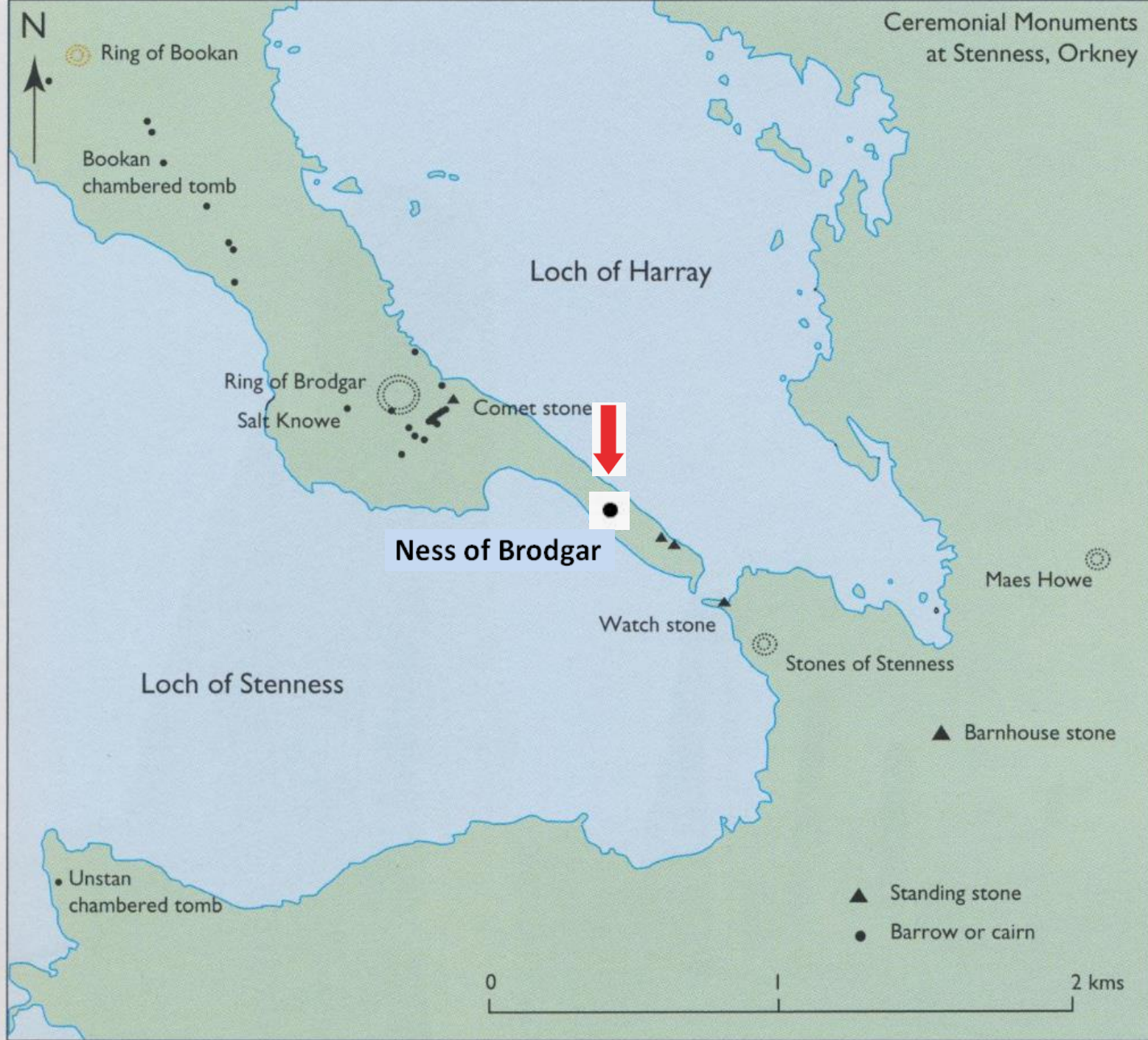




6.9 The Ring of Brodgar on Orkney mainland is a massive stone circle 104 metres in diameter set on the lip of a circular ditched enclosure. It is one of a number of Neolithic monuments occupying a neck of land between the lochs of Harray and Stenness just north of the great passage grave of Maes Howe









Circa 2800 B.C. The scene depicted here shows the Ness of Brodgar site in its heyday. The complex was remade several times and constantly evolved throughout its thousand-year period of use.

ANCIENT MARSHLAND

During the Neolithic, water levels were still rising after the last ice age, so the shore was lined with bogs and marshlands.



Circa 2800 B.C. The scene depicted here shows the Ness of Brodgar site in its heyday. The complex was remade several times and constantly evolved throughout its thousand-year period of use.



MORE THAN TRASH

Over 16 feet high, this midden pile is the biggest found in Neolithic Britain and may have had ceremonial functions involving fertility and cycles of life, death, decay, and renewal.

SOPHISTICATED BUILDING TECHNIQUES

The Ness provides the first evidence in northern Europe of roofs made of carefully trimmed, rectangular stone slates. Recent finds also indicate some walls may have been decorated with natural pigments and colored stones.

Circa 2800 B.C. The scene depicted here shows the Ness of Brodgar site in its heyday. The complex was remade several times and constantly evolved throughout its thousand-year period of use.



ENCLOSED IN STONE

Roughly 10 feet high and up to 18 feet wide, these are some of the largest prehistoric walls ever found in Britain.

OUTDOOR RITUALS

Evidence suggests people didn't live here year-round but visited periodically, perhaps to make offerings as part of a ritual procession through the site and its many buildings.

Circa 2800 B.C. The scene depicted here shows the Ness of Brodgar site in its heyday. The complex was remade several times and constantly evolved throughout its thousand-year period of use.

WHERE HEAVEN AND EARTH MEET

Located in the center of the site and the surrounding bowl of land, this standing stone aligned with the spring and fall equinoxes and might have served as a symbolic axis between earth and sky.



Circa 2800 B.C. The scene depicted here shows the Ness of Brodgar site in its heyday. The complex was remade several times and constantly evolved throughout its thousand-year period of use.



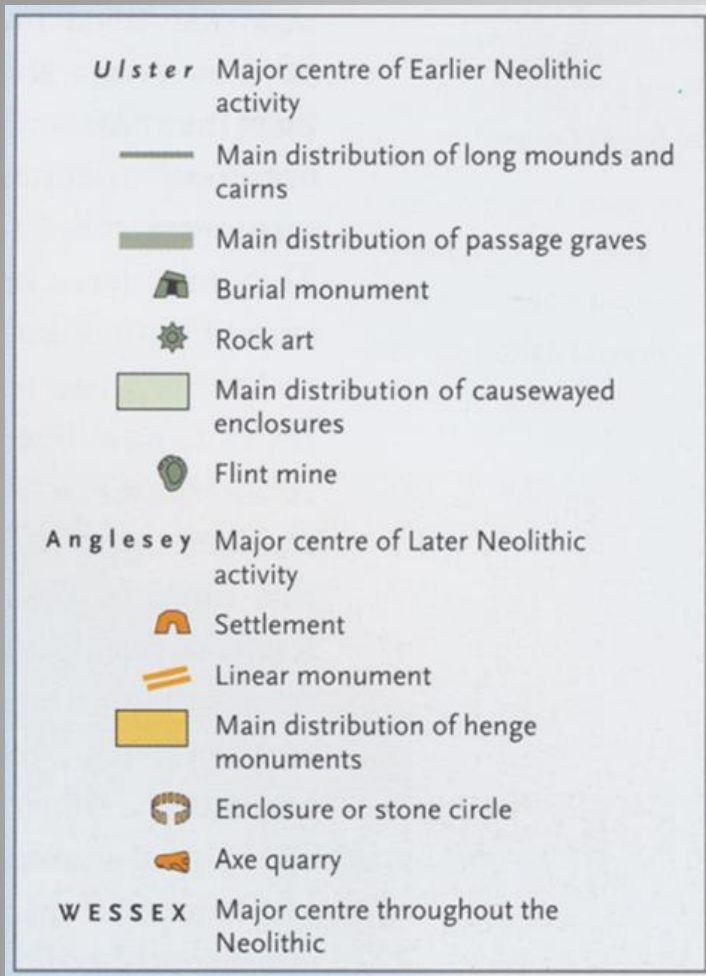
Archaeologists excavating the Ness of Brodgar uncovered the richest collection of Neolithic art yet found in Britain, including this decorative stone incised with a geometric motif.

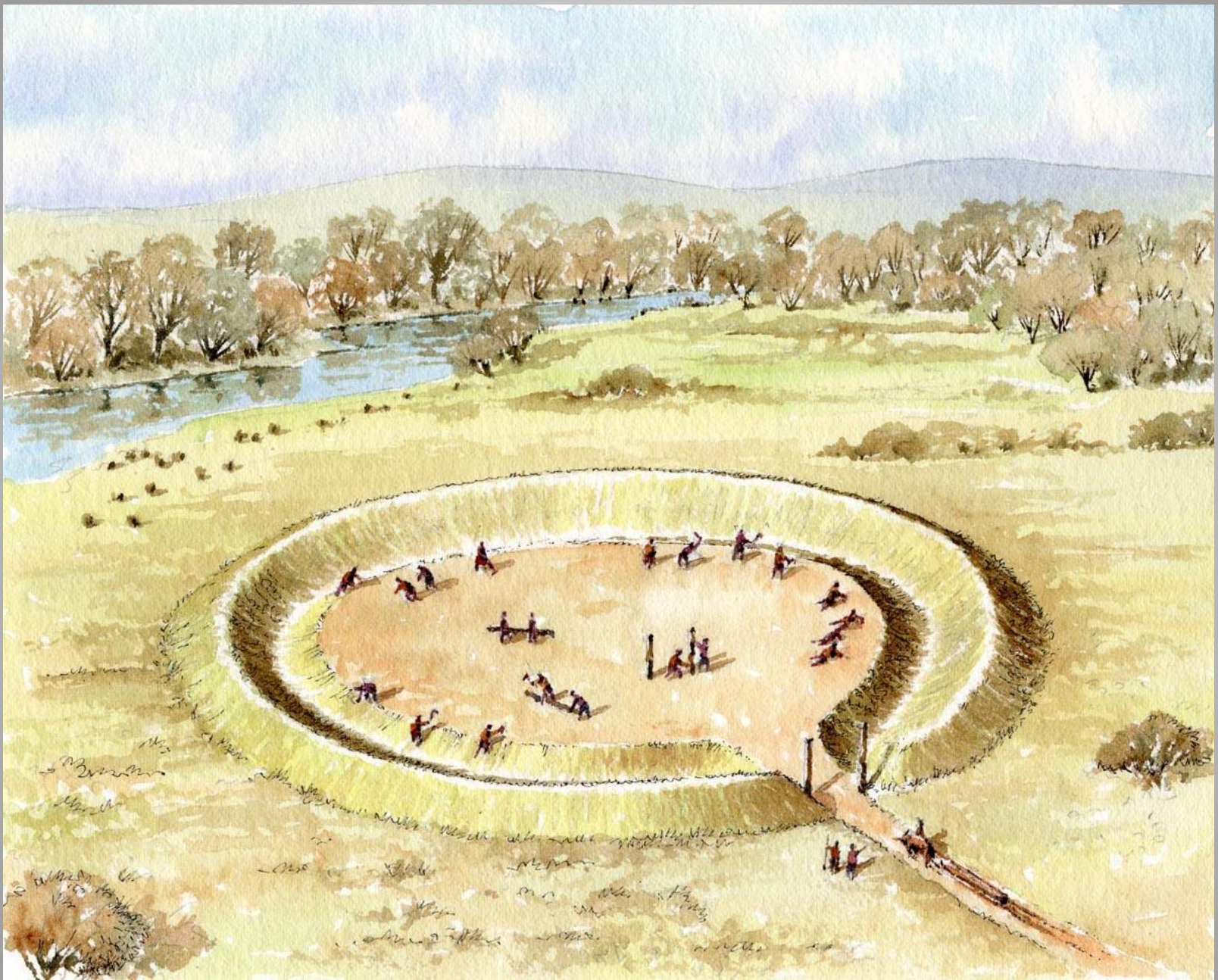


This domino-size figure is the earliest depiction of a human face found in Britain.



Pins up to seven inches long made of bone and antler may have fastened a cloak.





Henge



Stone circle



Stone circle inside henge

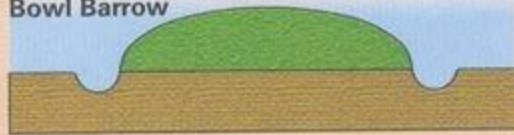


Barrow

Bronze Age barrow monuments

These Bronze Age religious and funerary monuments consist of a hemispherical mound surrounded by a ditch (or series of concentric ditches) and are often accompanied by an external (or occasionally internal) bank.

Bowl Barrow



A mound surrounded by a ditch, which may or may not be accompanied by an external bank.

Bell Barrow



A barrow in which the mound and ditch are separated from each other by a narrow strip of land (berm) – the ditch may be accompanied by an external (or occasionally internal) bank.

Disc Barrow



A barrow featuring a small mound separated from a ditch of much greater diameter by a wide berm. The ditch may be accompanied by an external (or occasionally internal) bank.

Pond Barrow



A monument featuring an artificial circular shallow depression, which itself is surrounded by a bank that runs around the rim of the depression.

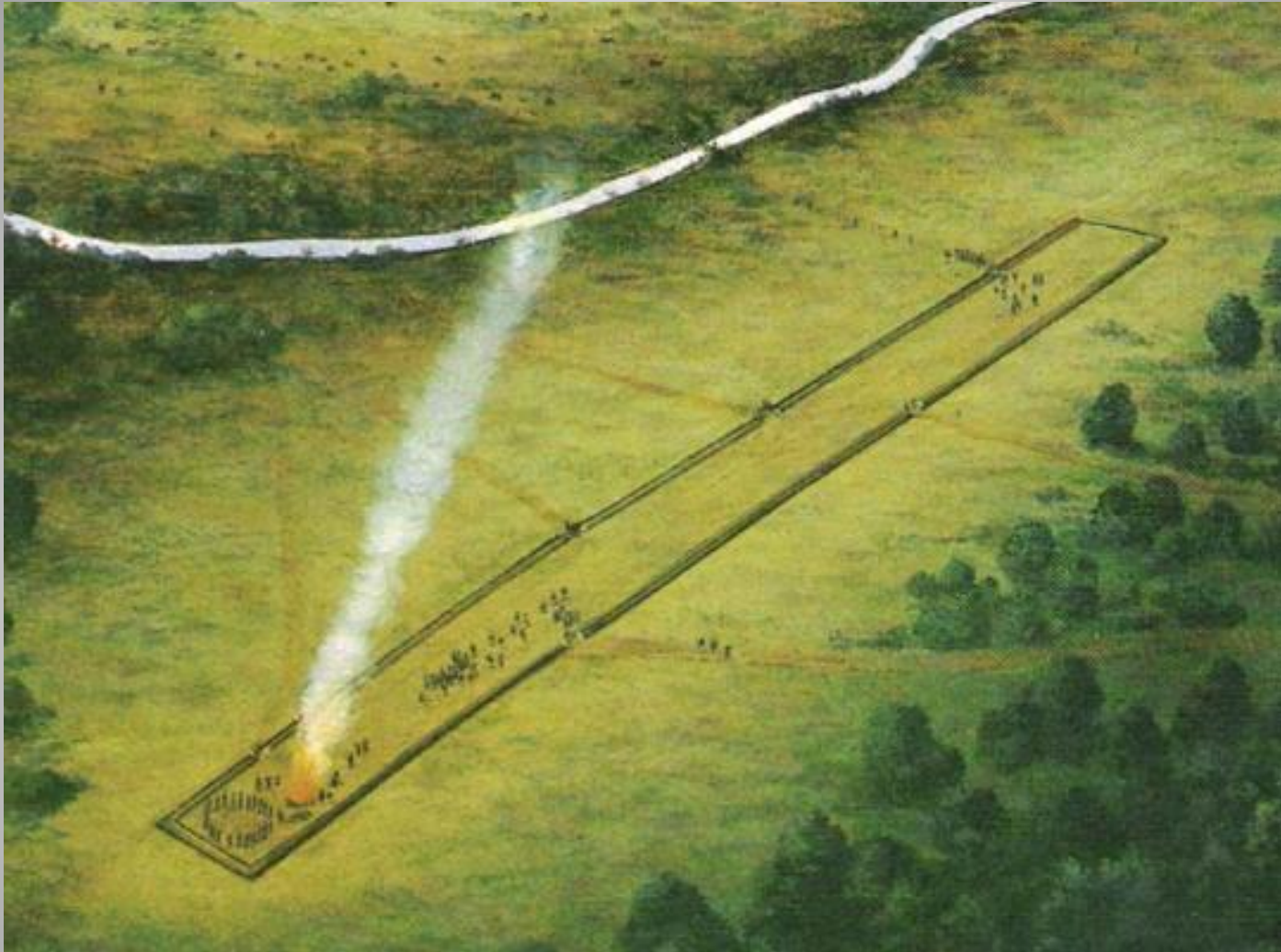
Saucer Barrow



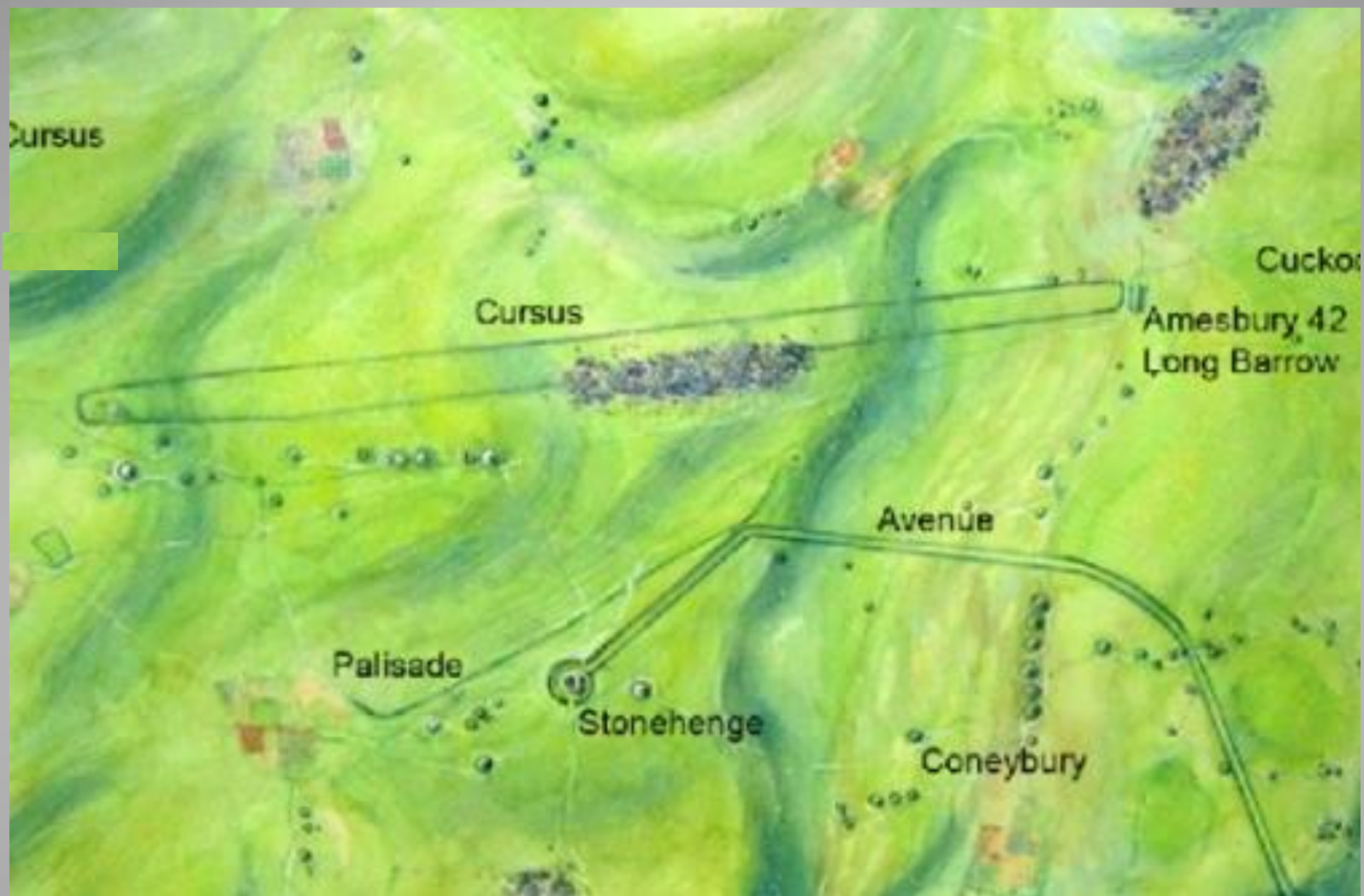
A barrow featuring a low, wide mound, which in turn is surrounded by a ditch that could be accompanied by an external bank.



Cairn



Cursus— pairs of long parallel lines in the landscape.



Cursuses are long linear parallel ditches, usually joined at their ends to form long rectangles, with banks thrown up from the ditch-earth. They are unique to the British Isles, not found on the continent.

There is absolutely no agreement on their purpose, or purposes.

—quotes from Ronald Hutton, Pagan Britain



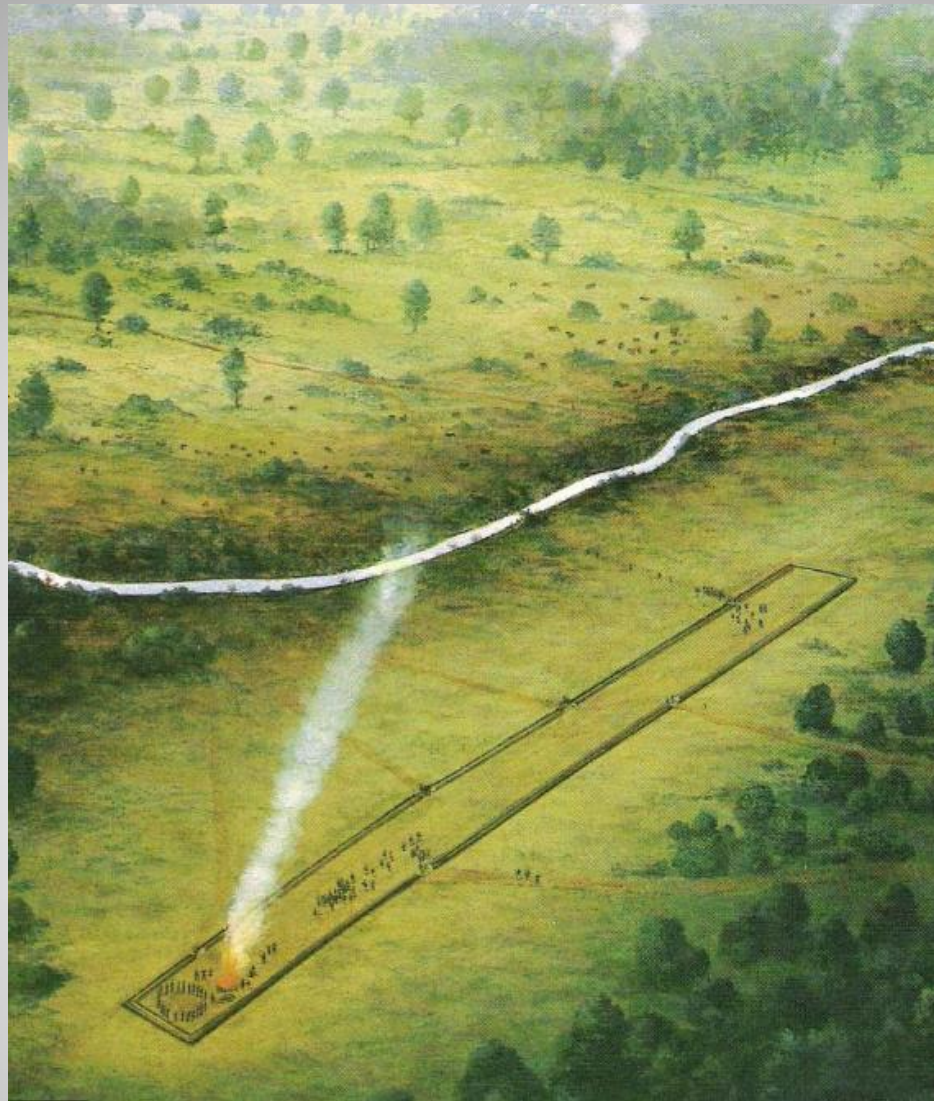
The obvious human activities in a space of that long and comparatively narrow shape are processions or races, but some cursuses cross watercourses or bogs which would have interrupted these.



They may have functioned to honour and celebrate the natural environment by linking parts of it together.....



....**Or** to express human triumph and dominance over it.



Some incorporate older monuments such as long barrows into their structure: this might have been to acknowledge the people who built these and to draw upon the spiritual power which they embodied.....



....**Or** to slight and deface them, and so deliver an opposite message.



They may have acted as barriers across the land, consecrated buffer zones separating different territories or areas of activity.



They could have represented symbolic rivers.



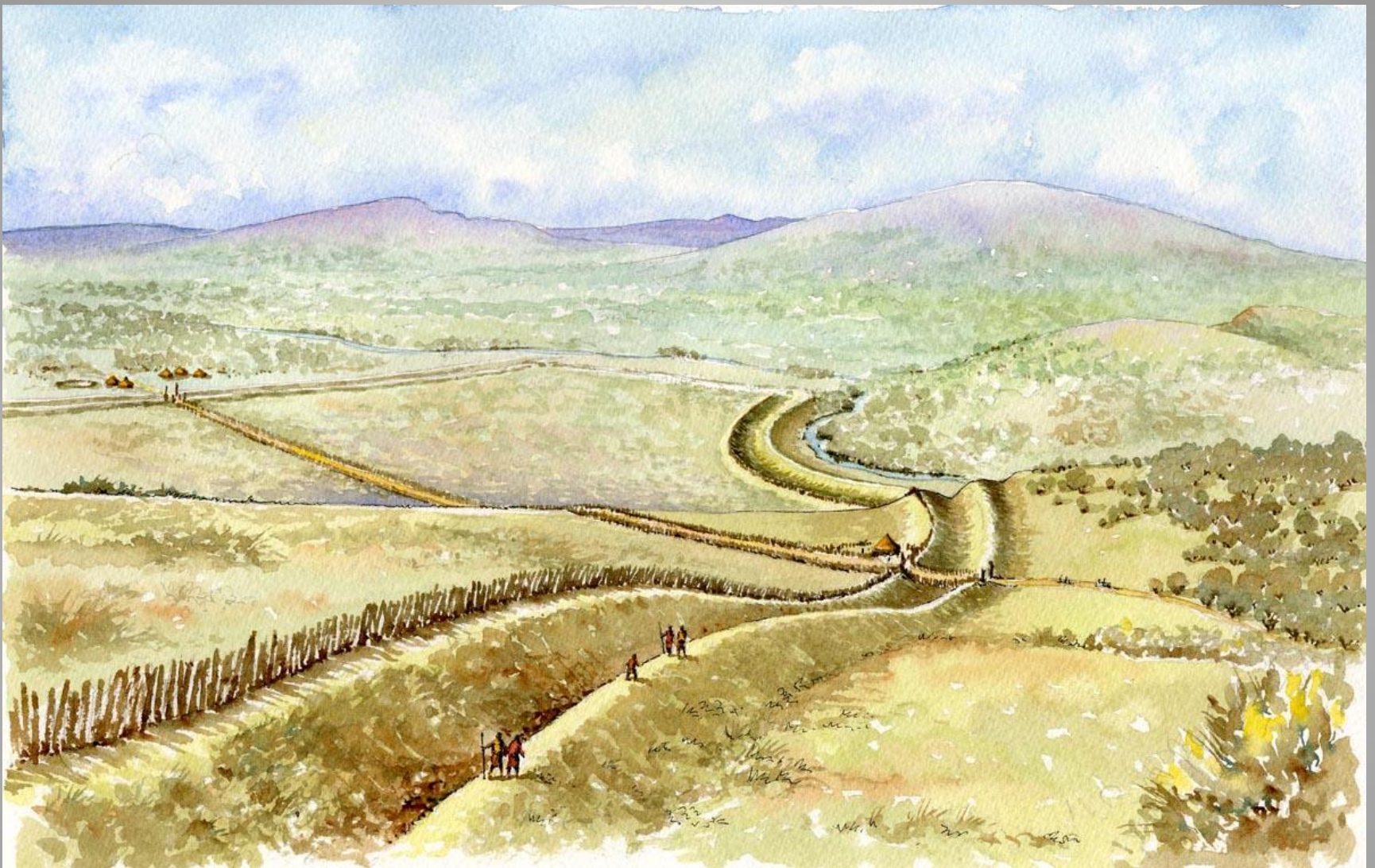
Some are apparently aligned on movements of the sun....midwinter sunset or sunrise....Most, however, are not.



Perhaps they were signalling devices to be read by deities looking down from above.

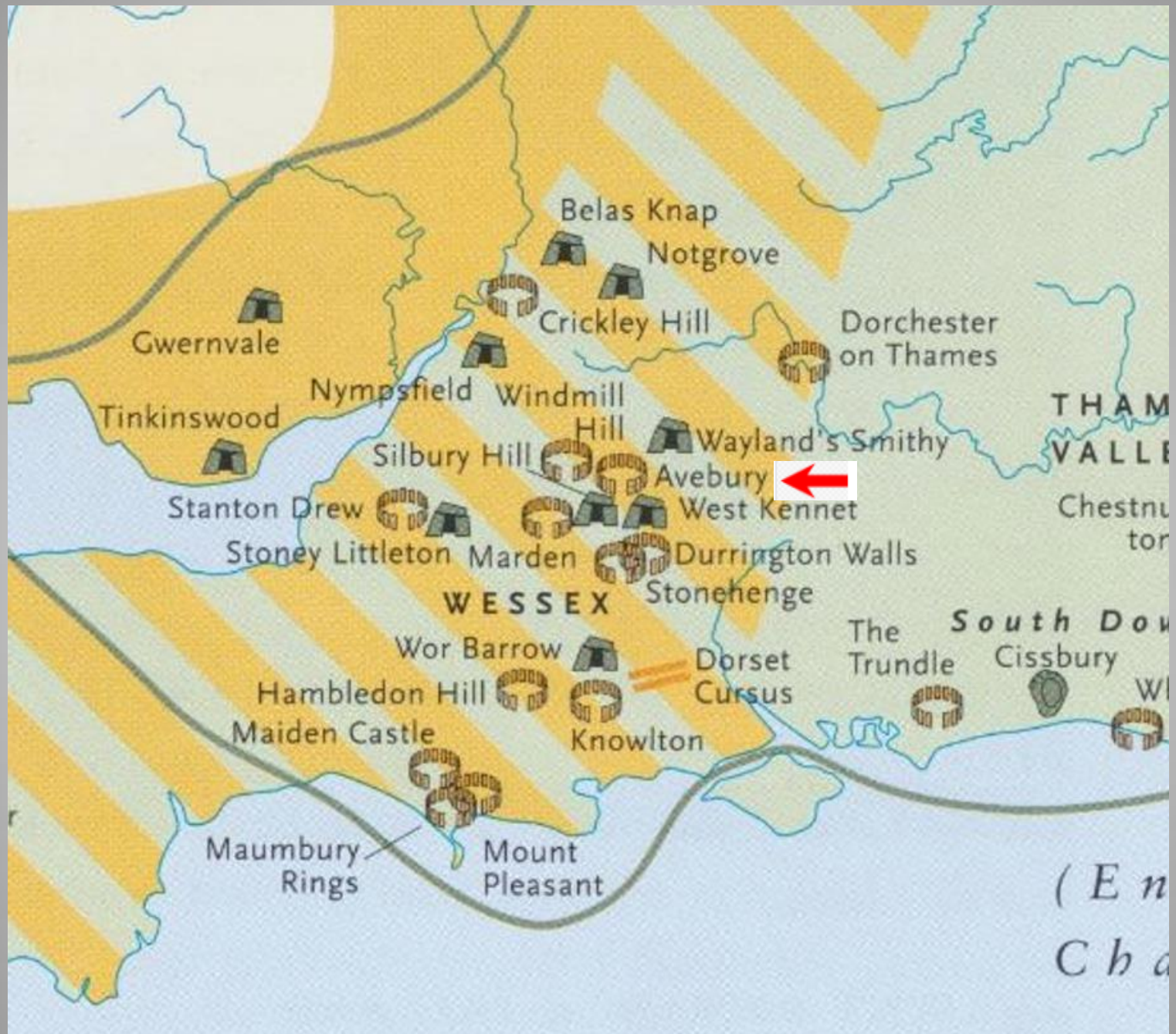


They could have been processional ways, but for the dead and not the living.



The existing evidence does not prioritize any of these suggestions over the others.

—Ronald Hutton, Pagan Britain, pp.62-3





6.6 The henge monument of Avebury on the north Wiltshire chalkland. The great enclosing bank and ditch survive remarkably intact. A number of the standing stones that can be seen were re-erected in the 1930s. The village spreading into the monument dates from the late Saxon period



Ancient Britain 4a Avebury sacred landscape

[youtu.be](#)





★ **Avebury, Neolithic henge, stone circles and avenue**

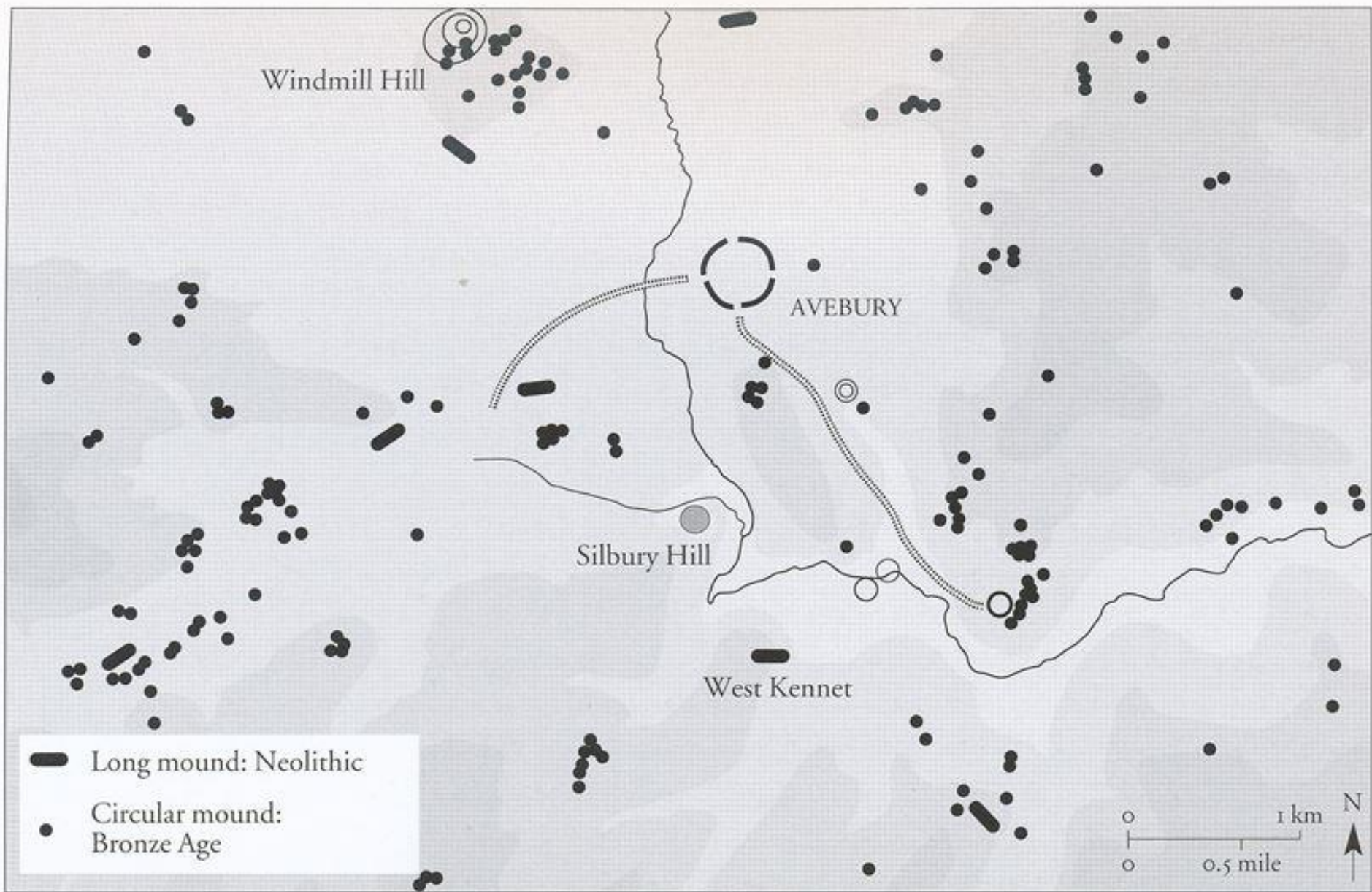
This is one of the most important megalithic sites in Europe and is designated a World Heritage Site. The site is approached by an avenue of stones and features a large circular earthwork some 400 metres wide and an external ditch with a circumference of 1200 metres. Inside are two more stone circles, each of 100 metres in diameter.

Many of the stones were re-erected in the 1930s by Alexander Keiller, and the site museum provides information on this and the archaeological story of Avebury.

(English Heritage, National Trust and Private owner)

Photo: © Crown copyright: English Heritage NMR





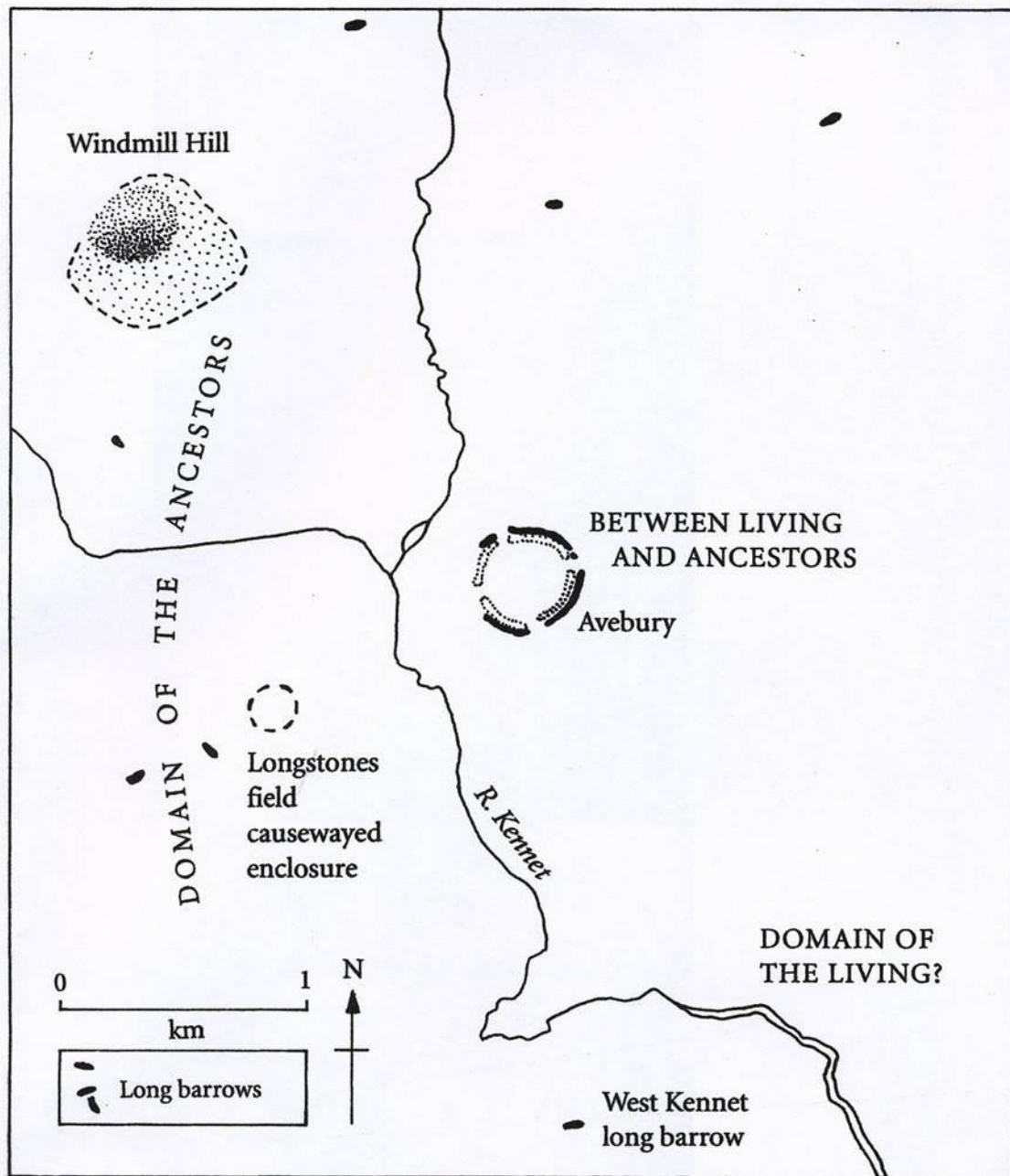


FIG 48 *Layout of the Avebury ritual landscape, 3500–2500 BC.*

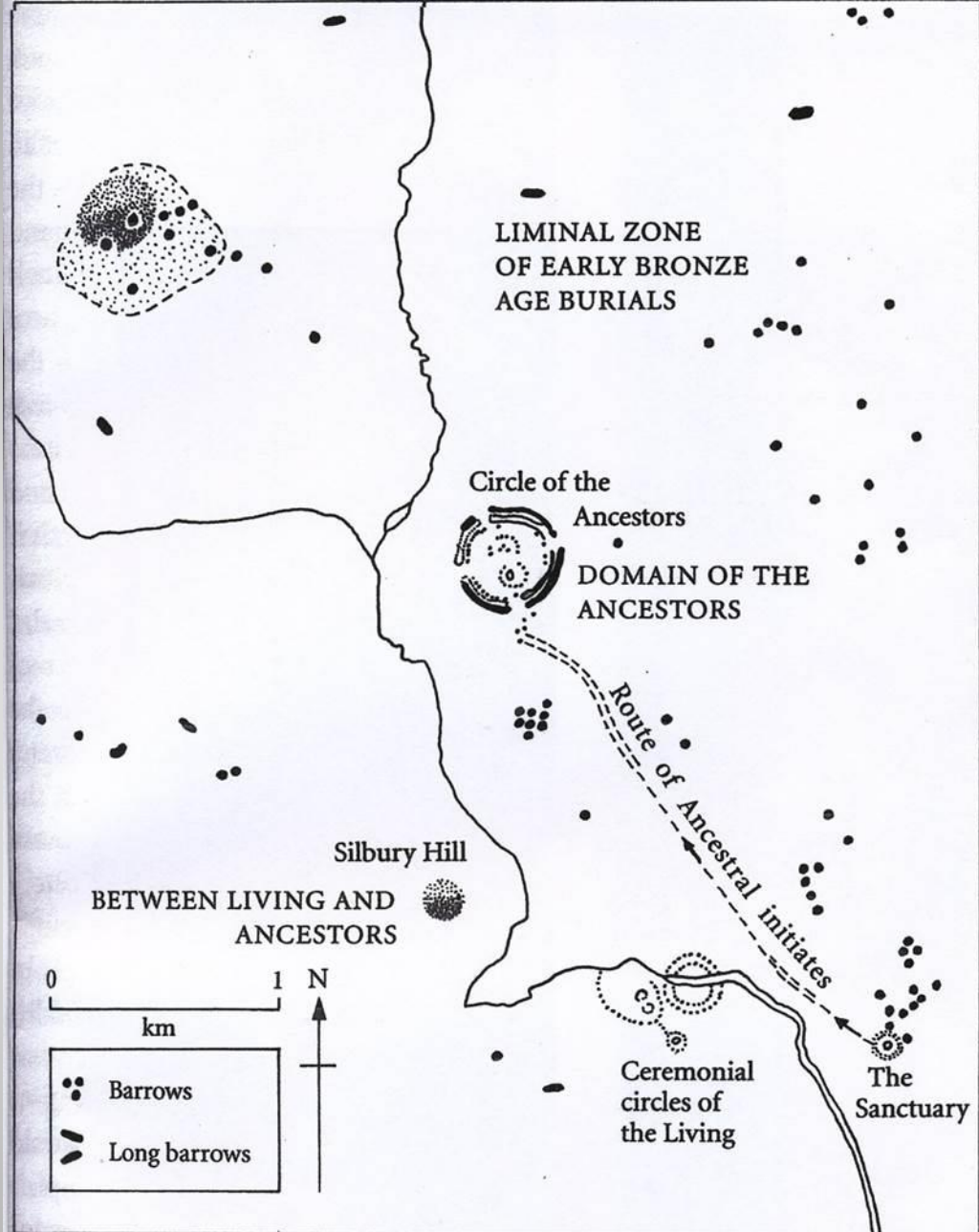
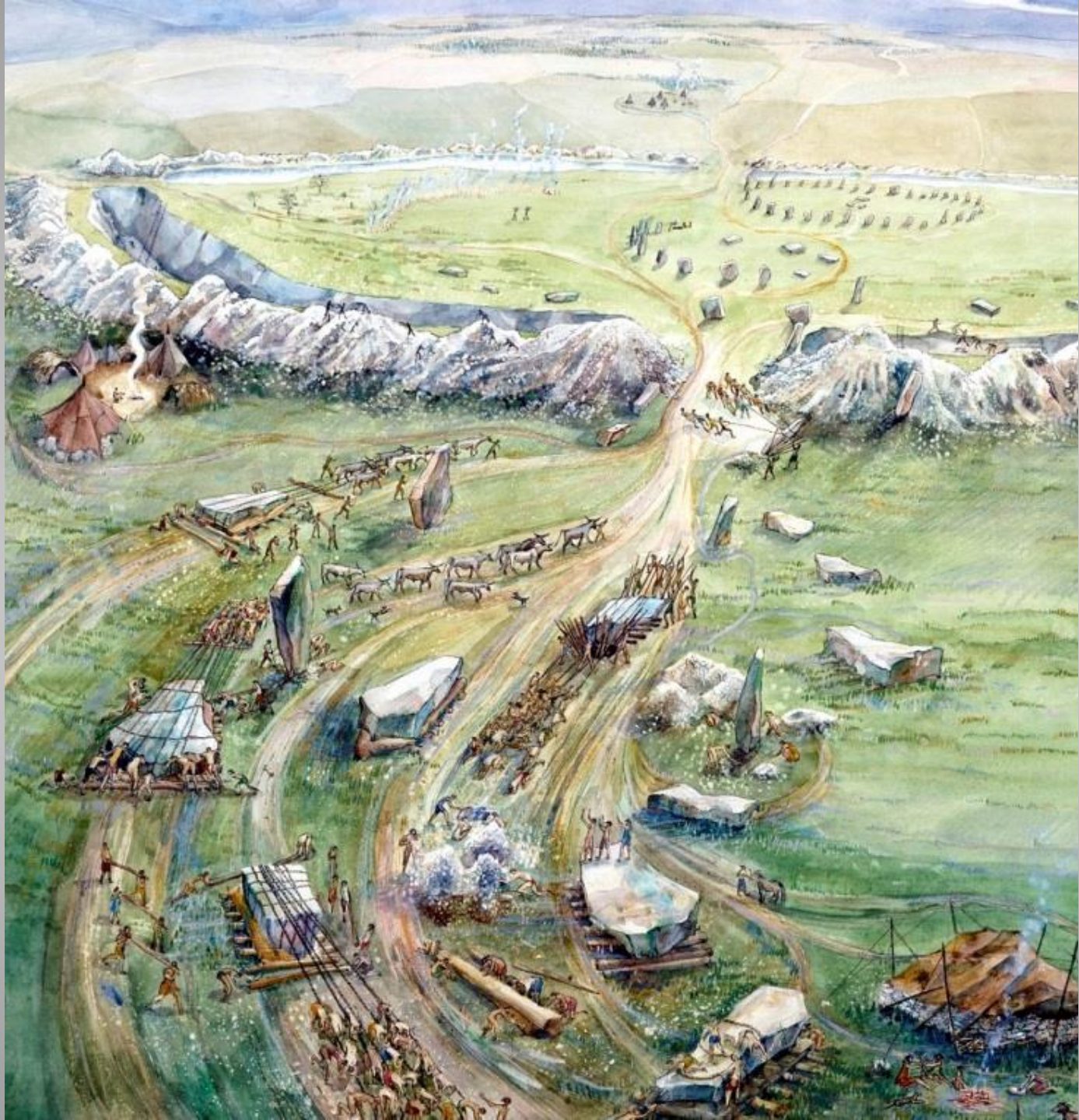


FIG 49 *Layout of the Avebury ritual landscape, 2500–2000 BC.*

12 (Below) Avebury: the Cove, a setting of two (originally three) massive blocks at the centre of the northern inner circle (visible in the background). Recent investigations have shown that the stone on the left continues at least 2 m (6.5 ft) below the surface and weighs an estimated 100 tonnes, making it by far the largest megalithic block at Avebury.









Avebury World Heritage Site

Complex of outstanding prehistoric monuments



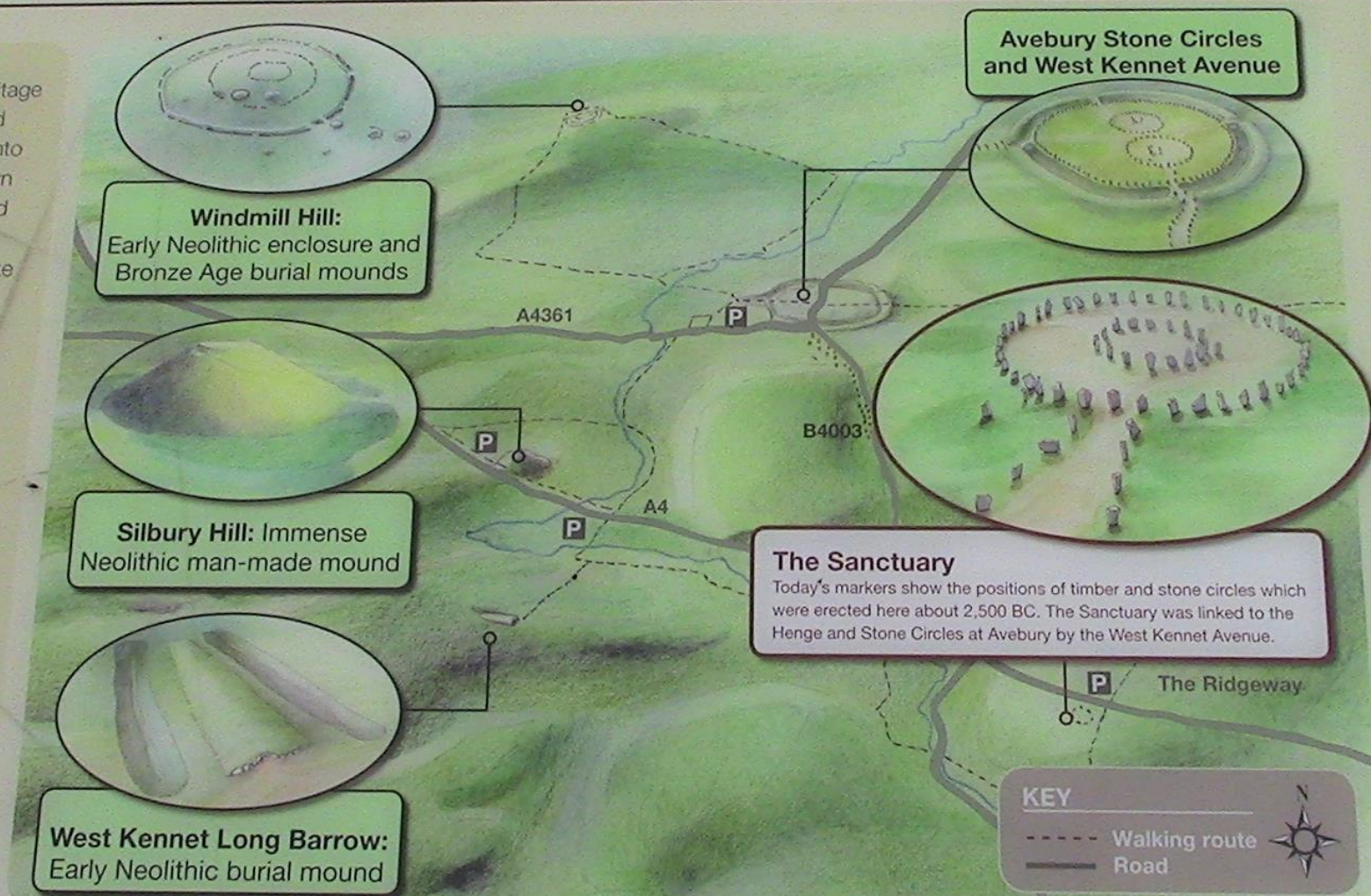
of the Avebury World Heritage
by the National Trust and
er a fascinating insight into
life. Each site has its own
area has been used and
monuments are all within
ch other so why not take
prehistoric landscape?

on the Alexander Keiller
bury where
at these sites.

ianship of
by the National Trust
and the two
managing and

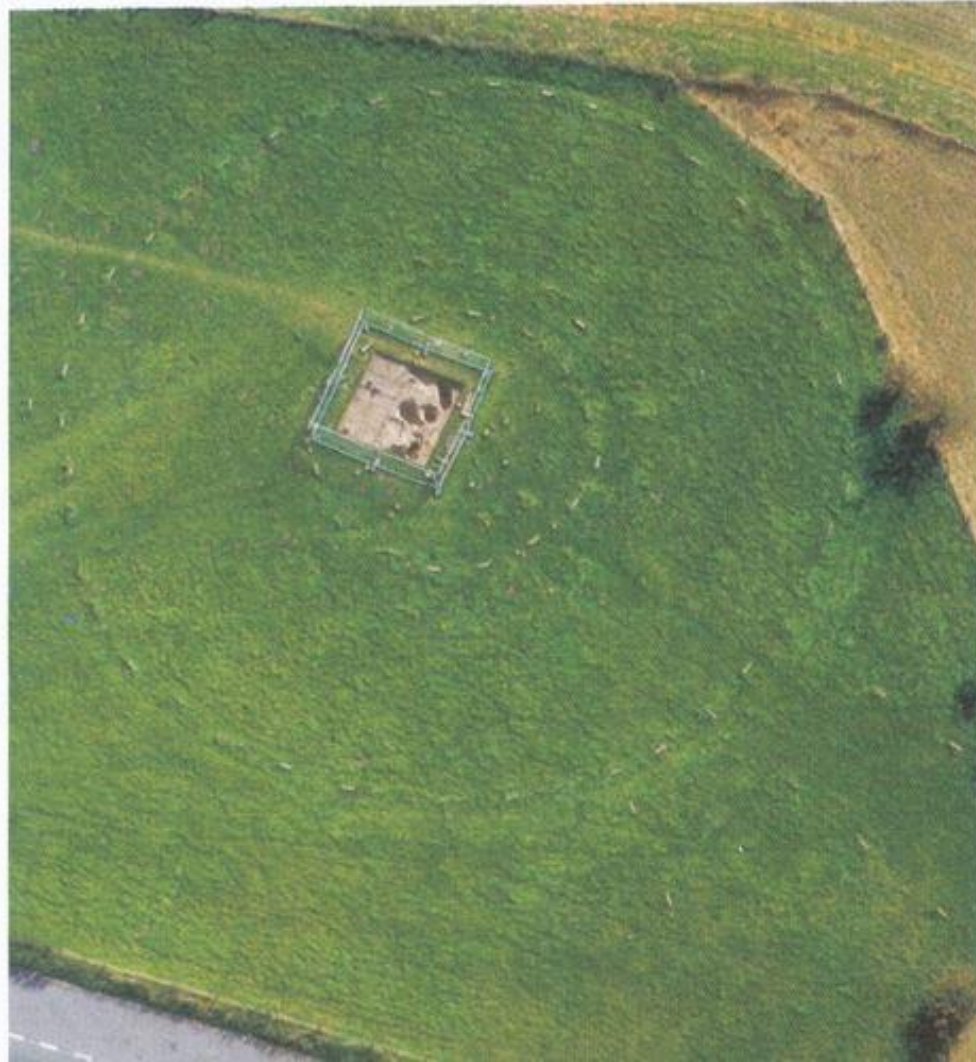
rganisations that

altrust.org.uk
-heritage.org.uk
rld Heritage Site





57 (below) The Sanctuary at Avebury during excavation in 1999. The concentric circles of pits (some visible in the excavation) held timber posts. Two stone circles (represented today by concrete blocks) were also erected, probably later than the posts but at the same time as the stones of the West Kennet Avenue.



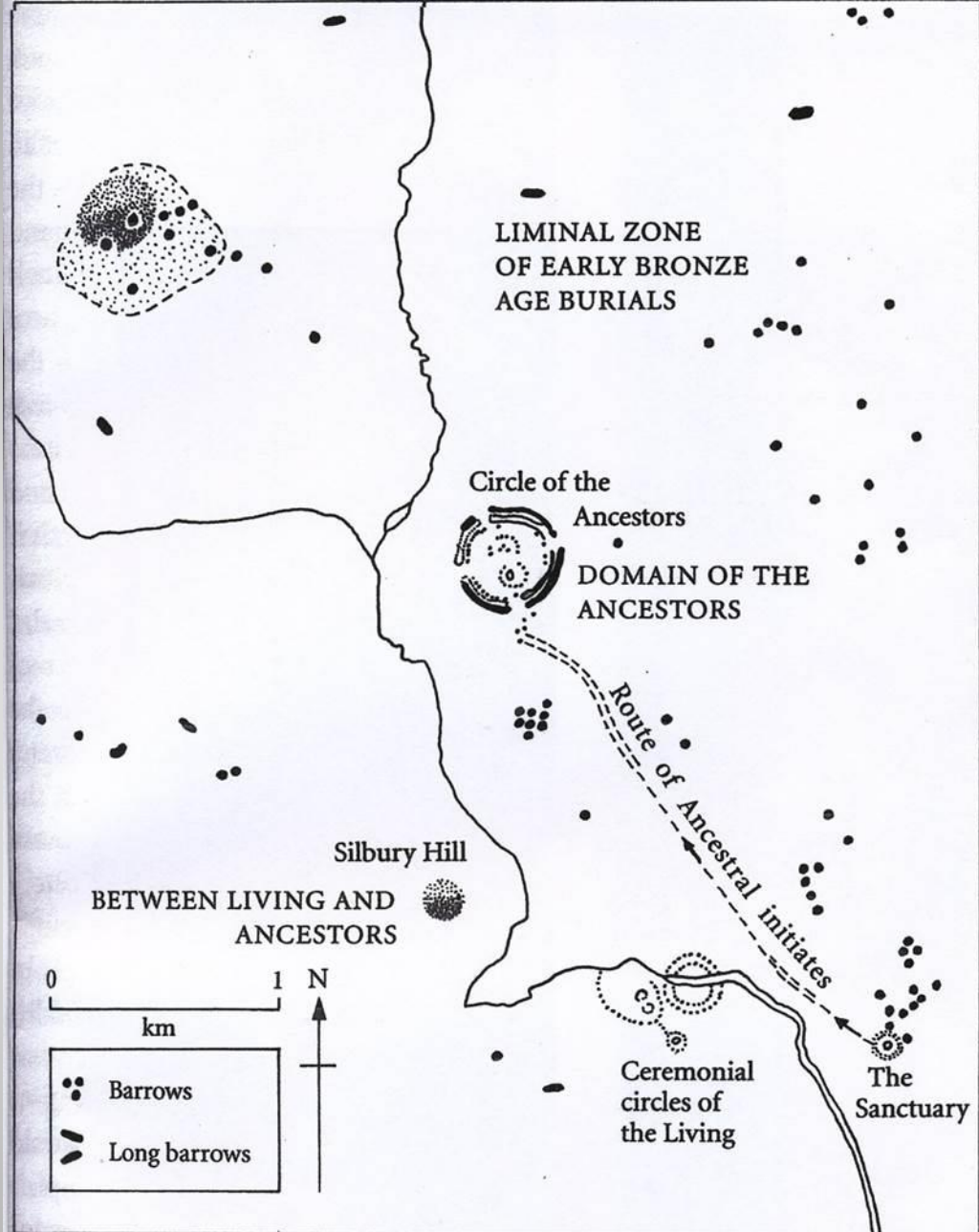
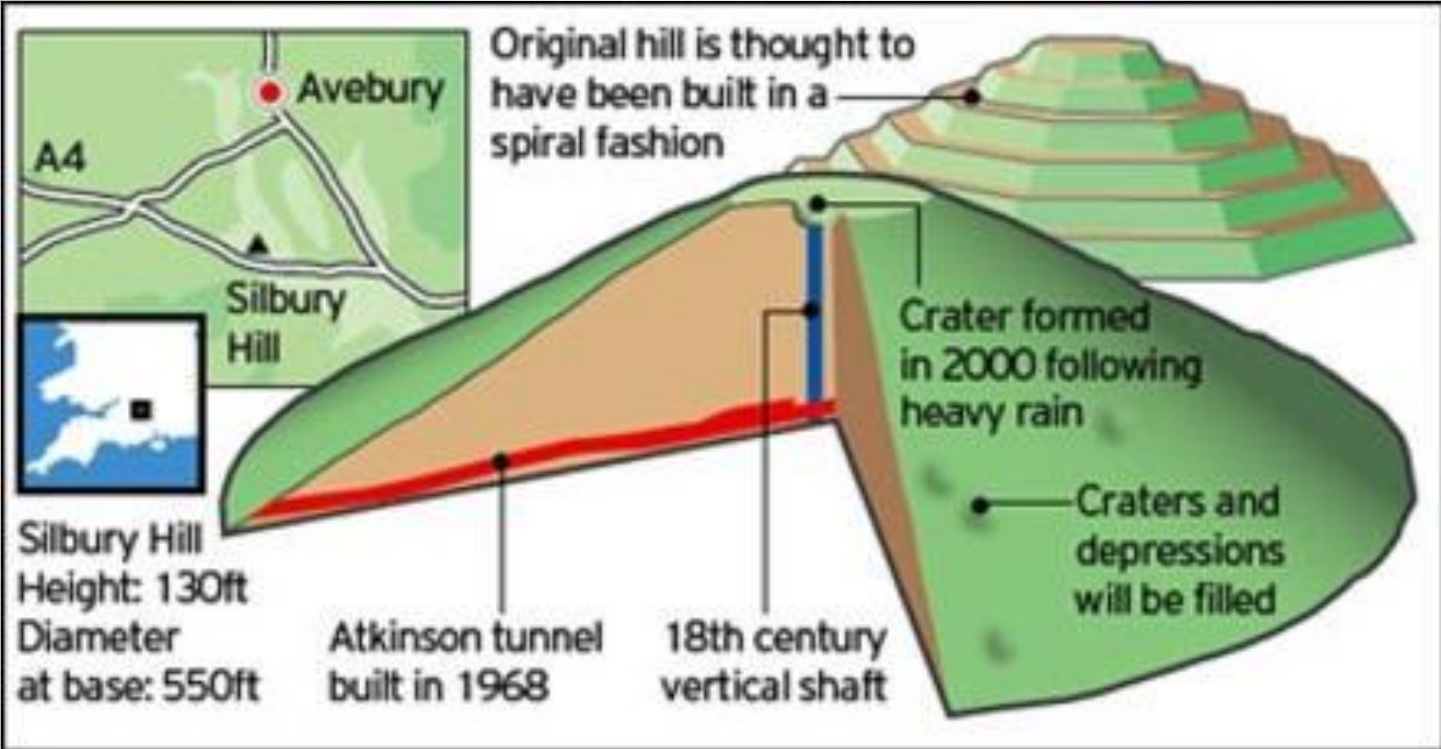


FIG 49 *Layout of the Avebury ritual landscape, 2500–2000 BC.*

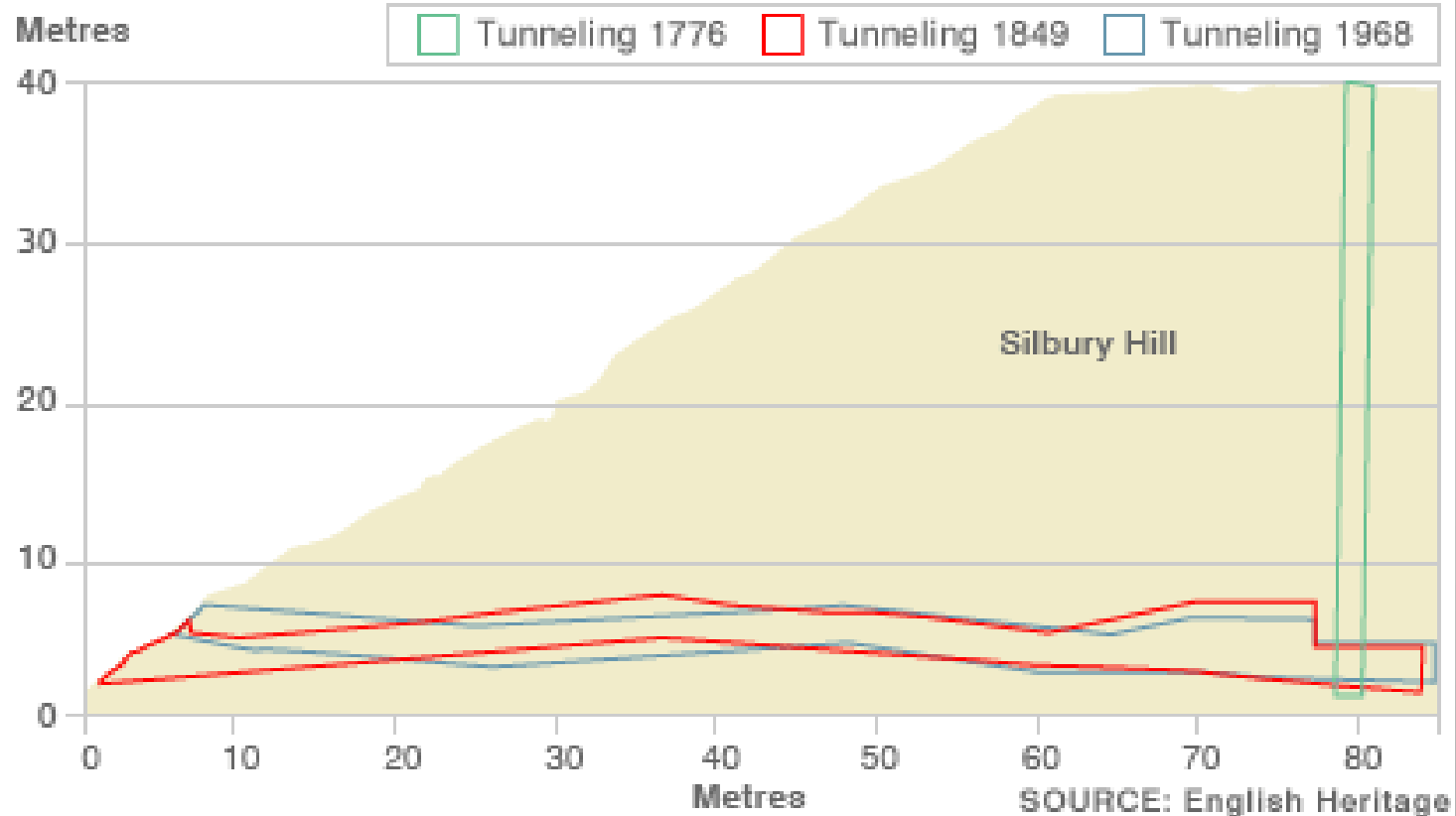






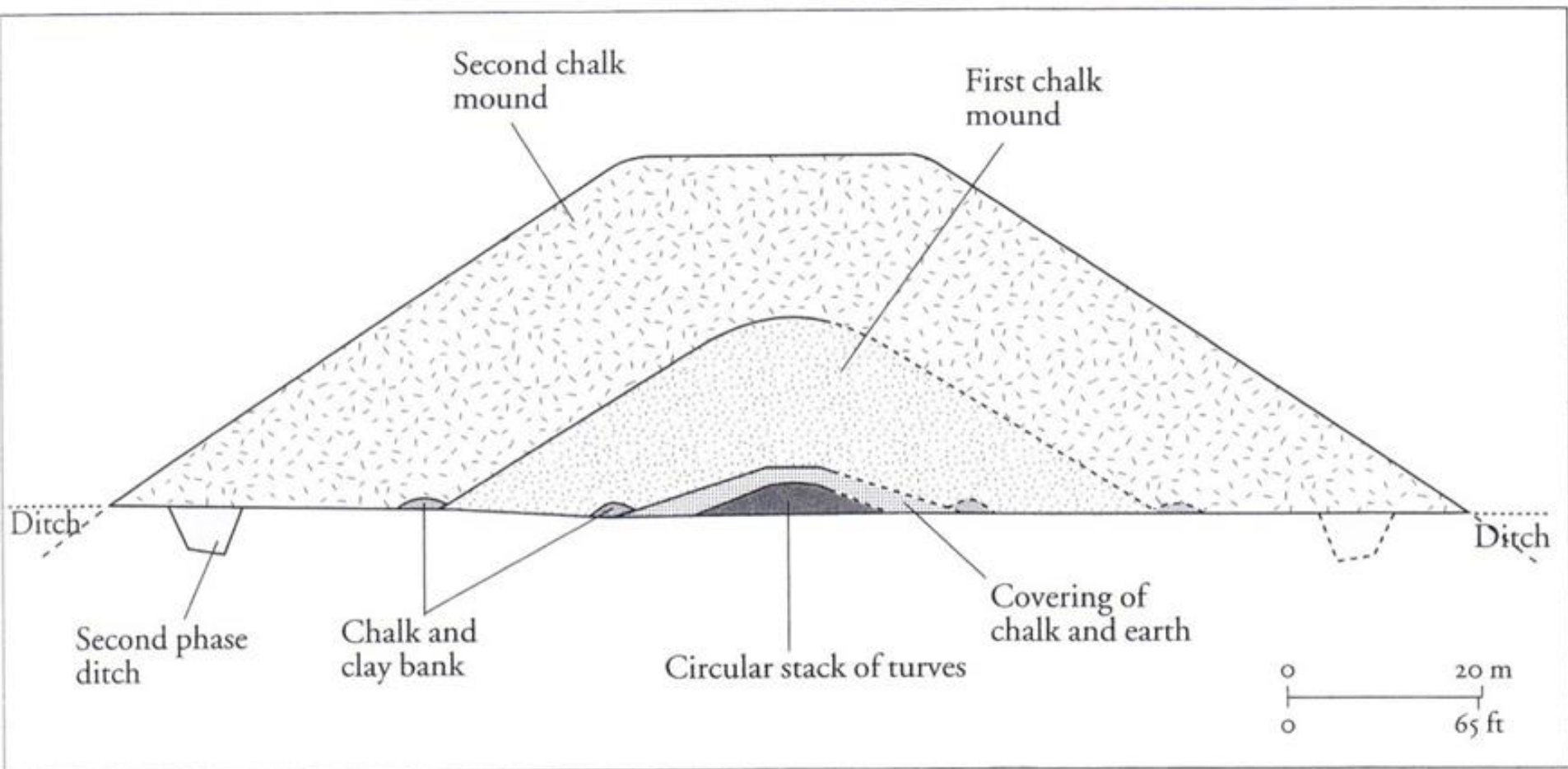


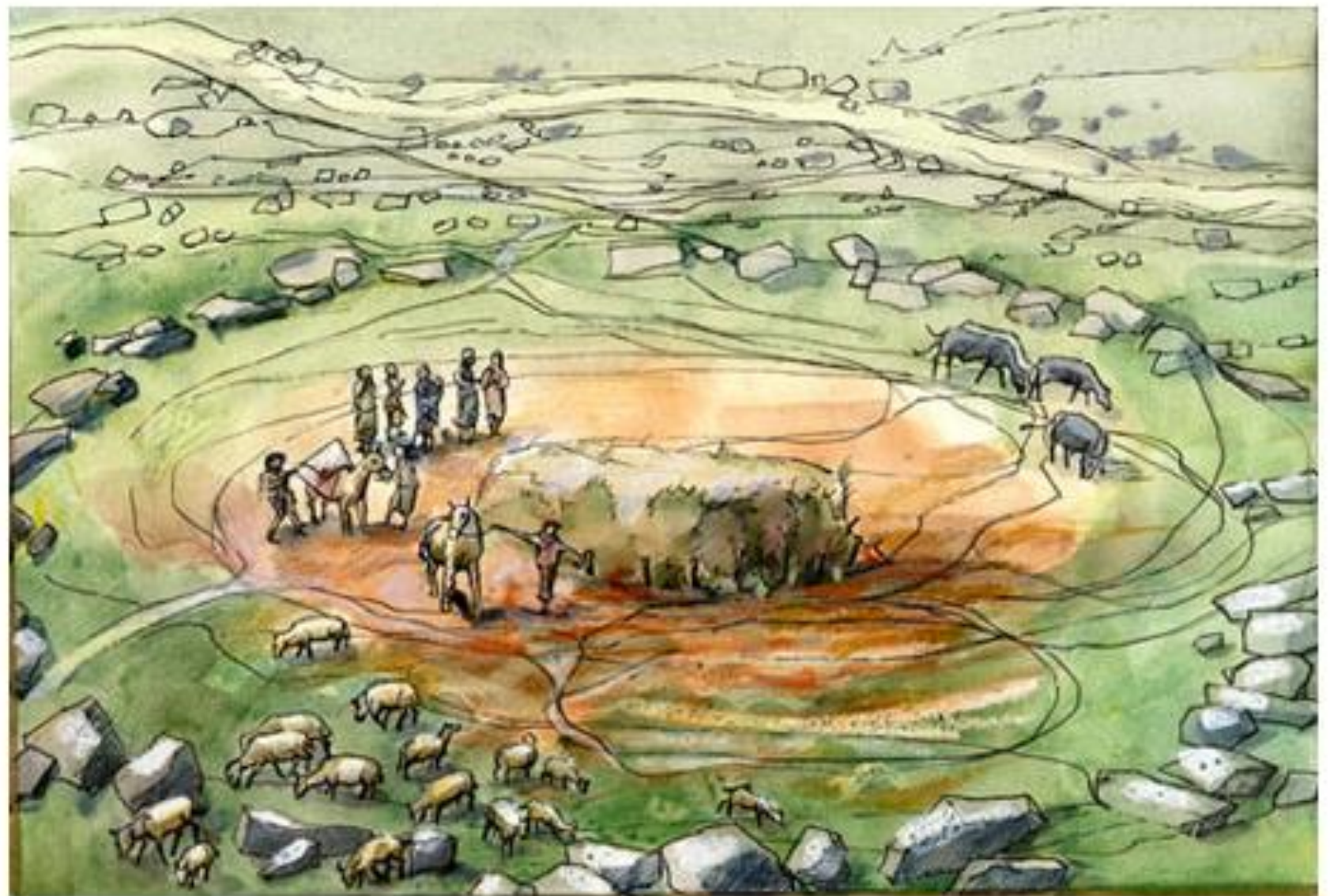
SILBURY HILL TUNNELS







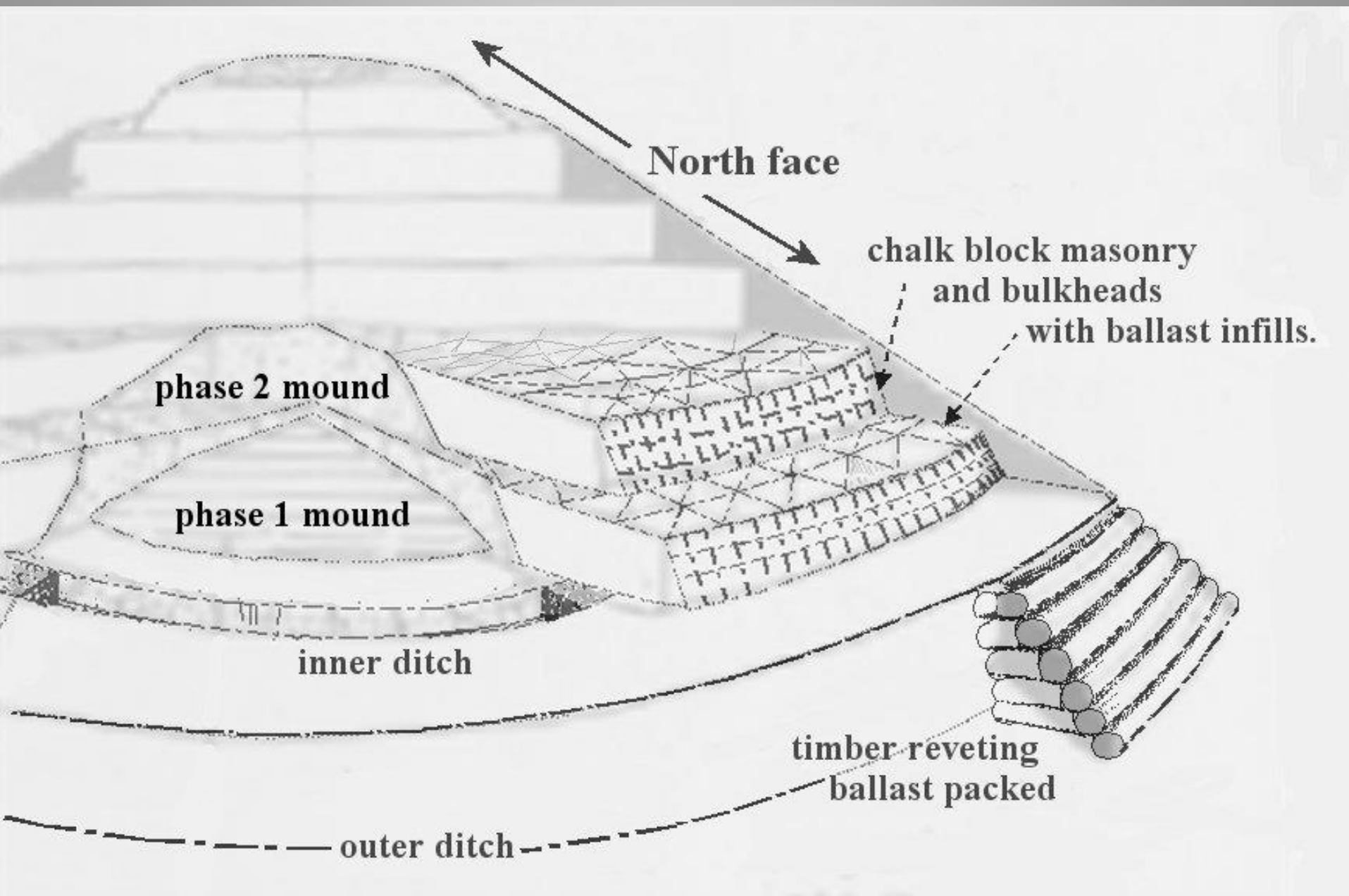




The first construction at Silbury was a low mound of gravel. Later, a series of layers of soil, mud and grass turves were added. Several pits were dug into the mound and it may have been edged by stakes.



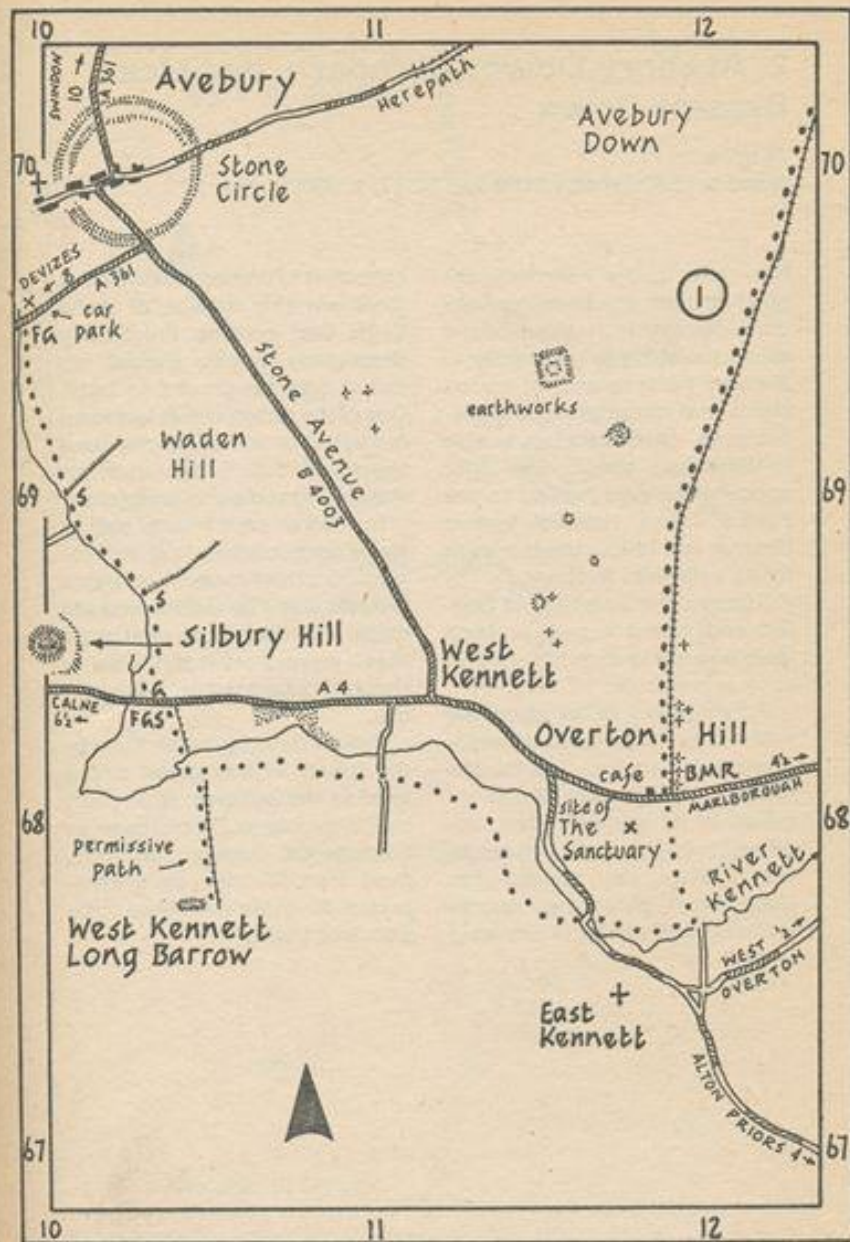
Later, construction continued in chalk and clay, which was piled around the mound, sometimes in small banks. The mound was surrounded by a ditch with an internal bank.



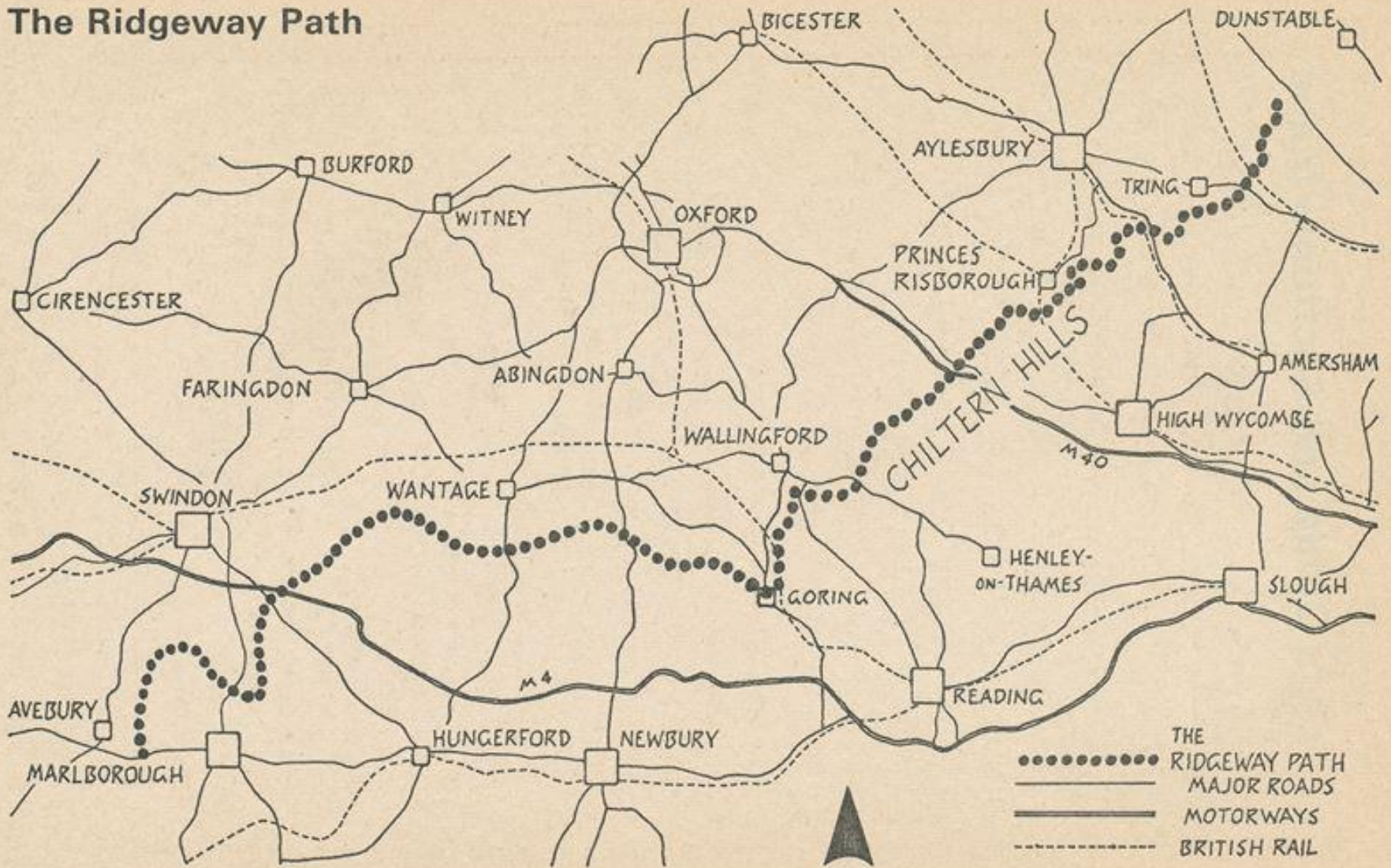


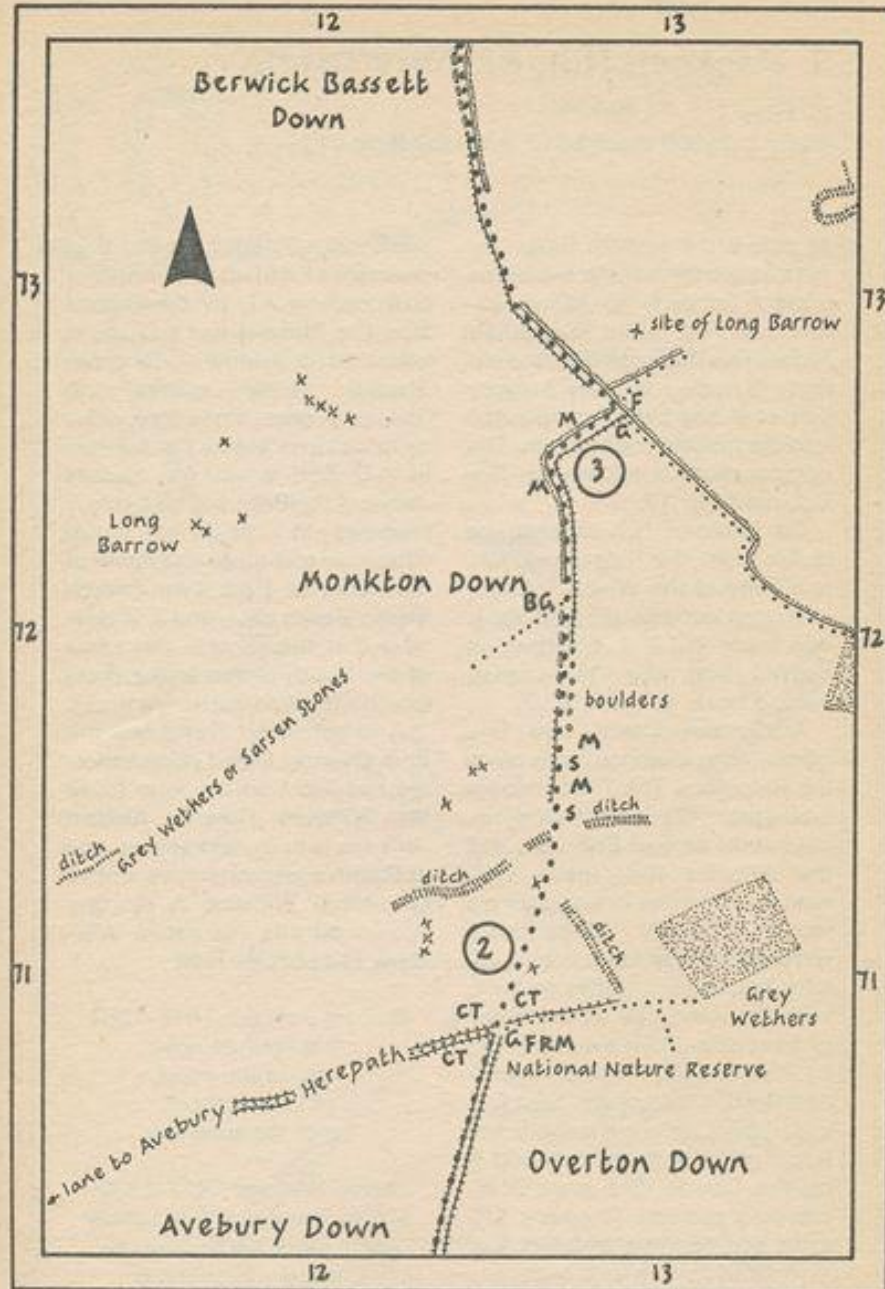




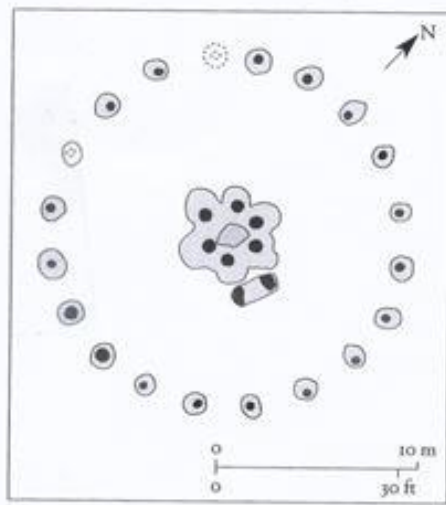


The Ridgeway Path



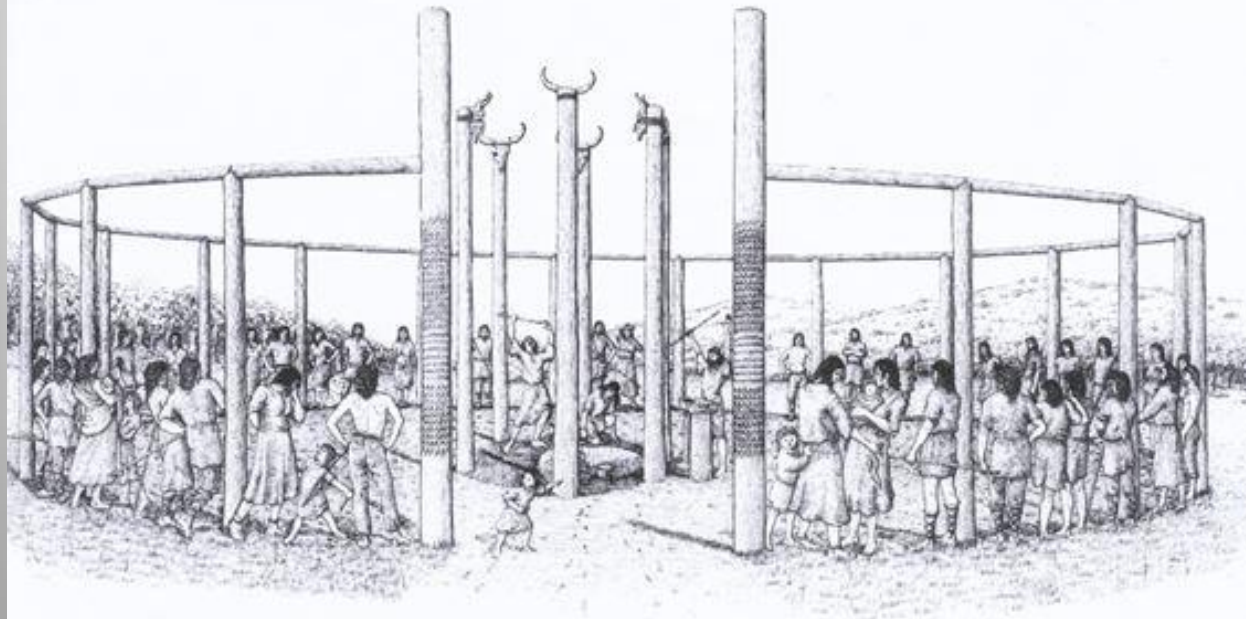






Above *Post-holes mark a timber circle with central feature at Sarn-y-Bryn-Caled, mid-Wales.*

Below *Hypothetical reconstruction of the Sarn-y-Bryn-Caled timber circle.*



11. Swinside, Cumbria.



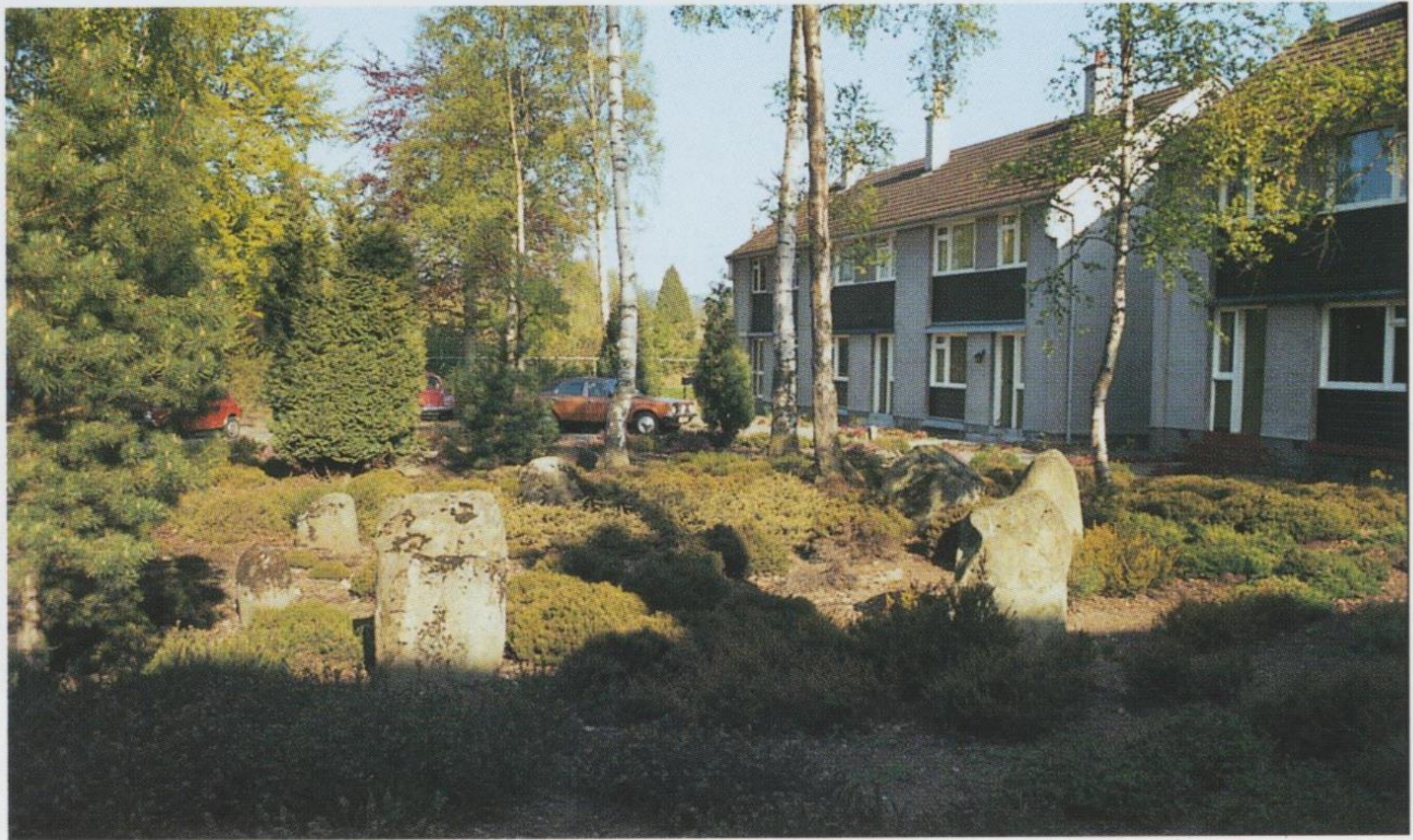


Ancient Britain 4b Stone Circles

[youtu.be](#)



33. Sandy Road stone circle, Perthshire. It is the survivor of a pair of rings and is now enclosed in a housing estate.







7. Carrowmore traffic island.





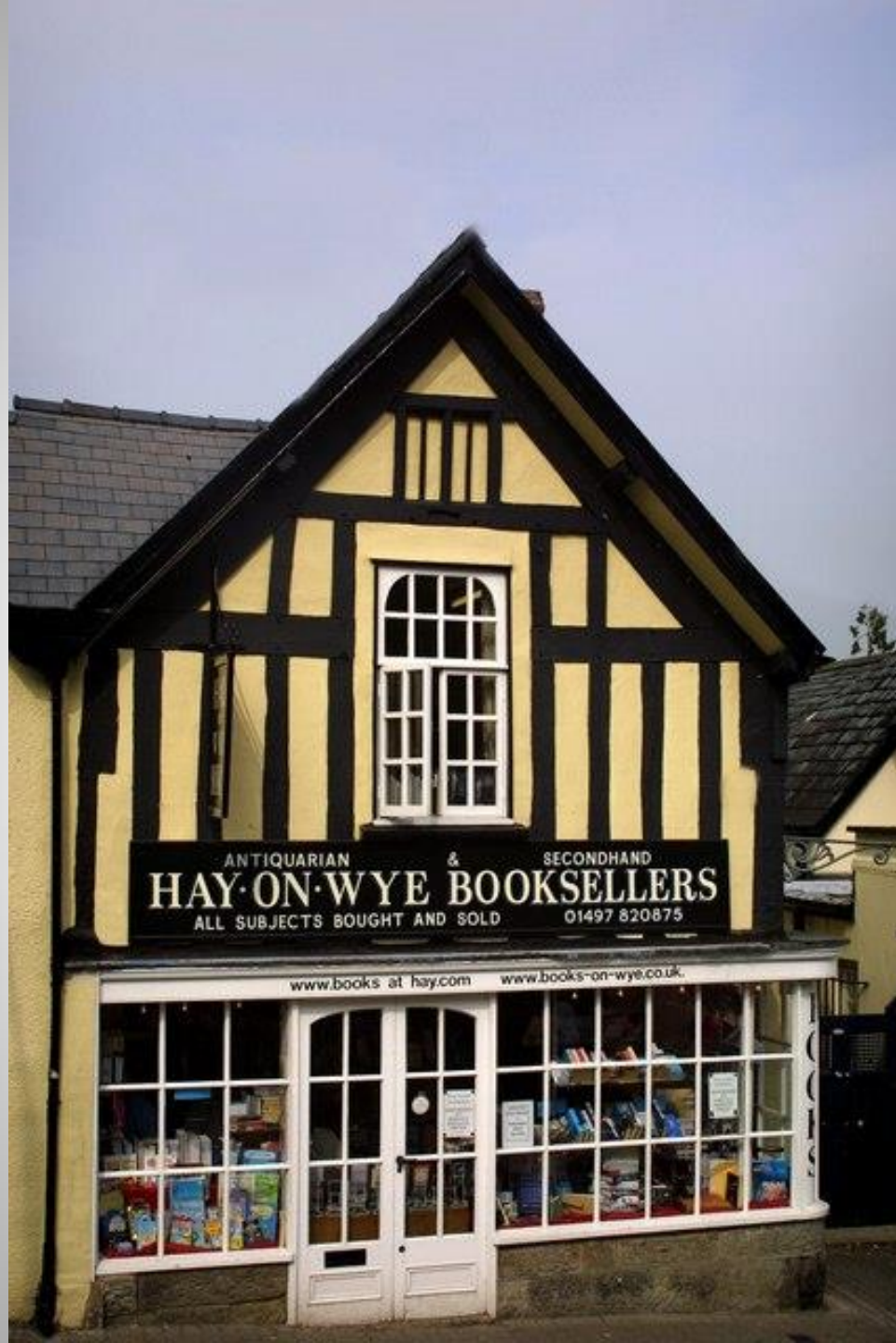




BOOKS
BOUGHT & SOLD

ADDYMAN BOOKS

ADDYMAN



ANTIQUARIAN & SECONDHAND
HAY-ON-WYE BOOKSELLERS
ALL SUBJECTS BOUGHT AND SOLD 01497 820875

www.books at hay.com www.books-on-wye.co.uk



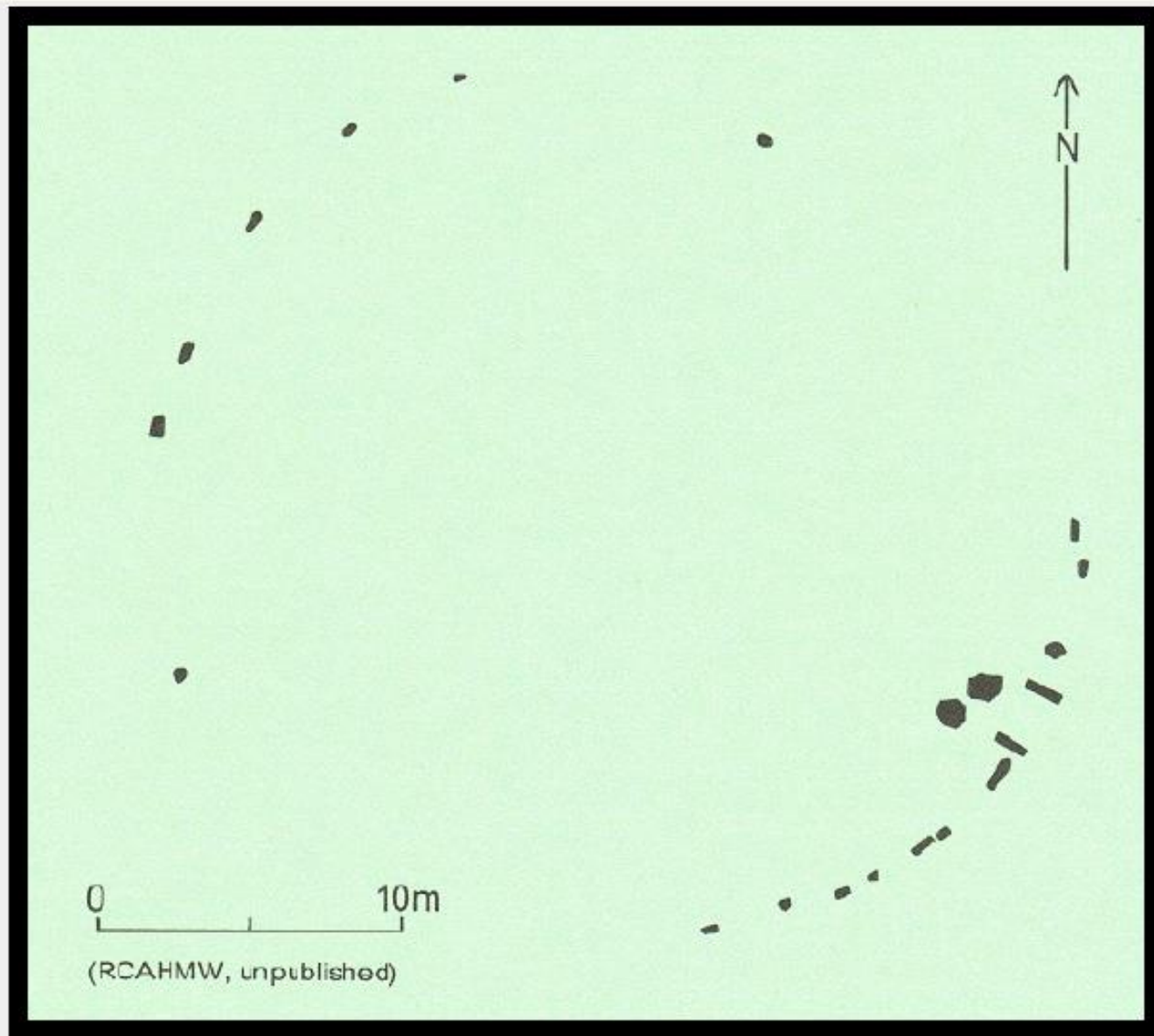




pen y beacon (or blaenau or hay bluff)

Marked as stone circle and sited adjacent to a car park on a minor road from Hay-on-Wye to Llanthony. This site has only recently been recognised as a stone circle: in the past it had variously been described as the remains of a cairn or burial chamber. The largest stone, on the east of the circle, is 1.5m high and 1.1m wide and has much smaller stones to either side of it which follow the arc of a circle 30m in diameter. Underneath the Ordnance Survey bench mark, a circular depression can be seen which is believed to be a cupmark, something of a rarity in this area of Wales. Four very small stones are just discernible on the opposite side of the circle with another stone to the south. The circle has an obvious entrance to the SE marked by flanking portal stones which are not a common feature amongst stone circles in Wales.



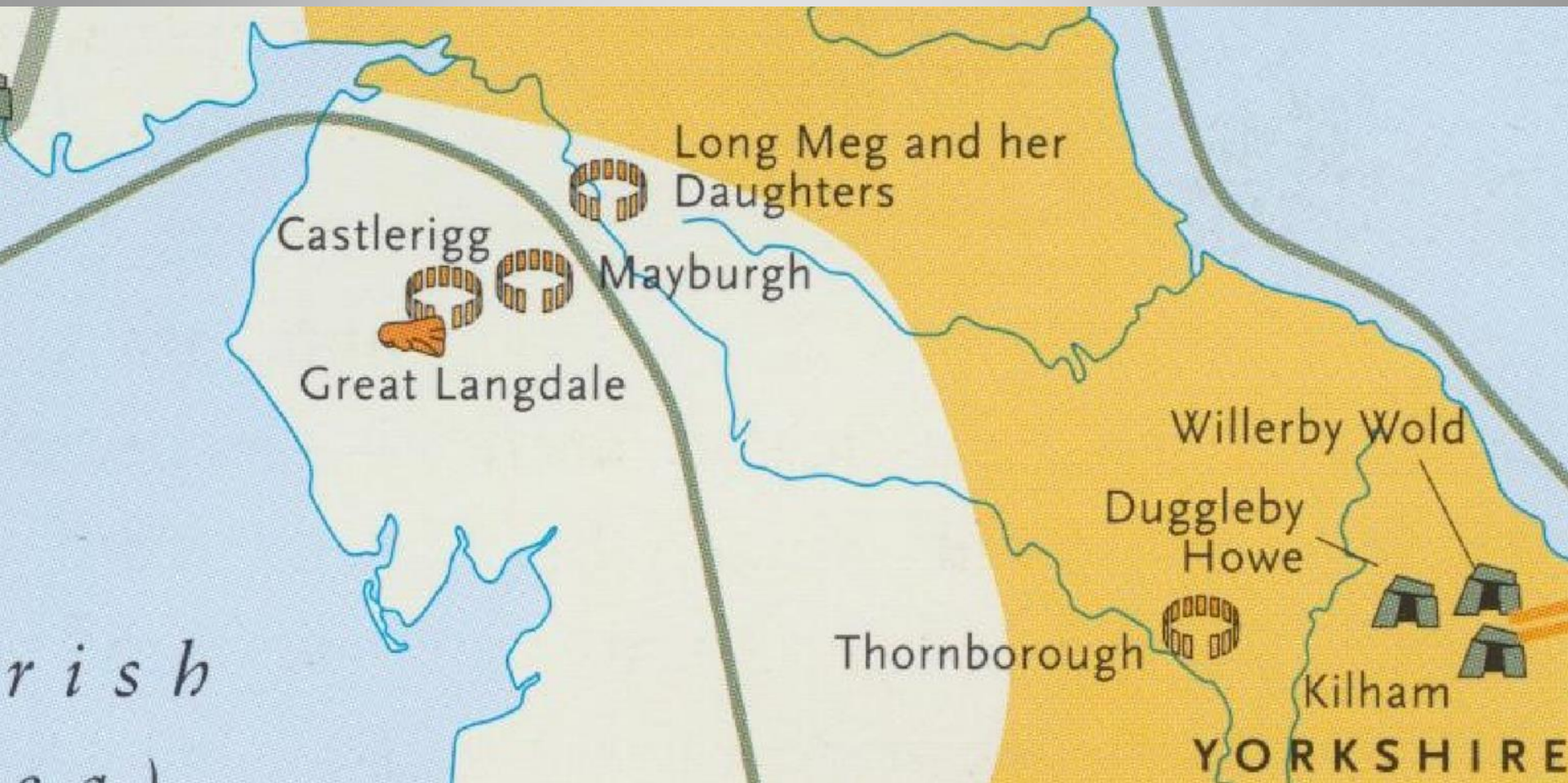


A plan of the stone circle found in the green pull-out field guide in paperback: 'Prehistoric Peoples, their life and legacy', a Brecon Beacons National Park publication from 1996.









Castlerigg

Great Langdale

Long Meg and her Daughters

Mayburgh

Willerby Wold

Duggleby Howe

Thornborough

Kilham

YORKSHIRE

rish



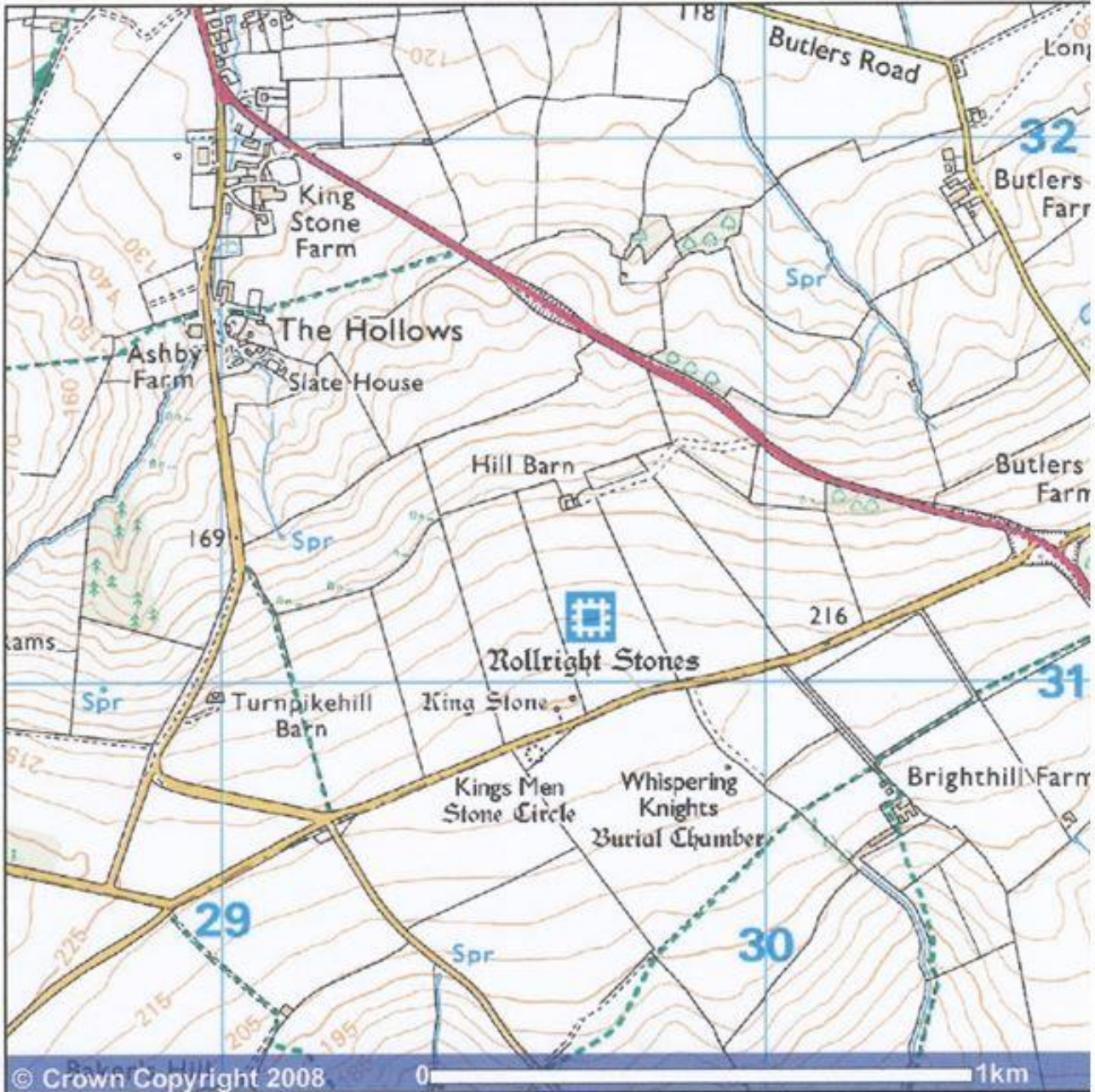








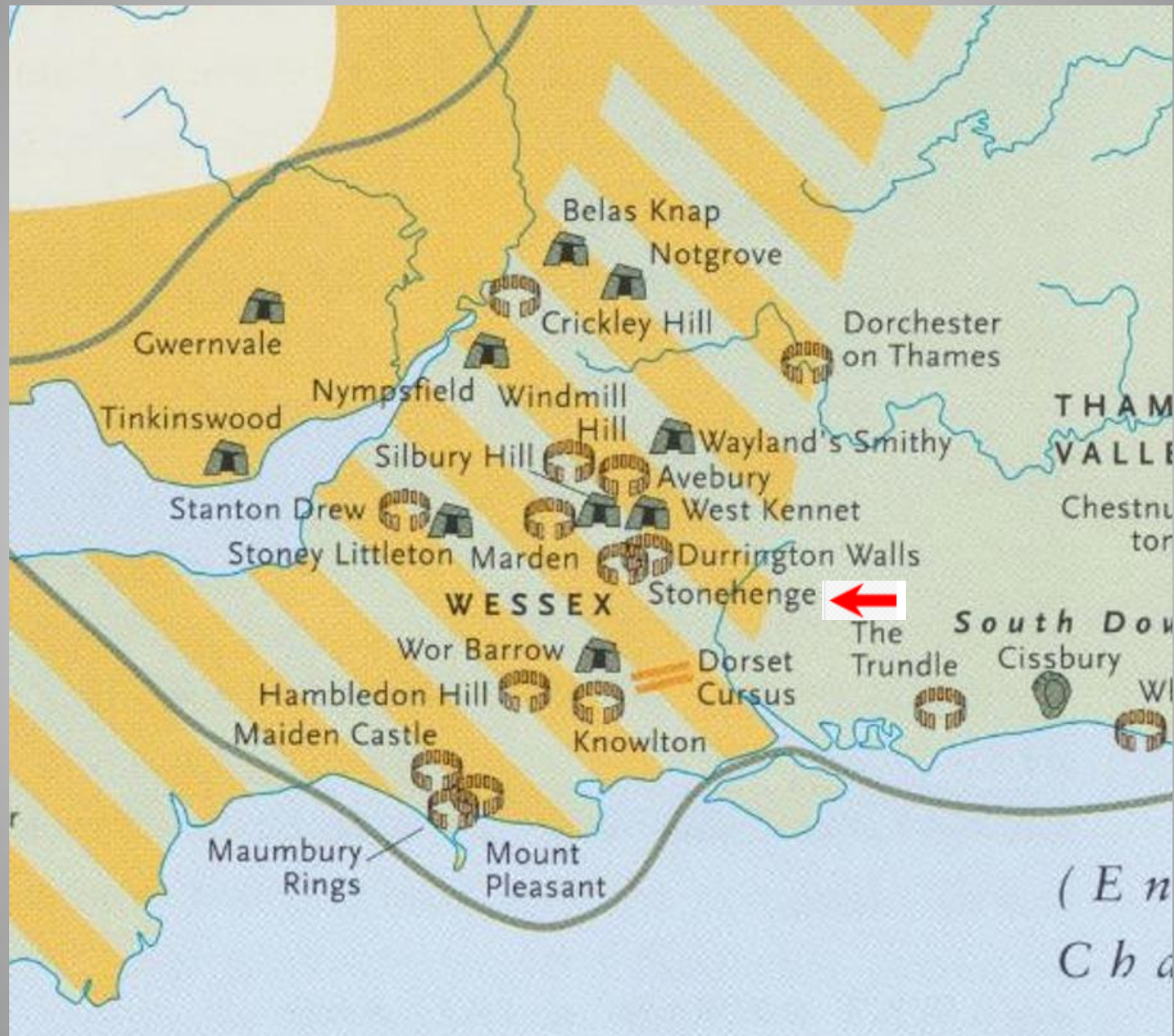








THE
ROLLRIGHT STONES



Gwernvale

Tinkinswood

Stanton Drew

Nympsfield

Windmill Hill

Silbury Hill

Wor Barrow

Hambledon Hill

Maiden Castle

Maumbury Rings

Crickley Hill

Belas Knap
Notgrove

Avebury

Wayland's Smithy

West Kennet

Durrington Walls

Stonehenge

Dorset Cursus

Knowlton

Mount Pleasant

Dorchester on Thames

THAMES VALLEY

Chestnut

The Trundle

Cissbury

South Down

(En
Ch a





These two natural boulders are sarsen and bluestone, the two types of stone used to build Stonehenge. By touching them you can feel the differences between them.

Sarsen

The larger stones at the monument are sarsen, a very hard type of sandstone. It was formed about 26 million years ago from a solidified layer of sand in a prehistoric sea.

Natural sarsens are found across southern England. We do not know the exact place of origin of the sarsens at Stonehenge, but it is likely that they were brought from the nearest source – the Marlborough Downs, 20 miles away.

Sarsen is difficult to shape and work. Prehistoric people not only sculpted the stones to form the jointed uprights and lintels, but also removed their outer surface to give Stonehenge what would have been a spectacular bright appearance.

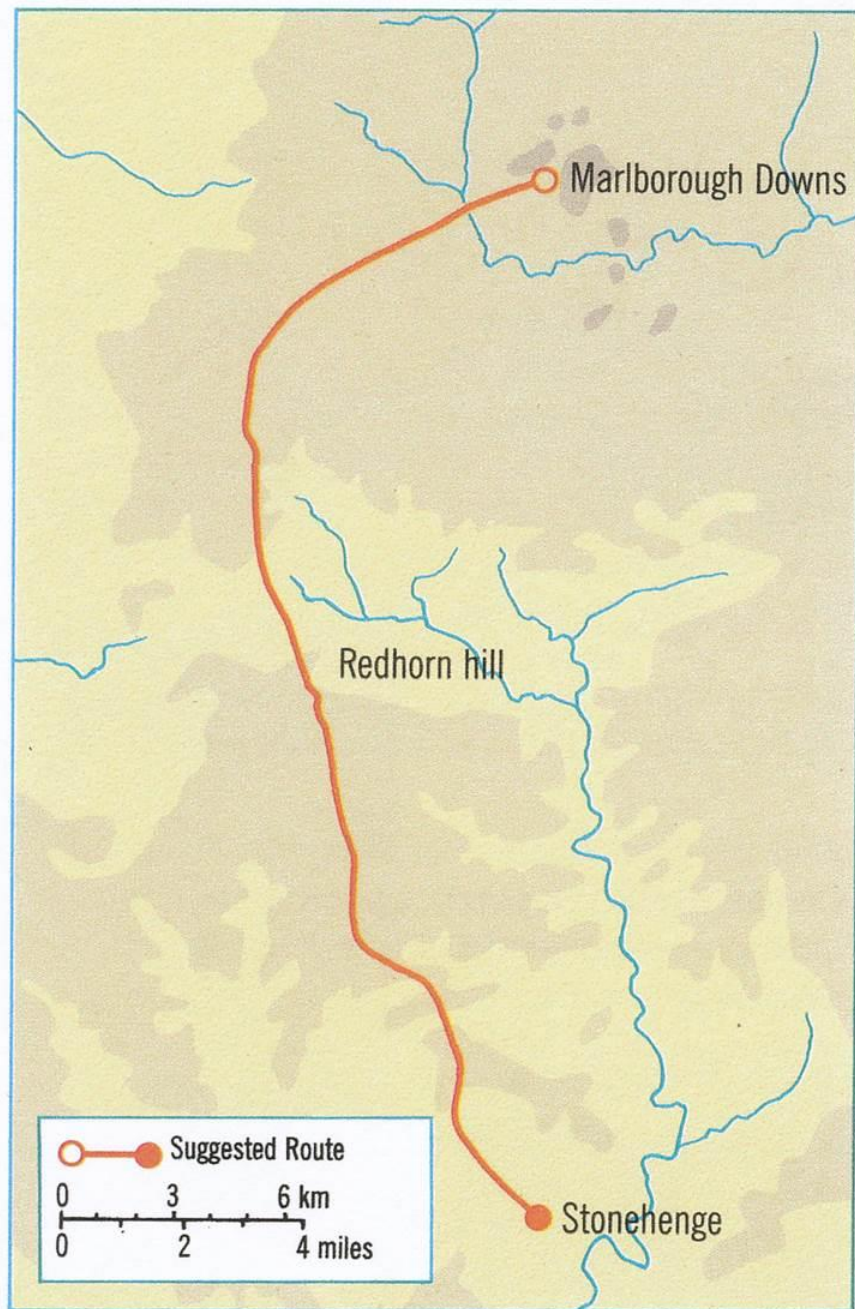
Bluestone

We call the smaller stones at Stonehenge 'bluestones'. They are a variety of different volcanic rocks, including dolerites and rhyolites.

Today, the bluestones appear grey, but when freshly cut or wet some do have a dark blue colour. They all come from the Preseli Hills in west Wales. Chemists have identified the exact outcrops from which different types of stone came from.

We do not know why these stones were chosen. Perhaps the Preseli Hills had a special meaning for the people who built Stonehenge, or possibly they thought the stones had magical properties.

RIGHT *Probable route
of the sarsens from
the Marlborough Downs
to Stonehenge*







Bluestone

We call the smaller stones at Stonehenge 'bluestones'. They are a variety of different volcanic rocks, including dolerites and rhyolites.

Today, the bluestones appear grey, but when freshly cut or wet some do have a dark blue colour. They all come from the Preseli Hills in west Wales. Chemical analysis has identified the exact outcrops that the different types of stone came from.

We do not know why these stones were chosen. Perhaps the Preseli Hills had a special meaning for the people who built Stonehenge, or possibly they thought the stones had magical properties.

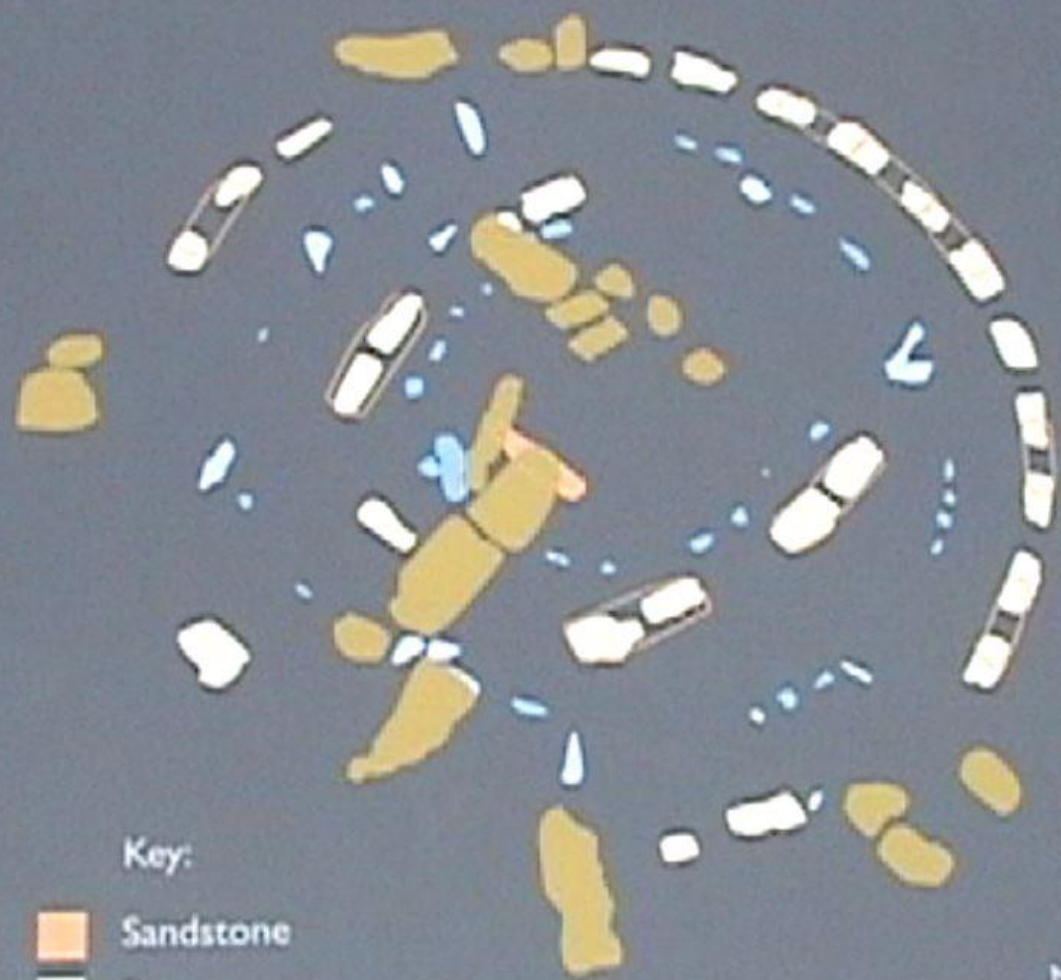


the two
them

at Stonehenge
variety of different
olerites and

ear grey, but
me do have a
ome from the
Chemical analysis
rops that the
e from.

stones were
ills had a
e who built
thought
ties.



Key:


-  Sandstone
-  Sarsen
-  Fallen Sarsen
-  Bluestone
-  Fallen Bluestone



Metres

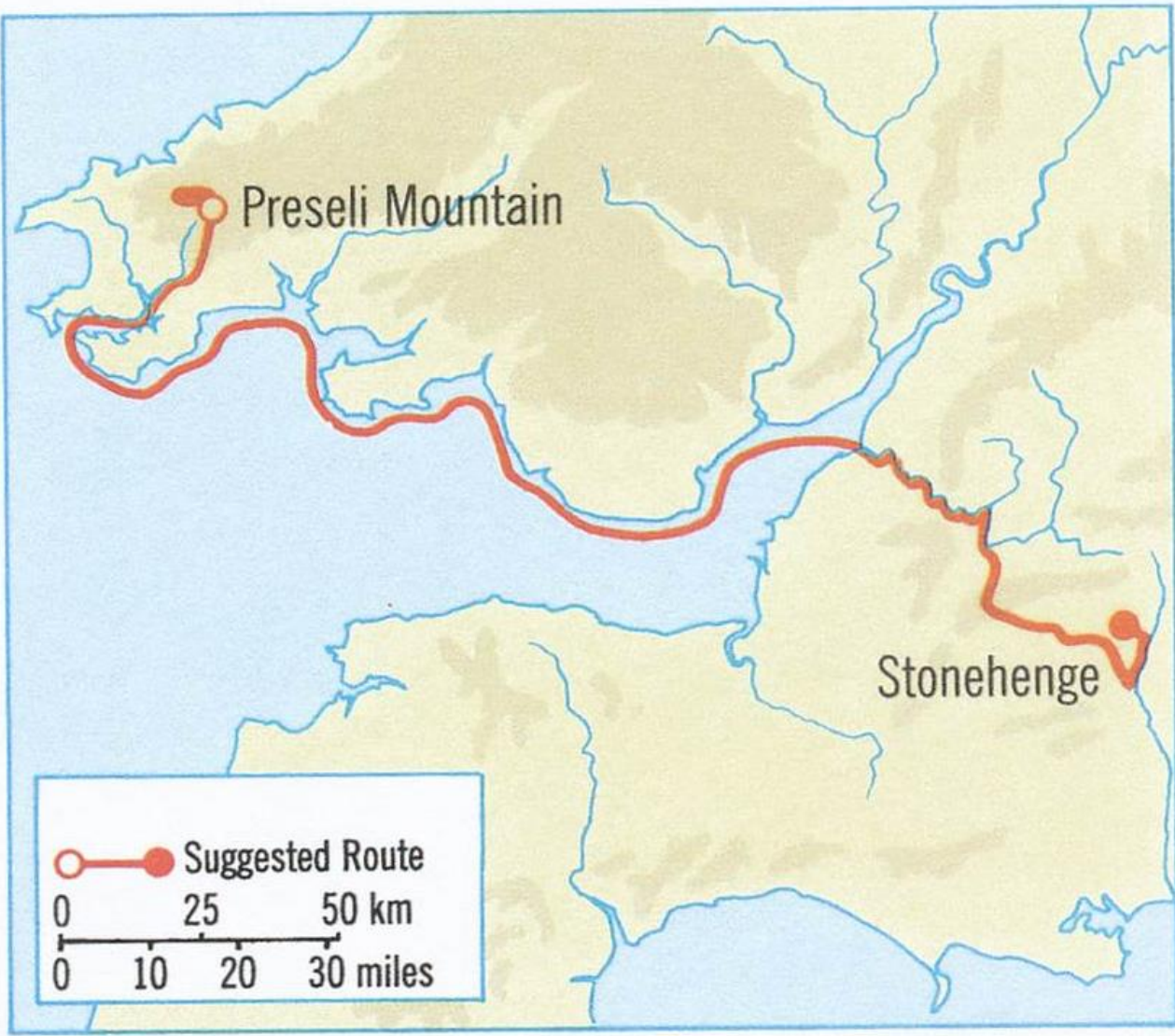


Plan of Stonehenge today showing



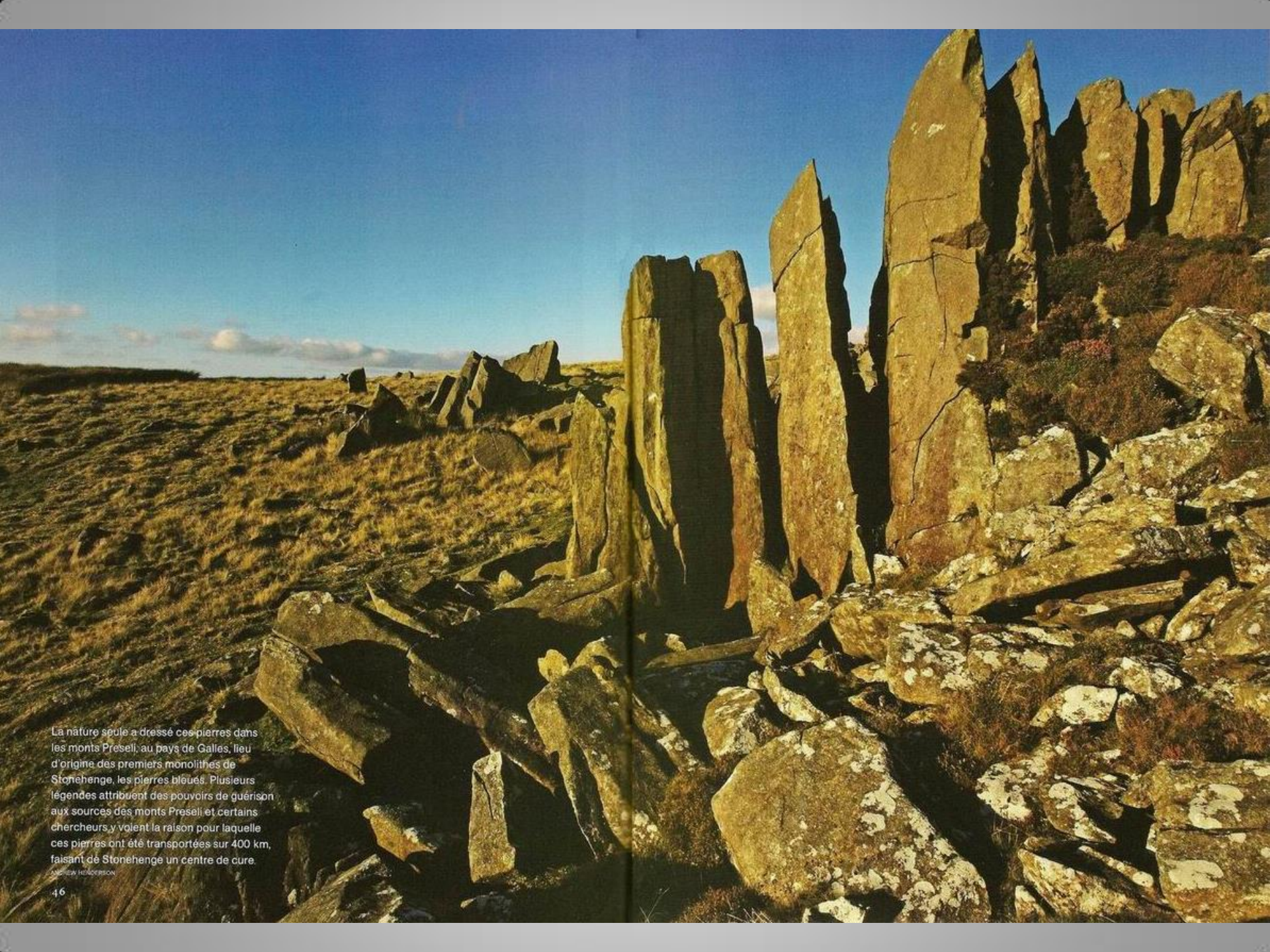
Sarsens were also used to build
at Avebury, near the Marlborough
stones were left in their natural

The sarsen was donated
The bluestone was donated
from his land in the Pre
assistance of Preseli Pe
Cystic Fibrosis Resear



ENGLISH HERITAGE

LEFT *The likely route of the bluestones from Preseli using water transport*



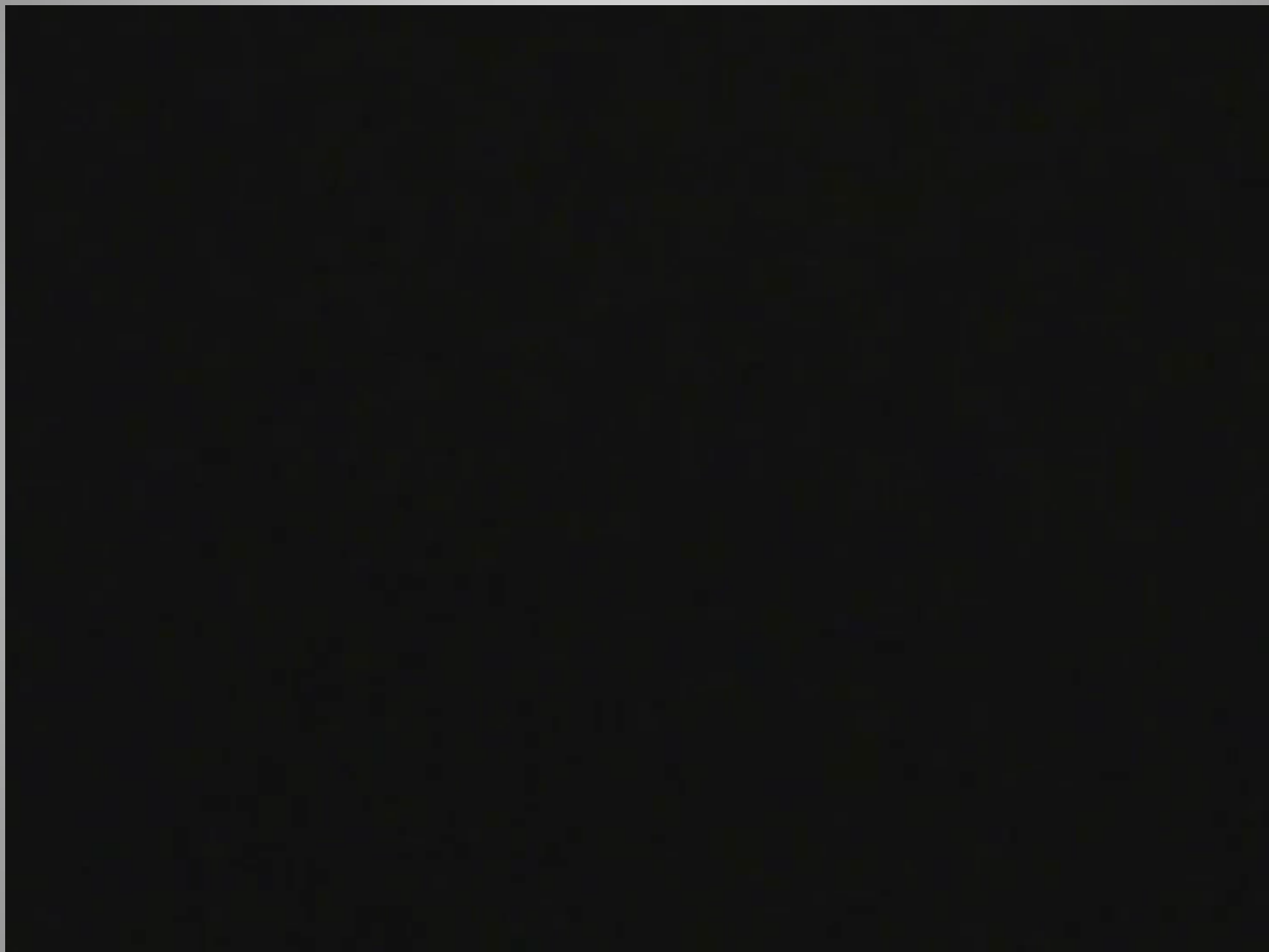
La nature seule a dressé ces pierres dans les monts Preseli, au pays de Galles, lieu d'origine des premiers monolithes de Stonehenge, les pierres bleues. Plusieurs légendes attribuent des pouvoirs de guérison aux sources des monts Preseli et certains chercheurs y voient la raison pour laquelle ces pierres ont été transportées sur 400 km, faisant de Stonehenge un centre de cure.

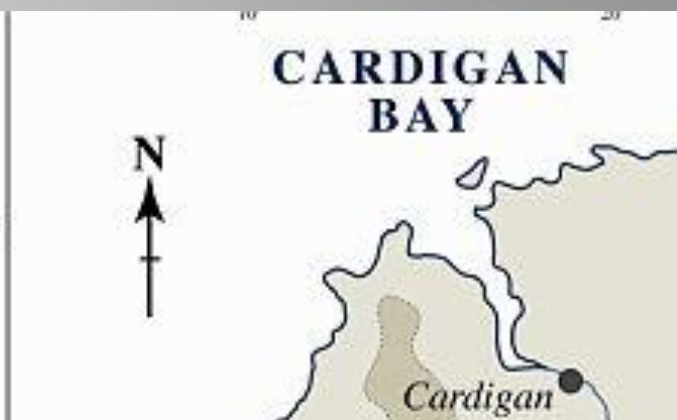
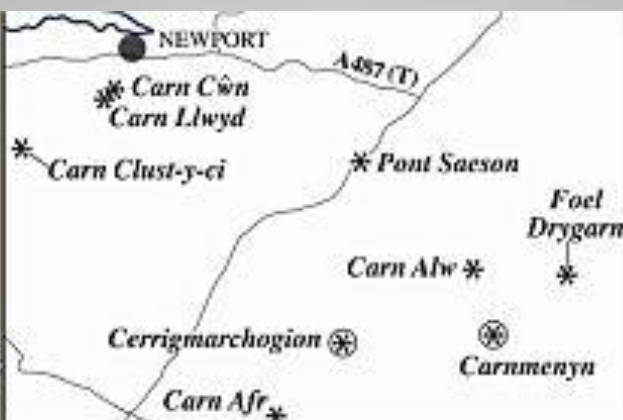
NEW HORIZON



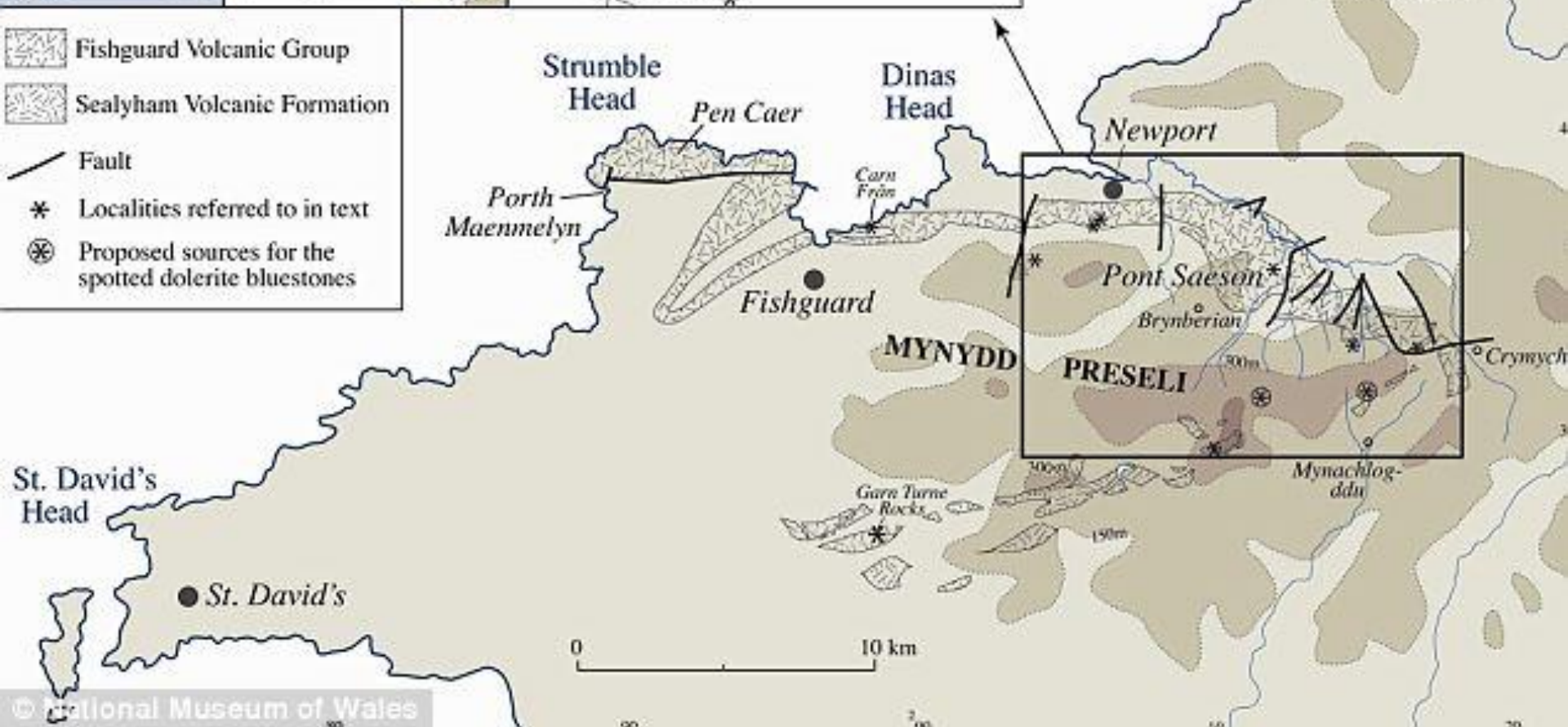
Ancient Britain 4c The Preseli Hills

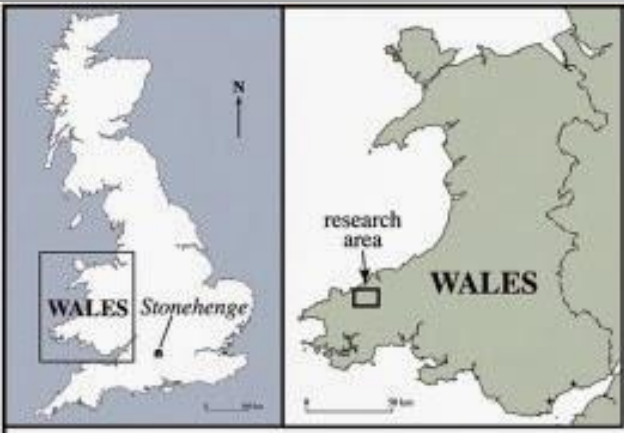
[youtu.be](#)







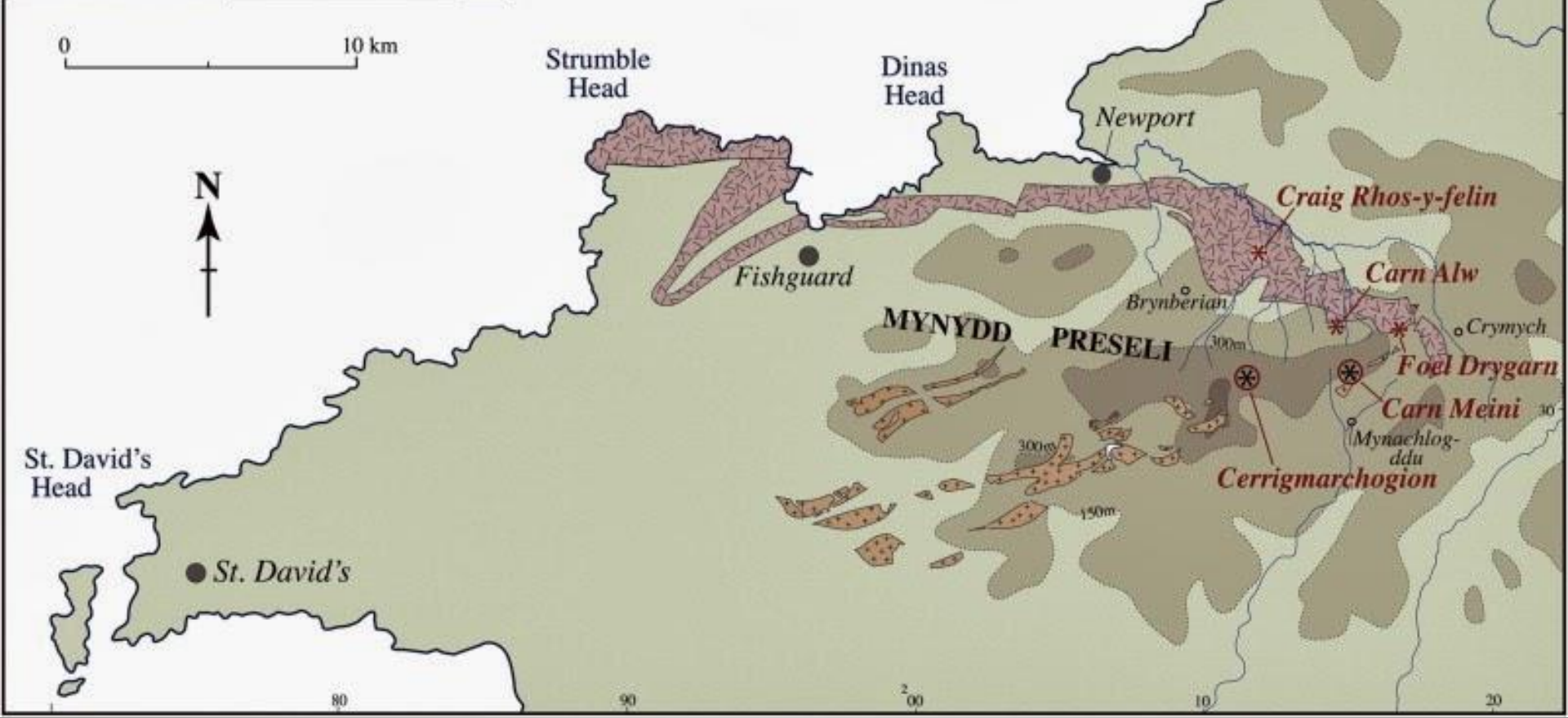


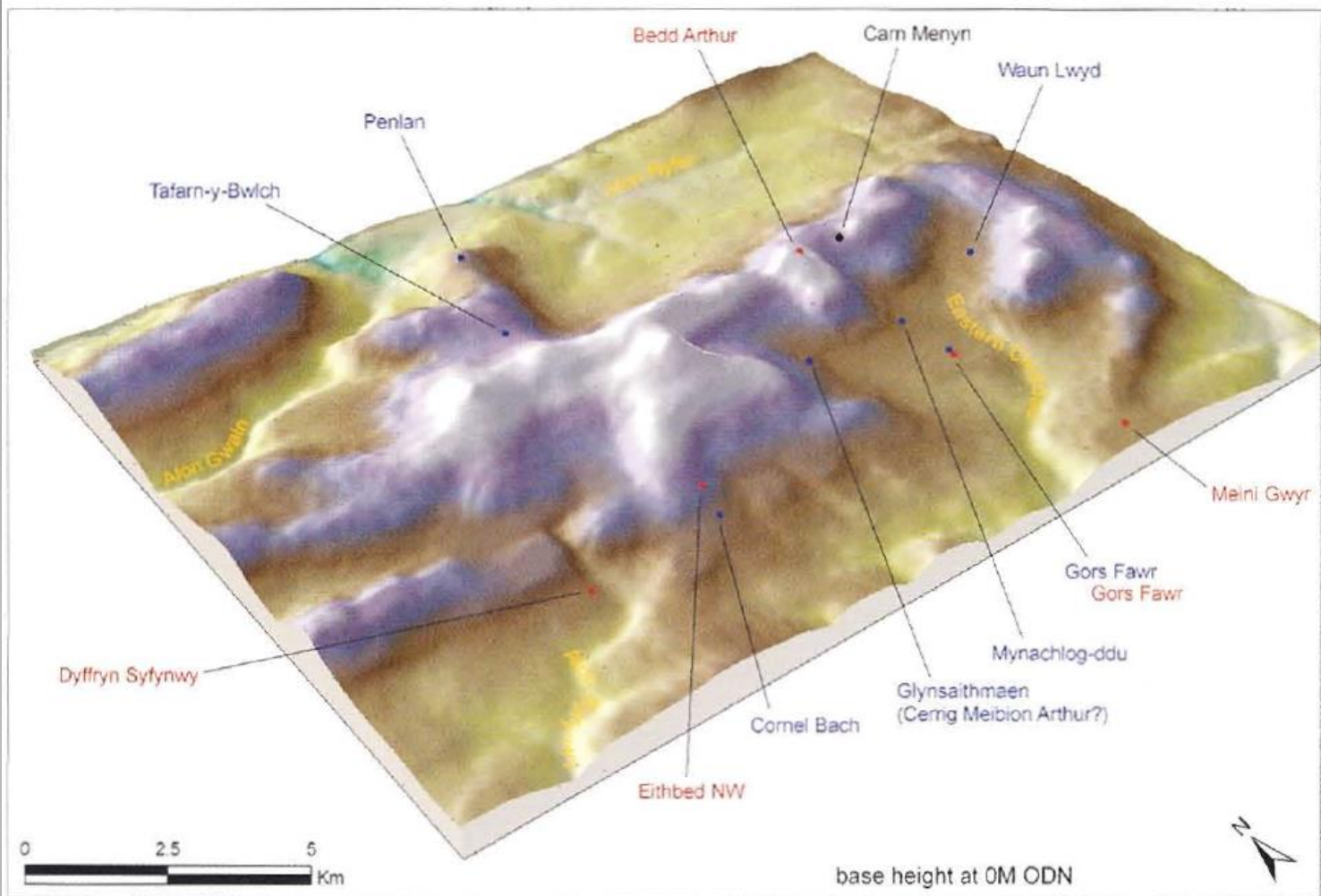
- Fishguard Volcanic Group
- Sealyham Volcanic Formation
- Fault
- Localities referred to in text
- Proposed sources for the spotted dolerite bluestones





-  Fishguard Volcanic Group
-  Sealyham Volcanic Formation
-  Localities referred to in text
-  Proposed sources for the spotted dolerite bluestones





ABOVE Oval stone circles are widely attested in the Preselis. This diagram shows their extant distribution. The central setting of bluestones at Stonehenge was also arranged in an oval.

on stones around the rim. Water from many of the springs is considered to have healing powers, and some were adopted as holy wells in recent times.

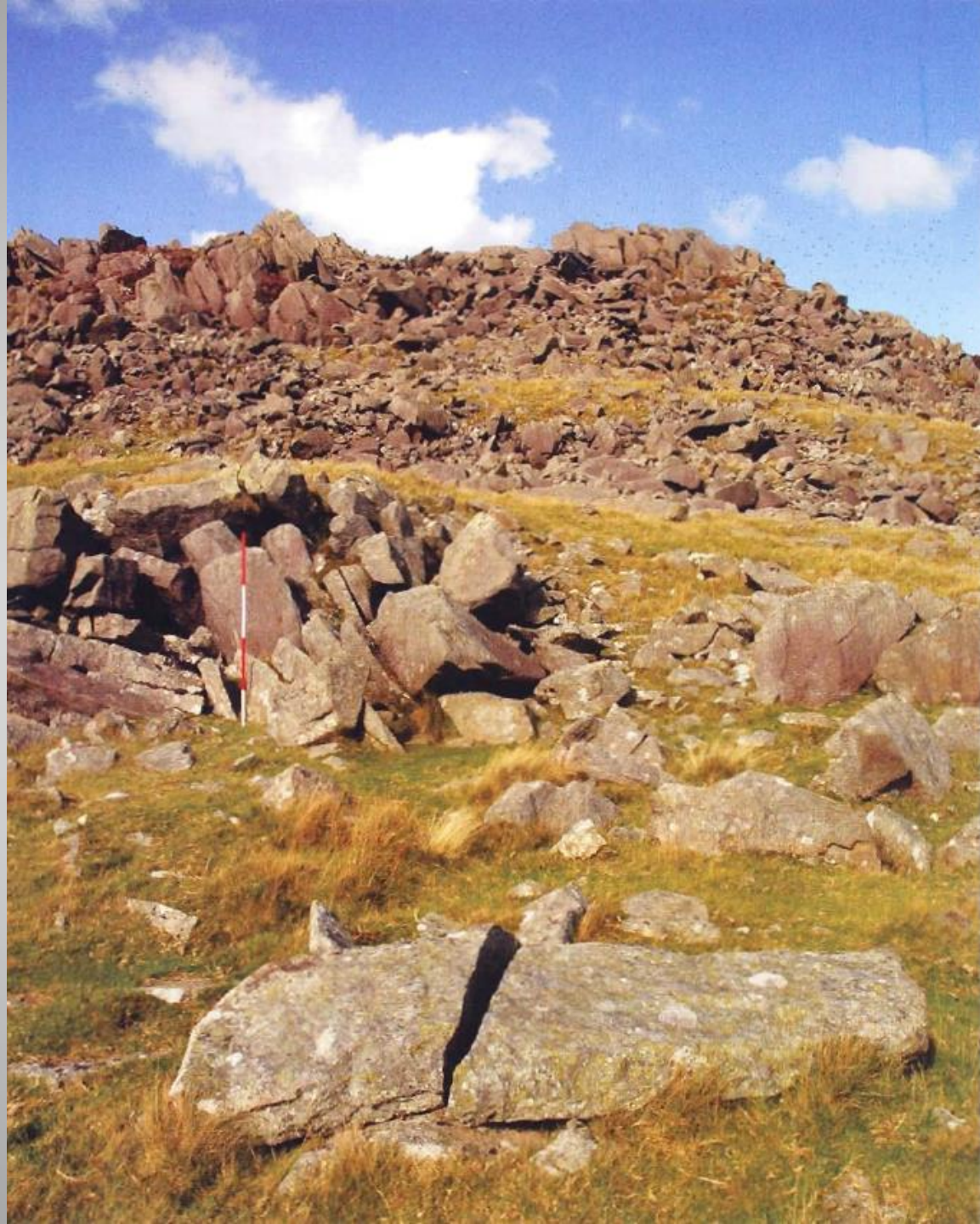
Springs are increasingly being recognised as important focal points in the Stonehenge landscape. Investigations by David Jacques at Blick Mead on the west side of Amesbury have

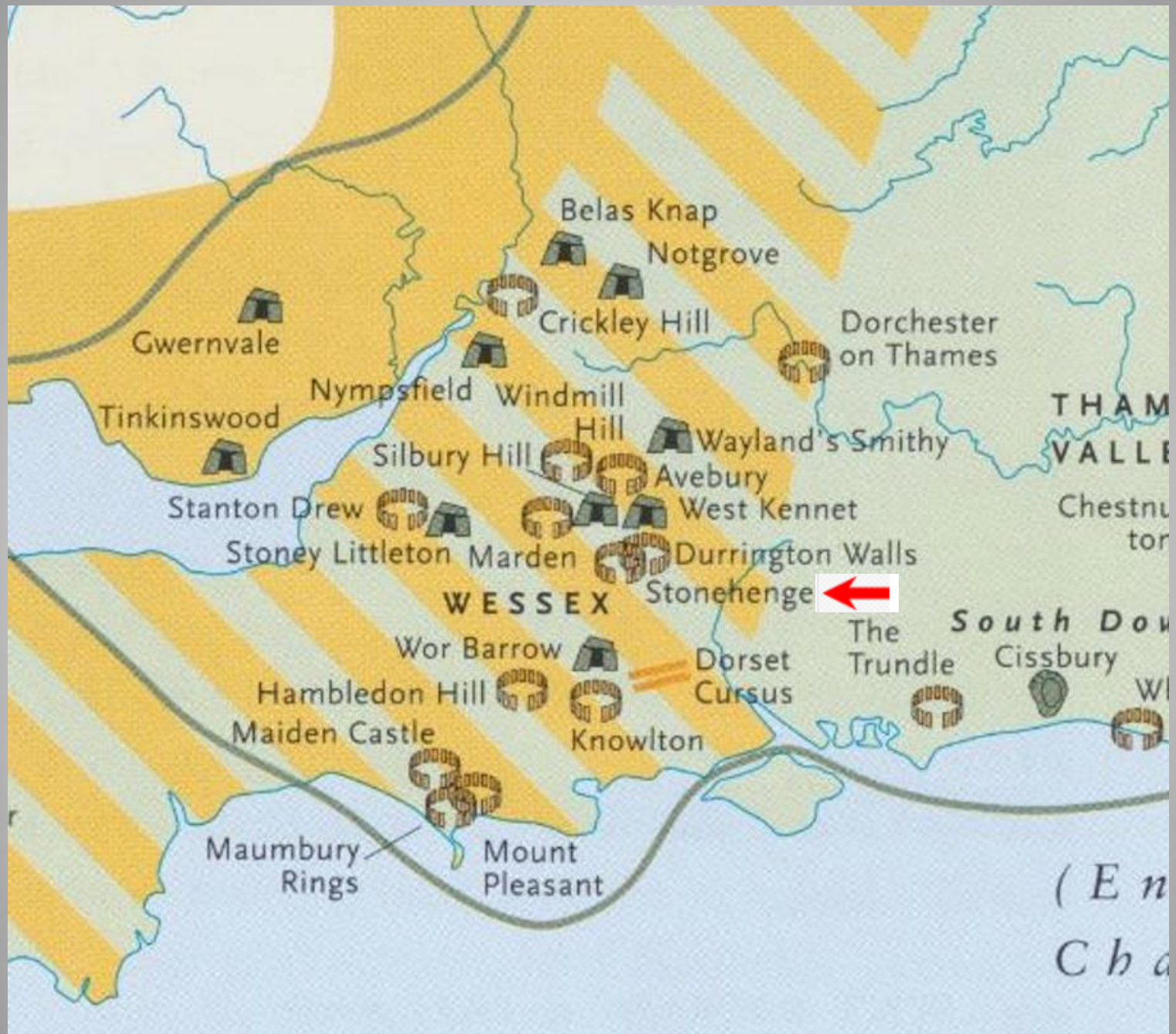












Bronze Age barrow monuments

These Bronze Age religious and funerary monuments consist of a hemispherical mound surrounded by a ditch (or series of concentric ditches) and are often accompanied by an external (or occasionally internal) bank.

Bowl Barrow



A mound surrounded by a ditch, which may or may not be accompanied by an external bank.

Bell Barrow



A barrow in which the mound and ditch are separated from each other by a narrow strip of land (berm) – the ditch may be accompanied by an external (or occasionally internal) bank.

Disc Barrow



A barrow featuring a small mound separated from a ditch of much greater diameter by a wide berm. The ditch may be accompanied by an external (or occasionally internal) bank.

Pond Barrow



A monument featuring an artificial circular shallow depression, which itself is surrounded by a bank that runs around the rim of the depression.

Saucer Barrow



A barrow featuring a low, wide mound, which in turn is surrounded by a ditch that could be accompanied by an external bank.



Ancient Britain 4d The walk out to Stonehenge

[youtu.be](#)



STAGES OF STONEHENGE

EARTHWORK ENCLOSURE

A circular ditch-and-bank monument some 375 feet across was cut into the chalk of Salisbury Plain about 3000 B.C. This earthwork is the "henge" in Stonehenge, though most Neolithic henges were built with the ditch inside the bank. Timber posts may have stood in some of the 56 circular pits that lined the bank's inner edge.

TIMBER MONUMENTS

A distinct new phase took shape in the middle to late Neolithic period. Timber posts were erected in linear patterns near the northeast entrance and across the center toward the southern entrance. Cremation remains lead archaeologists to believe the site was being used as a cemetery.

ENTER THE STONES

Bluestones

Circular or semicircular arrangements of stones probably appeared by 2500 B.C., the earliest being pairs of four-ton bluestones (their color when wet) now known to have been brought about 250 miles from Wales. Also added: features called Station Stones, the Altar Stone, and the Heel Stone just outside the northeast entrance.

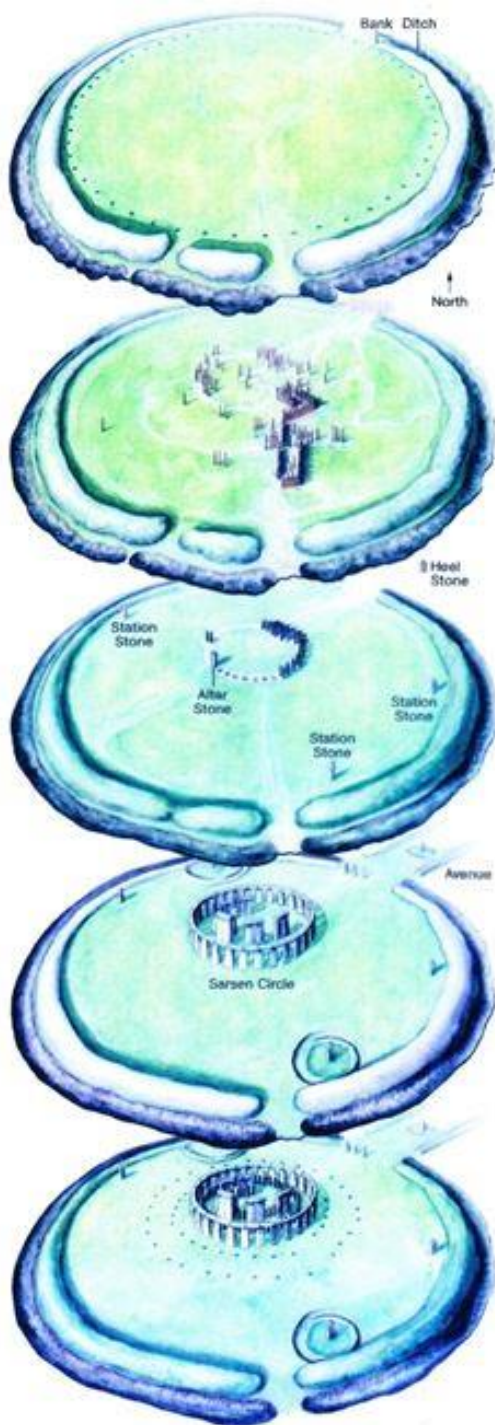
Sarsen Circle

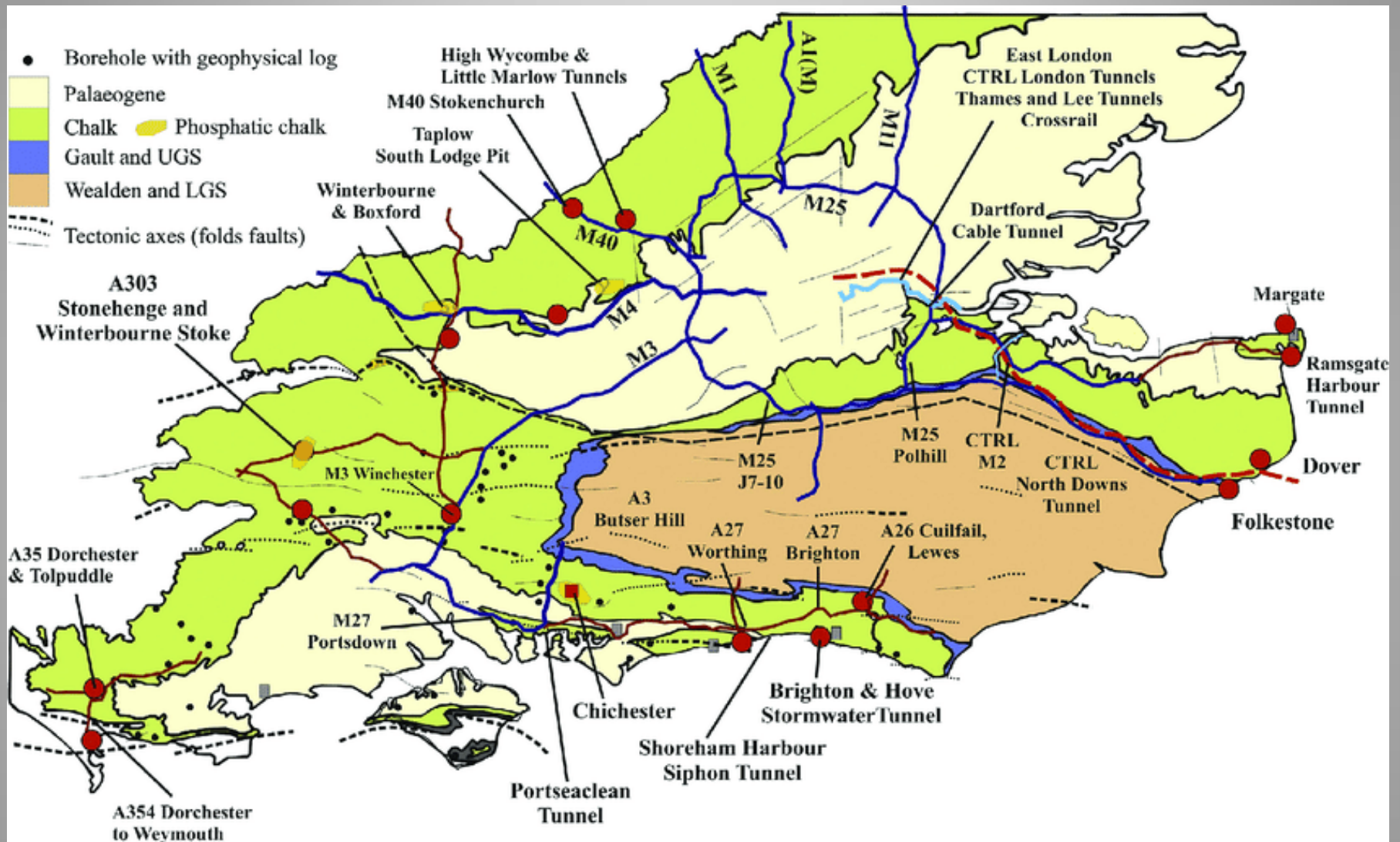
Stonehenge gained its iconic shape with the creation of the 16-foot-high Sarsen Circle—30 worked stones topped by lintels. In a horseshoe configuration inside the circle towered five freestanding trilithons, each formed of two upright stones linked by a lintel. The tallest reached 25 feet. The chalk bank was recut, small circular earthworks were added, and a banked avenue ran nearly two miles to the River Avon.

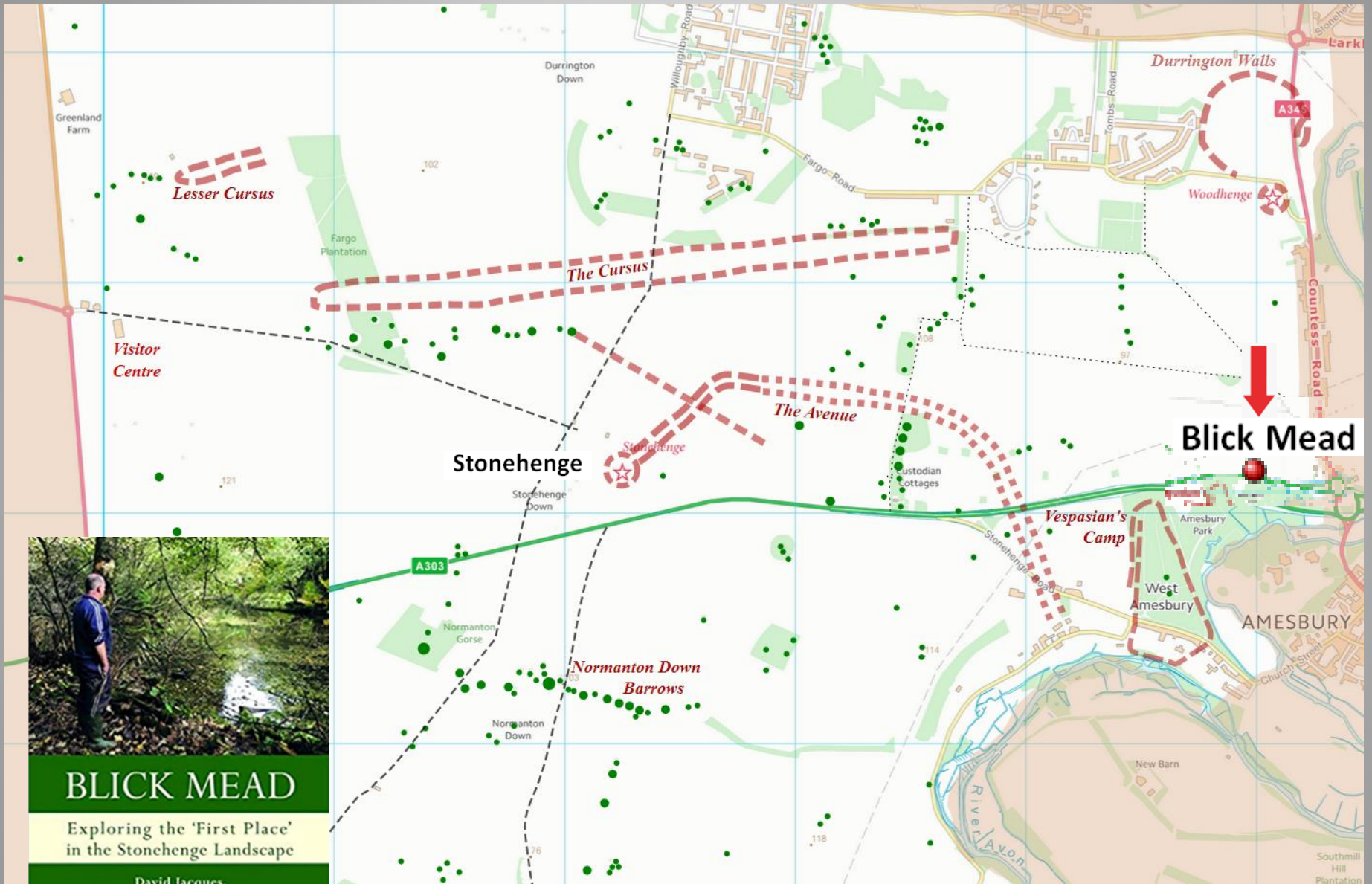
Later Refinements

Bluestones that had been cast aside were repositioned as a circle and a horseshoe within the Sarsen Circle, and a double ring of pits was dug. By about 1500 B.C. Stonehenge was no longer maintained.

ART BY OLIVER UBERTI, NO STAFF. SOURCES: MIKE PARKER PEARSON, UNIVERSITY OF SHEFFIELD; D. SCIENCE AND STONEHENGE, BARRY CLIMLITE AND COLIN RENFREW, EDS.







BLICK MEAD

Exploring the 'First Place'
in the Stonehenge Landscape

David Jacques,
Tom Phillips and Tom Lyons

Edited by David Jacques

PETER LANG



© PA

Carbon dating from an archaeological dig has found the parish of Amesbury in Wiltshire has been continually occupied for every millennia since 8,820BC - making it the oldest settlement in the UK. These pieces of flint were found at the site on Vespasian's Camp, Blick Mead - a mile-and-a-half from Stonehenge



Figure 2.3

Excavations across the Avenue, showing the periglacial features in the centre and the ditches on either side. The line of the Avenue can be seen running away to the north-east

What we found was a series of deep, narrow channels in the chalk, running along the centre of the Avenue, parallel with its solstice axis. Expecting these features to be artificial – surely only something man-made could have such an alignment – we were amazed to discover that the channels in the chalk bedrock were, in fact, naturally formed in a previous Ice Age as periglacial fissures that were filled with fine chalk-derived sediment many thousands of years before any human hunters arrived here.

During excavations by the Stonehenge Riverside Project in the mid-2000s, a series of features were discovered at the top of the Avenue which have been identified as "periglacial stripes". These cracks and runnels in the underlying chalk where water has repeatedly frozen and thawed happen to run exactly along the main solstice alignment down the slope to the northeast beyond the Heel Stone.



The SRP team suggest that these features would have been visible as parallel lines in the grass leading towards the Heel Stone. They go on to suggest that since the Heel Stone is unshaped, it may always have been lying in the landscape very close to where it has been set upright.

They conclude that a series of noticeable stripes in the grass leading up a slope towards a massive rock exactly in the direction of the winter solstice sunset may be the reason why this spot was regarded as a special place, worthy of memorialising.