

IRON AGE **KIDS**



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The Iron Age

Competitions were all the rage! Chariot races and boxing matches were very popular. The winner received a precious object like a beautiful helmet or a vase.

Iron Age people loved proper feasts! Guests often came from far away and brought strange stories and precious gifts. Sweet wine and luxurious meals were served, and there was also music and dancing.

The Iron Age began about three thousand years ago across large parts of Europe. This archaeological period was named after iron, a metal that was not used by people previously. From then on, they made tools and weapons from iron. The earlier part of the Iron Age is also known as the Hallstatt period after the town of Hallstatt in Austria, where salt was mined. Salt was an extremely important and valuable commodity that could be traded for gold, amber and other expensive goods, making the town's occupants very rich.

This is a bronze bucket. Its decoration was made by hammering the outlines of the figures with a round punch from the reverse.



The Hallstatt culture

Peoples with many different traditions and customs lived in Central Europe during the Iron Age. We don't know their names or what language they spoke because they did not leave any written records.

Archaeologists therefore try to "read" from the things people left behind on their settlements and from the grave goods they placed in the burials of their loved ones. These are mainly pottery (usually broken into many pieces), and animal bones or charred cereals, remains of their food, as well as tools, weapons and jewellery.



A vessel with bull heads!

Bronze vessels known as situlas bear enigmatic stories, which are recounted in pictures like comic strips



Situla

People used some truly enigmatic ceramic objects. Some of these are called “moon idols” because their form recalls the crescentic shape of the waning moon.

“Moon idols” are often decorated with designs that perhaps represent cosmic symbols, or with animal heads. Some archaeologists believe that they were ordinary domestic artefacts used in the kitchen, while others think that they were religious objects. It is possible that people used them as some sort of calendar.



The people of the Hallstatt culture made some very special vessels with bull heads applied to the vessel's body. These modelled bull heads are called “protomes”. Although we don't know what these special vessels were used for, we do know that they were modelled on vessels with bull heads from the Ancient Near East.

“Moon idols”

Do you have any idea what they might have been used for?

How do we know where we can find something?

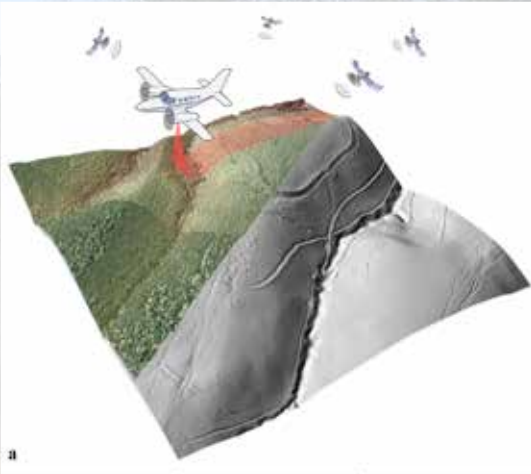
Archaeologists find out how people lived in the past by looking at the things people made, used and left behind. However, not only pots, bones and coins have survived from the past: using cutting-edge technology, archaeology can detect other traces that show us how people lived on settlements, how they produced food on their farms, how they travelled on roads and pathways, and how they buried their dead under large earthen mounds.

One very effective method of finding archaeological sites is aerial archaeology. Archaeologists circle over fields and pastures in an aeroplane to look for traces from the past that can be more easily recognised from the air. The places where ancient peoples dug for soil to build a mound can be recognised in the fields, as can the circles from where the soil was removed, even three thousand years later.



Burial mounds
as seen from an
aeroplane





Airplane making a laser scan of burial mounds and a rampart hidden under trees

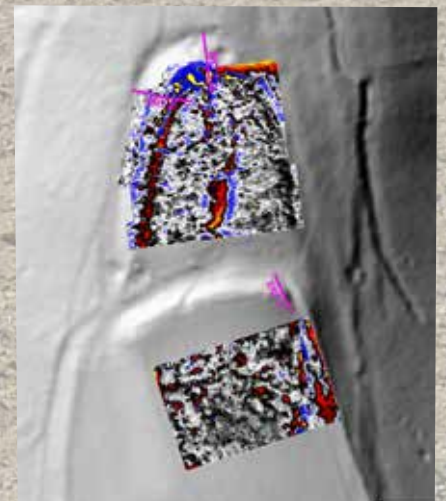
Many of these traces are concealed under the canopy of trees and cannot be seen even when flying over them. In these cases, we can use laser scanners: mounted on the plane, they scan the ground below them with millions of points. These points can be filtered and the trees can be removed with computer programs, providing a view of the ground without forests. Looking at these images, we can recognise many remains of the life of ancient peoples in the landscape.

Archaeologists can also look into the ground with the help of geophysical instruments. Magnetometers detect magnetic anomalies that are caused by archaeological remains. Radar instruments offer a 3D image of subsurface features such as the walls of houses and grave chambers.

Iron Age people preferred to build their houses on high hilltops and therefore they levelled the slopes with terraces before erecting their buildings.

Sometimes, they protected these settlements with wooden ramparts whose traces can still be made out on these images. Their cemeteries of large earthen mounds were established close to their settlements. Often, these burial grounds lay along roads and the travellers passing them could remember the ancestors of the people living there.

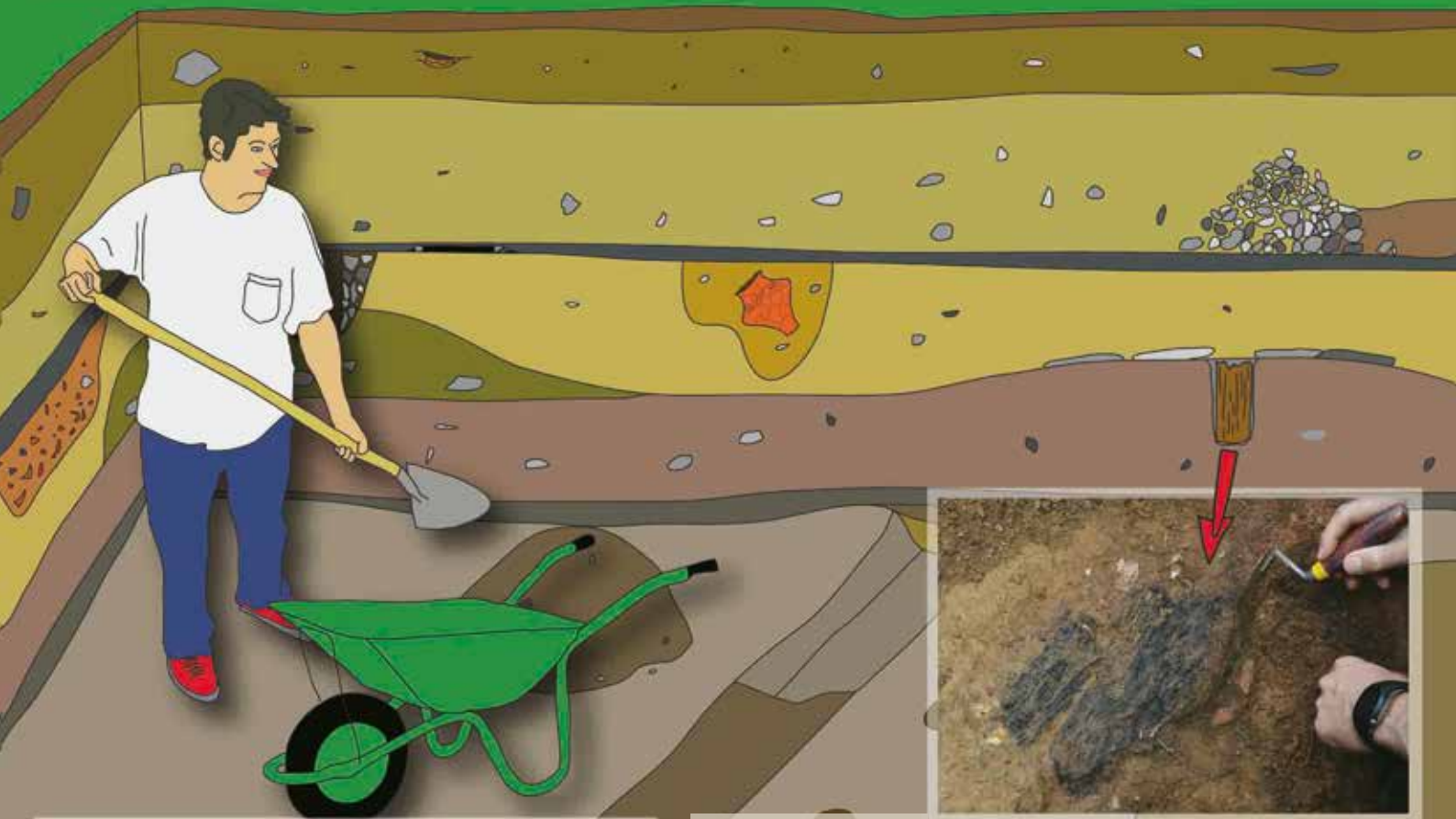
Geomagnetic anomalies showing houses in an Iron Age settlement with ramparts



Archaeological excavation

Digging the layers of a stratified cake

During excavations, archaeologists document everything they find. They measure and photograph every single layer and then remove and describe everything each layer contains. Every piece of pottery, metal and stone, but even the tiniest splinter of bone or piece of charcoal holds information that helps archaeologists understand the past.



Archaeologists always start excavating from the top, where the cultural deposits are the latest. The deeper they dig, the older the remains they discover.

If wood is preserved in the form of charcoal, archaeologists ask for help from archaeobotanists who can determine what kind of wood people used to build their houses or kindle a fire.



Archaeologists mostly use shovels, pickaxes and wheelbarrows, but they also use smaller specialised tools like trowels. Technical equipment is also used: a camera for taking pictures and a total station for measuring.



The layers look like a cake, but they call it a section. They have no imagination...



Excavations take place outdoors and depend heavily on the weather: in summer, it can get really hot and when it rains, the earth becomes muddy and people get soaked. But when the weather is nice, excavations are a very exciting way to learn about the past.

I wonder what life was like in the Iron Age?

See the questions in the blue and the answers in the white bubbles!

Do you eat corn flakes for breakfast?

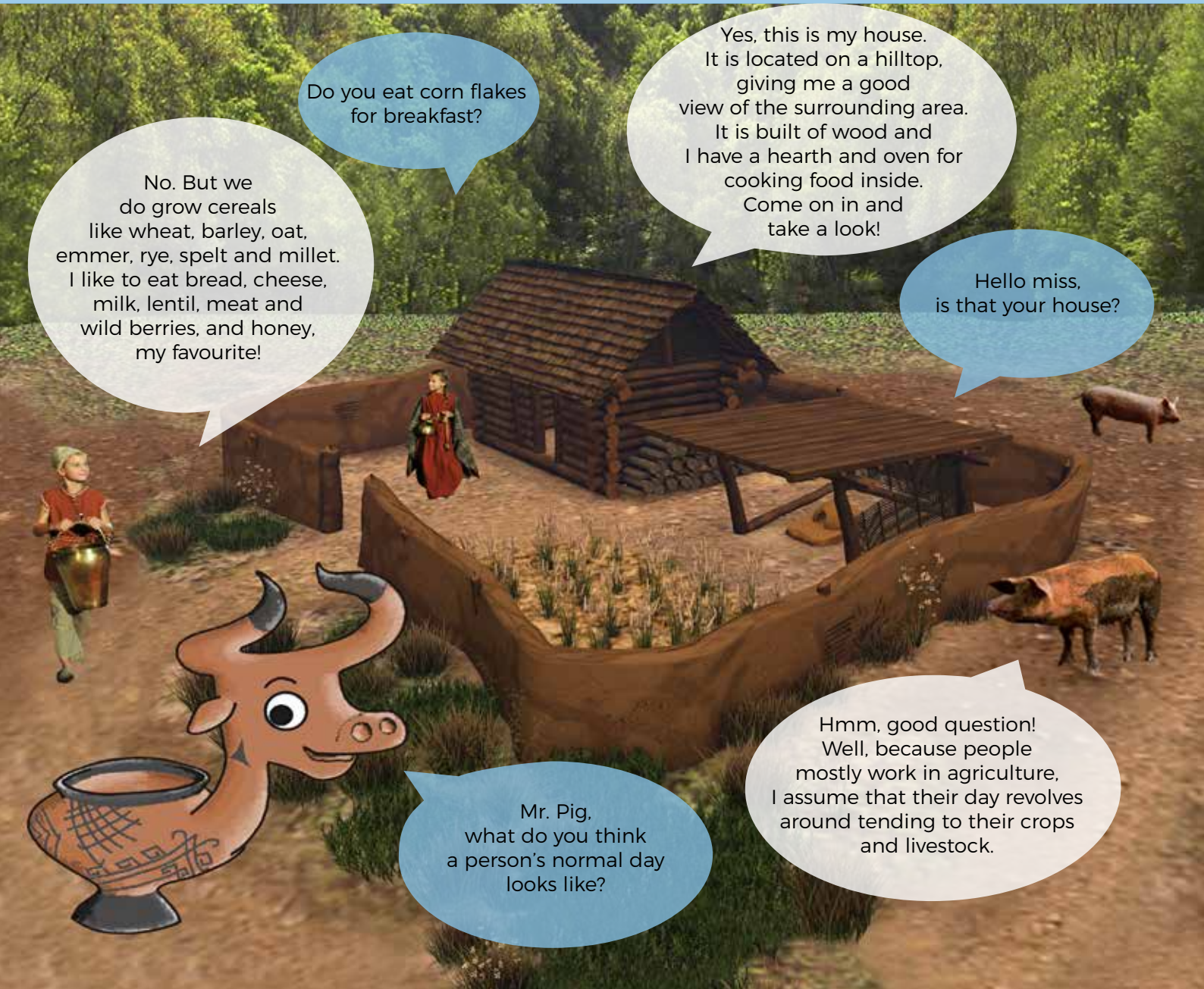
No. But we do grow cereals like wheat, barley, oat, emmer, rye, spelt and millet. I like to eat bread, cheese, milk, lentil, meat and wild berries, and honey, my favourite!

Yes, this is my house. It is located on a hilltop, giving me a good view of the surrounding area. It is built of wood and I have a hearth and oven for cooking food inside. Come on in and take a look!

Hello miss, is that your house?

Mr. Pig, what do you think a person's normal day looks like?

Hmm, good question! Well, because people mostly work in agriculture, I assume that their day revolves around tending to their crops and livestock.



Hazelnut pancakes

Make your own pancakes from Iron Age ingredients

Ingredients

125 g whole-wheat flour
500 ml milk
125 g crushed hazelnuts
125 g honey
70 g blueberries
a pinch of salt

You will also need

Larger bowl
Frying pan
Spatula
Whisk
Ladle



Preparation

1. In a large bowl, whisk together flour, milk and salt until the mixture is smooth.
2. Whisk the nuts into the batter.
3. Preheat a frying pan and pour a small ladle of batter into the pan.
4. Cook until bubbles break on the surface of the pancake and the underside is golden brown. This usually takes about three minutes.
5. Flip with a spatula and cook for about one minute more on the second side.
6. Remove from the pan and transfer to a plate.
7. Repeat until all the batter is used up.
8. Serve hot with honey and blueberries.

How to make an Iron Age garment, how were people dressed?

Clothing as well as the use of tools and of fire are among the basic needs of human beings. No animal has ever created anything resembling clothes.

Since garments are made of organic material, they are only preserved under special conditions, for example in Alpine glaciers or in the salt mine at Hallstatt.

Sometimes, archaeologists find the tools that were used to make textiles on settlements and in graves: spindle whorls, spools, loom weights and sewing needles. Iron Age people used many different materials like sheep and goat wool, horse hair, flax, hemp and nettle for making their clothes.

Making trousers or a tunic from sheep wool involves several different steps. The wool from sheep has to be teased, carded and combed to make fleece that can then be spun into yarn. Spinning is done with a hand spindle; different looms were used for weaving. Simple heddles and tablet weaving were used for smaller bands.



How much time does it take to make a tunic like yours?

Uhh, a lot! First you have to collect wool, sort, separate and comb it, spin with spindles, weave, cut and sew ... around 800 hours!



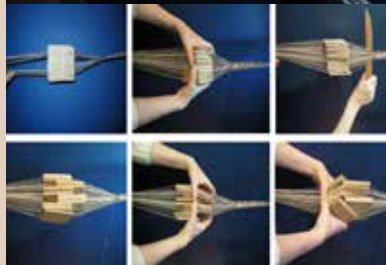
Spinning



Heddles



Tablet weaving



Weaving loom



People dressed in different clothes are depicted on the pots of the Hallstatt culture, although the first realistic images of men and women appear around 600 BC. There are finds of bronze sheets with festivity scenes showing horse-back riding and celebrations. Some of these resemble modern comic strips.



The imagery of stitula art shows women usually wearing a veil and long dresses. Sometimes, chequered cloth is trimmed with decorative bands. We may assume that these images reflect Iron Age fashion and taste: people obviously loved to dress up and adorn themselves to look good. Luxurious jewellery and colourful clothing were really cool! The women of the Iron Age wore different types of garments: tunics, veils, skirts and upper garments.



Spindle whorls

Men dressed in long garments and broad-brimmed hats on the situla from Kuffarn



Men usually wore knee-length tunics with a cloak, a head covering and leg wraps. Around 600 BC, however, a new clothing item appeared in Central Europe: trousers! For the very first time in European history men wore trousers. This was a very unusual sight for the Romans. When they occupied continental Europe, they found some barbarian tribes whose men wore trousers, whom they called *bracchati*, which roughly translates as trouser-people - in contrast to the Romans, who called themselves *togati*, the people wearing togas.



These are original Iron Age textile patterns:

Tumuli and burial practices



A tumulus (a barrow or burial mound) is a big earthen mound, often a prominent landmark in the landscape. It is an artificial, man-made mound that served as a grave during the Early Iron Age in Central Europe, in the areas inhabited by the communities of the eastern Hallstatt culture.

Only distinguished members of the community were buried under a tumulus. After they died, the deceased, fully dressed in their costume, would be cremated on a pyre.

After the cremation, the remains from the pyre (the burnt bones and the remains of the costume) were deposited in the burial chamber. Sometimes, the remains were collected in a linen or leather bag (satchel), but in most cases, they were deposited in an urn, a vessel made out of clay, which was then placed in the burial chamber. Finally, an earthen mound was raised over the chamber.

Who were buried in tumuli?

Only prominent members of the community such as princes were buried in tumuli.



Kaptol-Gradci

Reconstruction and current state of the stone burial chamber



Why are so many pots found in tumuli?

The pottery vessels found in tumuli served as grave goods and they were filled with various foods and drinks for the deceased's journey to the otherworld.



Experimental archaeology

Finding out how people did things in ancient times



Those who work in experimental archaeology, first research and study archaeological finds. These may be the remains of intact objects or their fragments, burials and hearths, ovens or kilns, food and clothing, houses and clay pots. Very often, specialists from many fields work together to find answers to their questions. Specialists sometimes use modern tools in their work.

They make copies of the artefacts based on the archaeological finds. First, they make tools that were used in ancient times. Next, they try to find out how the tools had been used, for example for making pots or constructing houses. Many experiments are carried out, sometimes lasting for several years, until an answer is found.





During some experiments, architects work together with the archaeologists to ensure that the walls are sturdy, the roof does not leak and the house does not collapse. During the excavation, archaeologists find only the holes for the posts in the ground, and wall and floor fragments. From these they know that hazel twigs, posts of oakwood, and clay were used for building the walls. However, there is no information about the thickness or the height of the walls, or the place of the door. These need to be tried out. It is not always easy for an architect or a builder!

Pottery making is also interesting. Clay is similar to playdough. We experiment with how prehistoric peoples built and decorated their pots by hand. It is exciting to find out how pots were fired so that they could be used for cooking and drinking. Sometimes, objects with an enigmatic function are found. We make copies and start experimenting to see what they could have been used for.



DIY Iron Age style

Do you know which black substance, which can be found in natural deposits, was used for decorating Early Iron Age ceramic vessels?

Graphite.

Graphite, a modified form of carbon, is a substance that was used in many different ways:

1. Graphite coating is a thin layer of graphite covering the entire surface of a vessel and giving it a metallic sheen.
2. Graphite painting is a technique for decorating ceramic vessels, where only certain motifs were made with graphite or graphitic paint (a colour made by adding a higher or lower percentage of graphite). Black graphite could be combined with red, white or brown colour patterns.
3. Graphite was mixed into the clay from which the vessels were made.

The graphite mine in the Croatian Nature Park of Papuk near Kaptol was exploited until the 20th century.



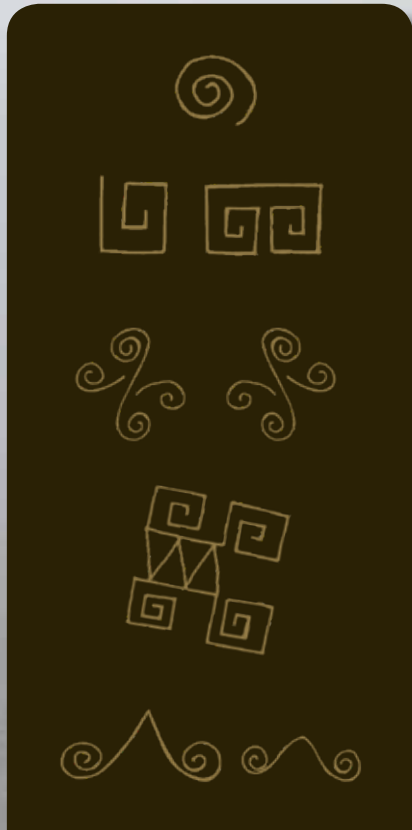
The geometric motifs that can generally be seen on Early Iron Age ceramic vessels are meanders, spirals, horizontal flutings, inverted triangles, zig-zag patterns, and parallel horizontal and vertical lines.

The vessels were often decorated with metal appliqué, protomes and animal figures.

Make your own bookmark

Make a bookmark that imitates the graphite decoration of Early Iron Age vessels in three easy steps:

1. Take a thick brown paper and cut it in the form of a bookmark.
2. Colour the paper with beige pastel and then cover it with black ink.
3. After it has dried, incise Iron Age motifs with a wooden stick.



Coloured cloth

You can also use these Early Iron Age motifs to decorate a cloth (we suggest a linen bag or a simple white T-shirt) in three easy steps:

1. Take some clay and make your own stamp decorated with an Early Iron Age motif (you can carve the motif with a wooden stick).
2. After it has dried, use a brush for smearing textile dye or tempera paint over the carved motif.
3. Then, press your stamp on a cloth.



Iron Age Hunters and Warriors

Build your own stick bow and arrow! What do you need?



For the bow

1. A hazelnut, elm or ash branch (around 120 cm long and no more than 2 cm thick); find a branch that is straight, free of side branches and equally thick on both sides
2. Twine (about a third longer than the branch)
3. A knife (use it with your parents' help!)
4. Leather strip (or additional twine)

Use the knife to remove knots and the stubs of the side branches. Cut a roughly 2 cm deep notch on the stick's thicker side, just below its end. Wind the twine around the notch, bend the branch into a slight curve and repeat at the other end. Wrap a leather strip or twine around the middle of the branch for a grip.

For the arrow

1. A slender and straight cane, reed or bamboo, no more than 1 cm thick and about half the size of the bow (you can also use rods from a garden centre)
2. Soft wire
3. Fast drying glue

Remove all disturbing knots from the cane with the knife. Cut a nock, a small notch, on one end of the arrow, wide enough to fit the twine into it. Sharpen the cane's other end to a point and wind a piece of wire around the cane some 2 cm from the tip to make the tip heavier. Seal and fix the wire with glue.

In the Iron Age, people used different kinds of weapons for hunting as well as for combat such as bows and arrows, lances, spears, battle-axes and swords.

Weapons were mainly made of iron, although bronze also remained in use. Arrowheads were sometimes crafted of bone.



The arrow released by an Iron Age archer could attain a speed of over 150 km per hour!

The Scythians, the fearless mounted warriors from the steppes of Eurasia, were the best archers.



Lance and battle-axe from the Strettweg burial mound



Hallstatt warriors

Archaeologists often find weapons and other elements of warrior equipment in many of the princely tumuli excavated in regions that are part of the Hallstatt Cultural Circle.

These artefacts belonged to the prominent individuals of society, to the warrior aristocracy. Given that warriors were also members of the elite, they used their weapons and other elements of their warrior equipment in warfare, but also as status symbols.

To put it simply, members of the Hallstatt elite were not simply warriors, but were also expected to look like warriors.

Four types of artefacts are generally found in the tumuli:

1. weapons (for warfare)
2. drinking vessels (for alcohol consumption)
3. horse gear and wagon components (for riding and driving)
4. objects used for body decoration (tweezers, razors, mirrors, jewellery, etc.)

Warfare equipment can be classified into three basic categories:

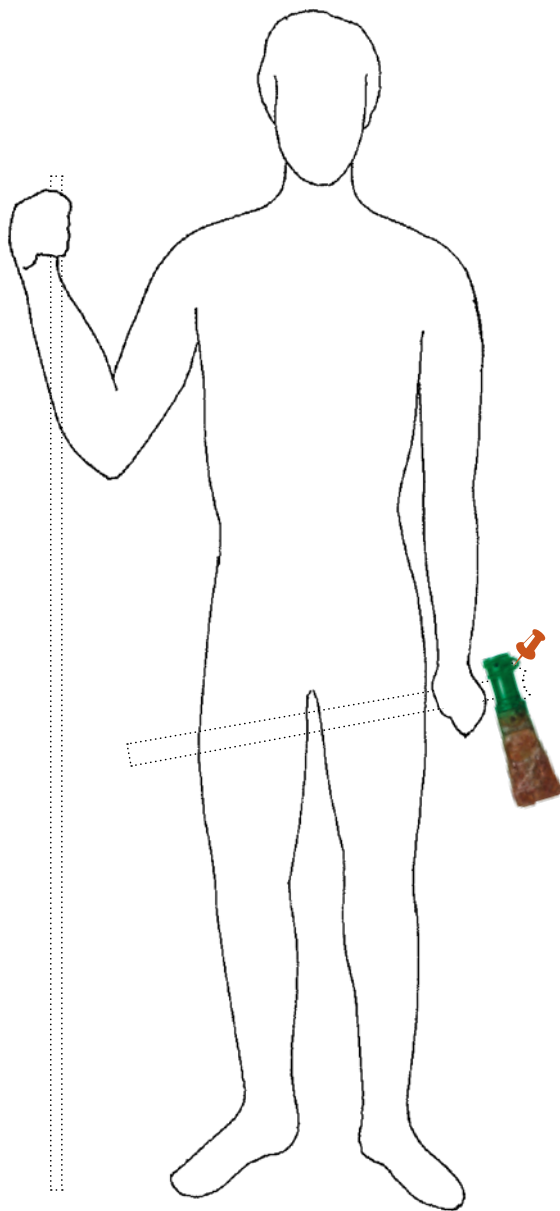
1. offensive weaponry (spears, bows and arrows, swords, battle-axes)
2. defensive weaponry (helmets, armours, shields, greaves)
3. horse gear



Dress the warrior from Kaptol

Place the photograph of each item on the correct spot on the warrior's silhouette. Draw the missing parts of the items.

Hint: some of the items may be missing, for example parts such as handles, belts or straps that were made of wood or leather since only the metal parts were preserved.



Credits

The Iron Age

Text: S. Tiefengraber, R. Klöckl; graphs, design: R. Klöckl; photo: Universalmuseum Joanneum/N. Lackner

The Hallstatt Culture

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Archaeological excavations

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How to make an Iron Age garment, how were people dressed?

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Tumuli and burial practices

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Experimental Archaeology

Text, photos: Matrica Muzeum és Régészeti Park, Százhalombatta

DIY Iron Age style

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Iron Age Hunters and Warriors

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Hallstatt warrior

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