Andover Museum &
Museum of the Iron Age

Museums Archives

THE IRON AGE

~ the period from about 700 BC until the Roman Conquest of AD 43 ~ was a time of great social change.

It saw, among many other developments, the emergence of the

hillfort.

What you will see in this museum is based on the evidence revealed by twenty seasons of excavation at one such site –

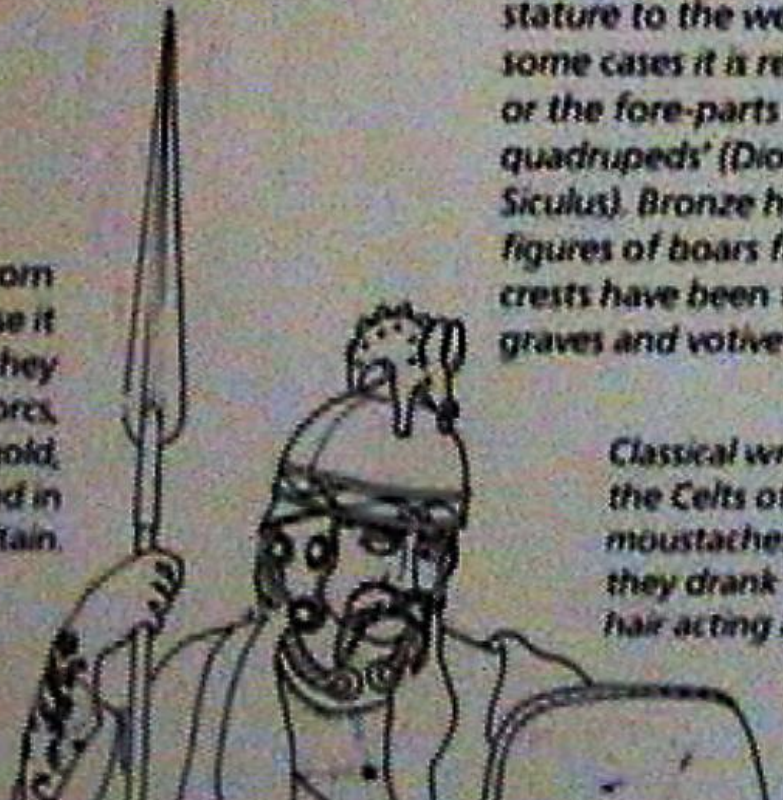
Danebury Ring

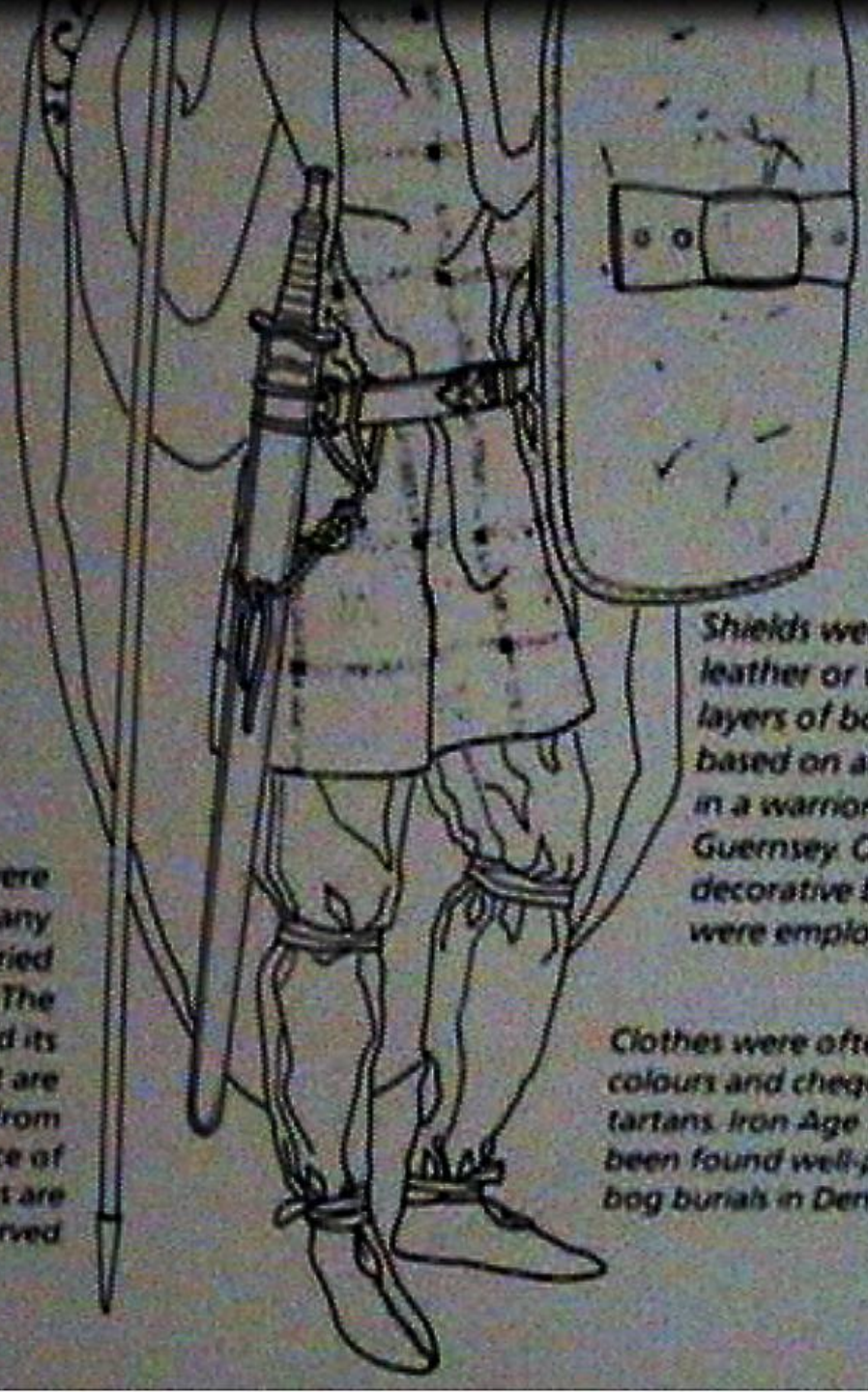
Our reconstructed Celtic warrior is based on archaeological evidence and descriptions left by contemporary classical writers.

'On their heads they wear bronze helmets which possess large projecting figures lending the appearance of enormous stature to the wearer . . . in some cases it is relief figures or the fore-parts of birds or quadrupeds' (Diodorus Siculus). Bronze helmets and figures of boars from their crests have been found in graves and votive deposits.

Torcs were usually worn around the neck because it was believed that they averted danger. Many torcs, sometimes made of gold, have been found in Eastern Britain.

Classical writers record that the Celts often grew moustaches through which they drank their beer, the hair acting as a strainer!

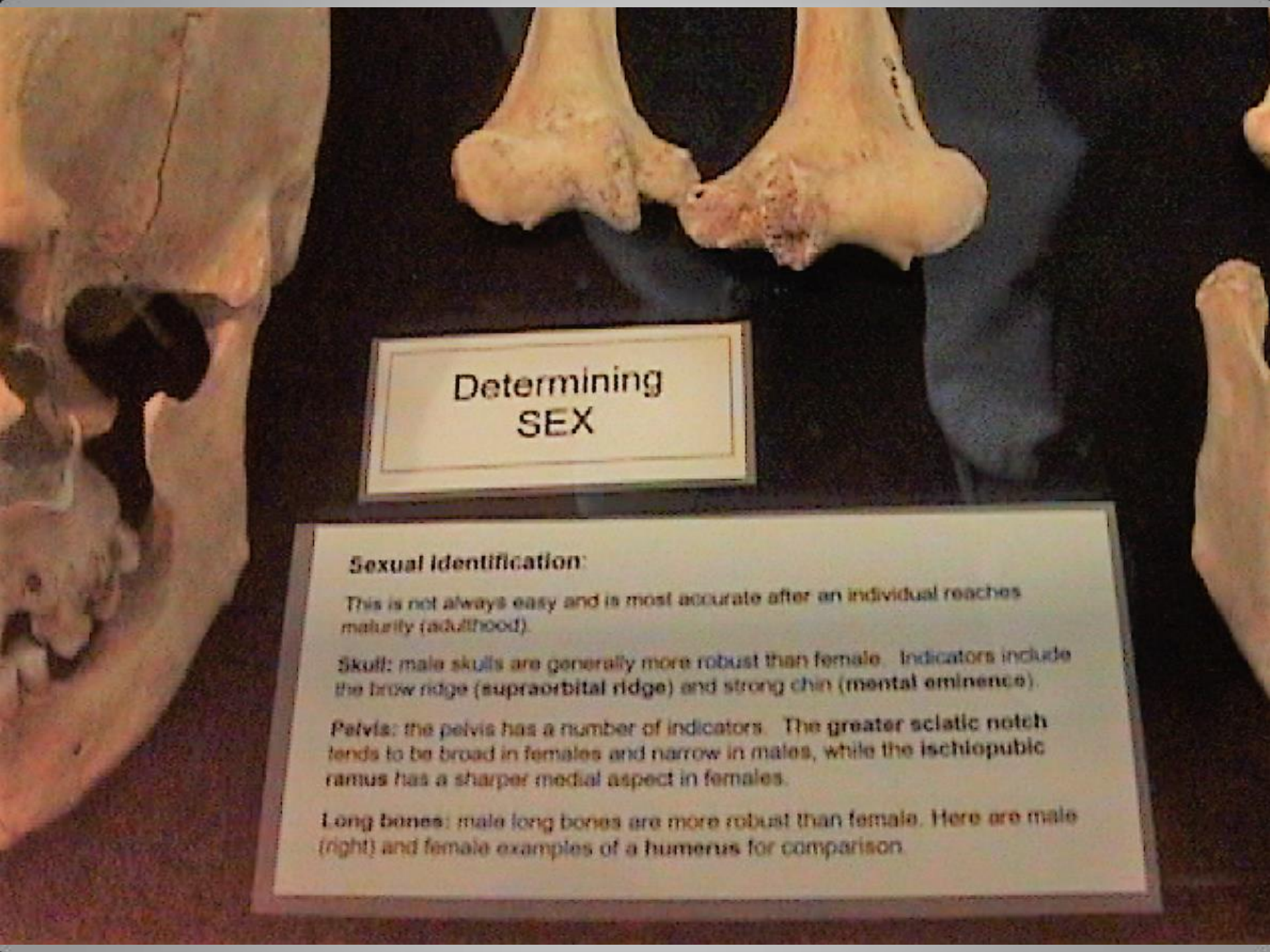


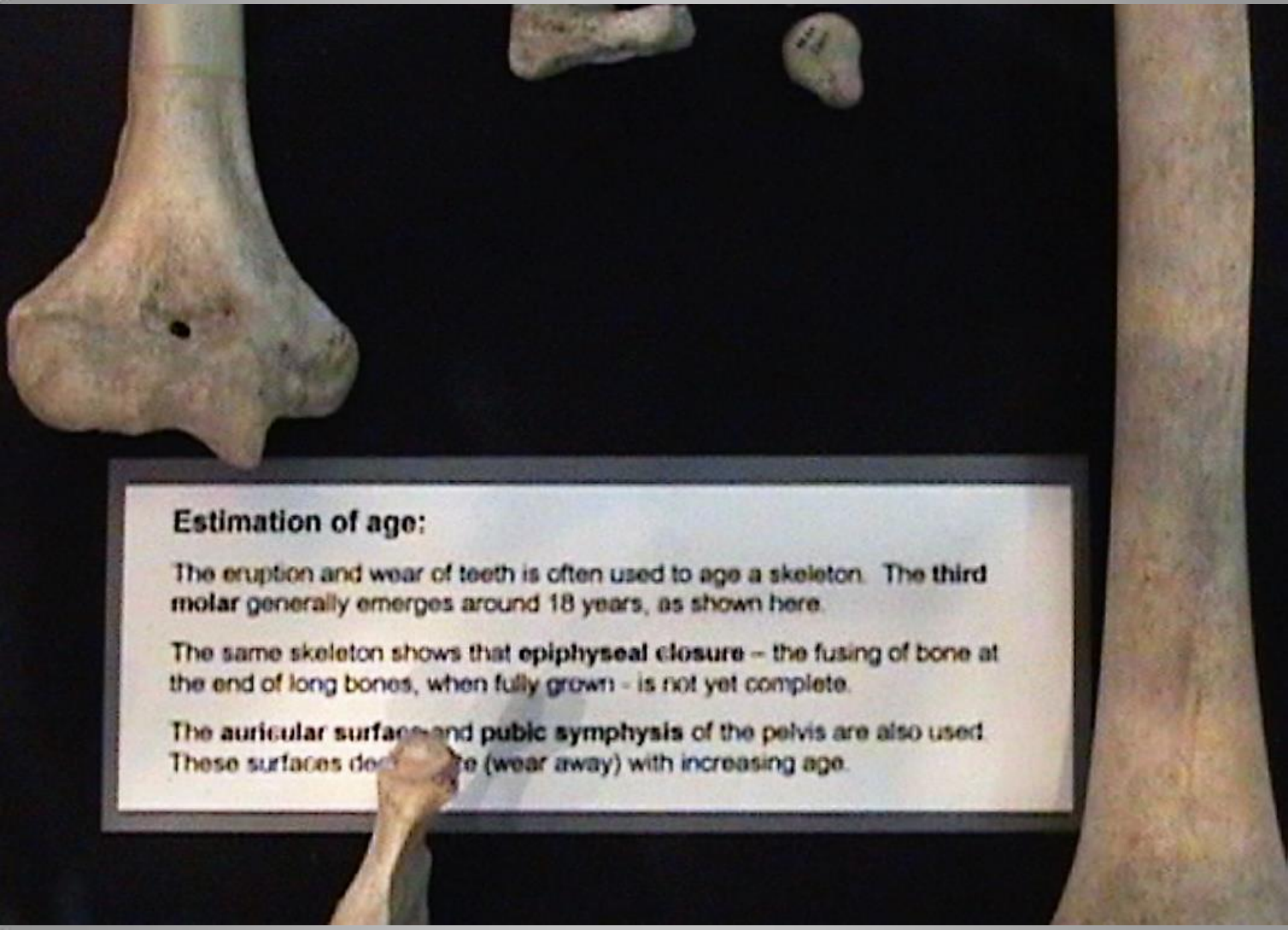


Shields were usually of leather or wood, sometimes layers of both, as in this case, based on an example found in a warrior's grave on Guernsey. Occasionally decorative bronze facings were employed.

Clothes were often of bright colours and chequered like tartans. Iron Age fabrics have been found well-preserved in bog burials in Denmark.

The usual weapons were swords and spears. Many Celtic warriors were buried with their weapons. The details of the sword and its method of attachment are based on an example from Guernsey, where evidence of the leather thongs are well preserved


Determining
SEX
Sexual identification:
This is not always easy and is most accurate after an individual reaches maturity (adulthood).
Skull: male skulls are generally more robust than female. Indicators include the brow ridge (supraorbital ridge) and strong chin (mental eminence).
Pelvis: the pelvis has a number of indicators. The greater sciatic notch tends to be broad in females and narrow in males, while the ischiopubic ramus has a sharper medial aspect in females.
Long bones: male long bones are more robust than female. Here are male (right) and female examples of a humerus for comparison.


Estimation of age:
The eruption and wear of teeth is often used to age a skeleton. The third molar generally emerges around 18 years, as shown here.
The same skeleton shows that epiphyseal closure – the fusing of bone at the end of long bones, when fully grown - is not yet complete.
The auricular surface and pubic symphysis of the pelvis are also used.
These surfaces de e (wear away) with increasing age.

Measuring STATURE

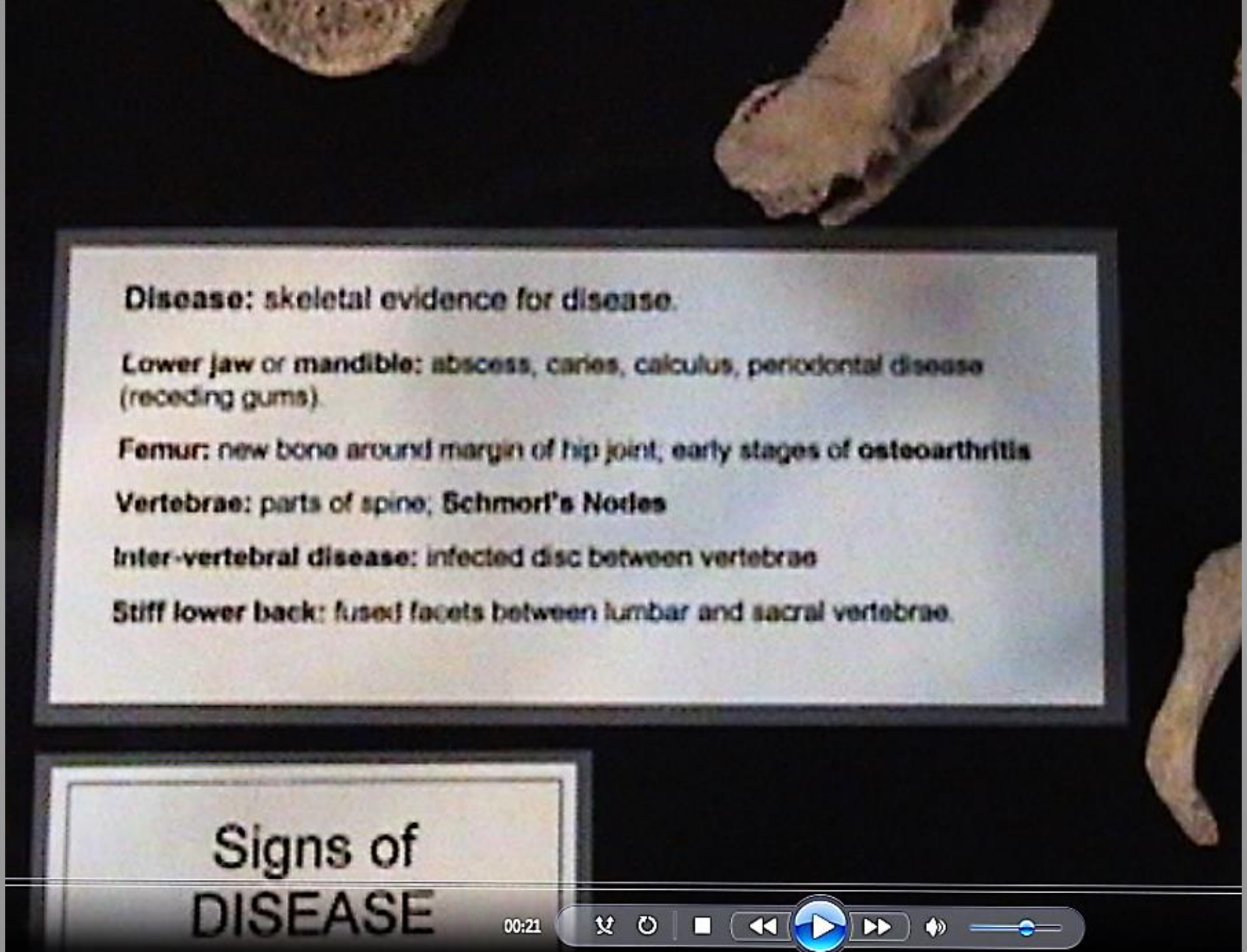
Estimation of stature:

A formula based on long bones can be used to work out height.
For a **femur** (thigh bone) the sum is

(male) **2.38 x femur length + 61.41 (plus or minus 3.27 cm)**

(female) **2.47 x femur length + 54.10 (plus or minus 3.72 cm)**

It's not an exact result – with a plus or minus figure at the end


Disease: skeletal evidence for disease.
Lower jaw or mandible: abscess, caries, calculus, periodontal disease (receding gums).
Femur: new bone around margin of hip joint, early stages of osteoarthritis
Vertebrae: parts of spine; Schmorl's Nodes
Inter-vertebral disease: infected disc between vertebrae
Stiff lower back: fused facets between lumbar and sacral vertebrae.
Signs of DISEASE
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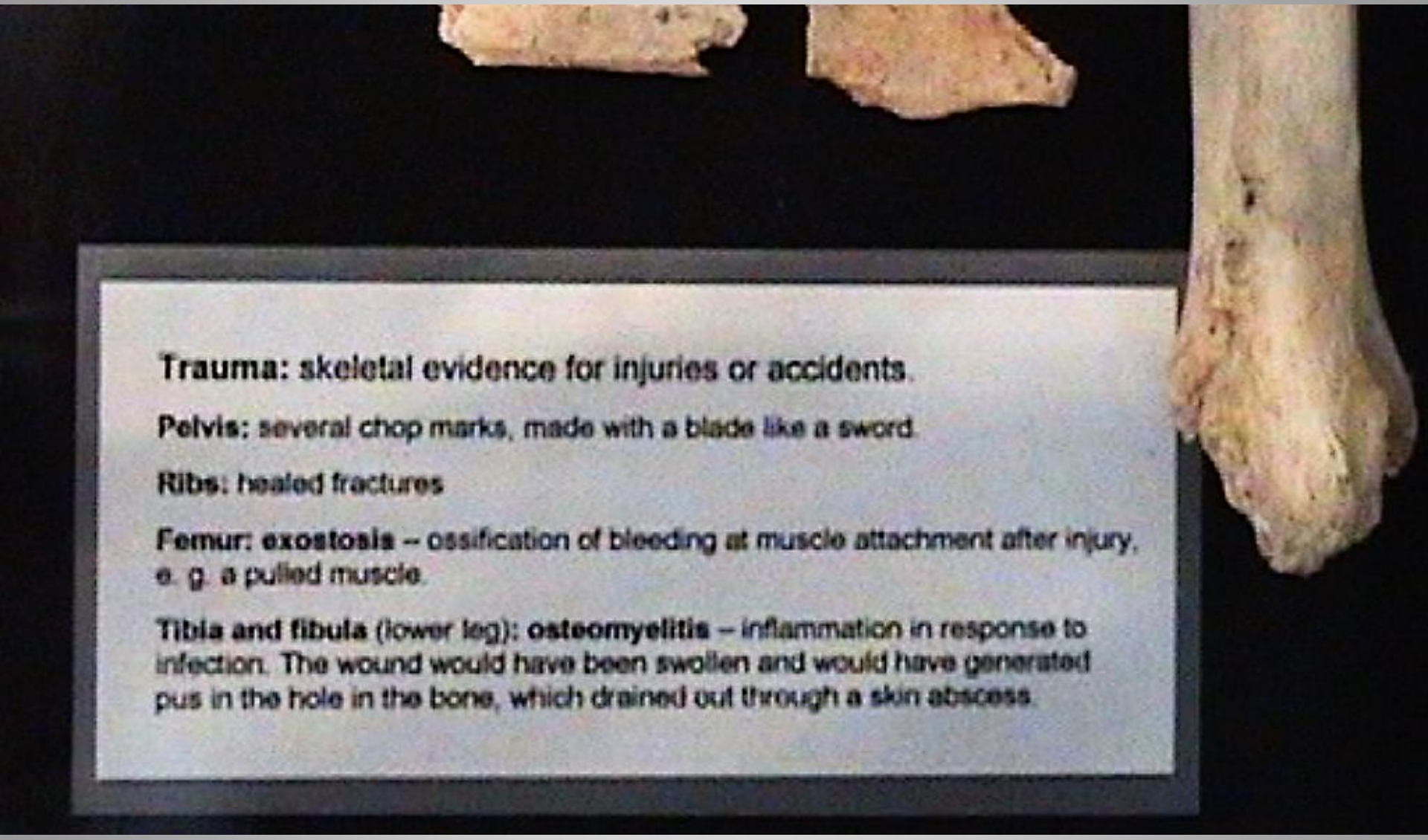
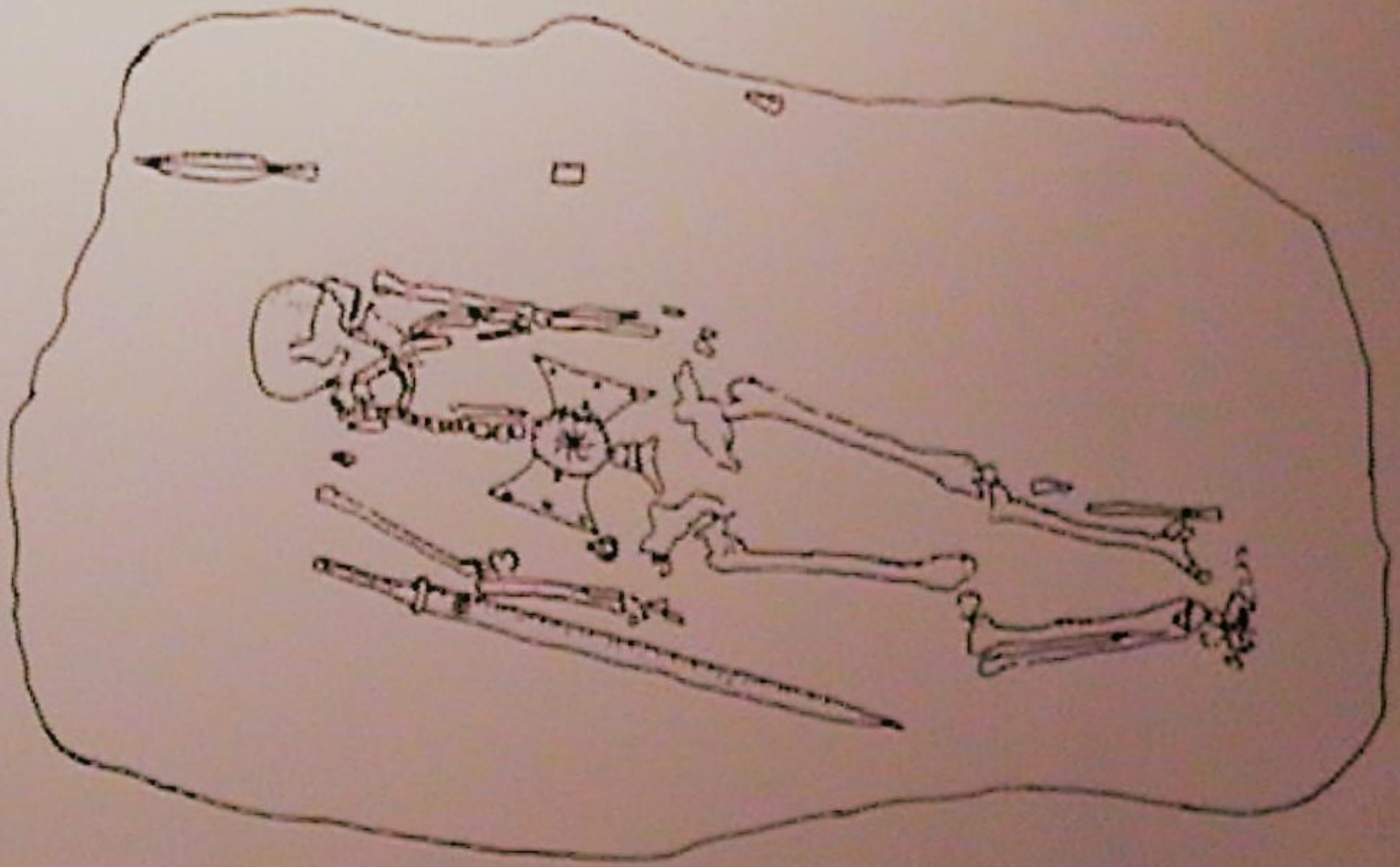

Trauma: skeletal evidence for injuries or accidents.
Pelvis: several chop marks, made with a blade like a sword.
Ribs: healed fractures
Femur: exostosis – ossification of bleeding at muscle attachment after injury, e. g. a pulled muscle.
Tibia and fibula (lower leg): osteomyelitis – inflammation in response to infection. The wound would have been swollen and would have generated pus in the hole in the bone, which drained out through a skin abscess.

WEAPONS OF WAR



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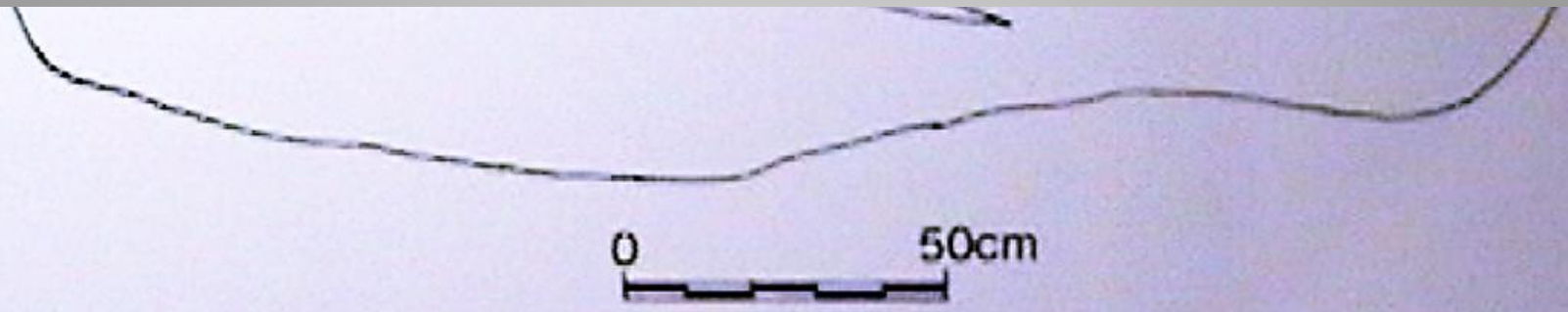

Warrior
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The warrior burial found at Owslebury, near Winchester, gives an impression of what a typical Iron Age warrior would carry in battle. By his side lay his sword and spear, while across his body lay his shield of wood or leather with its large central bronze boss protecting the hand grip.

The weapons found at Danebury are mainly spears but a few fragments of swords and their sheaths have been recovered together with bronze bindings which may have come from the edges of shields made in leather or wood.

The most common weapon used in the defence of the fort was the sling. Sling stones were found in great number, particularly near the entrance where one ammunition dump of 11,000 sling stones was uncovered. The entrance fortifications were carefully constructed so that the two gates were always in sight and in range of the defenders. In the centre was the 'command post'. From here every part of the complex defensive earthworks could be protected by the expert slingers. The entire approach to the gate was within their range.

Diagram to
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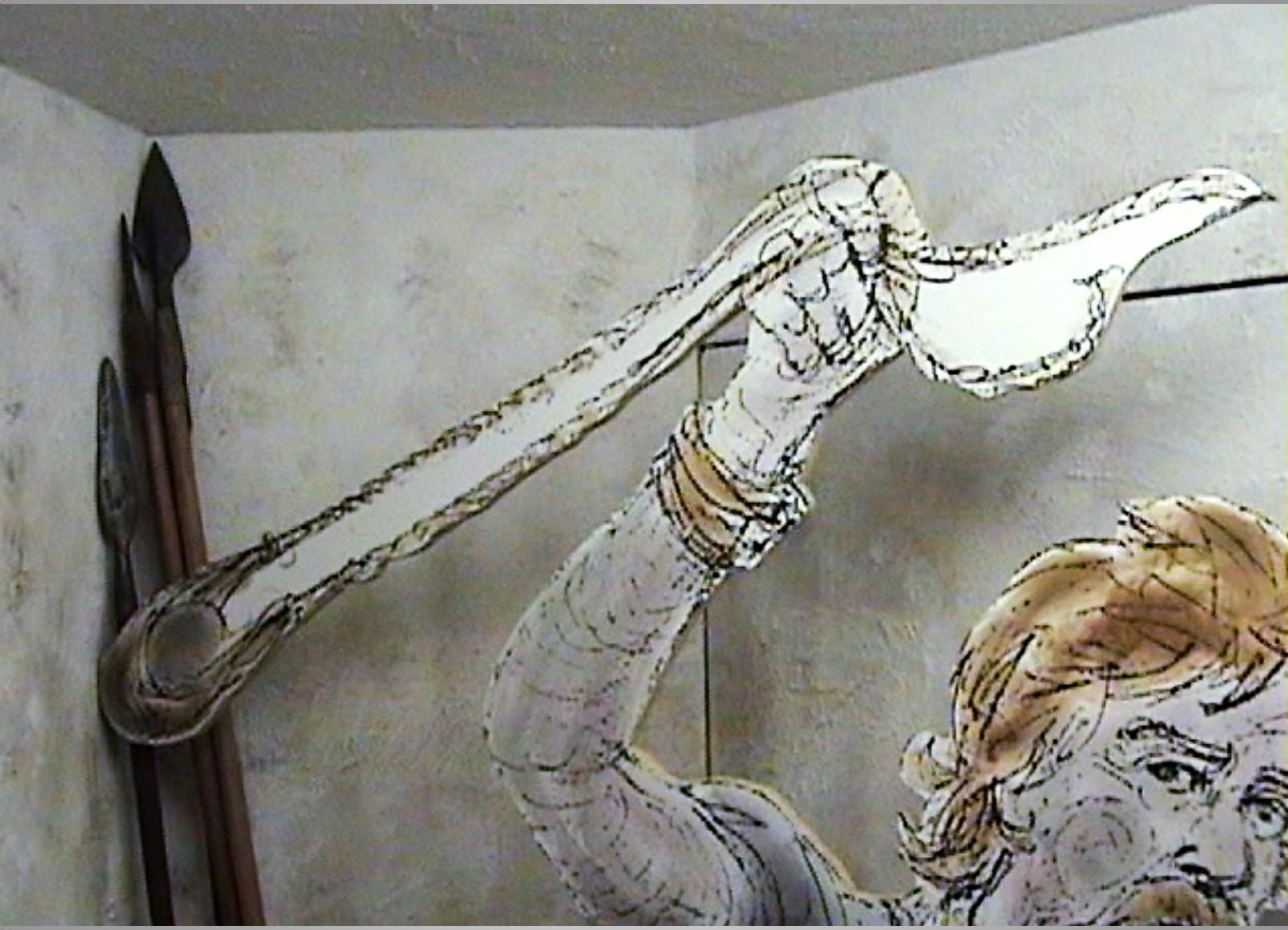
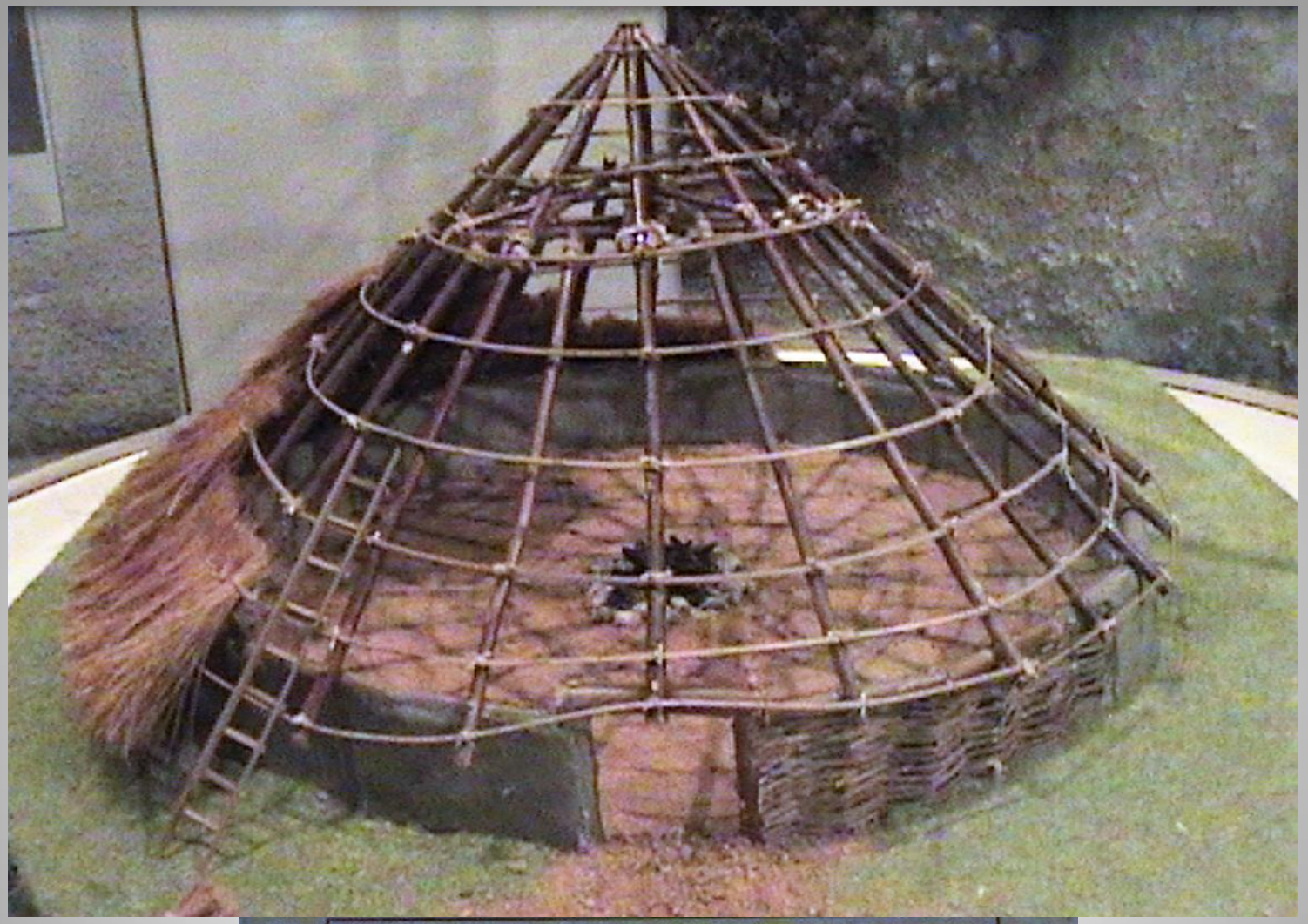


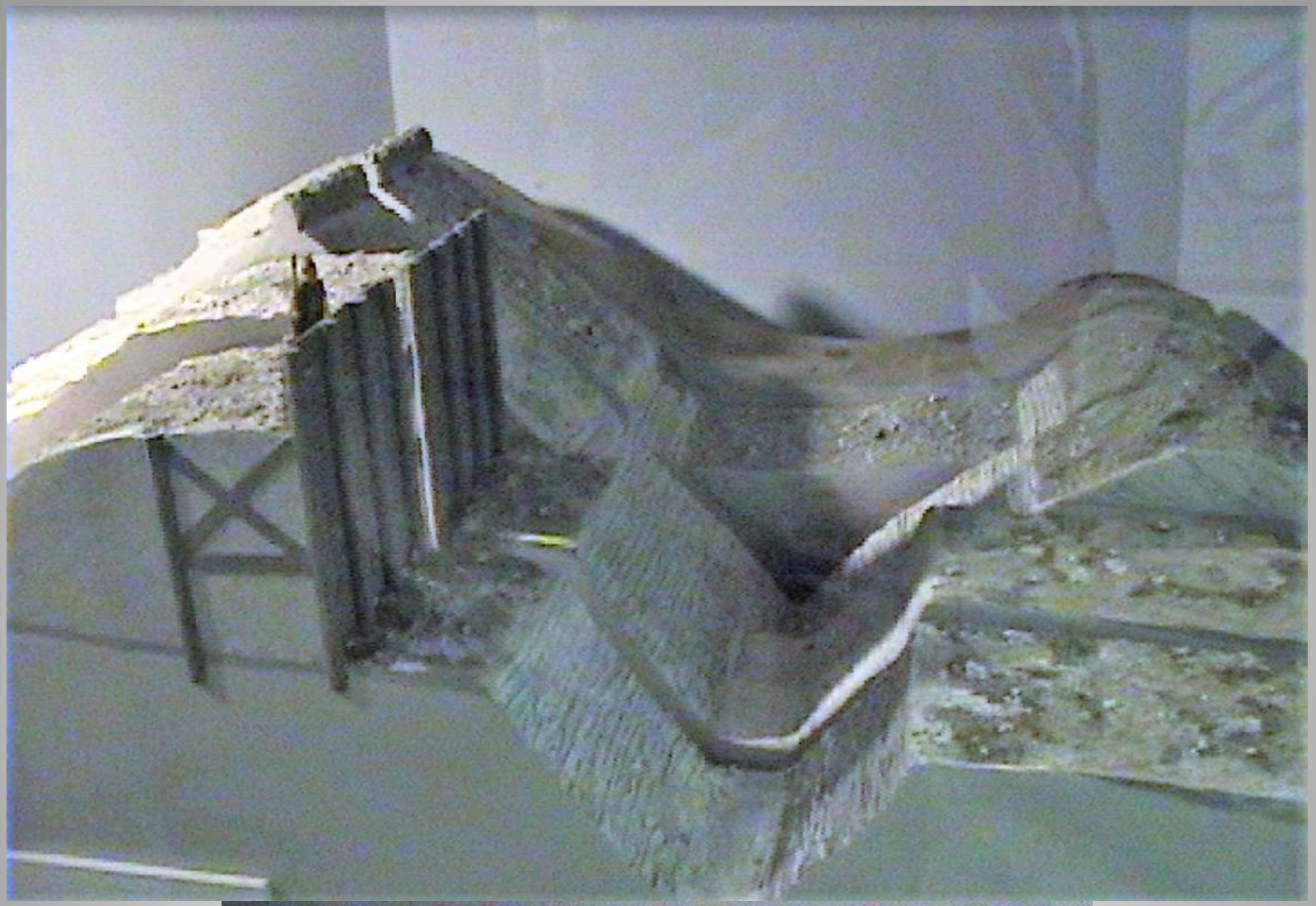


A Roundhouse under **construction**

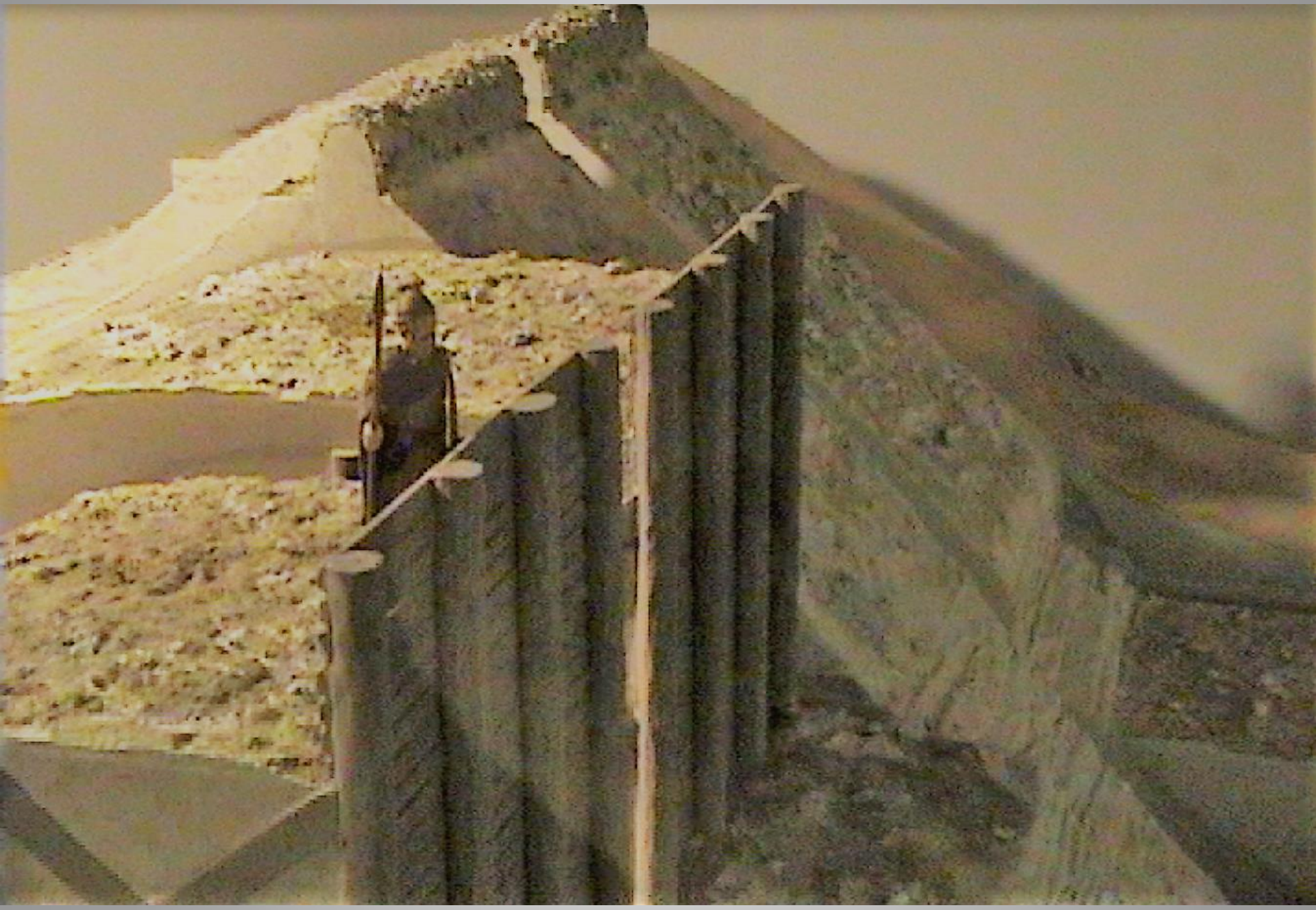
Based on a Chieftains Roundhouse at Castell Henllys

Made by David Cousens
A project for an Archaeological Illustration Degree

Built to Scale - 3cm to 1 m.

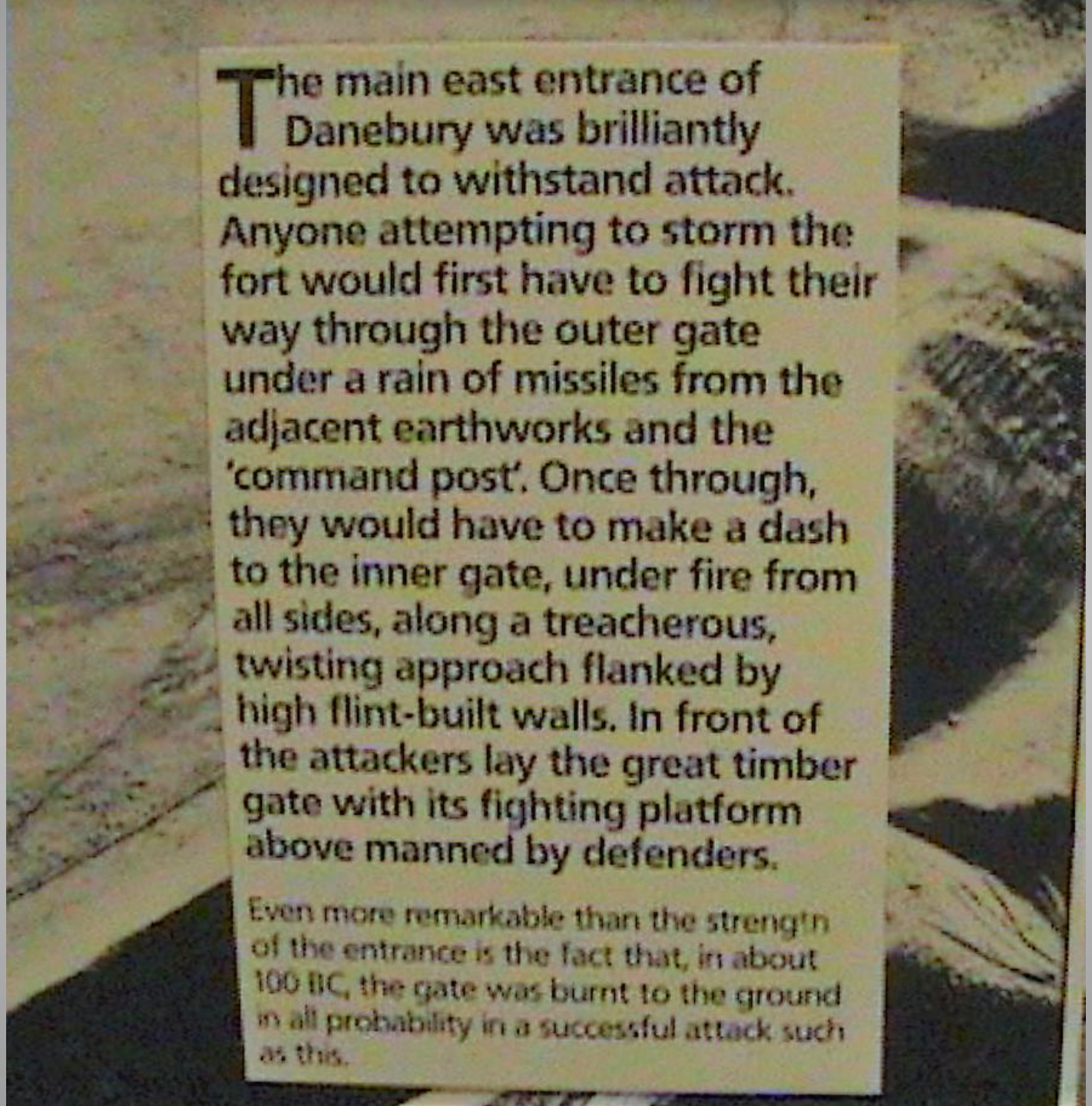


The model shows the successive changes to the defences. Many hillforts in Wessex experienced a similar development, the most significant change occurring about 400 BC when the vertical wall of timber was finally abandoned for a steeply sloping glacis, easy to maintain and defend, but treacherous to attack.



UNDER ATTACK

The main east entrance of Danebury was brilliantly designed to withstand attack. Anyone attempting to storm the fort would first have to fight their way through the outer gate under a rain of missiles from the adjacent earthworks and the



The main east entrance of Danebury was brilliantly designed to withstand attack. Anyone attempting to storm the fort would first have to fight their way through the outer gate under a rain of missiles from the adjacent earthworks and the 'command post'. Once through, they would have to make a dash to the inner gate, under fire from all sides, along a treacherous, twisting approach flanked by high flint-built walls. In front of the attackers lay the great timber gate with its fighting platform above manned by defenders.

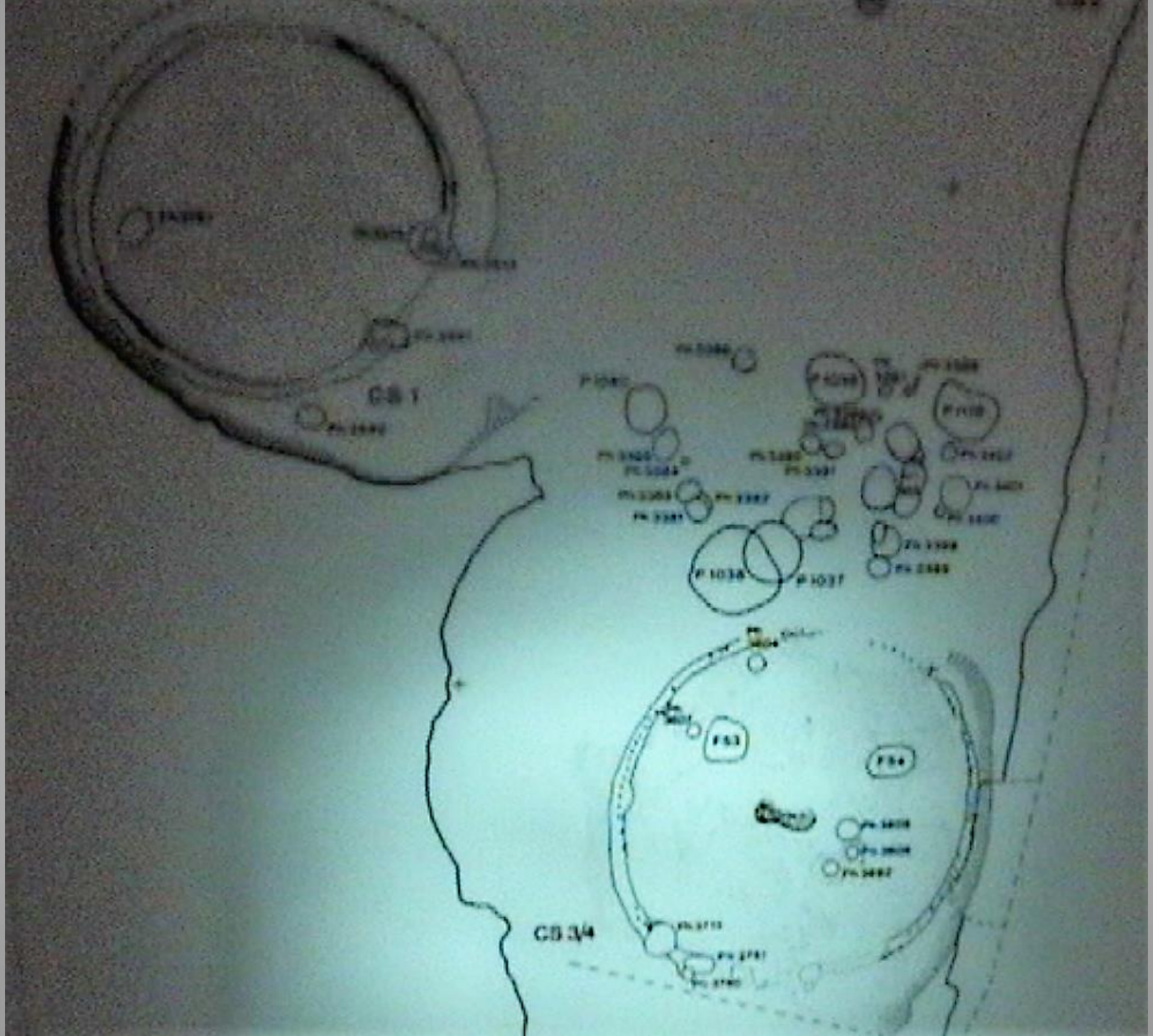
Even more remarkable than the strength of the entrance is the fact that, in about 100 BC, the gate was burnt to the ground in all probability in a successful attack such as this.

THE COMMUNITY WITHIN

Inside the protection of the defences lived a large community. Exact estimates of population are impossible, but numbers probably lay between 300 and 500 at any one time.

The interior was organized into separate areas for different activities. A main road ran through the fort from one gate to the other, and, even after the west gate was blocked about 400 BC, the road continued to be used. There were several subsidiary roads or tracks south of this main road.

Circular houses clustered inside the perimeter of the fort close to the rampart.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CB 3/4

ROUND HOUSES

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rank were gathered togeth
status of various members
were reaffirmed. Classical
vivid accounts of what wer

Most Iron Age houses were circular. In areas where stone was to hand the walls were often stone-built but over much of Southern Britain houses were entirely of timber.

The only evidence of timber buildings to survive (except in rare waterlogged conditions) are the floors and the holes where the doorposts and wall-timbers were set in the ground.

Pottery

Pottery was in use at Danebury throughout the Iron Age. Some vessels were traded from the Salisbury region, and a few from further afield - eg Glastonbury and Meare, Somerset, but the majority was locally made.

Detailed study of the tens of thousands of sherds found during the excavations, has revealed **nine ceramic phases**, with numerous slow changes of form and fabric over the centuries.

The assemblage can be divided into **four main types of vessel** - jars, bowls, dishes and the straight-sided 'saucepan pots'. All show considerable variation in size and surface treatment.

DAILY BREAD

Although a range of farmyard animals was kept in the Iron Age and feasting on meat is often referred to in contemporary writings about the Celts, the bulk of everyday diet was based on cereals – wheat and barley.

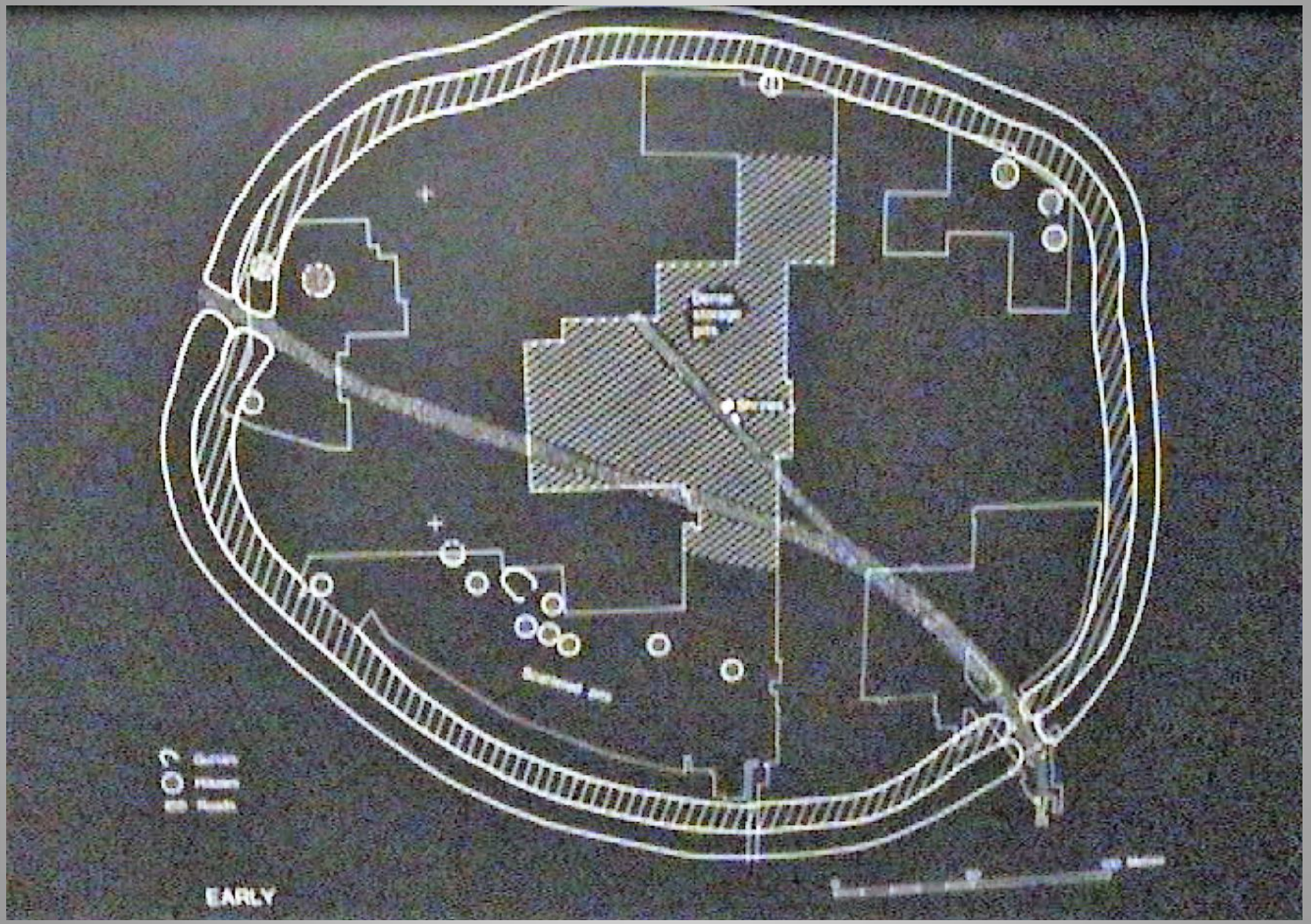
Grain was stored in pits and in timber-built granaries. Every day a quantity would have been ground to flour on hand mills (querns) similar to the one displayed here. Many of these have been found in the excavation.

Bread was baked in permanent clay-built ovens either inside the houses or, as in this case, in the working areas outside. These thick-walled ovens retained their heat and were very efficient for cooking a variety of food.

THE FIRST SETTLEMENT

Danebury was occupied intensively for almost 500 years from about 550 BC to sometime after 100 BC, and during that time there were many changes.

In the early phase (550-400) two gates were in use with the main road running between them. Houses clustered behind the ramparts and also in a group in the southern part of the fort. Small four-post granaries were dotted about and much of the centre of the fort was devoted to grain-storage in pits.


EARLY

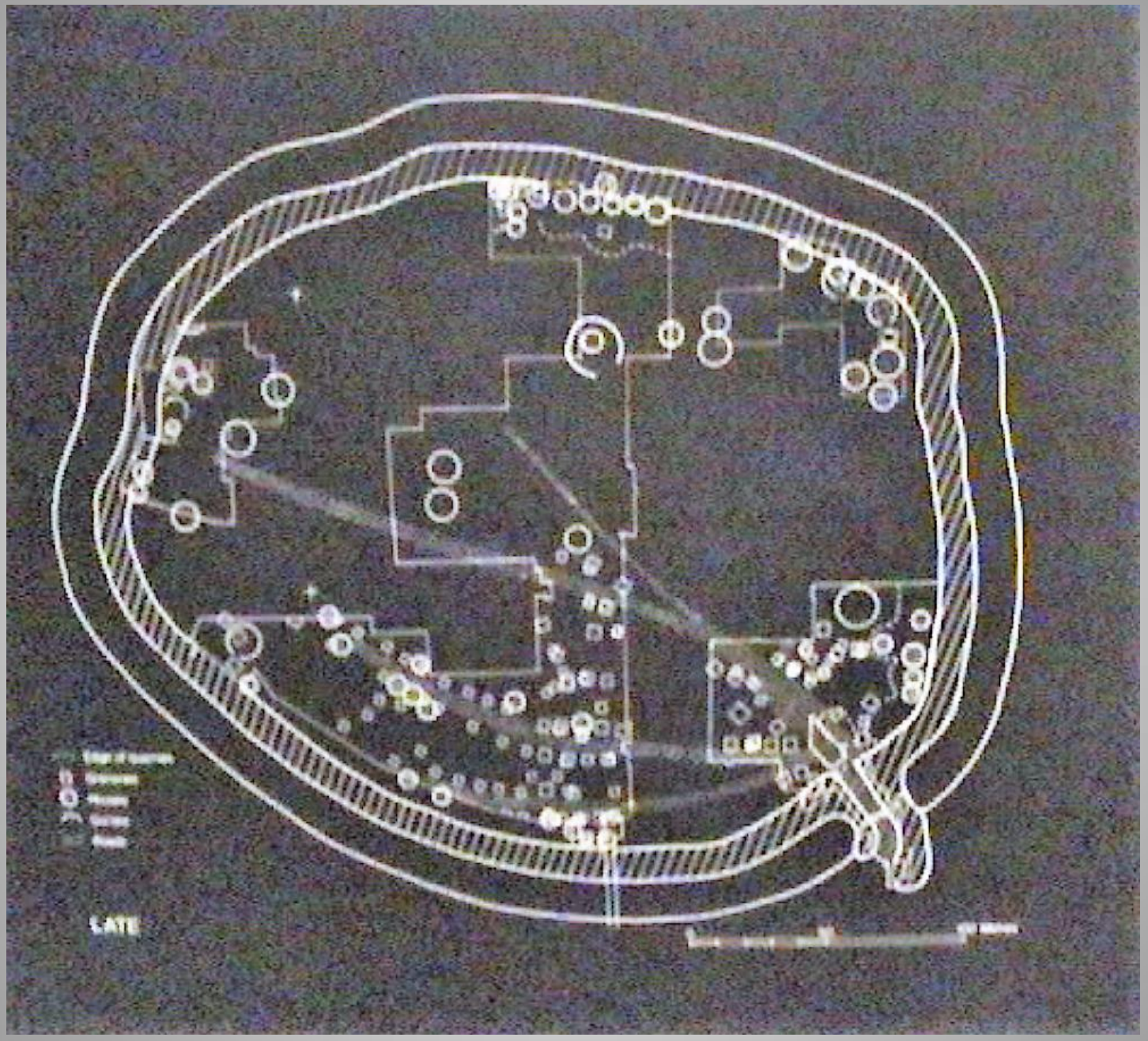
THE DEVELOPED SETTLEMENT

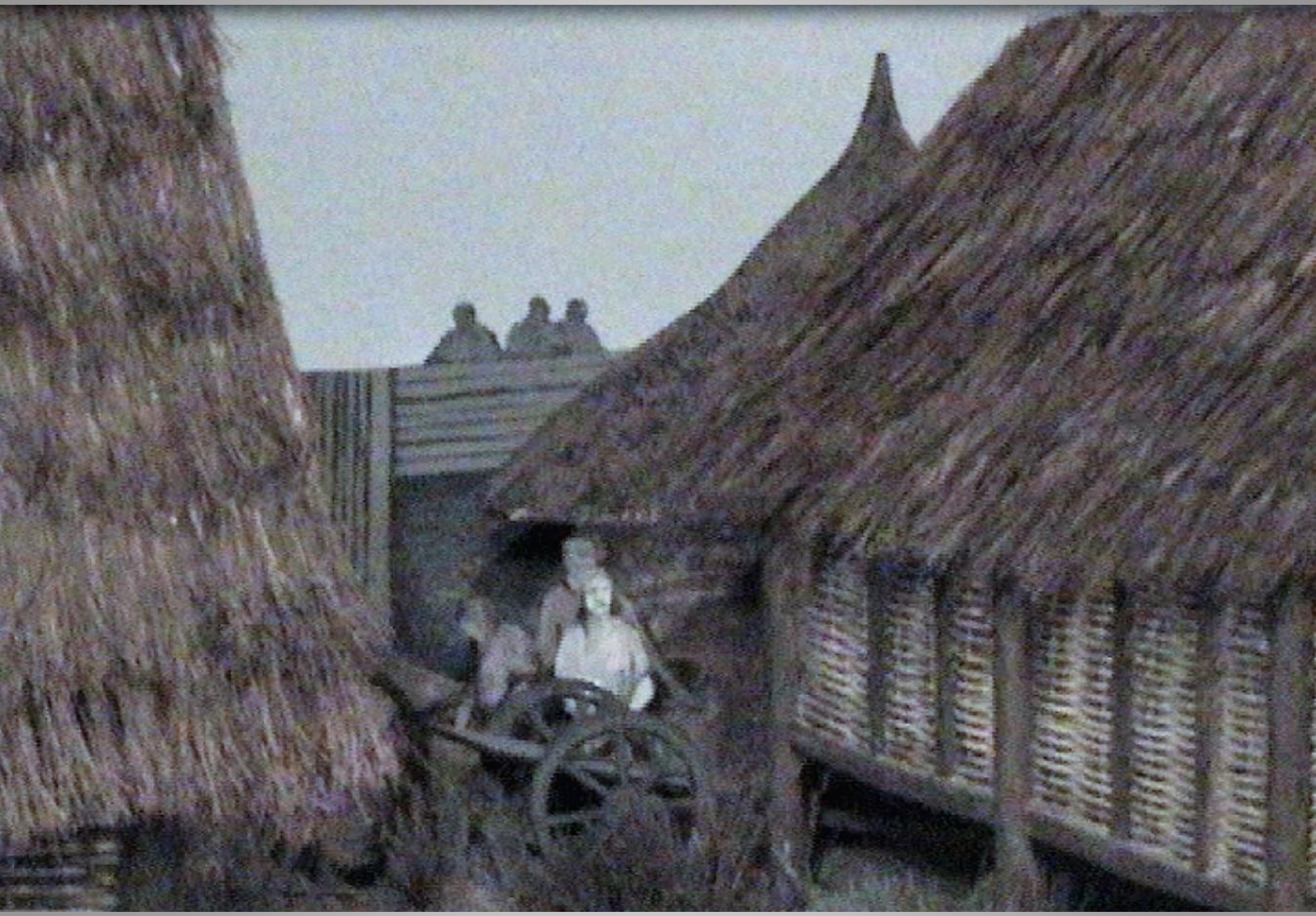
About 400 BC a major reorganization took place. Defences were greatly strengthened and the west gate blocked altogether. The only way in now was the east gate which grew gradually more elaborate as time passed.

Outside the main fortifications, subsidiary enclosures were built to provide corral space for animals.

Inside the fort, a system of gravelled roads was established and maintained over several centuries. Houses continued to cluster in the lee of the rampart, but others were built closer towards the central area.

Much of the southern part of the fort was given over to rows of massive rectangular granaries based on settings of four or six posts. Large grain pits were also found scattered about the fort. The general scene in the southern area about 200 BC must have been very like that in the diorama.


LATE



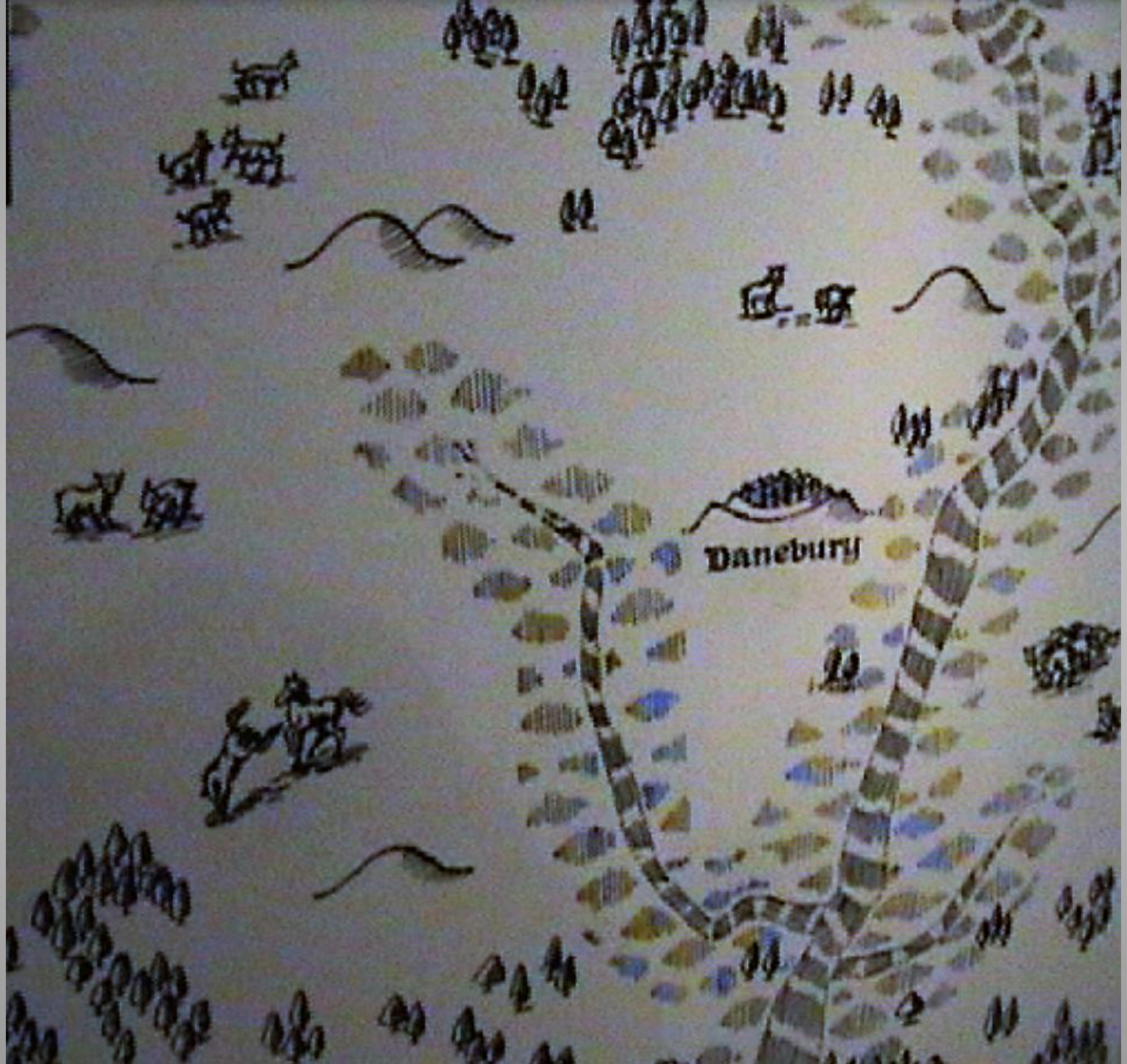
NATURAL RESOURCES

Iron Age communities were largely self-supporting: they produced their own food and gathered their own raw materials from the neighbourhood.

The Danebury region was well supplied with natural resources. Wood grew in plenty on the dense clay lands to the south, on the clay-capped hills and on the steep hill-slopes. Clay for potting, for daubing walls and making ovens was easily obtainable from within a few kilometres of the site. Reeds for thatching grew in the

their valleys. And the farm animals could also be made to yield a range of valuable raw materials: meat, leather, bones and horns. Only metals and the stone for querns had to be imported from any distance.

No spring issues on or close to the hill. The nearest water supply is now the Wallop Brook, some 2 km to the south-east. It is, however, possible that the Danebury valley, now dry, which runs close to Danebury may have contained springs in the Iron Age. Equally, the occupants may have been skilled at collecting and storing rainwater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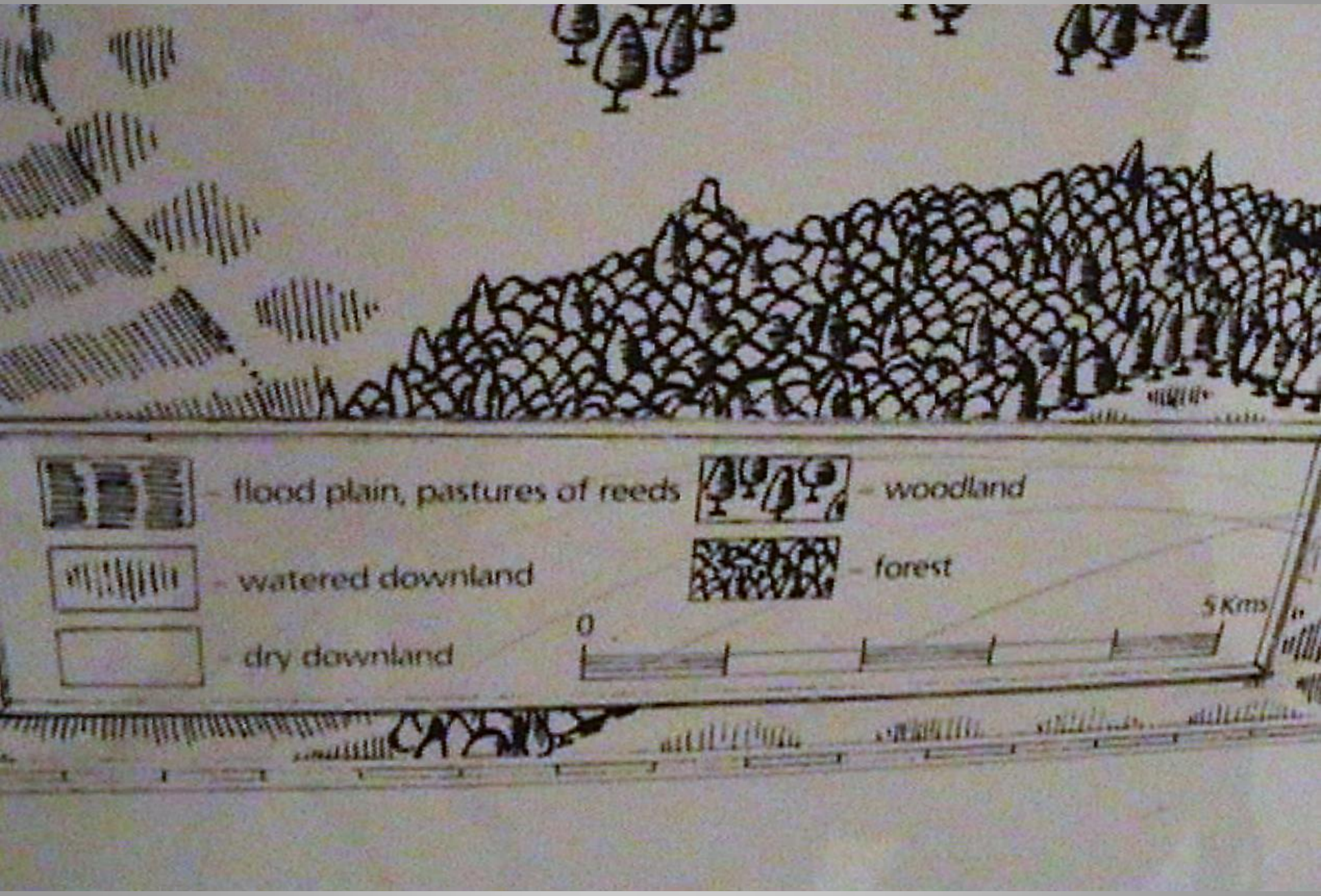
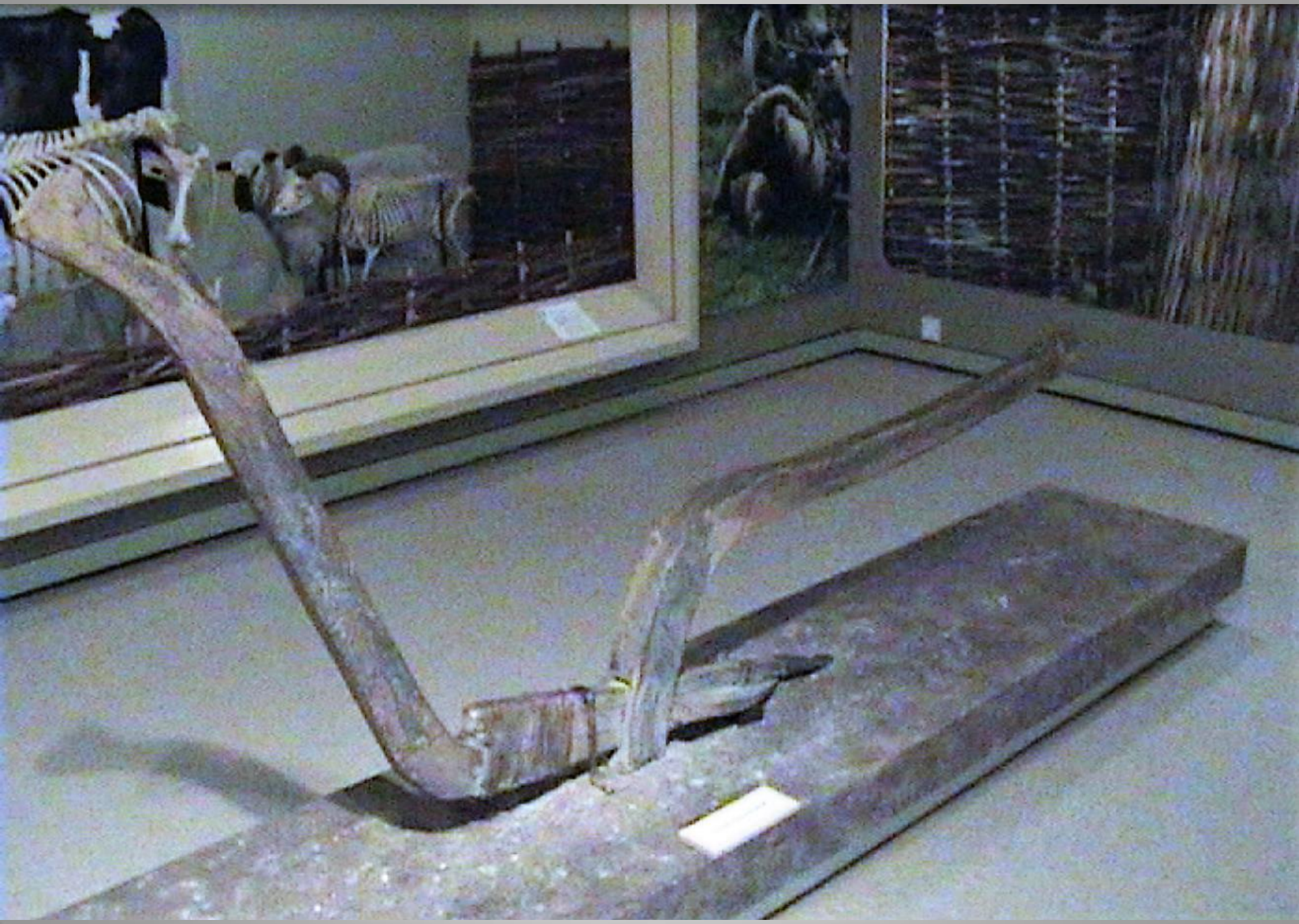

- flood plain, pastures of reeds
- watered downland
- dry downland
- woodland
- forest
0
5 Kms



SOWING AND REAPING

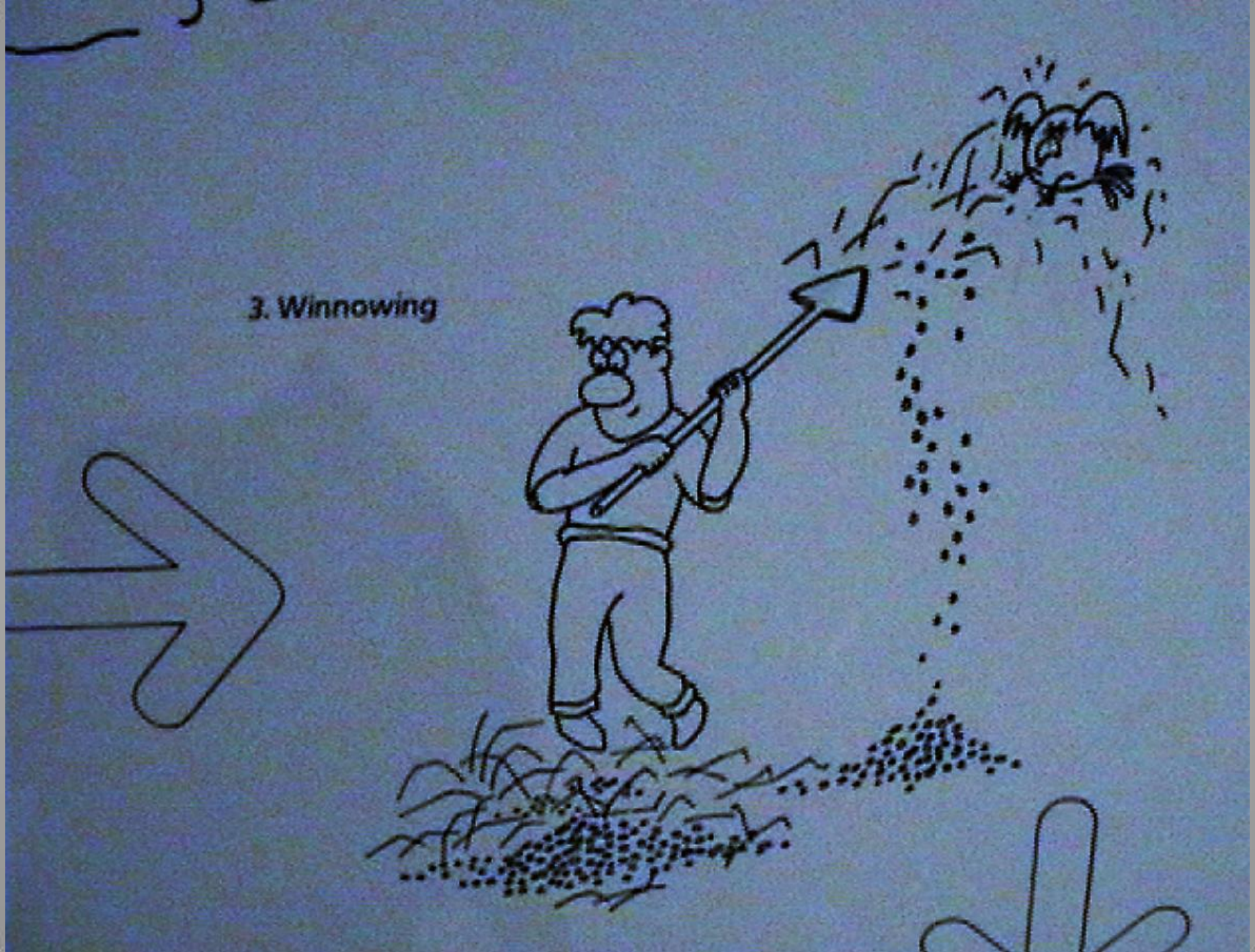
The two staple crops were spelt wheat *(Triticum spelta)* and hulled six-row barley *(Hordeum polystichum)*. Seed corn stored in the fort would have been carried to the fields and sown by hand.

When it had ripened the crop was cut by hand, using a small sickle, probably by grasping and cutting a bundle of stalks just below the ears leaving the bulk of the straw still rooted. The ears were then carted back to the fort for processing.


1. Harvesting

2. Threshing

3. Winnowing




4. Sieving

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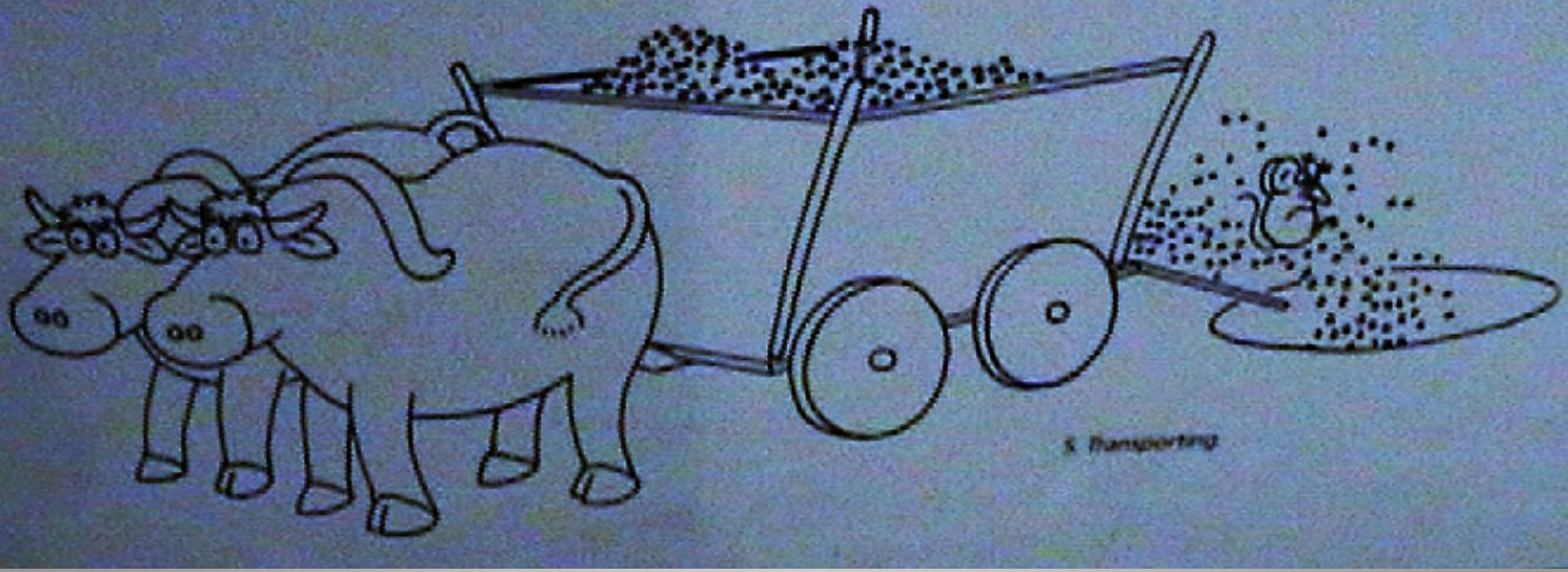
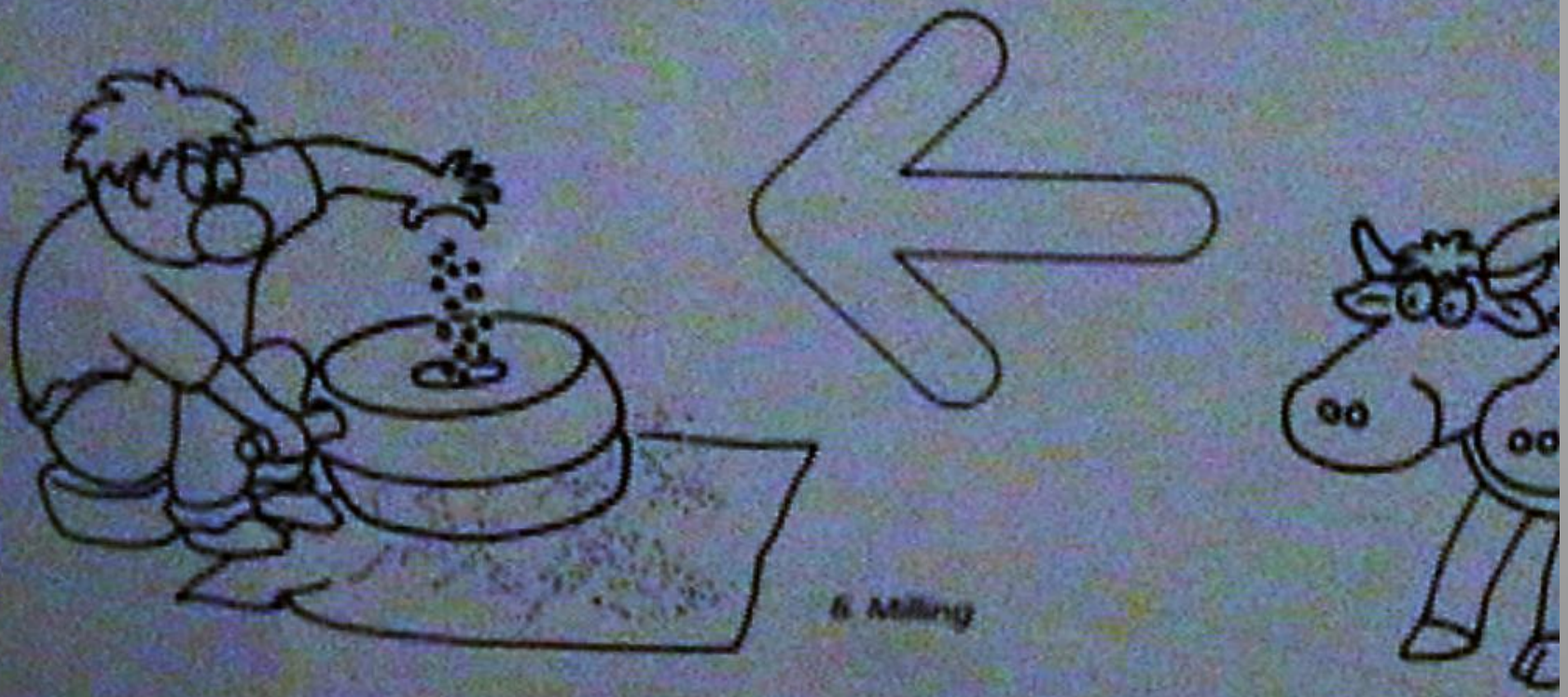
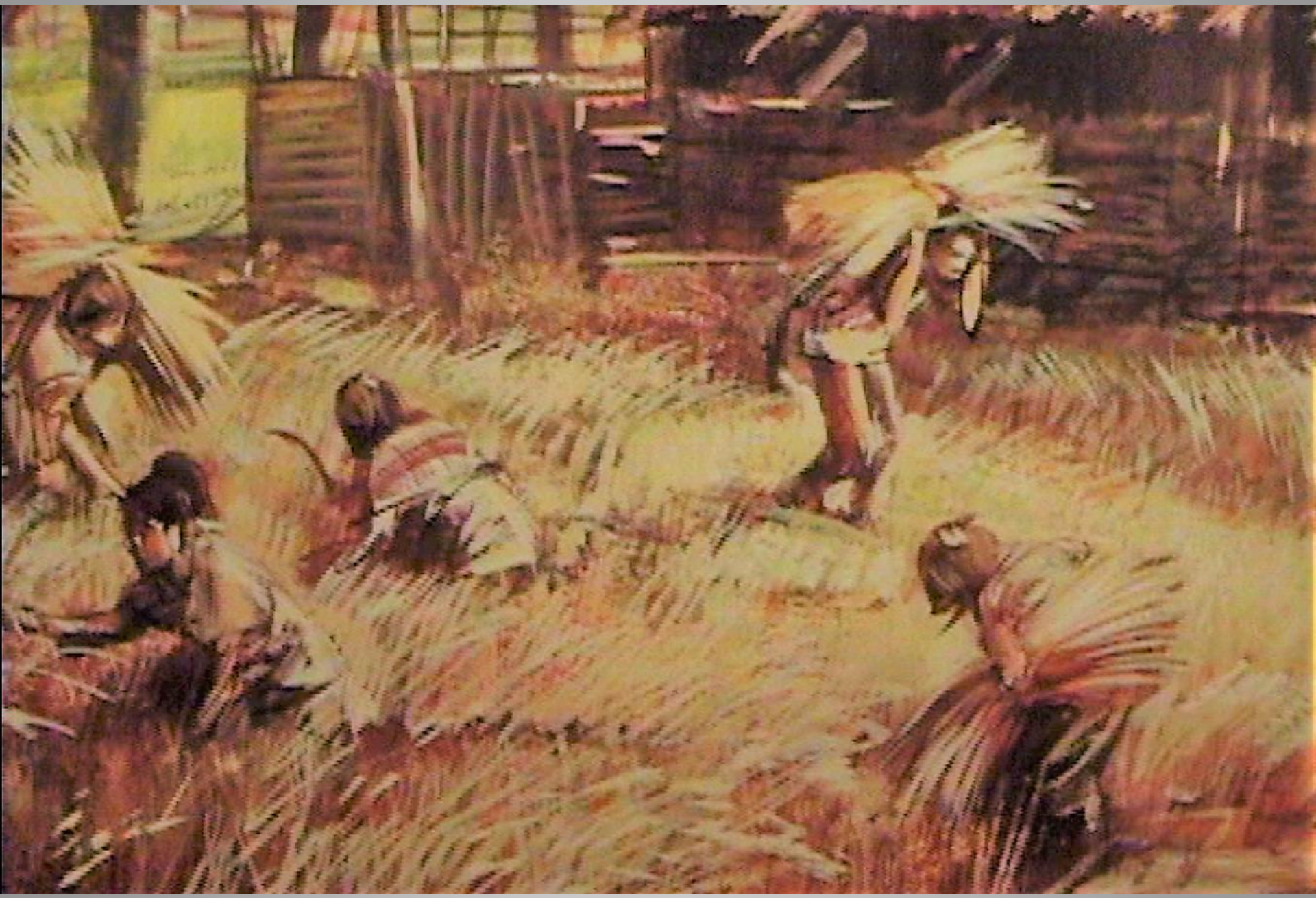
2. Threshing



5. Transporting

and corn marigold came from acid grou
probably the clay-capped hilltops. They
demonstrate that the crops reaching
Danebury were derived from a very
wide area.





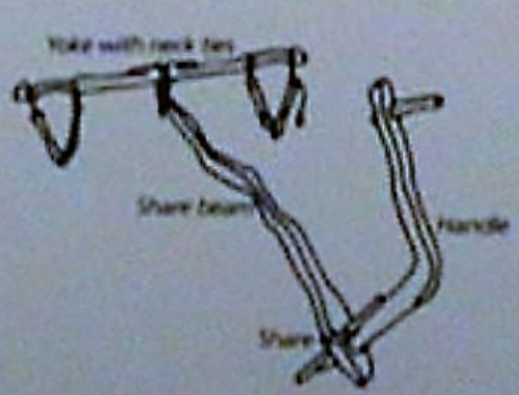
BREAKING THE LAND

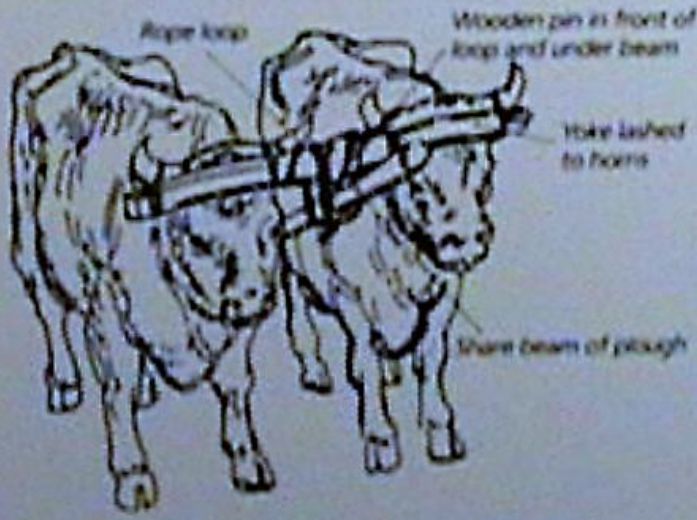
The Celtic ard was an efficient tool. The example here is a close replica of one found in a bog in Denmark. Drawn by two yoked oxen, it scratched a furrow through the soil but did not turn the sod as the medieval and modern plough does.

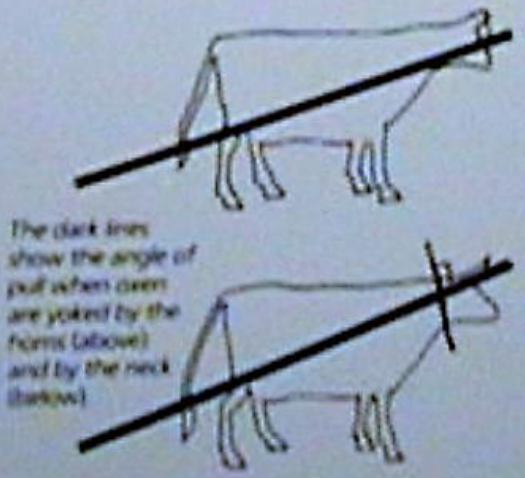
Criss-cross ard marks have been found scored into the bedrock beneath some Celtic fields, suggesting that the fields may have been cross-ploughed to break the soil sufficiently for sowing.

The ard was made entirely of wood, but in most cases was shod with an iron shear or a projecting iron bar to prevent excessive wear.

Ploughing on a slope caused the loosened soil to move downhill to the lower edge of the ploughed area, where a large bank (a lynchet) developed, often enhanced in size by piles of stones picked off the fields. These lynchets sometimes grew to massive proportions and would have supported strips of woodland (possibly coppiced). Today Celtic field systems can be seen in many parts of the country.







TEXTILE PRODUCTION

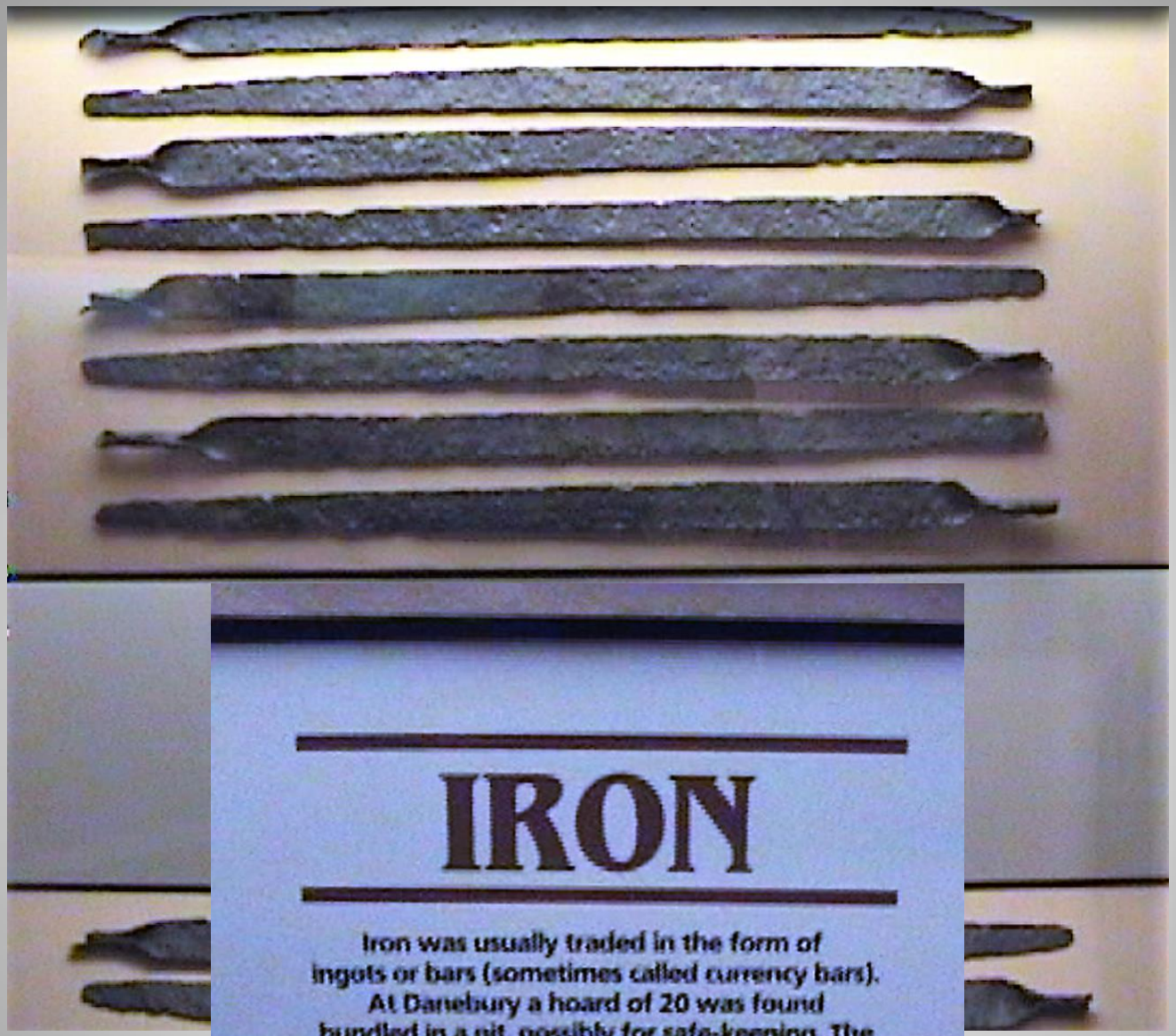
The chalkland of Wessex was ideally suited to sheep-rearing, for unlike cattle, sheep can exist for long periods without water and they thrive on the dry springy downland turf. As more of the upland was brought under cultivation to feed the growing population, the flocks were probably increased in size to fertilize the new fields with their manure.

A by-product of the extensive flocks was wool. It was probably plucked from the sheep during the moulting season and spun into yarn, then woven on upright looms into lengths of cloth. Sheep and weaving equipment were so numerous and common on Iron Age sites that we can only suppose woollen fabrics were produced in surplus for trade and exchange.

The reconstructed Celtic woman is based on archaeological evidence and brief descriptions left by classical writers.

Spinning and weaving

The objects required for spinning and weaving included spindle whorls of clay, chalk and bone; combs of bone and antler; and clay and chalk weights for the loom. These all occur in some abundance at Danebury.



IRON

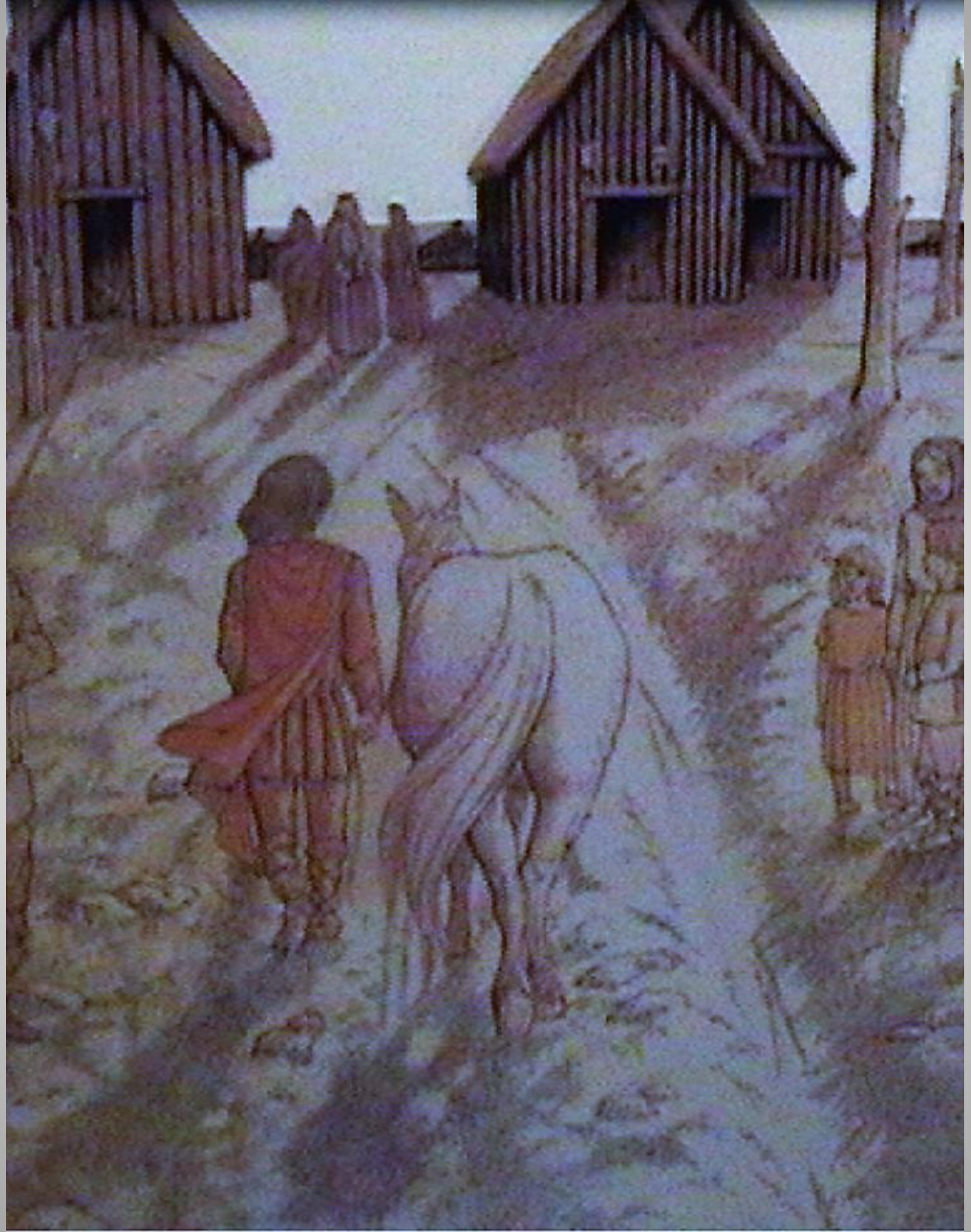
Iron was usually traded in the form of ingots or bars (sometimes called currency bars). At Danebury a hoard of 20 was found bundled in a pit, possibly for safe-keeping. The resident blacksmiths chopped up the bars and worked them into a range of tools and weapons. Scrap iron was also collected for re-use. If the process of recycling was efficient, the stock would not have needed replenishing very often.

BARDS AND DRUIDS

Among the people of significance in Iron Age society were the druids. They were a class of wise men who maintained the wisdom of society and were the link between men and the gods. Their powers were considerable: they were the teachers, the law-givers, the priests and the medicine men.

Within this class of wise men, there were those who specialized. The bards, for example, learnt the oral traditions of the social group and were able to sing or chant them at social gatherings. Some of these epics survived in Ireland until the eighth century AD when they were finally written down by the Christian monks.

Sacred places were widespread in the landscape. The gods were thought to preside in clumps of old trees, in weird-shaped rocks, in springs and in rivers. Quantities of fine metalwork, swords, shields, etc. recovered from springs, rivers and bogs were probably ritual offerings to the gods. Excavations have also brought to light evidence of small rectangular buildings which may have been shrines.



CHIEFTAINS & FOLLOWERS

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Some idea of how Iron Age society may have been organized can be gleaned from the writings of Greek and Roman historians and from the Celtic literature of Ireland.

At the head of society were the nobles, one of whom was the chieftain. These men were probably free of any ties with the land, but measured their status and wealth by their ability to lead successful raiding parties and by the number of cattle that they owned.

Below them were the land-holding peasant farmers tied to the land by their need to maintain fields and crops. They were bound to the nobility by bonds of clientship and patronage. Thus a farmer might look after a noble's cattle, but he would have to supply the noble with a range of farm products. In such a case it would be in the noble's interests to provide protection. The fostering of children was another way by which close ties were established between families.

The knights all take part in war whenever there is need and war is declared. Before

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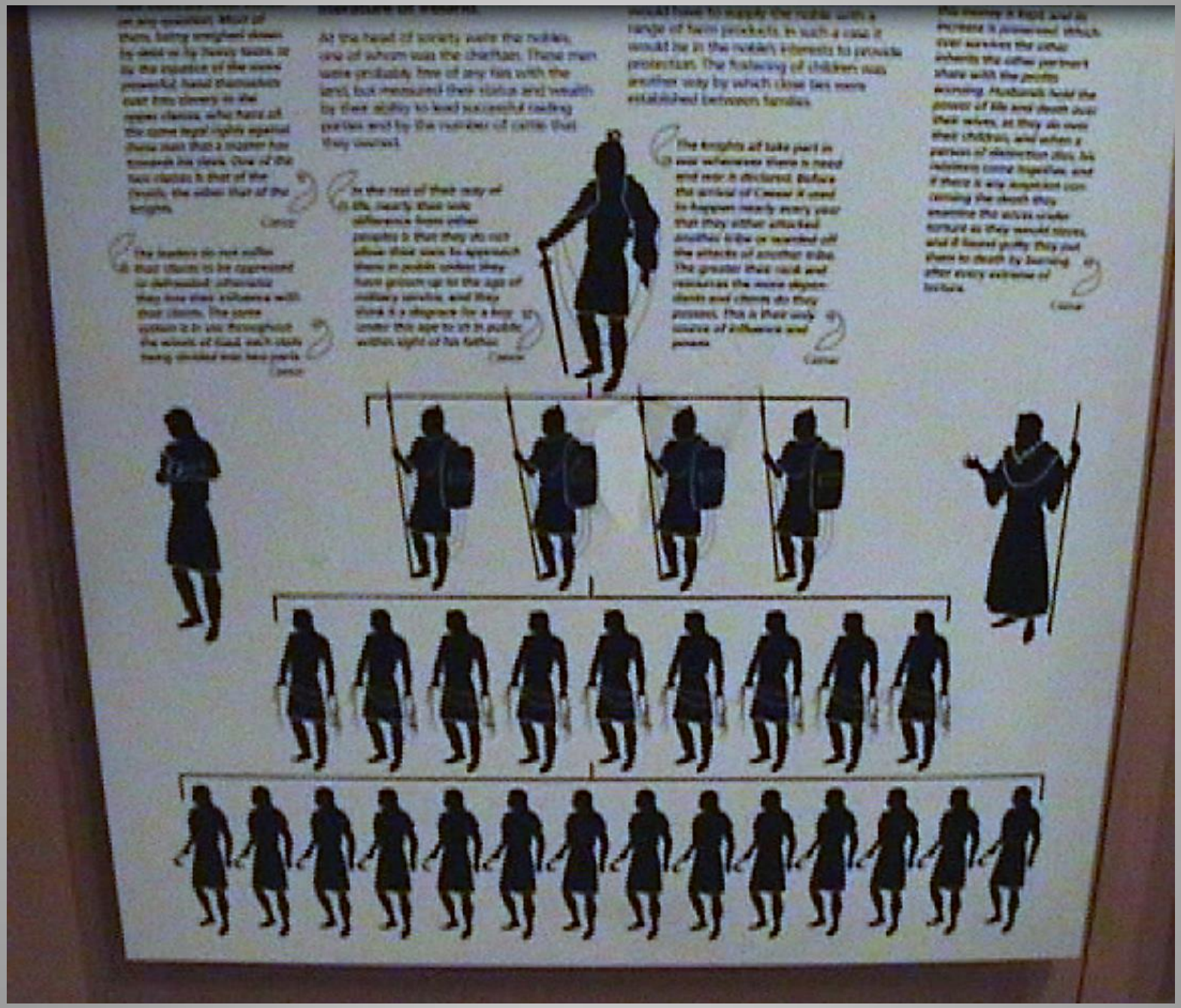

DEATH AND BURIAL

In the Early and Middle Iron Age (600-100 BC) the dead were not disposed of by the burial of the body, either cremated or inhumed, in regular cemeteries. Instead the normal rite appears to have been *excarnation*, the exposure of the body for a period of time to allow the spirit to depart.

At Danebury, this apparently took place away from the settlement, and although there are disarticulated human bones in storage pits, they only account for about 40 such episodes in 450 years; it was not a frequent occurrence.

Bog burial in Cheshire -
a hologram of Lindow man.
He was struck on the head, strangled with cord, and cut on his neck, before being thrown into the marsh.

At Danebury, as elsewhere, there are also a number of 'pit burials' - complete human bodies deposited in pits. The evidence suggests that there may have been about 80 of these across the whole site; another relatively infrequent occurrence.

When considering the nature of these 'pit burials' we can only guess at their significance. One very real possibility is that they were sacrificial victims. Lindow man, from Cheshire, provides a near-contemporary example of sacrifice in Britain, and there may have been little difference between his submersion in a bog, and the pit burials at Danebury.

Bog burial in Cheshire -
a hologram of Lindow man.
He was struck on the head, strangled with
cord, and cut on his neck, before being
thrown into the marsh.

The pit modelled below was unique in that it seems to have been the only one of Iron Age date at Danebury dug specifically as a grave. It contained the extended skeleton, face down, of a male aged 17/25 years. No cause of death could be established from archaeological remains, the crushing of the skull has resulted from weight of the soil over the centuries. At a slightly later date a crouched infant burial (not visible) was placed in the same pit and still later the incomplete remains of an adult, of which the skull, ribs, and right forearm can be clearly seen. This practice of "Secondary burial" after a period of exposure and putrescence, is well known from Iron Age sites.

Head-hunting was rife among the Celtic peoples of Europe. Heads of enemies were kept and often nailed up over the gate of the fort or door of the house. One classical writer says that heads of very important enemies were preserved in cedar oil and kept in a chest in the house so that they could be brought out and shown with pride to visitors. Celts believed that by possessing a head they possessed the power of the dead person.

Many severed heads have been found at Danebury. Perhaps they were trophies of long-dead enemies.

THANKING THE GODS

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this selection there must be a ritual significance that eludes us.

Other offerings include deposits of grain,

"The whole Gallic people is exceedingly given to religious superstition. Therefore those who are suffering from serious illness

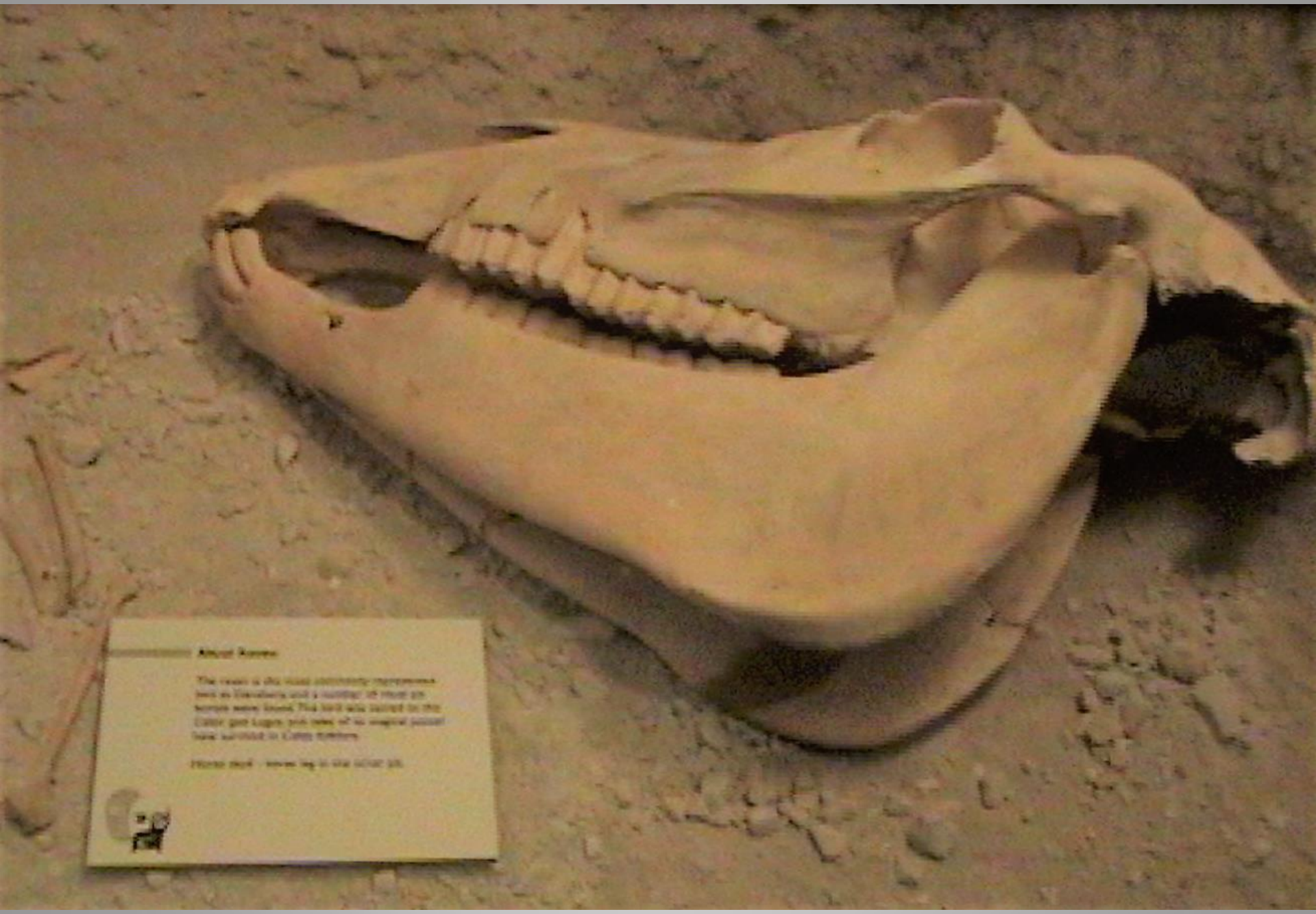
THANKING THE GODS

The gods were everywhere in the Celtic world and they were all-powerful: it was essential that they should be placated.

Danebury has produced evidence of a number of propitiatory deposits, usually on the bottoms of pits. Burials of all or part of animal carcasses are the most frequent. Horses and dogs appear out of proportion to the normal occurrences of these animals, and horse legs are particularly frequent. In this selection there must be a ritual significance that eludes us.

Other offerings include deposits of grain, tools, horse-trappings and pots. There may well have been others such as wool, cheese and barrels of mead all of which will have left no archaeological trace.

The simplest explanation is that these various deposits were gifts to the gods, thanking them, perhaps, for protecting the corn or other commodities which had been stored in the pits. We can only guess.



THE END OF THE OLD ORDER

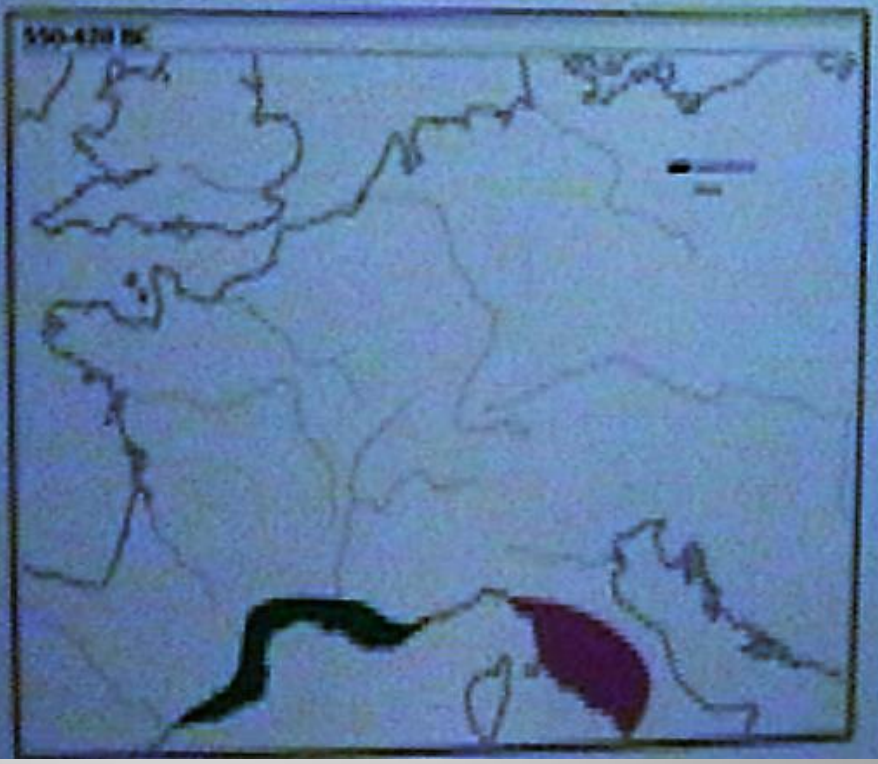
The Iron Age society of Southern Britain evolved during 500 years or so from roots going back over 3,000 years. The culture typified by Danebury was the culmination of prehistoric development in Wessex.

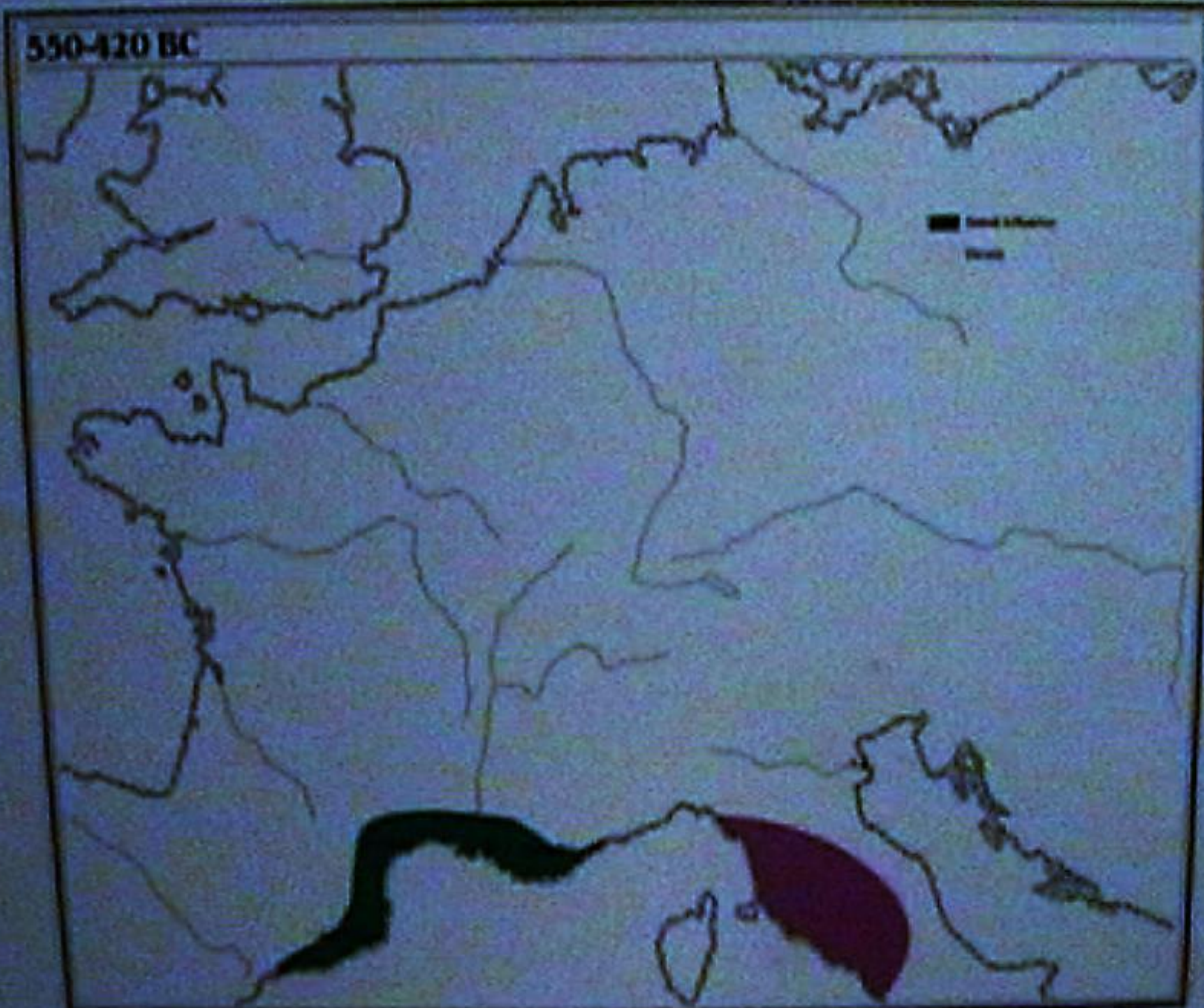
Soon after 100 BC dramatic changes can be seen. Hillforts went out of use, burial rites changed, there were technological advances, for example in pottery making, and coinage was introduced.

The reasons for these changes are complex, but most importantly the influence of the Roman world was at last beginning to be felt, and Britain was no longer isolated from the Continent.

ROME ADVANCES

From about 150 BC the Roman world began to make an impact on barbarian Europe outside Italy.





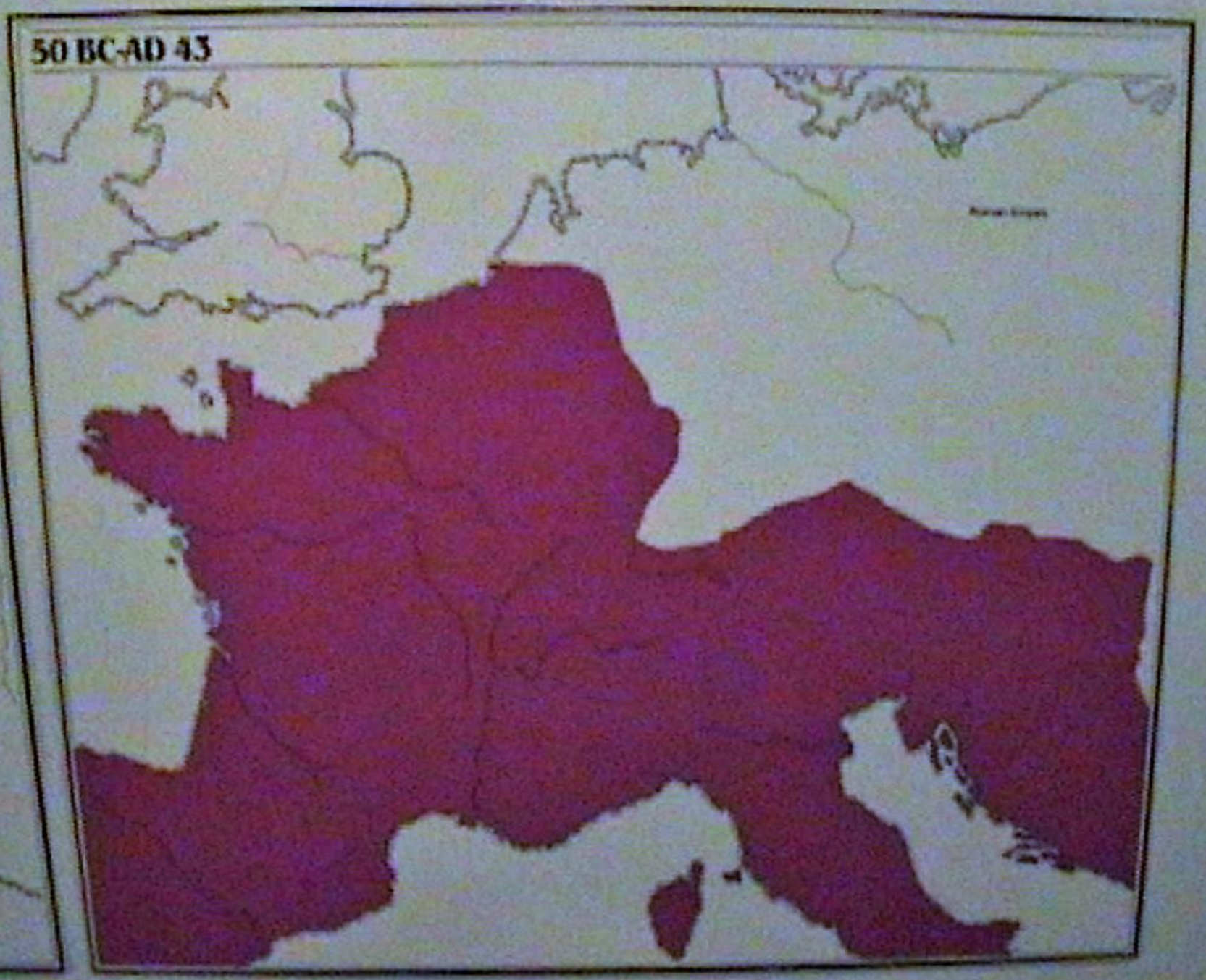
The Mediterranean coasts of France and Spain had been settled by Greek colonists in the sixth century BC. Their towns like Massalia (Marseilles) and Emporion (Ampurias) were major ports through which trade between the Mediterranean and barbarian Europe could take place.

In 58 BC Julius Caesar began his invasion of Gaul. The

been firmly established. Roman traders could now


120-60 BC

of 50 Roman civilian rule had



THE FIRST TOWNS

From the middle of the first century BC Roman trade with Britain increased and the tribes of the south-east were brought into close and regular contact with Roman Gaul. In consequence widespread changes extended across Britain. New settlements grew up, usually on important routes or river crossings. Many of these, like Calleva (Silchester), became tribal capitals. Here regular markets were established, coins were minted to facilitate exchange, and a large resident population began to assemble. These were our first towns. After the Roman invasion of AD 43 most of them developed as regular Roman provincial capitals.

Iron Age earthworks surrounding Silchester