

DISCOVERING ARCHAEOLOGY AND THE BRONZE AGE

drawing on sites along the English Channel
and North Sea

A subject knowledge and teaching guide



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SECTION 3

**Bronze Age
settlement,
funerary practice
and ritual hoards
along the Channel
coasts:**

**sites in France, England and
Belgium**

Introduction

The Dover Bronze Age Boat and Bronze Age communities on the coasts of the English Channel

Thanks to Archaeology, we know that people were living along the coasts of the English Channel 3,500 years ago in the region covered today by Kent, Pas de Calais and Flanders. Far from being different cultures (or we might say, societies), archaeological discoveries have shown us that these peoples had a lot in common and the sea was not a barrier for them. Indeed the remarkable Bronze Age boat discovered in Dover may well have carried our ancient ancestors back and forth across the Channel.

Daily life

How do we know about the Bronze Age?

People build, they live, they eat, they throw things away. The evidence for these everyday activities survives depending on its nature and the environment it is buried in. Years, sometimes thousands of years later, archaeologists excavate the 'rubbish bins' of history. They uncover traces of houses, graves, fragments of pottery and metal etc. They take samples and analyse them in order to find about the environment, the types of plants and people's eating habits. People create today, in their rubbish bins, the evidence for the archaeologists of tomorrow. What we leave for the people and the researchers of tomorrow is down to us.

Bronze Age people in the Transmanche Region

Three thousand, five hundred years ago people were mostly simple farmers, wearing clothes of woven fabric, sometimes wearing jewellery, who made pottery for a multitude of purposes in the family and local community. Agriculture and stock-raising assured them a varied diet, along with seafood from the coasts.

The peoples living on either side of the Channel had an almost identical way of life. One of the common links is the very specific type of pottery they used and which archaeologists have found. Outside of these coastal areas, the pottery is different.

Community living

The Bronze Age landscape was dictated by the agricultural lifestyle. There were small hamlets and isolated farms and buildings we call 'round houses' were characteristic of the region. As the Bronze Age progressed, villages began to develop.

Space was organised according to the activities that took place and archaeology today allows us to detect the kind of agricultural field system that was used. Settlements in the lowlands and the valley floors co-existed with upland sites. As you might expect, a village had an associated cemetery, close by or within a short distance. Being able to date the cemeteries shows that they were sometimes occupied for extended periods of time, from the Neolithic period until the Iron Age, for example. Deep ditches and even ramparts were sometimes built around the villages. These territorial markers were not necessarily intended for defence.

Houses

3,500 years ago the people of the Transmanche region lived in houses built to last at least a generation. Two house designs were in use at the same time. One was a rectangular structure between 20 and 30 metres long with one rounded end and was common along the Atlantic coast and northern Europe. The other, a circular type supported by about ten posts, was characteristic of the Transmanche region, from Normandy to the borders of Flanders and the south of Britain, and continued up until the Iron Age. The interior of the house was subdivided according to the everyday activities and crafts of its inhabitants.

The building materials available on the shores of the Transmanche region are common to a large part of temperate Europe: wood, thatch and clay. Being largely organic, they are unfortunately poorly preserved over time and often only traces survive. But the alignment of visible post holes mark out the house plan in the ground and their diameter suggests the height of the posts and the general structure. Recent excavations of sites covering several hectares (Aire-sur-la-Lys, Maroeuil, Sint-Gills-Waas), along with experimental reconstructions now offer a clearer picture of building techniques.

The importance of metal

Copper metal working existed in Europe as early as the Neolithic period. The making of bronze, an alloy of copper and tin, took off from the second millennium BC and transformed society. The new alloy was generally harder and more durable. It shone, could be recycled and allowed the creation of new forms. It therefore offered innovative possibilities for making tools, weapons and containers. Later, development of metal armour and helmets also had obvious consequences for the evolution of society. The bronze-workers knew the entire repertoire of techniques for manufacturing and for decoration. Bronze metal working was made possible by the development of supply networks for raw materials over thousands of kilometres in Europe.

Gold metal working was also common in this period. Examples of body ornaments have been found in the rich graves of Central Europe from the fifth millennium and no doubt certain individuals became rich at the start of the Bronze Age thanks to the trade in raw materials. The whole of the Atlantic coast was involved. Graves of the Early Bronze Age, from Brittany to Scotland, contain large ornaments made of gold leaf. By the late Bronze Age, particularly in the Transmanche region, hoards could contain many gold objects, weighing several kilos. These bracelets, rings, belts and torcs are the product of craftsmanship of the highest quality.

Pottery

Manufactured since the Neolithic period, pottery was a very common product of Bronze Age societies and was made using various techniques. Vessels had their own local styles. On the coasts of the Transmanche region, very specific types of pottery were made, rarely found in other parts of Western Europe; carinated bowls, 'Deverel-Rimbury' types, 'Food Vessels' and 'Pygmy Cups' are among the characteristic types of the area. Pots had all kind of uses; for cooking food, eating and drinking, storing food and in burial rites. Easily broken, pottery sherds are an essential and commonplace source of information for archaeologists.

Clothing and Ornament

There is still a myth that our Bronze Age ancestors dressed only in animal skins. Nothing is further from the truth. Three thousand, five hundred years ago, fabrics were made from fibres derived from crops or wild plants. Poorly preserved in the Transmanche region however, their existence is recognised because archaeologists have found the clay loom-weights that weighed down the threads on the weaving loom. Clothing, varying according to individual and status, was complemented by various and sometimes exceptional ornaments; bracelets, torcs, belts, rings and spiral greaves show that both men and women could look good and wanted to do so. Once again, finding the same types of jewellery on sites both sides of the Channel emphasises the strong links between these ancient communities.

Food

What was on the menu of a family 3,500 years ago? Products that are familiar to us did not exist then, but the food was still relatively varied. Stock-raising offered a wide variety of meats, including beef, pork and mutton, as well as dairy produce. Agriculture brought a range of cereals that could be eaten cooked or mixed with other ingredients. Dressed six-row barley was developed, ensuring better yields. Emmer wheat, millet, spelt wheat, vegetables, flax, poppy and camelina completed the range of crops. Hunting, fishing in the rivers and the sea and foraging completed the picture. Salt, taken from along the coasts, allowed food to be preserved all year long.

Rituals of the Bronze Age

Every society has rituals and acts of worship and it seems Bronze Age peoples were no exception. Societies developed practices whose meaning can be complex and hard to interpret. There are no texts from this period to enlighten us, just features in the ground and objects.

The world of the dead

The death of an individual is an experience that societies must deal with, each in their own way. The treatment of the deceased and the type of funerary monument in particular varies according to place, time and the people concerned. In the Transmanche region, from the second millennium BC, large circular monuments called barrows were erected. One or more circular ditches were dug, sometimes reaching 40 or 50 metres in diameter. At the centre, under an earthen mound, now ploughed away by modern farming, was placed a cremation or inhumation burial; sometimes there were secondary burials as well. These monuments for the social elite co-existed with more modest graves.

Signs and acts

Ritualised actions can appear strange to us, as beliefs change. The grave or burial is a familiar monument, though the nature of its structure has evolved. The placing of the bones of a cremated individual directly into the earth may appear rather unusual. The burial of an animal in a pit especially dug for the purpose is another Bronze Age practice whose full significance escapes us. The differential treatment of individuals, including children, the often deliberate breaking of pottery vessels and the drawings on certain ceramics are all signs of complex beliefs. In this regard, once again the Transmanche region shows its uniqueness.

Hoards

A complex ritual practice stands out in the European Bronze Age, that of depositing 'hoards'. It involves the abandonment of objects at a given time and place and as such may be interpreted as an act of making an offering. As yet, further interpretation is difficult. Researchers in this field think that the hoards of gold and bronze objects have been given up or 'sacrificed' for some ritual purpose, considered more important than the recycling of the metals. The reasoning can be complex. A fragment of sword may represent the entire sword and its owner, a part for the whole. It may be that the death of individuals was marked by the breaking or 'death' of objects that symbolised them.

The Dover Bronze Age boat was found partially dismantled. Perhaps it is an example of this ritual practice...



Remains of a burial mound at Birchington, Isle of Thanet (Kent, England) © Canterbury Archaeological Trust

SECTION 3
CHAPTER I

Funeral rites

Death is the inescapable end of every living being. Funeralary rituals give us some insight into how a society deals with death in its community, the treatment of the deceased and the support for the living who remain.

In an archaeological context, we can see evidence for certain processes used for the deceased (for example, cremation, inhumation, preservation), the choices of objects or grave goods placed with him or her and the kind of monument (or not) in which the remains are buried. Because death is an experience which touches us all we might also envisage something of the ceremony that would accompany these actions, for which there are no tangible remains.

Peoples of the past have shown a certain imagination in how they dealt with their deceased and certain cultural groups can be identified by their burial practices, as seen on archaeological sites. Such is the case with people of the Bronze Age.



Prehistoric inhumation burial at Broadstairs on the Isle of Thanet (Kent, England) © Canterbury Archaeological Trust

The Fresnes-lès-Montauban site (Pas-de-Calais, France)

How was the Fresnes-lès-Montauban site discovered?

The Fresnes-lès-Montauban site was found by aerial survey in 1988. The photographs taken from the plane showed large circles, quite visible on the surface of the ground. So the location of the site was precise enough for the archaeologists to proceed directly with the dig.

The excavation

Soil stripping revealed 5 circular enclosures. They were not all the same size; the smallest had a 10 metre diameter, the largest, 25 metres. No less than 15 archaeologists and two months of work were needed for excavating the Fresnes-lès-Montauban site!

Post-excavation: finds examination and laboratory analyses

The five circular enclosures contained three *inhumations* and four *cremations*. Two of the latter had been contained in *funeral urns*.

Pottery

The archaeologists found mostly vases, dark brown or black in colour, measuring 20 to 30 centimetres in height. These vases, called *funeral urns*, were used to contain the ashes of the deceased following cremation.

Other pottery was also found in the form of sherds.

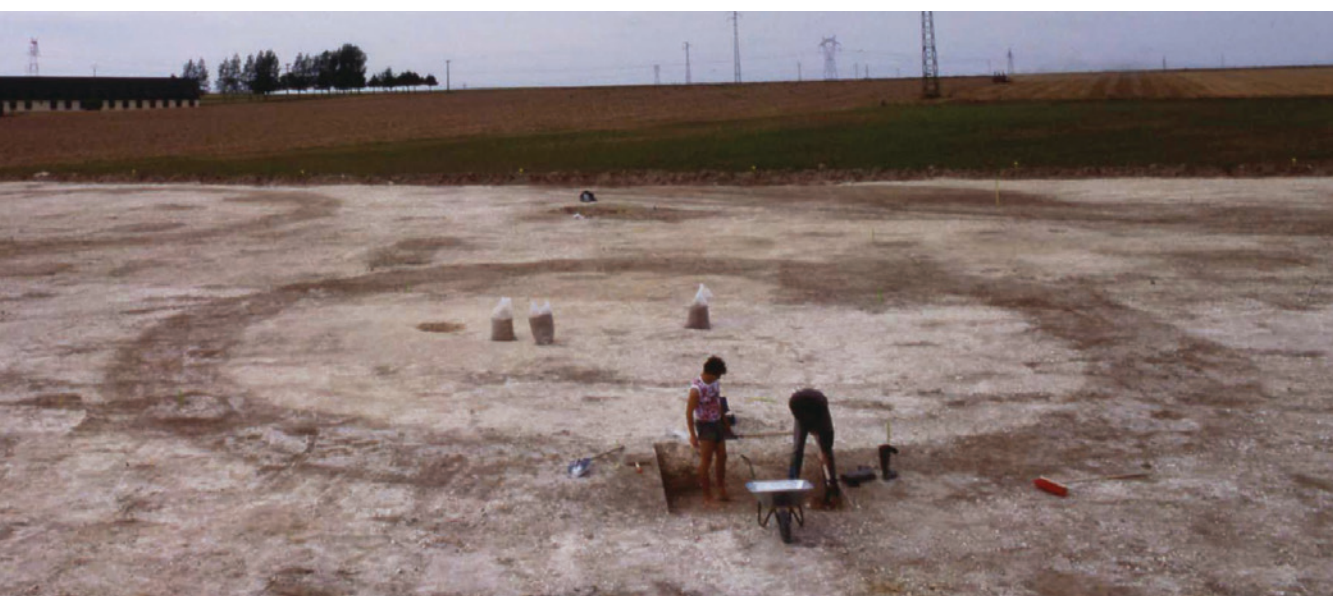
Stone

Overall, the archaeologists found only a small number of stone artefacts. As at the Roeux site, among these objects were some tools — *scrapers, flakes, blades, knives* plus some arrowheads. Analysis of these objects showed that they were always made of the same stone: *flint*.





Gallo-Roman track way at the Fresnes-Lès-Montauban site (Pas-de-Calais,France) © Inrap



Enclosures 1 and 3 at the Fresnes-Lès-Montauban site (Pas-de-Calais,France) © Inrap

Post-excavation: sciences and archaeology *Archaeozoology and Malacology*

The animal bones that were found were not in a good state of preservation, but the archaeozoologists were nevertheless able to study them. Analysis has shown that they came mainly from cattle. It also revealed the presence of dog, hare and even stag bones.

Mollusc analysis made it possible to conclude that the Fresnes-lès-Montauban site had been near a wooded area, at the edge of a forest or on a meadow with copses.

Osteo-archaeology **Cremation**

Analysis of the bones collected from one of the two urns enabled the archaeologists to say that these bones belonged to a man who was between 18 and 35 years old. The other urn had been badly damaged by modern ploughing.

Inhumation

One of the graves contained the skeleton of a woman about 30 years old, measuring 1.50 metres. A burnt flint and a pottery fragment lay beside her. Examination of another inhumation has made it possible to say that the person lying in the pit was a young man a little less than 20 years old, measuring 1.64 metres. These two individuals are smaller than people of the same age in modern times.

Paleo-environmental analysis **Palynology**

Pollen analysis has shown that the funerary enclosures had been built in a semi-forest environment.

Anthracology

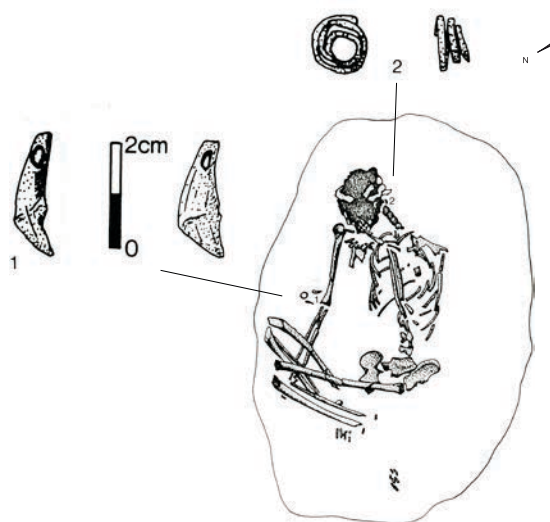
Charcoal analysis has revealed the presence of oak, with some other species such as plum, elder or ash.

Why are animal bones found on a funeral site?

There can be several reasons. They may be remains of a funerary deposit of meat or leftovers from ritual meals. They may also be waste from meals eaten by the individuals who built the funerary structures. At Fresnes, the archaeologists think the bones are leftovers of ritual meals or waste left by the workers of that period

Interpretation, publication of the results: from excavation to exhibition

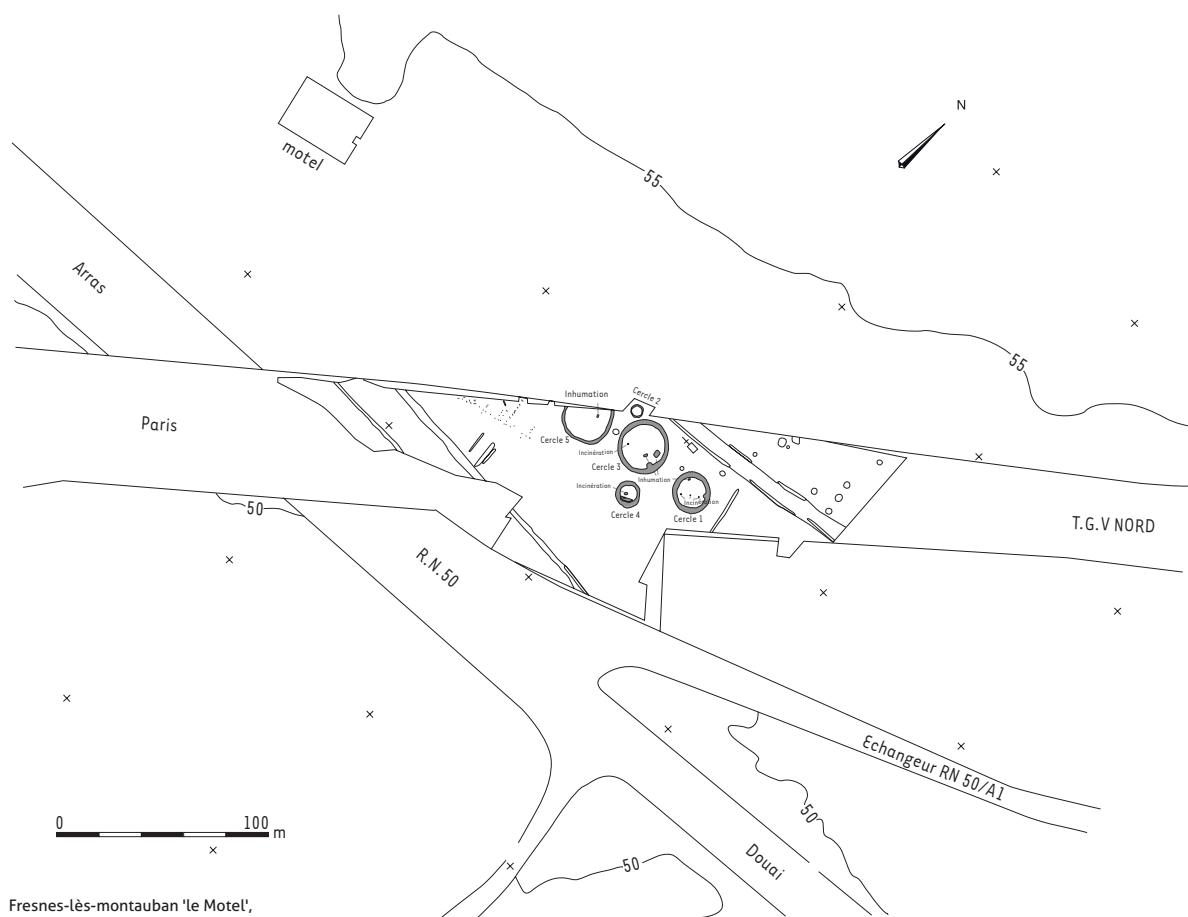
The dating of the archaeological remains has indicated that the site had been occupied throughout the Early Bronze Age (2300-1600 BC) and perhaps even a little earlier. This explains the presence of two different burial practices: inhumation and cremation. The latter replaced inhumation in the Middle Bronze Age.



Inhumation burial from enclosure 5 at 'le Motel' site at Fresnes-Lès-Montauban, with associated finds (1, dog teeth; 2, bronze earring)
© Inrap



Aerial view of the enclosures at the site of Fresnes-Lès-Montauban (Pas-de-Calais, France) © Inrap



Fresnes-lès-montauban 'le Motel',
location of the site on the route of TGV Nord
© Inrap

Urn field site at Aalter (Flanders, Belgium)

During the latter part of the Bronze Age changes occurred in how the dead were buried. The deceased were no longer buried in burial mounds, but in cemeteries composed of shallow graves. A good example of a cremation cemetery site can be found in Aalter / Oostergem

1. Discovery

The 'urn field' site at Aalter was discovered between 1952 and 1954 when the first burials were found in a sand quarry. The Seminar of Archaeology at Ghent University, as it was known at the time, led by Prof S J De Laet, was informed and permission was given to take the work further.

2. Excavation

Cremation burials were first noticed in 1952 and their recovery continued until 1954; but scientific archaeology was still being developed at this time in Flanders. Excavation was not done in the same way that we would do it today. Every time a cremation burial was found in the sand quarry, for instance, work was halted in that area and the Seminar of Archaeology was contacted to complete the required archaeological records. Twenty six burials were recovered and studied in this way.

Most cremated bone remains were interred in ceramic urns, but there were also a few examples of other practices; for example, where the bones were placed inside a leather bag or other item and where the bones and ashes from a fire were deposited together as the burial. Some burials also contained gifts, usually in the form of a cup or a beaker. Burial gifts were rather sparse in Flemish cemeteries from this period. The age of the burial site was established based on a study of the pottery found. It was thought that this cemetery was used during the Late Bronze Age and Early Iron Age.

3. Scientific research

Osteo-archaeological analysis

Cremated bone material was studied in the 1950s by F Twiesselman at the Royal Institute of Natural Sciences in Brussels. The study of cremated bone remains was in its infancy at that time and the scientific standards of the time were applied. The largest group of individuals found was composed of adults between the ages of 20–40 years at the time of death. Children were less frequently found, which is surprising considering the high infant mortality rate of the time. It was more difficult to establish the sex of the individuals; 18 were found to be of indeterminate sex, while 2 were thought to be male and 2 were thought to be female, with some reservations. It could be interesting to study the bone material again considering the improved analysis techniques that are currently available.

Radio carbon (Carbon-14) analysis

A burial was recently dated using Carbon-14 analysis on a twig taken from remains of the funeral pyre. Surprisingly this identified the period to be Middle Bronze Age. The cemetery at Aalter therefore appears to be older than the original thinking, which was based on a study of the pottery found.



Cremation burial at the Aalter site © University of Ghent

The Thanet Earth site (Kent, England)

In 2007-8, the Canterbury Archaeological Trust team was digging on a site in Thanet, where huge green houses were going to be built. The archaeologists found two big circular ring ditches. The widest was 25 metres in diameter. They recognised these as evidence of a prehistoric burial mound. It must have taken a lot of people and time to build it.

In the centre of the ring ditches was a grave pit with a skeleton.

A crushed pottery 'Beaker' lay at its feet, an archer's stone wrist guard under its left arm and a copper blade under its right shoulder. A 70 centimetre gap between the skeleton and the grave edge suggested something else was buried there, but had decomposed. Twelve other 'crouch' burials were found on the Thanet Earth dig, but none was as elaborate as this one.

Osteo-archaeology, Carbon-14 and Isotope analyses show this was a male aged 36 – 45 years when he died; he died 3980 – 4200 years ago; and he probably grew up in Thanet and could have spent some time in present day France or Belgium.

Bronze Age inhumation burial (Kent, England).
Red and white scale: 20 cms
© Canterbury Archaeological Trust





The copper object © Canterbury Archaeological Trust



The stone object © Canterbury Archaeological Trust



The pottery © Canterbury Archaeological Trust

SECTION 3
CHAPTER II

Domestic dwellings

Prehistoric building techniques (Flanders, Belgium)

In Flanders, up until the Roman period, houses were made of wood and earth or clay. Wood was used to build a frame for the walls and roof and the wall sections were plastered over with earth or clay to keep out rain and wind. Perishable materials have not usually been preserved and the above ground parts of the building have usually broken down and decomposed with time. An exceptional case would be when, accidentally or otherwise, a building was set alight.

It is common to find fragments of the clay used in building a house; more rarely, imprints in clay fragments left by carbonized wood or actual charred posts may be found.

For archaeologists, the main traces left by these houses are generally the post holes, i.e. the hollows made in the ground in order to anchor the vertical wooden uprights which make up the walls and support the overall frame. By looking at the pattern of these post holes left in the ground, they can reconstruct the ground plan of the building – and it can be rectangular, oval or circular.

The layout of the postholes also indicates the type of frame used. There were indeed various technical solutions for solving the fundamental problem of the pressure exerted by the frame.

One solution is to have a frame where the pressure is taken by a central line of posts; in the ground, this would appear as three parallel rows of post holes (diagram no 1).

A second solution is to have a frame that rests on pairs of vertical uprights connected by horizontal ‘tie-beams’; in the ground, this would appear as two or four parallel rows of post holes (diagram nos 2 and 3).

Another technique is where the walls alone support the frame and it is important that the pressure from the frame is the same over the entire circumference of the building; the ground plan of post holes here will form a rounded, oval or circular shape (diagram no 4).






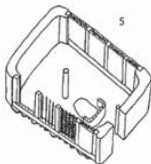


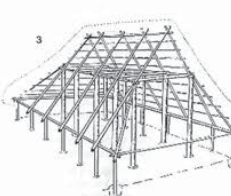
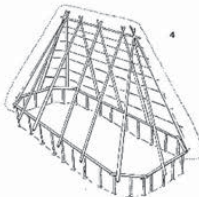
The absence of post holes on a site does not however mean that no building was ever erected there.

We know of above-ground construction methods, traces of which are only seldom preserved. In these cases, a framework of connecting vertical posts and horizontal beams could be constructed so that the whole thing rested directly on the ground or on a foundation slab (diagram no 5).

Also, the presence of domestic rubbish pits on a site suggests human habitation close by, even in the absence of any sign of a building.

In this section we illustrate particular domestic dwellings found on sites in England, France and Belgium, for comparison.

Construction en pierre et bois

hors sol		à poteaux ancrés dans le sol			
	Système				
à parois porteuses		à faîtière porteuse	à pièces d'entrait et à portique en « pi »		à paroi porteuse
					

The main types of structure using poles inserted in the ground © extract Andouze, Buchsensschutz 1989, fig. 27; Valais 1994

A settlement site at Roeux (Pas-de-Calais, France)

How was the site discovered?

The site was discovered in 1989, prior to the construction of the Northern High Speed Train line.

Survey

Archaeologists began surveying the location of the future Northern High Speed Train line in 1988. The route itself, only 50 metres wide, stretched over several hundred kilometres of farmland. In a campaign lasting three months, teams comprising of two archaeologists on foot each surveyed a 110 kilometre stretch of track.

The *stone artefacts* that were collected led archaeologists to believe that the site at Roeux was quite old, however this type of surveying doesn't provide enough evidence to characterise the site and further investigation was needed to confirm the existence of the archaeological site.



Why is ground survey not enough?

Even if artefacts are discovered during ground survey, further evaluation using trial trenches does not always bring an archaeological site to light once the topsoil has been removed.

This can be explained by repeated ploughing that literally destroys all traces of the archaeological features.

However, archaeologists can be confronted with a totally different situation where ground survey provides absolutely no archaeological evidence of a site that is subsequently discovered during evaluation trenching.

At Roeux the site was probably hidden by colluvium



© S. Dominicus / BOAT 1550 BC



Excavation of a round house on the archaeological site at Roeux (Pas-de-Calais, France) © Inrap

The dig

The trial trenches at Roeux led to the discovery of pottery sherds and *stone artefacts* as well as animal bone, a *bone bradawl* and a *pottery loom* weight indicating a well preserved settlement site.

Subsequent topsoil stripping revealed marks on the ground, not only animal burrows or root *disturbance* but also archaeological features such as pits and post holes. The post holes were

in fact the remains of 2 round houses. The removal of the topsoil had revealed a much more important site than initially thought.

Studying the finds

The archaeological features at Roeux were particularly well preserved, the site having been buried under a thick layer of *colluvium*. Finds were both abundant and varied.

The pottery

About 800 pottery *sherds* were recovered from the site. The dark brown, black or beige coloured fragments were very small, probably about the size of a domino. Some sherds, which were black and very smooth, caught the eye of the archaeologists as they were finer than the others.

The pottery was sorted into two groups revealing two types of vessel; large, tall jars and open and low forms probably similar to plates

The stone artefacts

Eight hundred and twenty *flint artefacts* such as *blades* and discarded *burin flakes* were unearthed during the dig. Other objects, in particular tools were also discovered: *scrapers, knives, a chisel, arrow heads and even fragments of a flint dagger*.

Metal

Archaeologists discovered 5 objects made out of bronze including a 15 centimetre long axe found between the 2 round houses. The other objects were much smaller and included *an earring, a ring, an awl and a hook*.

Archaeozoology and malacology

A large amount of animal bone, 1,177 fragments weighing just over 6 kilograms, was found on the site. Most of the bone came from cattle; other animals such as sheep and pigs were also present on the site in much smaller numbers.

A large number of malacofauna (shell remains) was found in the fill of the pits and post holes. The 32 analysed samples revealed that the site's environment included bushes and wooded areas but also open spaces. The settlement was probably located in open meadows with copses or on the edge of woodland.

Palaeoenvironmental studies (carpology, palynology and anthracology)

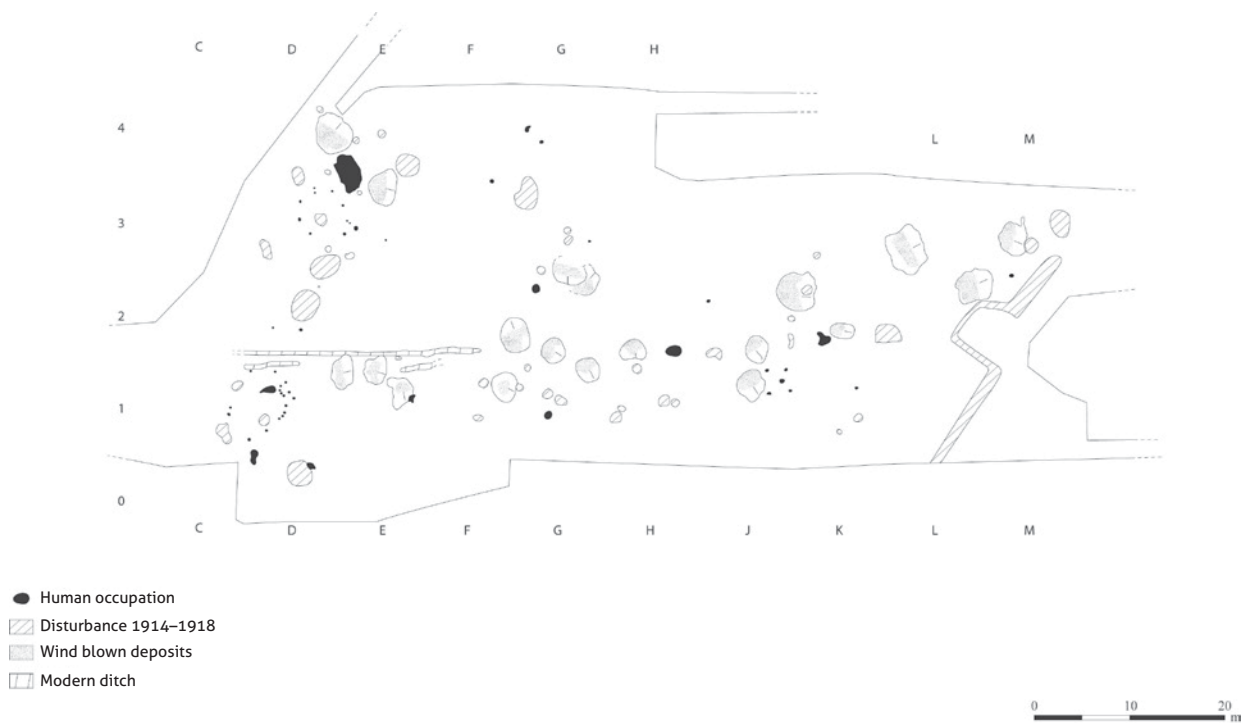
The *carpological* remains indicated that wheat and barley were grown and that the inhabitants gathered hazel nuts. *Palynological* evidence revealed that their settlement was located in an open landscape.

The *anthrochological* study of the charcoal fragments has shown that mainly oak was used on the settlement, but also plum, ash, elder and hazel. Unfortunately there were not enough remains to determine which wood was used for building the houses.

Interpretation and publication of the findings

All of the archaeological data allows us to paint a vivid picture of the Middle Bronze Age settlement at Roeux. The site itself was located on a low crest, surrounded by grazing land. The nearby wood and bushes provided firewood for the settlement and some of the trees also provided food. Livestock rearing played an important role in the settlement's economy, much more so than crop growing.

The pottery, the stone artefacts, the roundhouses and the daily activities of the settlement have led archaeologists to compare Roeux with similar sites in the British Isles, which all share the same cultural identity during the Early and Middle Bronze Age.



Roeux site 'le château d'eau', general plan of the excavation © Inrap

A settlement site at Sint-Gillis-Waas (Belgium)

The Middle Bronze Age settlement at Sint-Gillis-Waas is part of a vast archaeological site used from the Mesolithic period to the Middle Ages that also includes a Middle Bronze Age cemetery and a Late Bronze Age/Early Iron Age settlement. Five typical houses were brought to light during the excavations carried out in 2010 (by the Archeologische Dienst Waasland).

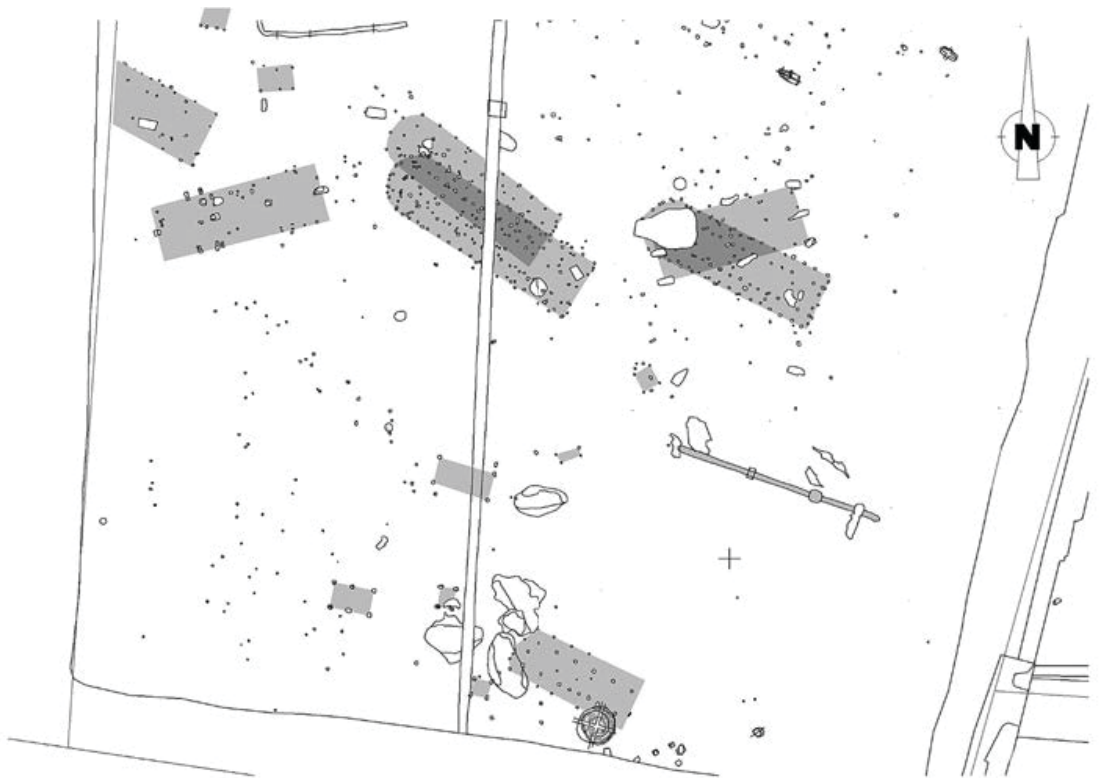
The houses were all orientated north-west to south-east and in one case 2 house plans were superimposed suggesting at least 2 phases of the settlement. However it is impossible to know how many of the houses functioned simultaneously. Smaller annexes have also been found on the site, but have not been dated. A ditch running parallel to the houses could mark a certain organisation of the settlement's plan or could even have been used to define different areas.

The longhouses had a short straight side to the southeast and an apsidal short side to the northwest. The roof was supported by outer posts and 2 rows of inner posts which divided the house into 3: a wide central space and 2 narrower aisles. Three of the 4 complete house plans were 18–21 metres long; the fourth was shorter, a mere 13 metres long. Their width was standardised at 5–6 metres with a regular spacing between the posts of 1 metre to 1.2 metres. The entrances were not marked but by comparison with examples from the Netherlands, it is probable that the entrance was in the middle of each long side or the straight short side of the building.

As the site has been eroded, it is impossible to discern a difference in the organisation of the buildings' inner posts, which could have possibly divided the interior space, reserving a part of the building for livestock.

Without 'absolute' dating, which has still to be established, a date in the second half of the Middle Bronze Age seems probable. The presence of several barrow cemeteries dating from the Middle Bronze Age nearby and of a burial ground in close proximity raises questions about the relationship between the settlements and cemeteries and suggests the existence of other settlements in the surrounding area. The cemeteries seem to have been established close to the settlements, probably within sight of them.

Typical houses such as those found at Sint-Gillis-Waas have been discovered in Maldegem-Burkel (in East Flanders) and in Weelde (Province of Antwerp). This type of building is found all over north-western Europe, in the Netherlands and in Denmark for example. The fact that they have also been discovered in Flanders means that the region followed more northerly and continental trends, rather than the building traditions of the Transmanche area.



Plan of the buildings at the Sint-Gillis Waas site (Belgium) © Université de Gand



Model of a house at Sint-Gillis Waas (Belgium) © Université de Gand

The St Margaret's-at-Cliffe site (Kent, England)

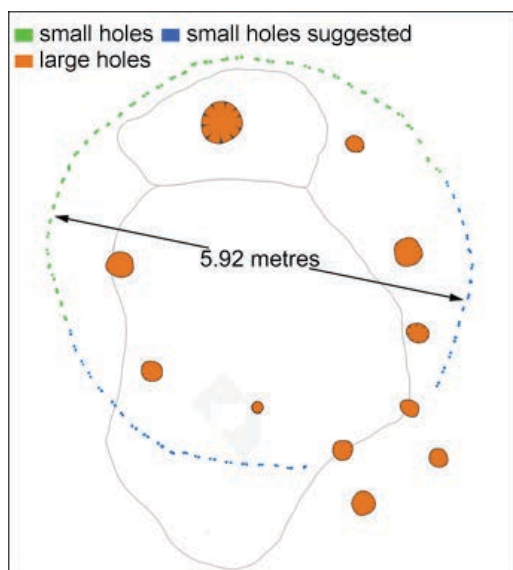
In 2001, the Canterbury Archaeological Trust team was digging at St Margaret's-at-Cliffe, near Dover, when the site director, Keith, found a pattern of holes in the ground. He used the evidence to find out what happened there in the past.

What did Keith discover?

Keith had seen evidence similar to this before. He thought these were remains of a prehistoric 'round house' with a frame of posts surrounded by a wall made of small stakes. All houses need a roof, but there was no evidence for one here.

Keith said the house must have been made with wood and this has rotted away. He couldn't be sure how the roof was made. On another dig like this, he had also found lumps of clay with impressions of small wooden stakes.

He thought about the tools people would have needed to build a house like this and wondered what it would have been like to live in one.



A plan of the St Margarets-at-cliffe round house (Kent, England)
© Canterbury Archaeological Trust





Reconstruction of a Bronze Age round house in Cambridgeshire, Eastern England.
Archaeologists think families and their animals may have shared the bigger round houses.
© Viv Hamilton, Wikimedia Commons

SECTION 3
CHAPTER III

Hoards

Hoards

Bronze Age hoards

Hoards have been discovered by archaeologists all over Europe. The phenomenon appears during the Early Bronze Age and the practice intensifies during the Middle and Late Bronze Age.

What is a hoard?

A hoard can be described as one or several objects which were voluntarily placed in a small pit of varying depth. These objects are mainly made out of bronze (razors, pins, daggers, swords, rings and so on), but other objects such as amber beads, gold jewellery or even clay statuettes and pottery can also be included.

The hoards are usually found near water, places such as springs, marshes or in rivers. They have also been discovered near settlements and cemeteries.

What were hoards for?

This practice is so far removed from the habits and customs of our own society that it is difficult to understand the whys and wherefores of hoarding. The many interpretations put forward by archaeologists have been hotly debated over the last few years.

Some think that hoards could have been used to hide away precious objects for protection against theft, or that they were stores of metal used by merchants and craftsmen. As some of the bronze objects are fragmented, others see a pre-monetary trading system, linked to the intrinsic value of the metal's weight. This system already existed in the Near East at the same period.

The hoards could also have been votive offerings to aquatic gods, which could explain why they are so often found near to water. Water and in particular rivers could mark the boundary between the world of the living and the world of the dead and the offerings might have been used to placate the spirits.



Metal hoard from Crundale (Kent, England)
© G. Naessens/BOAT 1550 BC

The Courrières site (Pas-de-Calais, France)

An *archaeological evaluation* was carried out in 2007 on a site where the Commune of Courrières was planning to build housing. As archaeological structures were found, the Regional Prefect ordered a *preventive excavation* which led to the discovery of the Courrières site.

The dig

After taking off the topsoil, manual excavation using *trowel* and shovel brought to light three *post-holed structures* and a *pit* with an amazing find. It contained a hoard of 12 particularly fragile objects that were removed in *blocks of earth* to be later excavated in the laboratory. Eleven archaeologists worked for 2 months on the Courrières excavation.

Post-excavation: laboratory techniques and the study of the finds

The small post-holed buildings discovered on the site were probably *granaries* used for the storage of cereals. The post holes contained only a few *pottery sherds*. In contrast, the pit contained 12 items of *jewellery* which were *x-rayed* and then restored in a laboratory.

The metal objects

Several of the objects were made out of copper alloy. A *razor* was placed in the centre of the pit. It has an openwork 2 ringed handle and its *blade*, unfortunately incomplete, is decorated with 3 perforations and 3 double lines of stamping.

A *pin* with a *biconical head* was placed near the razor. The head is decorated with an incised *concentric pattern* and the end of the stem is missing with an old break that archaeologists can distinguish from a recent break by its patinated appearance.

Three *rings* were also found; only 1 is complete, measuring 2.4 centimetres in diameter with a 2.5 millimetre thick shaft. The second ring could not be removed from its covering of earth because it was too fragile. A third fragment was discovered during the sieving of the pit fill.

A *trefoil object* was also discovered, composed of 3 small metal balls measuring 1.8 centimetres long.

Beads and parts of a necklace

Four translucent *amber beads* were also found. They are a blood red colour and are round, oval and bean shaped. They are perforated as they would have been threaded onto a necklace.

A *rounded pebble* had a natural perforation on its longest side and the other side seems to have been worked with a tool. It was probably also part of a necklace.

Where does amber come from?

Amber is fossilised conifer resin, a rare substance in the Nord-Pas-de-Calais area. Infra-red spectrometry allows us to determine the origin of the amber beads found at Courrières. Based on our present knowledge they could originate from the Paris basin or from the Baltic Sea. Amber is therefore a key indicator of long distance trade. Further study would allow us to know more of socio-economic and commercial links during the Bronze Age

Post-excavation: Science and archaeology

Radiography

X rays are particularly useful for studying *metal objects* as they show manufacturing and decoration details that are not always visible beneath the layers of *corrosion*.

X rays of the *trefoil object* revealed that it was in fact a single object rather than an amalgamation of several parts held together by corrosion.

Microscopy

Special attention was paid to the *amber beads* which were examined under a *binocular microscope* (60 x) under various types of light (overhead, underneath and side lighting) and under an environmental scanning *electron microscope*. This technology allows us to observe abnormalities and tool marks on the polished surface and at the perforations. Unfortunately no marks were found on the beads from Courrières.

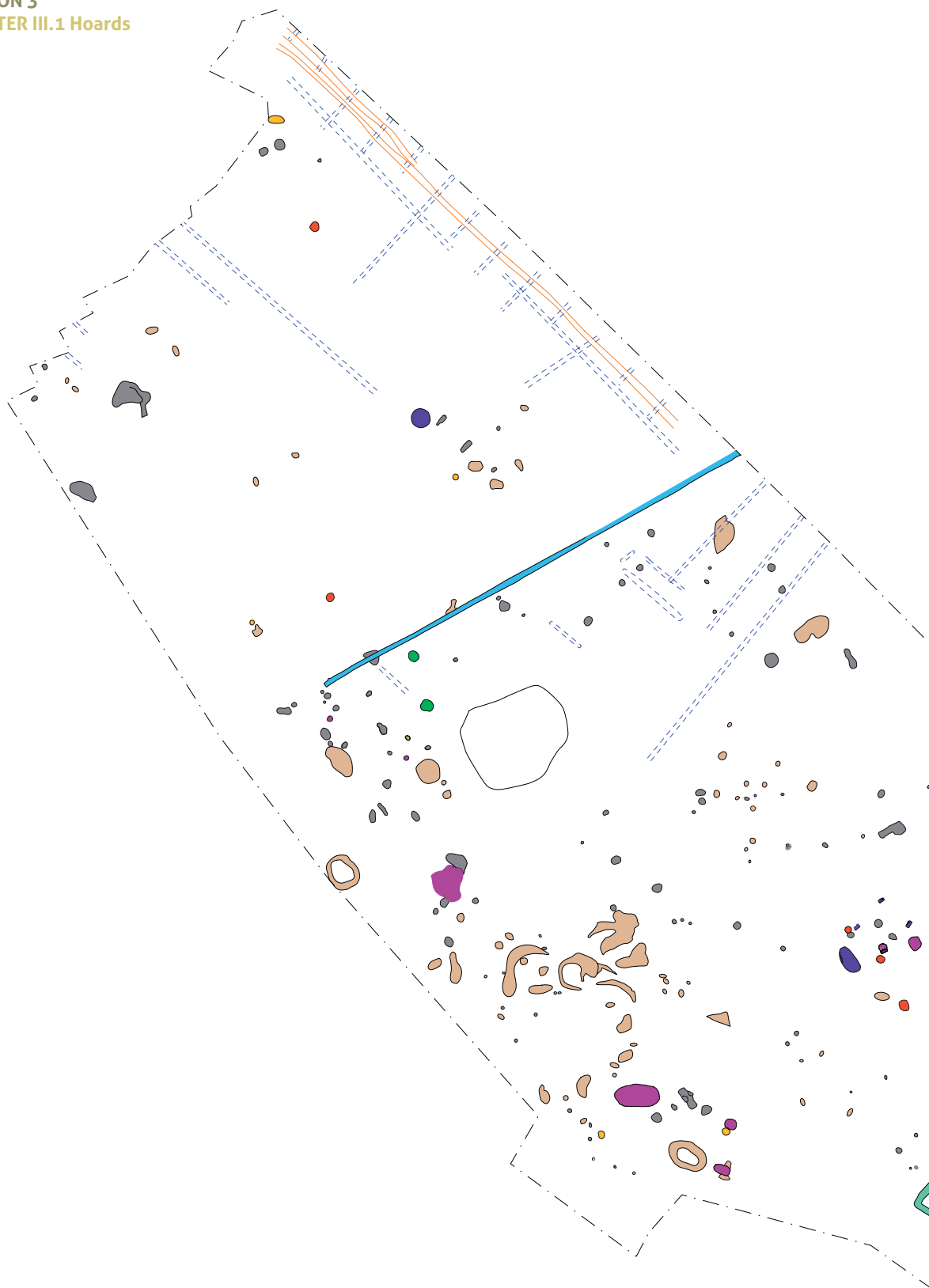
Interpretation and publication of the results

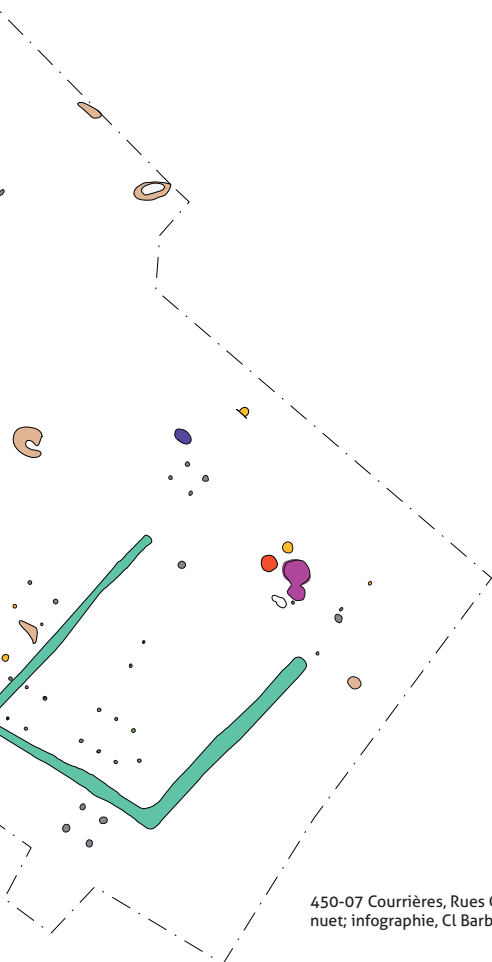
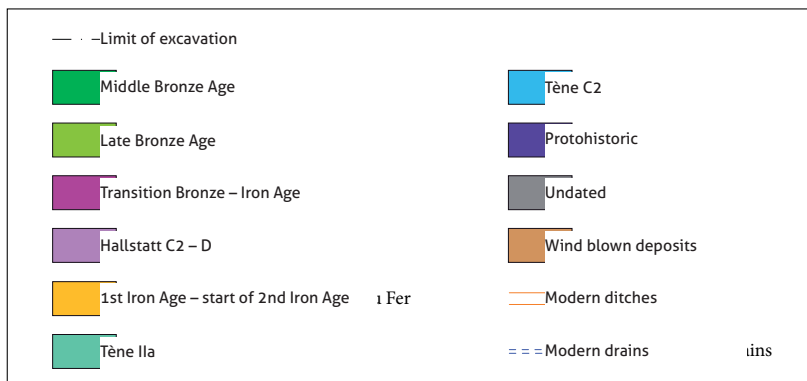
The Courrières hoard was probably not a *funerary deposit*, even though the composition of the hoard is very similar to the collections of small objects found in boxes or leather pouches in the cremation burials of the Seine valley to the east of Paris. The fine sieving of the pit fill did not reveal any *burnt bone fragments* or *charcoal*.

This seems therefore to be an unprecedented new *hoard*, the only one of its kind in the North of France. The objects of the Courrières hoard date from the beginning of the *Late Bronze Age* (1350–1150 BC). The other finds from the site indicate that it was used from the *Middle Bronze Age* to the *Late Iron Age* (1500–50 BC).



Finds from the hoard at Courrières (Pas-de-Calais, France)
© G.Naessens





450-07 Courrières, Rues Casimir Beugnet, Pierre Bouchez, plan général phasé. Topographie, A Leca-
nuet; infographie, Cl Barbet. Dir de l'Archéologie Préventive

The Port Arthur Site (Flanders, Belgium)

How the bronze hoard was discovered

The hoard was discovered by chance between 1915 and 1917. During the First World War, the City of Ghent decided to build new docks to prevent the city's men from being requisitioned to work in Germany. Excavations were carried out in the area of the current Central and South docks which had been known as Farman Square.

The excavation

Nobody knows the exact circumstances of the discovery of the hoard. During the excavation of the docks, workers came upon the find and other archaeological material, including the remains of a Merovingian cemetery. Large-scale excavations were closely followed by amateur archaeologists and a collector by the name of Achille Boterdaele. He was able to recover the find, but could not provide any information about its discovery. It is also not clear if the whole hoard was recovered and no information survived about the soil conditions of the find. In 1921, Maertens de Noordhout, who was responsible for the antiquities collection of Ghent University bought the objects for the University's museum.

Scientific research

Bronze Age hoards are well researched and can vary in composition depending on the purpose the objects served, their chronological period and the geographical area in which they were found. The Port Arthur hoards are ranked among the top Plainseau hoards from the Late Bronze Age (900-800 BC), which are frequently found in Northern France and Belgium. The bronze objects found in all of these hoards are very similar and are therefore identified as being from the so called Plainseau Culture, named after a bronze foundry site near Amiens. Unlike the northern French hoards which sometimes contain hundreds of objects, the Belgian counterparts are somewhat more modest and often contain only a few dozen items. Most hoards have a similar composition of objects. The Port Arthur/Ghent hoard is considered a 'female' find as it only contains jewellery. Plainseau hoards do not associate weapons and jewellery; however some contain jewellery and axes, which are thought to have been used as tools rather than weapons.

It is not easy to establish why these hoards were buried. Because so many dating from this period have been discovered, some consider them to have some kind of economic value as bronze was being gradually replaced by iron and thus falling out of use. Due to over-production, a portion of this wealth was buried in order to remove it from circulation. Others take the view that hoards were a form of sacrifice to the underworld or to the gods.

Through its association with the Merovingian cemetery at the new docks, some archaeologists believed until the beginning of the 1950s that the hoard was in fact the jewellery of a Merovingian woman.

Marien, curator of the Old Belgium division in the Royal Art and History Museum in Brussels confirmed that the hoards dated to the Bronze Age.

The recovered hoard contains 48 pieces, considered to be decorative. There are 37 bronze rings, thought to be part of a necklace or a belt. The hoard also includes two large bracelets that taper along both sides into a flat circular disk. The sides of

the bracelets are decorated with ribbing. They are often described as palette or omega bracelets. Three spiral shaped objects of different sizes were also found. One of the spirals is a thin bronze plate buckle decorated with stamped circles. Two crescent-shaped objects with a central stud are known as Lyzel hangers. Among the smaller objects are 2 bronze biconical beads, a damaged bead or an earring with a mounting pin and a circular button with a transverse stem. Finally, the hoard also contains a pierced disc with linear trim in a radial pattern. It is not clear what the exact purpose of this object was.



Hoard discovered at Port Arthur © G. Naessens / BOAT 1550 BC

The Aylesford site (Kent, England)



Two gold hoards found in the Aylesford area (Kent, England).
One of them was found in the River Medway © G.Naessens

Have you ever thrown a coin into a well or fountain and made a wish? It seems that people in the Bronze Age did something like this.

Bronze Age objects have been found in rivers, the sea and in ancient ponds. Others have been found in the ground. When a group of objects is found together, archaeologists think they were deliberately buried. They call this a 'hoard'.

Bronze Age hoards have been found all over Europe. Sometimes there are a few things, sometimes hundreds! Sometimes objects had been broken, but not always.



Archaeologists do not know why people deliberately buried valuable things or threw them into watery places. They may have been gifts to their gods. People may have wanted favours in return – like a long and happy life