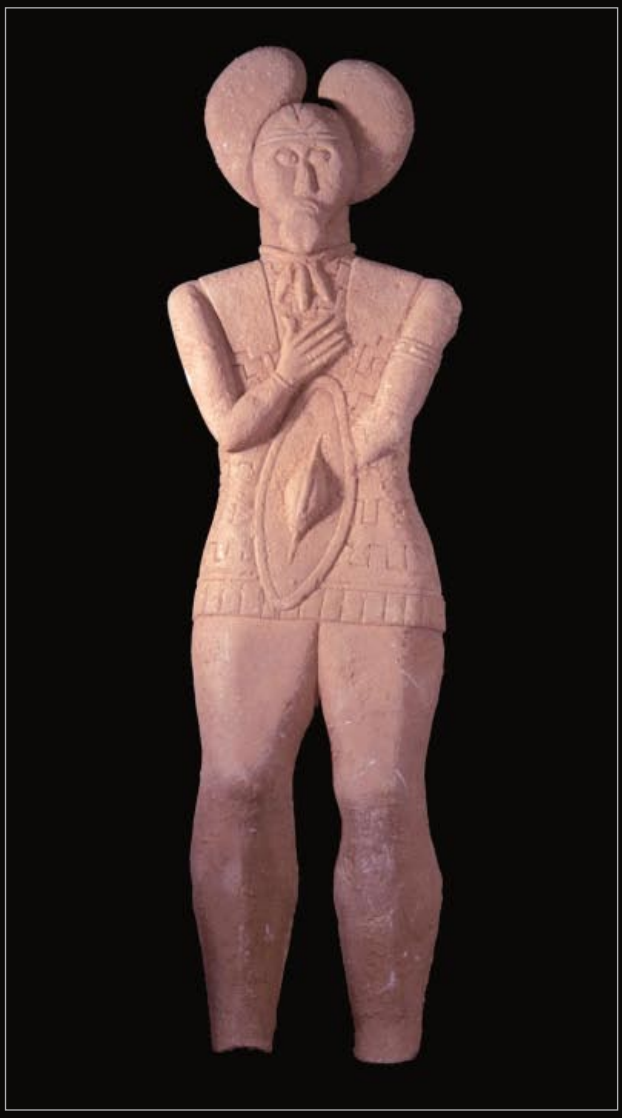
Archaeological Finds from Germany



Selected and annotated by Svend Hansen

Booklet to the Photographic Exhibition

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Berlin 2010

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In the year 2009 German archaeologists in Azerbaijan achieved attention-drawing finds. They revealed a Neolithic site of the 6th millennium BC in the Mil steppe. Further, they excavated the largest Achaeminid palace found outside of Iran in the vicinity of Schämkir, formerly the German community Annenfeld.

In April of 2009 the Eurasia Department of the German Archaeological Institute with its first director Prof. Dr. Svend Hansen agreed upon scientific collaboration with the Azerbaijan Academy of Sciences.

At the same time the State Minister of the Federal Foreign Office, MoP Gernot Erler, opened an international symposium on "Azerbaijan – Land between East and West. Transfer of Knowledge and Technology during the 'First Globalization' in the 7th to 4th millennium BC", the first outcome of this welcomed cooperative work.

As one can see, much has been achieved in Azerbaijan in the field of archaeology as well. We extend our thanks to all participants and at the same time wish them luck that the oil dollars continue to flow on the part of Azerbaijan and be beneficial to archaeology.

While preparing for the symposium in 2009 the idea arose during a conversation with Professor Hansen of presenting outstanding archaeological finds from Germany in Baku.

The preparation of this wonderful exhibition has now been accomplished. Dozens of museums in Germany have provided their best finds in excellent photographs for display.

It is a great present for me that this exhibition, which attained more importance than I had initially aspired, will be shown first in Baku. The photographs and explanatory texts convey archaeological finds of great quality that were found in German lands. Among these are the world renowned Neanderthal, the lion man from a cave in Baden-Württemberg which presumably is the oldest full plastic representation of a standing human, and the spectacular new discovery of the celestial disc from Nebra. After this exhibition the photographs and texts will go on tour, culminating in a crowning close at the German Cultural Weeks in the southern Caucasus in 2009/2010.

I express my wish that this exhibition will enjoy a good start in Baku. I am certain that the Azerbaijan public on the first in April 2010 and later the people in many countries will view these photographs with great amazement.

Dr. Peer C. Stanchina
German Ambassador, Baku

Introduction

Today archaeology plays a far greater role in public awareness than even a few years ago. The interest of the public has grown enormously. Archaeology has no longer been viewed as a burdensome costly factor that arises through mandatory excavations in the course of constructing streets and industrial areas. Archaeology is comprehended far more as an indispensable component of a responsible approach towards the history of the immediate surroundings. Archaeological monuments and interesting museums enhance the attractiveness of a region: This improves the population's awareness of life and is motivating to visitors. Is modern tourism imaginable without archaeology? Since the end of the Cold War and with the ability to travel freely, there are indeed many places to discover.

The long blockaded scientific exchange between archaeologists in the West and East has experienced a tremendous upsurge in the past twenty years. Cooperative undertakings between archaeological institutes in the East and West, for example, in the form of joint research projects, are a matter-of-course today. In 1995 the Eurasia Department of the German Archaeological Institute was founded. Since then it has carried out research in joint projects with partner archaeologists from almost all countries of the former Soviet Union. Often from hesitant beginnings emerged active research groups, who pursued historical connections and mutual roots in western Eurasia.

Public interest in archaeological remains in the areas of the Black Sea, the Caucasus and Central Asia is no less great. Presentations such as the great exhibition on the Scyths: "Under the Sign of the Golden Griffin. Royal Graves of the Scythians" held in Berlin in 2007, and the exhibition on "Alexander the Great and the Opening of the World. Asia's Cultures in Change", held in Mannheim in 2009/2010, have brought vast spatial dimensions into view, in which historical movements are observed: from Germany to Siberia and the Hindukush.

The photographic exhibition "Archaeological Finds from Germany" extends the invitation to discover archaeology in western Central Europe. Perhaps visitors of the exhibit will discover similarities between finds of their homeland and those in Germany. They are the result of an exchange that has continued for millennia between the two continents, an exchange that we are only now slowly discovering again and beginning to respect.

Selecting objects for this exhibition was not an easy matter. Some objects like the celestial disc from Nebra are so outstanding, that they could not be excluded. Others, by contrast, are of exemplary value. Especially important is that visitors can understand the original function and significance of the selected

Fig. 1.

objects directly, without the aid of reconstruction drawings and complex explanations. Thus, a great number of important finds could not be considered for this exhibition; these are often nondescript small fragments, which however can be very informative about social and cultural historic processes. For example, among the most important archaeological finds are refuse from butchering animals or charred grains of cereals found in settlements, for they document the eating habits of the population.

Archaeology, therefore, has long ceased to be an antiquated science; instead it is a large research network, in which for example disciplines of the natural sciences play an important role. From the field of physics and radiocarbon dating we can expect the precise determination of the age of organic remains. Archaeometallurgy provides recognitions about the origin of metals and trade relations. The geosciences enable the reconstruction of changes in the landscape over the course of the past millennia. Biology is part of every excavation: What animals were hunted? What domestic animals were kept? What plants were collected and planted? How did humankind handle natural resources? Investigations on annual tree-rings (dendrochronology) can determine age to the exact year. Many of these results are also of significance for reconstructing climate. Using old DNA genetics can identify kinship among the deceased in a cemetery.

At the same time archaeology today consciously tackles questions that play a role in society. How was the relationship between men and women construed? How were conditions of power and authority formed? What use did humans make of images? These are questions that necessitate dialogue with sociology, ethnology and other social and humanistic sciences.

Fig. 2.

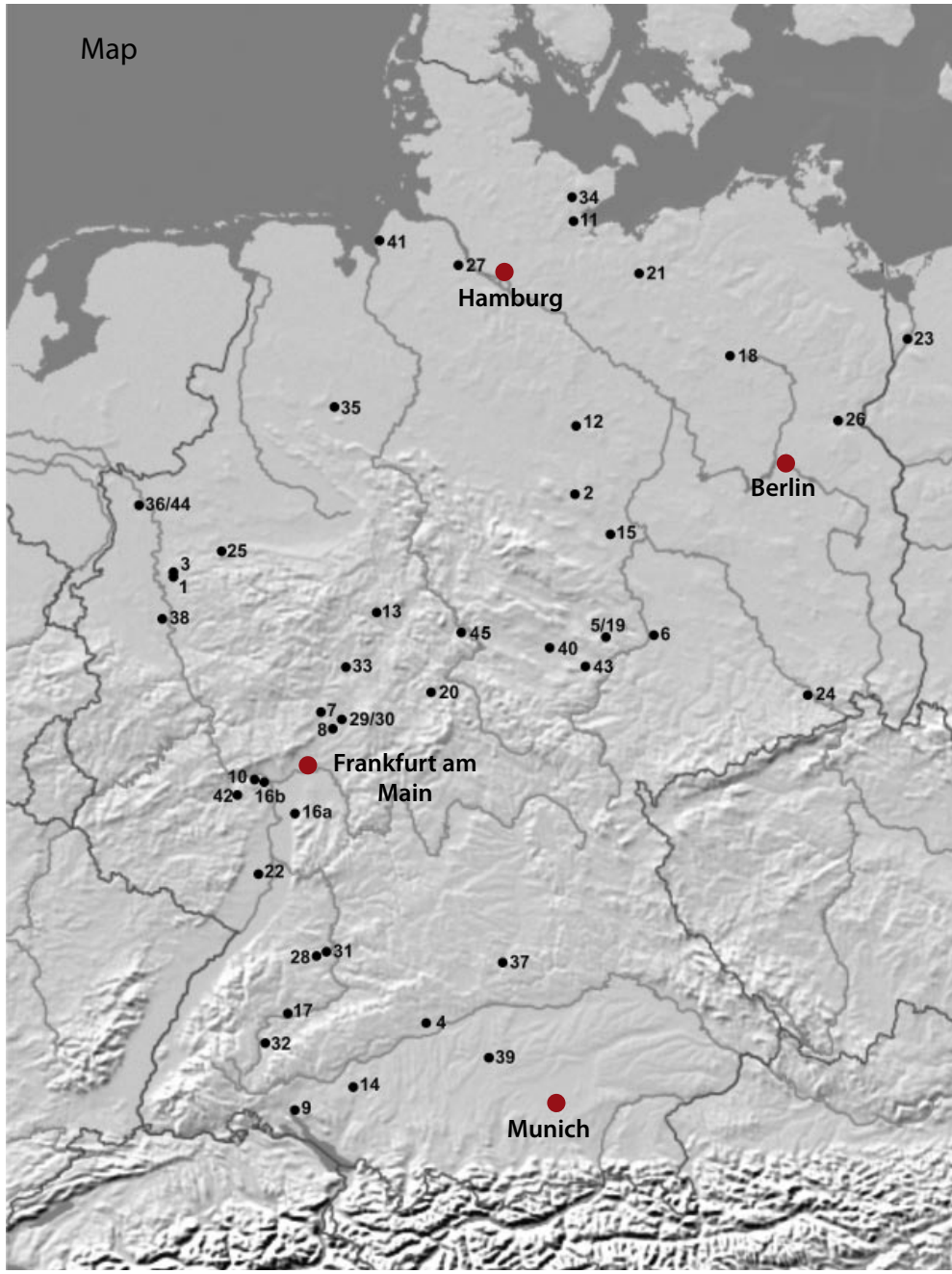
Germany is strongly divided, geographically and culturally. The Alps mark the countryside of the South. Joining in the North is the landscape of the Mittelgebirge, which extends from the French Vosges in the West to the Romanian Carpathians in the East. The north of Germany is distinguished by the Central European lowlands formed in the Ice Age and by access to the Baltic Sea. These differences in landscapes have contributed to the formation of cultural particularities. And the selection of objects for the exhibition was also intent upon considering the regional differences. The oldest find on exhibit is a Stone Age hand axe; the youngest finds are from the early medieval period. The time span delimited by these dates is the traditional core of prehistoric archaeology. Today this has also come to include the field of palaeontology, as for example, the world-renowned primeval horse, 48 million years old, found in the Messel pit near Darmstadt (Fig. 1). Likewise included is the archaeological conservation of monuments as well as investigations on medieval remains, for which the find of 4000 coins dating to the 13th century AD and found in Saxon Lichtenau (Fig. 2) should be mentioned. Finally, the modern age increasingly appears within the archaeological sphere of research as well.

In most of the finds in the exhibition associations with Europe are recognisable. There is hardly one archaeological "culture" from the past five hundred thousand years that is limited with the national boundaries of Germany today or other modern states. In ordering/distinguishing archaeological material, "cultures" are defined, most of which are in reference to similarities among clay vessels or certain stone tools that were used during a certain time in a geographic area. These "cultures" are not equivalent to tribes or peoples; therefore, it has been suggested that "sign systems" would be a more neutral expression.

Archaeological finds represent the historical legacy of humankind in Europe, resp. Eurasia, a legacy that can be ordered only in great interconnected durations in history, for example, the two million years in which humankind lived as hunters and gatherers, or the beginning and dissemination of rural way of life and economy, or then the emergence of complex forms of social organisation. And for this reason, national institutions devoted to the conservation of monuments and museums are the guardians of a mutual cultural legacy.

The pictures shown here represent various styles in the photographic presentation of finds. They show that archaeological finds are not just objects of dry scientific classification; rather, they can be observed from other different angles. Archaeology is also a "science of the eyes": Through images the eyes creates ties and correlations between objects, a plural process that simply cannot be normed.

The photographic presentation of finds makes it possible to direct the observer's concentration towards the individual finds. With each photograph separated by the frame and passepartout, no genealogical association should be made between the images. Each of the finds represents its own specific historical situation, which must be displayed on its own. Therefore, in this exhibition no illusory attempt is made to narrate an interrelated history, which would for example lay claim to gradual technical perfection or general civilising progress. The archaeological finds represent far more the chain of discontinuities than does history. Each object stands for a specific constellation that should be explored.



1 Hand axe from Hochdahl near Düsseldorf

(Nordrhein-Westfalen)

Early man, Homo erectus, lived about 1.2 million years before the present day in wide parts of Eurasia. He is attested in the Caucasus by finds made in Dmanisi, the Republic of Georgia. In Germany the first fragment of a skull of the Homo erectus was found in 1907 in Mauer near Heidelberg; it is clearly younger in age, probably ca. 600,000 years old.

The hand axe was used for millennia during the Palaeolithic (Old Stone Age) as weapon and tool for various tasks: a real universal implement. It was apparently invented 1.5 million years ago in Africa; thereafter, the idea spread rapidly throughout the settled world of that time. Hand axes vary in size between 10 and 30 cm length, are relatively flat, worked on both sides and display an almond-shaped contour.

Hand axes could be employed for cutting and pounding. They could sever plants and animals and also open shells and bones. Many hand axes, including this example from Hochdahl, are outstanding in their careful production and illustrate the perception of Homo erectus for forms and/or beautiful things. They are indeed witness to the creative capacity of early humankind. We may thus assume that meticulously formed hand axes likewise represent much sought-after and prestigious implements.

The hand axe from Hochdahl is made of local quartzite and about 500,000 years old. The carefully shaped hand axe (Fig. 3) from Ochtmissen near Lüneberg (Niedersachsen), oppositely, is associated with the Neanderthals of 150,000 years ago. This axe and more than 50 other hand axes from this site probably served for butchering wild game.

Fig. 3.

2 Hunting spears from Schöningen,
district of Helmstedt
(Niedersachsen)

Only a few years ago, in 1994, wooden spears together with stone tools were discovered at an open pit mining site for lignite. They date to the time of Homo erectus, about 400,000 years ago.

Wooden objects from the Old Stone Age are a great rarity indeed. Until 1994 only one wooden spear was known from Lehringen, Niedersachsen, with which a forest elephant had been killed 120,000 years ago. The state of preservation of the Schöningen spears as well as the bones found with them is likely due to their rapid cover with sedimentation on the banks of a lake. Their position in moist earth and the absence of air prevented the deterioration of the wood.

The spears were found in close proximity to one another. They vary between 1.80 and 2.50 m in length and are made of spruce; only one is made of pine. In the direct vicinity lay numerous bones of wild horse and stone tools that served to disarticulate the animals. Apparently all represent the remains of one hunt for an entire herd, during which at least 20 wild horses were slain. It can be assumed that some ten hunters, possibly female hunters as well, participated in this hunt. They lay in wait for the animals in a hidden spot near the lakeshore and then killed them.

The Schöningen spears are the oldest known hunting weapons of humankind, a fact that throws new light upon the way of life of early man, Homo erectus, 400,000 years ago. Accordingly, Homo erectus was not a true scavenger, as often assumed, but a cunning (big game) hunter. Yet, the spears are foremost indirect evidence that Homo erectus was a planner: The weapons had to be appropriately produced; the organisation of the hunt, such as the time and the course of action, had to be planned in all details beforehand. After the hunt the felled game had to be butchered rapidly, in order to save the meat, possibly to conserve it, and to obtain the hides and sinews. All of these actions could only have functioned with a team, a group that was based upon cooperation.

Fig. 4.

3 Skeletal remains from Neanderthal near Düsseldorf
(Nordrhein-Westfalen)

In 1856 skeletal remains were found in the Neanderthal near Düsseldorf, among which the skull with its prominent brow ridges caused particular astonishment (Fig. 5). The discovery became eponymous for an early form of humans, Homo neanderthalensis. Today the remains of some 300 Neanderthals are known in the area between the Atlantic Ocean and Central Asia. In 1856, however, the skeletal remains led to great controversy. The geologist Johann Carl Fuhlrott and the anatomist Hermann Schaffhausen viewed the bones as the "oldest monument of the earlier inhabitants of Europe", whereas the renowned physician, archaeologist and member of parliament in Berlin, Rudolf Virchow, maintained that they were the pathologically affected bones of a modern human being. The Neanderthal discovery quickly found resonance in England, where in 1871 Charles Darwin published his book "The Descent of Man". But under Virchow's influence scholars in Germany remained reticent until the beginning of the 20th century.

In 1997 the site in Neanderthal was re-discovered and excavations commenced. They revealed bones that belonged to the skeleton, but had been overlooked in 1856. In addition, the bones of two more Neanderthals could be identified. The first skeleton in Neanderthal was physically handicapped due to a broken left arm. Nevertheless, he was supported by members of his group and ultimately buried in a grave. Not only did the Neanderthals care for the weaker members, but also for the deceased. In fact, in La Ferrassie, France, a small graveyard with eight burials was discovered.

Homo neanderthalensis was in part a contemporary of modern man. The deceased in Neanderthal belonged to the latest Neanderthals in Central Europe; he lived about 42,000 years ago. Recent investigations have shown that Neanderthals were foremost successful hunters: meat formed the most important component of their diet.

Fig. 5.

The image of Neanderthals as ape-like beings has long since ceased. Their social communication and technical capabilities have placed them in the proximity of modern man, and this standing is no longer denied the Neanderthals. Yet, the cause of the demise of the Neanderthals has been a matter of debate for some time. Recently the theory has found support that short and extremely cold spells (so-called Heinrich events) could have made the survival of the Neanderthals impossible ca. 40,000 years ago.

4 **The lion human from the Hohlenstein-Stadel cave in Lonetahl,** Alb-Danube-district (Baden-Württemberg)

One of the magnificent works of art of the Palaeolithic is the ivory statuette found in the Stadel cave in Hohlenstein mountain in the Swabian Alb. It represents a mixed being: half human and half lion.

During excavations at Hohlenstein-Stadel in the summer of 1939 numerous pieces of a carved mammoth tusk were discovered, but they were not recognised as the remains of a figure. The excavation had to be terminated in summer 1939. The director already had conscription orders in his pocket for the war that Germany had started with its invasion in Poland on September 1. Only as late as 1969 was the significance of the fragments recognised during an inventory of finds in the museum; the fragments were quickly pieced together. In 1988 more fragments that had appeared in the meantime were added to the figure.

With an unusually large size of 28 cm, the statuette unites human characteristics, such as the upright posture, with the head and extremities of a wild cat. But much about the figure remains enigmatic; even whether or not it represents a male or a female cannot be clearly decided. The figure could not stand on its own; it had to be propped against a wall.

At present there are two datings that indicate that the statuette is about 32,000 years old. Hence, it is one of the oldest fully sculpted works of imagery known. At a short distance of two kilometres from Hohlenstein, several small ivory figures of lions and mammoths were discovered in the Vogelherd cave.

Figural sculptures are first attested ca. 35,000 years ago, with the figures from the Swabian Alb representing the oldest found until now. At about the same time the dynamic and compositionally magnificent paintings were created in the Grotte Chauvet in France. All of these artistic forms of expression are related to anatomically modern humans. By contrast, figural sculptures and paintings are unknown among the Neanderthals; however, there is the possibility that Neanderthals made images out of wood or other perishable materials. In view of their initial emergence, anatomically modern humans began relatively late with the production of small and large art works, likely due to social conditions. Gatherers and hunters could now permanently document their experiences and their world view in figures and murals and make repeated use of them, for example, in transitional rites.

5 **Statuettes of females from Nebra**, district of Burgenland (Sachsen-Anhalt)

The three small figures, only 5.2 – 6.6 cm in height, were discovered at the site of a hunters' camp of the late Upper Palaeolithic (12th–11th millennium BC). Two figures lay each at the bottom of a pit. The third lay together with stone tools and animal bones in a cist built of six vertical stone slabs and covered with one slab of sandstone. The pits as well as the stone cist were coloured red with ochre.

The extremely schematic statuettes display a human body in the side view, that is, a silhouette. All are without a head; the body is slender with pronounced buttocks. Usually they are not decorated. It is generally assumed that the figures represent females, as breasts are occasionally denoted. At present about 95 statuettes that display a comparable form are known from 17 sites located in the area between southwestern France and the Ukraine.

The figures vary in height: The smallest is a 1.5-cm long pendant from Petersfels, while the largest example thus far is the 21-cm high figure from Andernach. The wide distribution of these similarly designed figurines is impressive evidence of the exchange and communication between mobile groups of hunters.

Engravings on slate slabs found in Gönnersdorf, Rheinland, display very similar figures. The formal correspondence between the plastic and engraved depictions of females gives reason to contemplate how the plastic figures were once placed. It is noteworthy that in the engravings from Gönnersdorf one female is not depicted alone, instead females in a group. Therefore, these engravings have been interpreted as dance scenes. Perhaps as an analogy, the plastic figures were meant to be arranged in a scene as well. This again would point to the possibility of the statuettes' association with rituals and feasts, which were among the activities of hunter groups during their long stays at winter camp.

6 **Grave of a female in Bad Dürrenberg**, district of Merseburg-Querfurt (Sachsen-Anhalt)

With the gradual climate melioration after the end of the last ice age, living conditions for humans changed fundamentally. Due to the expanding forests in Central Europe, animals that once dominated the tundra, for example, mammoths and reindeer, lost their natural habitats.

The time of large herds of horses and reindeer were bygone. Hence, hunters and gatherers were compelled to change their subsistence strategies. Other animals, like the red deer and wild pig, appeared in the landscape, and fishing began to play an ever greater role.

It is this phase of the Mesolithic period (Middle Stone Age), presumably the first half of the 7th millennium BC, during which an extraordinary burial, interpreted as that of a female shaman, war placed in the earth. The deceased young woman was interred in a 30-cm thick layer of red hematite, a mineral colourant, together with an at most twelve month-old child. Gifts for the deceased had been placed in the grave, among which were several flint blades, two bone needles, a antler hoe, a polished stone celt and several decorative plaques from boar tusk. In addition, there were two bones of a crane, one bone of a beaver and of red deer, 16 red deer incisors, two matching skull fragments with antlers of a roe deer, shell fragments of at least three swamp turtles and 120 fragments of freshwater mussels. A container made from a crane's bone held 31 tiny flint blades (Fig. 6). The reconstruction of the shaman's dress as shown here is based upon the position of the finds in the grave.

The abundant as well as extraordinary grave goods led to their association with a shaman's burial soon after the grave's discovery. Renewed examination of the skeleton a few years ago revealed a deformity in the first neck vertebra of the female, which could have caused lameness and difficulties in movement. Therefore, it can be presumed that it was an alleviation for the woman to be in trance.

Techniques in ecstasis are the prerequisite for a shaman's journey into the supernatural, through which they can enter the world of spirits.

Fig. 6.

7 **Clay pig from Nieder-Weisel**, district of Wetterau (Hessen)

About 10,000 BC a fundamental change in the way of life came about in the zone of the Fertile Crescent, that is, from the Levant to the Anatolian Taurus Mountains in the West and the Zagros Mountains in the East. Hunters became more sedentary, building permanent dwellings, and hunting played a steadily lesser role in subsistence. Instead they began to domesticate animals, first sheep, goats and swine, later cattle as well. The gathering of plants gave way to cultivating cereals. This process occurred over a longer time span, for some 2000 years.

As of ca. 7000 BC this new agricultural form of life and economy gradually spread to Europe: First it embraced western Anatolia and Greece, later the whole Balkan peninsula. Then around 5600 BC the entire area between the western Carpathian Basin, approximately from Lake Balaton, to the northern Upper Rhine valley and the northern edge of the Mittelgebirge, was rapidly settled by farmers. Characteristic of this vast area are clay vessels, which in view of their decoration with incised curved bands, are designated as Linenbandkeramik or 'linear pottery'.

The first farmers in Central Europe began to clear forests, in order to gain ground for fields and pastures. Their characteristic long houses, reaching up to 40 m in length, provided room for several families and presumably for livestock too. Genetic investigations have shown that the domesticated animals – cattle, sheep, goats and swine – which the settlers brought with them, stemmed ultimately from wild forms of the Fertile Crescent. Pigs rank less in number than cattle and sheep in early Neolithic settlements. In the course of development, however, pig-raising in Central Europe increasingly gained in importance, due to favourable conditions for feed. Neolithic swine were relatively small animals with a shoulder height of 70–80 cm.

The pig from Nieder-Weisel in Hessen Wetterau is a hollow figurine, 14.5 cm long and 7 cm high. The body is decorated with incised lines (Fig. 7), which were originally filled with red and white paste, lending colour to the small figure. Typical of the Linienbandkeramik, the linear decoration was surely not for mere decorative purposes, but had far more a symbolic meaning. Clay figures of animals belonged to that symbolic material of early Neolithic settlers, which played an important role among their Balkan predecessors. In Central Europe, however, the production of such clay figurines was soon given up.

Fig. 7

8 **Head from Nidderau-Ostheim**, district of Main-Kinzig (Hessen)

Particularly noteworthy of the Neolithic period in Southeast Europe is the production of small clay anthropomorphic figurines. They constituted a great bundle of innovations, which with the introduction of farming as of 6000 BC became widespread throughout the Balkan Peninsula. Among these innovations, all of which had been developed between the 10th and 7th millennium BC in eastern Anatolia and the Levant, were clay vessels, polished stone axes, domesticated animals (cattle, swine, sheep and goats) and cultivated plants (cereals). Clay figurines were surely more than simple decorative works; they were instead an expression of self-perception and self-affirmation of the early agrarian communities.

Whereas thousands of such clay statuettes are documented in Southeast Europe, only ca. 200 fragments of statuettes are known in the entire distribution area of the Linienbandkeramik (linear pottery culture) extending from Hungary as far as the Netherlands. The 4-cm high head found in Nidderau has a dark, almost black surface, glistening with the small particles used as temper. The face is dominated by the two hollows meant for the eyes, which are not aligned at the same level, and the long narrow nose, which starts rather high and is partly broken. The eyes themselves were presumably made of organic material. Possibly a narrow horizontal groove should represent the mouth of the statuette, but this is not certain. Of particular note is the care with which the hair is represented. Braids of hair hang down the back and the sides of the head, while two braids are arranged like a horseshoe on top of the head. The whole hairdo is encircled by a deep groove, which might be understood as a hair band. The statuette was produced around the mid 6th millennium BC.

Neolithic figurines are an important component of prehistoric imagery. Genealogically, they stand between the sculpted images made by hunters of Upper Palaeolithic, on one side, and, on the other, the art of early civilisations in Egypt and Mesopotamia. Encompassed here is a complex of figural art, which despite stylistic diversity is marked by a limited repertory of representational types, which vary within a canonical imagery that reaches back to the 10th millennium BC.

9 Wall decoration from Ludwigshafen-Seehalde, district of Konstanz (Baden-Württemberg)

During the different phases of the Neolithic period, there were settlements on the shores of lakes around the Alps. The excellent conditions for preservation contributed to the conservation of the wood used for building houses as well as implements of daily life made of organic materials.

Through the determination of the growth of tree-rings (dendrochronology) of the wood used for construction, the time at which the houses were built can be determined to the exact year. Research has succeeded in compiling a complete sequence of characteristic tree-rings in Central Europe. Today the oak-chronology extends back to 8480 BC. Connected with the oak chronology is an early holocene pine chronology, which covers the time of 7959–9931 BC. With that the tree-ring chronology encompasses an uninterrupted span of 12,000 years.

In this way the date of settlements of Neolithic settlements around Lake Constance could be determined very precisely. Accordingly, finds from the lakeside settlement of Ludwigshafen-Seehalde, which is ascribed to the older Pfyn culture, date to the years 3869–3824 BC. The two almost life-sized breasts were a component part of the plaster covering the plaited-reed wall of a house. The plaster was decorated in relief and white colour, displaying wavy bands, triangles, circles and groups of dots, which all together composed the wall decoration (Fig. 8). In view of the decoration and the breasts, it was proposed that the house could have been a place of cult. The female breasts were associated with concepts of fertility. Their profuse covering with white dots was proposed to be "the twofold symbol of fertility: a rain of stars that blessed female humans with celestial powers and the milk of the Milky Way" (from Müller-Beck). On the other hand, the demonstrative display of breasts can also be seen as defensive magic.

In that period of time figural female breasts were not only applied to the walls of houses; in a corresponding way they also decorated numerous clay vessels, such as flask-shaped vessels, small pots and jugs. The idea of ultimately rendering clay vessels as the female body by applying breasts was a tradition that reached back into the 6th millennium BC, and in the 4th millennium BC this tradition was widespread in southern Germany as well as in Switzerland and the Carpathian Basin.

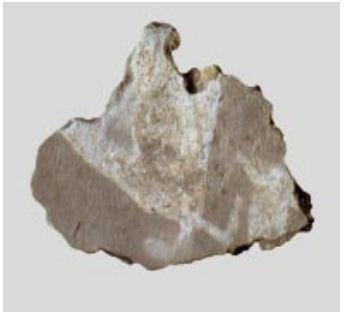


Fig. 8.

10 Jade axes from Mainz-Gonsenheim

(Rheinland-Pfalz)

Among the most fascinating objects of the 5th and 4th millennia BC are jade axes. Produced with the greatest precision and perfect polish, they are preserved today, most without a flaw. Jade axes are found in wide parts of West and Central Europe. Foremost in Brittany they played an important role as grave goods. They are depicted numerously in relief on the slabs of megalith graves.

For a long time the origin of jade was conjectured, and in the 19th century links with China were even proposed. It was only a few years ago that prehistoric quarries were re-discovered in the Alps. By means of scientific methods of measuring, it is now possible to determine the origin of jade axes from specific blocks of stone. This opens completely new dimensions for the reconstruction of exchange systems in Stone Age Europe.

The first jade axes appeared at about the same time that the first copper axes were produced. And on some jade axes the apparent attempt to imitate copper axes is recognisable. The tapered cutting edge of the axe found in Pauilhac, southwestern France, is counterproductive for a stone axe, whereas in a copper axe it comes from hammering and sharpening the edge.

The five jade axes were found on the Kästrich hill near Gonsenheim as early as 1850 (Fig. 9). According to the finder, they were in a leather casing. The axes have a pointed neck and a moderately sharp or blunt cutting edge. They are very flat, measuring a mere 1.1 to 2.3 cm in thickness. The surface is meticulously smoothed and polished. Doubtlessly, these were not ordinary tools that were used to fell trees, but instead ostentatious axes that were carefully preserved. The aforementioned casing was quite necessary for protecting the cutting edge from damage. The jade axes from Mainz-Gonsenheim were deposited as an offering to powers believed to be supernatural sometime during the 4th millennium BC.

Although of no immediate practical value as a tool, the jade axes were everything else except useless! As far as can be concluded from ethnographic sources, large magnificent axes were used above all as payment and for achievements of the most varied kinds. On New Guinea they were an important component of the brideprice. In other words, this means that a person could only marry if one owned such a precious axe. This simple mechanism set a myriad of social activities in course, by means of which a person could come to possess such ostentatious axes.

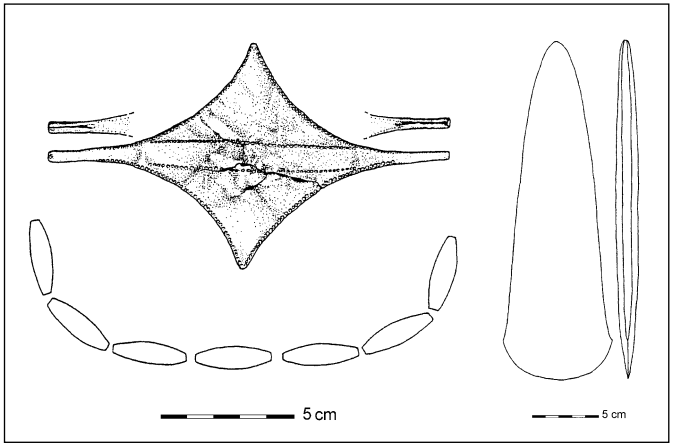


Fig. 9.

11 **Copper finds from Riesebusch,** district of Eutin
(Schleswig-Holstein)

The axe and the spirals found in Riesebusch were probably deposited in the earth around 3500–3400 BC and, thus, belong to the oldest evidence of the use of copper in northern Germany. The origin of the metal has not yet been determined with certainty, but presumably derives from the east Alpine region. The axe weighs more than 500 grams, the spiral jewellery all together – 50–70 grams. If the missing spirals that once belonged to the find are accounted for, then the amount of copper deposited would have been more than one kilogram. The axe and spirals likely represent a gift for powers that were conceived as being supernatural, and only those persons who held authority and had made international contacts could come into the possession of such an estimable amount of copper. Yet, this also implies that only these persons could enter an obligation ratio with supernatural powers by offering such valuable gifts. Namely, in the system of offerings, there are there obligations: giving a gift, accepting the gift and reciprocating with a gift. Those persons offering gift could expect especially large gifts in return from the believed supernatural powers. From the start, copper, competitor to stone, enjoyed social significance as exchange good, gift and offering.

Nevertheless, the whole secret of the career of metal does not lie here alone. Far more, metal had many practical advantages, which were appreciated from the very beginning. The ability to melt and reuse metal repeatedly made it such a preferred material. Every broken axe could be melted and cast as a new axe. A broken axe could also be cast to form a bracelet or a chisel, according to need. Metal was a union of two remarkable qualities, which stone and other materials did not possess: It can be re-made and/or converted. These features were of considerable economic and social consequence. Whoever controlled access to metal also gained corresponding influence upon society.

The possibility of re-melting and producing new objects introduced a new quality to the world: For the first time a material came into circulation, which was almost never used up. Once exploited from a mine and then smelted, metal could be used to produce new objects again and again. And opposite broken stone axes, it was sensible to accumulate broken pieces of metal. Everything could be re-used, and – indeed – most of it was.

12 Megalithic tomb in Stöckheim,
Altmark district of Salzwedel
(Sachsen-Anhalt)

Monumental graves built of large stones, so-called megalithic tombs (from the Greek *mégas* meaning large, and *lithos* = stone) had already been erected in Europe since the 5th millennium BC, for example in Portugal and western France. But around the mid 4th millennium BC there was a surge in the construction of megalithic tombs in northern Central Europe. These tombs were built of large stones that had been moved by glaciers from Scandinavia to the South during the ice ages. It is estimated that ca. 25,000 megalithic tombs were built between 3450 and 3070 BC in Denmark alone. Jens Lüning describes this phenomenon as follows: "Religious knowledge combined with the knowledge of symbols of status was able to spread over large parts of Europe within the shortest time, drawing the upper class with it and releasing enormous energy. This knowledge traversed many geographical and cultural borders, from Portugal to southern Sweden. It was an international style, that (…) united large parts of Europe and made them one sphere with common experiences. After these 400 years, that is, ca. 3100 BC the regions affected in Europe were other than before. This part of the continent was strewn with monuments to a degree that is unimaginable for us."

This profusion is difficult to imagine today, for most megalithic tombs were completely destroyed or at least severely damaged during the past two centuries. Often the tombs were blown apart and the stones used for road construction. The chamber of the large stone grave in Stöckheim is ca. 9 x 2 m in size and is comprised of 16 slabs for the walls and four capstones as a cover. The stones for the tomb enclosure are absent. Following its excavation, the megalithic tomb at Kleinenkneten (Fig. 10) was reconstructed in its original state. The mound in 49 m long and 7 m wide; it consists of the actual grave chamber with a length of 6 m and a width of 1.2–2 m. The tomb was covered with an earthen mound as high as the cover stones and was delimited by the long row of enclosure stones. Access to the grave chamber was always possible through an entrance. As a rule, megalithic tombs held several deceased who had been interred successively. Yet, regardless of the great number of these constructions, only a small part of the population was likely to have been buried in them.

Fig. 10.

13 Wagon depiction in a megalithic tomb near Züschen, district of Schwalm-Eder
(Hessen)

In 3400 BC at the latest the construction of megalithic tomb complexes began on the northern periphery of the Mittelgebirge. Contrary to the north German Lowlands, sufficient building material for such tombs could be acquired from quarries in the Mittelgebirge. Hence, large sandstone slabs form the walls of the tomb at Züschen. Measuring 20 m in length, it belongs among the larger complexes of comparable construction, which is also known in eastern Westphalia and the Paris Basin. The entrance to the tomb was on the narrow side with a large "doorhole": a hole in the slab through which one could crawl into the chamber to a grave or to deposit another burial. In all 27 individuals were found in the grave chamber at Züschen; other tombs held up to 250 interments.

Numerous figural depictions of teams of cattle were found in the Züschen tomb (Fig. 11). The slab illustrated here displays on the left and right the large horns of two cattle, whose bodies are rendered in simple vertical lines. Both cattle are connected by one horizontal line that depicts a yoke. Recognisable in the middle between the cattle is a two-wheeled wagon with a long shaft. These engravings in Züschen are among the oldest depictions of wagons found in Europe: Comparable drawings are known in Westphalia, Poland and the Ukraine. Yet, not only the wheel and the wagon spread rapidly throughout Europe around the middle of the 4th millennium BC. Also the reduced style in line drawings indicates a supra-regional code for the depiction of this new kind of vehicle.

The second half of the 4th millennium BC was an unusually dynamic period of development, during which aside from the wheel and the wagon other innovations appeared as well. They include the domestication of the horse and the breeding of woolly sheep. In addition, new technical advances in metallurgy exerted an impulse. The innovations of this time ultimately include the construction of megalithic tombs and the erection of stone statues.

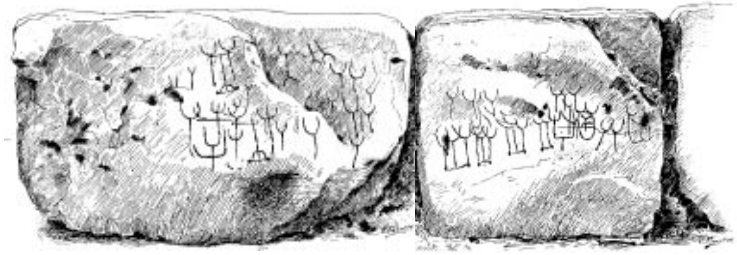
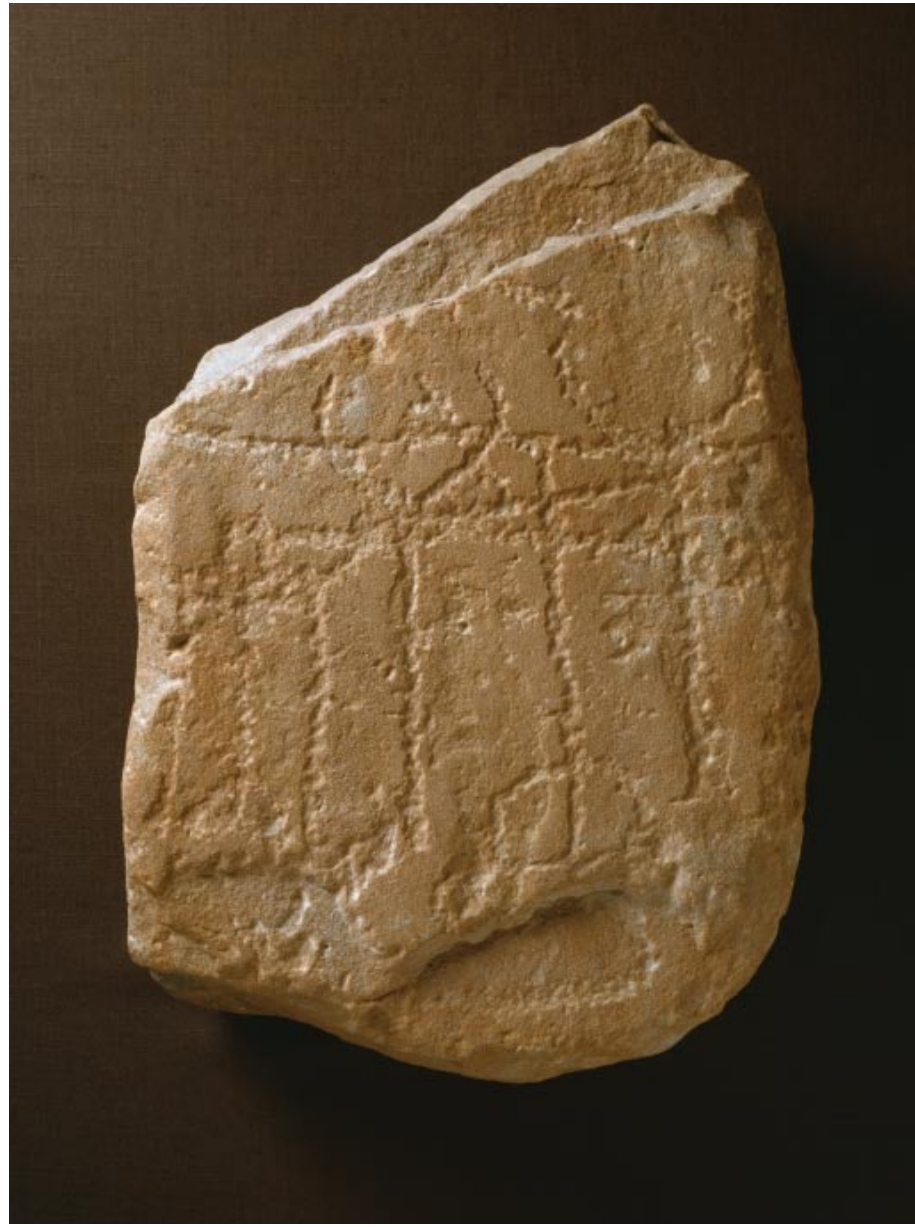


Fig. 11.



14 **Wooden wheel from Alleshausen,** district of Biberath (Baden-Württemberg)

The wheel from the site "Alleshausen Grundwiesen" was found in a settlement located on the shore of Lake Federsee, where organic remains such as wood were well preserved (Fig. 12). The settlement dates to the time between 3020 and 2700 BC. Numerous fragments of wheels have come to light in lakeside settlements in Circum-Alpine regions during the past years. They represent solid disc-wheels with a rectangular hole for the axle, which are usually composed of two segments set together and secured with wooden crosspieces. The inserted crosspieces are made of the ash-wood, while the wheels themselves are mostly of maple, which is still the preferred kind of wood for building wagons today. The wheels and axles were firmly connected, so that the axes underneath the wagon box turned as well. The oldest known disc-wheel made according to this principle was discovered together with an axle in 2002 in the Ljubljana Moor (Slovenia); it dates to the second half of the 4th millennium BC.

Evidence of wagons from this time is present in Mesopotamia, the Caucasus, the Carpathian Basin and northern Germany. The societies who introduced the wagon around the mid 4th millennium BC were doubtlessly of varied structure; they lived in very different landscapes, practised different economic strategies, and had their own respective webs of cultural significance. At least around the middle of the 4th millennium BC these different regional and overlapping networks in which settlements were integrated must have been distinguished by a high degree of exchange.

The fact that the wagon became widespread so rapidly has to do with its immediately recognisable usefulness. Early forms of wagons were heavy and could not be steered. Therefore, they may now seem hardly practical, especially in a landscape marked by dense forests and lacking functional roads. However, the purpose of these wagons did not base upon their use in long-distance travel, but rather upon the respective settlement chambers. At the local level the wagon represented a tremendous facilitation for gathering the harvest and, thereby, enabled a considerable expansion of agricultural area. Today there is still a great range of visible examples to be found of rural areas, where there is little motorisation or none at all.

Fig. 12.

15 Grave finds from Egeln,
district of Aschersleben-Staßfurt
(Sachsen-Anhalt)

The third millennium BC in Europe is characterised by the large-scale dissemination of similar forms of cultural manifestations: In West Europe one speaks of the Bell Beaker culture (named after the typifying clay vessels), in Central and Northeast Europe of the Corded Ware culture and in the northern Black Sea area of the Pit Grave and Catacomb Grave cultures (named after their typical grave forms). Also during the 3rd millennium BC in vast parts of Europe the custom set in of burying the deceased in individual graves, whereas in northwestern Europe interment in collective graves continued to be practiced. This change in burial forms was far-reaching; indeed, it significance has been compared with the Reformation in the 16th century.

While earlier scholars believed that individual peoples could be identified on the basis of the respective, very similar cultural manifestations, which supposedly had spread through migrations, today the view mostly prevails that the respective small set of objects concerned, for example, a beaker, an amphora and an axe, represents the status symbols of the upper class, who shared the same ideals and values. The fact that a large drinking vessel and a weapon also belonged to these symbols is indicative of a men's society and a latent warrior character in these values, which could certainly become manifest rapidly.

According to radiocarbon dating, the grave in Egeln can be assigned to the time between 2850 and 2500 BC. It was the burial of a 30 to 40-year old man. The beaker found in the grave is decorated with encircling cord impressions. The most striking find, however, is the so-called hammer-head pin made of antler: It is quite an unusual find in central Germany. The main distribution of such pins is namely in the northern Black Sea area between the Carpathian mountains and the Lower Volga river, where they are a typical element of the so-called Pit Grave culture. Grave gifts made of metal are a rarity in the area of the central German Corded Ware culture. All the more noteworthy then are the awl and the dagger found in the grave in Egeln. The small awl with a pyramid-shaped shaft in the centre for hafting was not produced in central Germany. Its form is common in the northern Black Sea area and the Caucasus, and its copper content of 2.8% arsenic suggests an origin in the Caucasus as well. The small dagger is presumably likewise a product from the northern Black Sea area. A comparable dagger was found together with an awl with pyramid-shaped centre in a grave mound of the Pit Grave culture in Gradişte in Moldavia. The grave goods from Egeln are an example of far-reaching contacts during the 3rd millennium BC.

16 Copper axes from Mainz and Eschollbrücken,
district of Groß-Gerau
(Rheinland-Pfalz und Hessen)

During the 3rd millennium BC tools, weapons and jewellery made of copper, silver and gold were a customary part of everyday life in the Mediterranean and Carpathian Basin. This period of time is designated there as the Early Bronze Age. North of the Alps, by contrast, metal objects are considered a rarity in archaeological contexts from this period. Metal objects were placed in graves only in exceptional cases, and these were usually small awls or different forms of jewellery made of copper sheet. For this reason this epoch in Germany is designated as the End-Neolithic.

The heavy copper axes are remarkable, because they do not fit into this picture. The axe shown here in the background is from Eschollbrücken, where it was deposited – presumably together with another axe of similar form – in a moor as an offering to the believed supernatural powers. The larger axe shown in the foreground stems from the vicinity of Mainz; its surface has a facetted decoration. The fragment of an axe from Wenigumstadt (to the right) is made of stone. Its surface is also facetted, and the preserved cutting edge curves downwards. These and comparable axes (Fig. 13) can be linked with cultural signs system of the Corded Ware, which predominated over wide parts of Germany as of ca. 2750 BC.

In the compilation of axes in the photograph, the advantage of copper axes is quite obvious: When a stone axe breaks, the entire piece is greatly shortened; in the worst case a new axe must be produced. The appropriate stone material was by no means available everywhere, so a person was dependent upon an exchange partner, who disposed over raw materials. Or else the person knew of accessible stone quarries and after several days' travel, he acquired the raw material himself. By contrast, when a copper axe broke, the pieces could be melted down again and a new axe produced.

The heavy copper axes stand in a certain contrast to the negligibly small number of copper objects in Corded Ware graves. The question, thus, arises as to whether only very little metal was actually in circulation or whether one just avoided placing greater amounts of the precious material in the grave of the deceased.

Fig. 13.

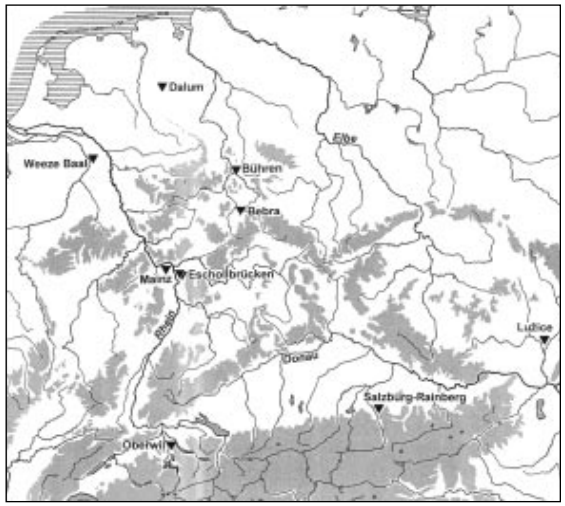


Fig. 13.

17 Stone stela from Rottenburg-Lindele, district of Tübingen (Baden-Württemberg)

In the years between 1984 and 1995 an Iron Age cemetery was excavated in Rottenburg, almost in its entirety. Two stone stelae came to light, which at first were thought to be of Iron Age date as well. Later it was determined that these stelae actually date to the 3rd millennium BC; that is, they had been placed as 'antiques' in the Iron Age cemetery.

Both stelae display only sparse indications of human features. The somewhat smaller of the two was already damaged in ancient times and measures 123 cm in height. Its eyes and nose, perhaps the mouth too, are denoted by simple grooves or dots. A neck ring is probably shown at the neck.

Comparable images, often depicting numerous weapons, were erected in many parts of Europe, the Caucasus, the northern Black Sea area, the Alps and southwestern France as well as on the Iberian Peninsula during the second half of the 4th and in the 3rd millennium BC. Elements of the depictions can vary, but not in an unrestricted way. Neck jewellery, belts as well as weaponry, foremost daggers and axes, appear repeatedly, and weapons are sometimes shown in great numbers. Despite all of the stylistic differences, through these features the large anthropomorphic stelae stand in a contextual association: This is above all the representation of the armed man.

The figural warrior stelae of the late 4th and early 3rd millennium BC present a new historical phenomenon. Whether the person portrayed really existed or was a hero or great ancestor, cannot be decided individually. Also, perhaps other aspects are united in the stelae as well. Specific features are associated with the choice of material: In the case of stone, for example, these are hardness and severity, timelessness and perpetuity. At the same time, these elements are an indication of the hierarchical character of the leadership that stood behind these statues and was associated with reliability, constancy and indestructibility. The stelae can be seen as the first anthropomorphic large-sized sculpture in Europe. It is perhaps no coincidence that during the second half of the 4th millennium BC the first examples of large sculpture in stone were produced in Mesopotamia and Egypt too.

18 **Halberds from Melz,** district of Müritz
(Mecklenburg-Vorpommern)

Fig. 14.

Among the most remarkable weaponry of the Early Bronze Age are so-called halberds. They consist of a dagger with a wide hafting plate that is connected at right angles to a longer shaft. It could, thus, be used as an axe. On the other hand, the range of the dagger with its razor-sharp blade was increased through the shaft and it could, therefore, inflict deep, grave and presumably fatal wounds. In short, halberds were devised to slay human beings.

The examples from Melz were discovered in 1970 during the drainage of a wet meadow. At the time of their deposition the shafts and blades were detached and placed at a distance of two meters from one another. Basing upon radiocarbon measurements, they can be dated to the time between 2100 and 1950 BC. They belong to a relatively late group of halberds found in Poland, central Germany and Mecklenburg. However, the earliest known halberds already appeared in the first half of the 3rd millennium BC. Furthermore, the beginning date of a few examples from Upper Italy in the 4th millennium BC cannot be ruled out. Hence, halberds were produced for some one thousand years, until they were ultimately displaced by swords.

Most halberds were deposited singly, in a few instances together with several other objects, in the earth as an offering to powers conceived as supernatural. They appear as grave goods in only few regions, for example, in Early Bronze Age graves in southeastern Spain (El Argar, Fuente Alamo) and in burials in central Germany and Poland.

The great significance of these weapons is documented in the depiction of halberds on the 4.5-m high stela found in Tübingen-Weilheim (Fig. 14). The stela was recently discovered and represents the first image of its kind found north of the Alps.

19 Celestial disc from Nebra,
district of Burgenland
(Sachsen-Anhalt)

The bronze disc with its unique representation of the starry sky is a find of the century. It was deposited in the earth at the end of the 17th century BC, the transition of the early to middle Bronze Age. At that time the disc had long been in use. Therefore, its date of production cannot be determined with certainty.

The disc and other objects were removed from the earth by illegal treasure hunters and put on sale on the black market. Under adventurous conditions the find was rescued in 2002 for the public and for science. The accounts of the looters could be confirmed through meticulous archaeological investigations. The objects had been deposited between stones on the Mittelberg (central hill) near Nebra. Not only the extraordinary objects but also the outstanding site itself strongly suggest advocate that altogether they were meant as a votive offering to powers believed as supernatural.

The disc is the oldest depiction of the sky; it was reworked several times. In the first phase the depiction enciphered a calendar rule for the leap year, enabling the solar year and the lunar year to be brought into harmony. This rule explains that an intercalary month should be added when the moon crescent of only a few days stands next to the Pleiades. In a second phase of rework two golden arcs were affixed to the rim of the disc, one of which is missing today. They marked the 21st of June and the 21st of December. Finally, in a third phase, a rather strongly curved arc of gold was applied to the disc: It is a boat, which is not to be explained as a celestial body, but rather as a mythological image that is found in other media of the Bronze Age, for example, in rock rawings in Scandinavia.

Two swords, two axes, one chisel and two spiral armrings were found together with the celestial disc (Fig. 15). The objects were produced in the region. This also applies to the swords, which display influences from the Carpathian Basin. Conversely, coeval votive offerings containing similar objects have been documented in the Carpathian area as well.

Fig. 15.

20 Belt of sheet-bronze from Hünfeld-Molzbach, district of Fulda
(Hessen)

Fig. 16.

During the Middle Bronze Age, 1600–1300 BC, many burials were distinguished by a grave mound. Such mounds (known as 'kurgans' in eastern Europe) must have been distinctive monuments in the landscape. Often they were concentrated in larger cemeteries or in rows, aligned like beads on a string. Today larger tumulus cemeteries are preserved only in heathlands or forested areas (Fig. 16). They have long since vanished from agriculturally cultivated surfaces.

In mound 8 in the cemetery at Hünfeld, a relatively small tumulus, the grave of a ca. 20-year old woman was discovered. She wore two wheel-headed pins, a neck ring with double spiral ends, small hair- and earrings, a coiled bracelet with finials (Armberge), two armrings with several coils as well as two coiled anklets with finials (Beinberge). Twenty-nine discs of sheet-bronze were sewn to her clothing. Two animal teeth were found as well. The grave goods show that the interred woman held long-distance contacts, for the individual rings probably came from northern Bavaria. Of special note, however, is the large belt-plaque made of sheet-bronze. It is decorated with two parallel rows of embossed nodes. Further, on the display side of the belt are two zones of decoration formed by rhombs and vertical rows of nodes. With its length of 49 cm, the belt plaque belongs to the largest works in sheet-metal of its time in Central Europe and was without doubt an extravagant accessory. At that time, large sheet-bronze belts were produced above all in Lower Austria and western Hungary. The sword found in a warrior's burial in the Molzbach cemetery is likewise indicative of contacts with that area and presumably stems from a workshop in western Hungary.

The belt plaque was made in repoussé. A cast blank was hammered patiently until a lengthy piece of sheet-metal was formed. Middle Bronze Age works in sheet-bronze are generally rare, and complicated products like helmets and vessels seem to be completely absent. The belt from Molzbach as well as the recent discovery of a helmet in Piller (Austria) strongly suggest that objects of sheet-metal were produced in bronze workshops during the Middle Bronze Age too.

21 **Cauldron wagon from Peckatel,** district of Schwerin (Mecklenburg-Vorpommern)

A cauldron made of sheet-bronze is set upon a bronze frame with four wheels. The cauldron has a rim diameter of a whole 36 cm. It is decorated with several encircling rows of bosses and has four twisted handles, which are affixed by rivets to the cauldron's wall. The wheels of the frame have a diameter each of 10 cm. The cauldron wagon was placed as a grave good in the grave of a man in the 13th century BC. The grave furnishing also included one golden armring, which presumably can be understood as a sign of rank, which designates the deceased as a chief. Further, there was a sword with a bronze handle, which was inserted in a wooden sheath, a large knife, an axe and an arrowhead. The sword shows that the interred person was a man who knew how to handle weapons and who was also prepared to defend his leading position in society, if necessary with violence.

The cauldron wagon is one single piece of production. However, the idea of mounting vessels upon a wagon was widespread. Comparable wagons are also found in other Bronze Age cultural landscapes, from the Danish islands as far as the lower Danube River. A cauldron wagon was found in Skallerup on Seeland, in a grave that was furnished very similarly to that in Peckatel. There as well the deceased wore a golden arm ring and had a sword and a long knife. In Acholshausen in lower Franconia a somewhat smaller cauldron wagon was deposited together with two lanceheads, two large knives and two large sheet-metal discs in an architecturally elaborate stone chamber grave. In a grave in Milavče (Czech Republic) the deceased was distinguished as a warrior through his sword and lather cuirass with metal appliqués. Cauldron wagons are also documented in the Carpathian Basin.

The meaning of these cauldron wagons has often been seen as associated with Late Bronze Age symbolic; sometimes they are even interpreted as cult objects. However, in view of the known grave contexts, it can only be deduced that they were in the exclusive possession of leaders. Nevertheless, it is surprising how similar the furnishings of the deceased in southern Scandinavia and in Bohemia for their last journey are. The question as to whether the cauldron wagon was used in association with rituals, for which these leaders were responsible, or whether they represent an extravagant component of drinking vessels that was used in banquets, must remain open.

22 **Gold hat from Schifferstadt,** district of Ludwigshafen (Rheinland-Pfalz)

Fig. 17.

The gold conus was discovered as early as 1835. It was found in upright position in the ground, allegedly upon a slab that broke upon being excavated. Three bronze axes were supposedly propped again the hat's brim, which was bent upwards against the shaft of the conus (Fig. 17). These axes enabled the find to be dated to the 14th or early 13th century BC. The gold hat measures 29.6 cm in height and was hammered in one piece. The thickness of its wall varies between 0.1 and 0.25 cm; its weight is 350 grams.

Only two other similar gold hats have been found in Germany and one example in Avanton near Poitiers, France. They as well were produced in one piece of sheet-gold and attest the masterful workmanship of a few Bronze Age metal craftsmen.

The decoration consists of bosses and concentric circles, which through comparisons can be identified as important component of Bronze Age symbolic. This decorative motif emerged at the beginning of the Middle Bronze Age, likely in the western Carpathian Basin, and enjoyed great popularity until the end of the Late Bronze Age. It is not only found on golden objects, but on bronze items as well. Especially impressive thereby are the large cast discs of the Late Bronze Age in the Carpathian Basin. The protective function of these symbols is also perceptible by the fact that they were often found on weapons such as helmets and swords. The motif is generally understood as a symbol of the sun and was still tradition in the early Iron Age. Some researchers also see calendars in the decoration of gold hats and other works in sheet-metal.

In recent later times the interpretation of a gold conus as a ceremonial hat or crown has prevailed widely. Head coverings in gold and of a somewhat different form are found in Ireland. There between the 17th and 19th centuries BC one-half dozen gold crowns with a brim were present, but all of which were melted down. Simple cap-like head coverings in gold have been found in Spain as well. It is generally assumed that these west European golden hats base upon prototypes in the eastern Mediterranean. Possibly concealed behind the gold hats is the idea of the crown of a deity as in the Hittite empire, an idea presumed since the mid 19th century.

23 Helm from the Oder River near Szczecin

The bronze helmet was found in 1909 in the Oder River near Szczecin/Stettin (Poland). It is simple cap-like helm, 650 grams in weight, with a boss decoration of symbolic significance, which should have presumably provided the bearer with the protection of supernatural powers. Large rivets on the rim served for securing the helmet's lining of leather and other organic material. The helmet was produced in the northern Carpathian Basin during the 13th or 12th century BC. It was unquestionably an exotic item in the Oder region.

Helmets and other protective armour (cuirass, greaves, shields) appeared in Central Europe in the 13th century BC at the latest. Single finds indicate that metal helmets were known in Central Europe even prior to the middle of the 2nd millennium BC. Comb-helmets such as the example from Biebesheim (Fig. 18) have Hittite prototypes in the 15th century BC.

The armour of a warrior took on a new quality. The high value attributed to components of armour is best known from "The Iliad". We may presume that specific aspects of protective weaponry, namely their use by persons in power, the 'individuality' of the different parts and their symbolic bond to the owner, already exerted a great effect in the Bronze Age. The use of weapons brought with it a change in the whole body. Handling a sword in metal armour called for constant training, which in turn affected the pose and movement of the body. The image of the Bronze Age warrior has been drawn anew in recent research. A few years ago warriors in armament were referred to in research as "pan-European dandys" or "heroes of the Bronze Age". Now the picture is rather of youthful troops of warriors, who systematically planned attacks on their neighbours and occasionally carried out greater massacres; in any case for years they were able to terrorise the population in entire areas.

Most helmets of this time in West Europe and western Central Europe were found in bodies of water. Presumably they represent offerings of gratitude. After a successful battle part of the booty belonged to the deity, who had bestowed the victory. Depositing offerings in a body of water rendered it impossible to regain and re-use the weapons. Thus, they remained in the irretrievable possession of the gods.

Fig. 18.

24 Bronze vessels from Dresden-Dobritz

(Sachsen)

Among the most valuable objects of the Late Bronze Age, 1300–800 BC, are bronze vessels. Cups, bowls and sieves were beaten out of sheet-bronze and a wide ribbon handle was attached with rivets. The forms of this sheet-metal ware are very standardised and widespread in all of Central Europe. In cases in which bronze vessels were found in graves, it was mostly burials of males. In only few instances have they been attested in the burials of females. Regardless, the burials were those of members of the upper social class.

Bronze vessels are first evidenced in Central Europe at the close of the Middle Bronze Age. Nevertheless, vessels made of bronze were in use much earlier in the Mediterranean and also in southern Scandinavia.

The find from Dresden-Dobritz came to light in 1948 in the area of a large Late Bronze Age settlement. It comprises one bucket, one sieve, two ladles and 14 cups. The vessels had been carefully placed, one upon the other, in a large clay pot.

At least a part of the sheet-metal ware, for example the cups with star-designs and the bucket, are likely products of Carpathian workshops and represented valuable possessions for the present-day area of Sachsen. Comparison of the large number of vessels with the limited use of sheet-ware in burial rituals, in which often merely one cup (or also only one sieve) was given to the deceased, clearly illuminates the lavish aspect of the Dresden assemblage. Namely, this service sufficed for a dinner with 14 guests. The find from Dresden-Dobritz, however, finds several analogies in Central and North Germany as well as southern Scandinavia. Between the 13th and 9th centuries BC in the area between southern Scandinavia and the Carpathian Basin these valuable bronze vessels were used repeatedly as offerings to the gods. Included as well are offerings of gold vessels (like the find from Eberswalde), which however were almost never deposited together with bronze vases.

25 Swords from Hagen-Vorhalle

(Nordrhein-Westfalen)

Swords were the most important weapon of the European Bronze Age. Since about 1700 BC they appeared in diverse variations of forms in practically all parts of Europe. This diversity was made possible above all by better techniques in casting, through which longer blades could be produced. The addition tin to copper not only created the shiny gold colour of bronze, but also hindered the formation of bubbles when casting the fluid metal. As a result, during cooling fewer hollows formed in the cast blade, which could cause the blade to break easily when in use. It has been proposed that in the 2nd millennium BC the time needed for the production of a bronze sword, even of medium quality, was about 20 workdays. And even if workshops with several persons were able to produce in shorter time, the founders nevertheless had to meet the demands of the sword bearers.

Notches and scratches from striking have often been noted on blades, showing that the swords had been used in battle and were not purely prestige objects. Thus, they were not only symbols, but also dangerous weapons and real means of force.

In 1876 three swords of about 85 cm in length and 1050 grams in weight were found at the foot of the Kaisberg near Hagen. Originally the grip was composed of two flat plates of bone or wood, which were riveted onto the flanged hilt. The blades of the long swords were profusely decorated (Fig. 19). Swords of this form are known foremost in western Europe. They can be dated to the 10th century BC, but were possibly still in use later.

In many cases swords were deposited in the ground as offerings to imaginary powers. Especially spectacular are discoveries in the Carpathian Basin that contained ten or more swords. These were likely offerings of thanks for the booty of weapons. Writing was unknown in Bronze Age Central Europe, so unfortunately we are not knowledgeable about the persons offering or the divinities receiving. However, the inscription on a sword that was found near the Lions Gate in the Hittite capital Hattuša tells us: "When Tuthalija the great king destroyed the land Aššuwa, he dedicated these swords to the weather god, his master." Similarly, behind the many offerings of swords in the Central European Bronze Age could very well stand smaller and larger military conflicts.

Fig. 19.

26 Gold finds from Eberswalde,
district of Barnim
(Brandenburg)

Only one year after the discovery of one of the most important Bronze Age gold finds of Europe, it was already presented in publication by Carl Schuchhardt. Therein he reported as follows:
"On the afternoon of May 16, 1913 at the brass factory near Eberswalde a clay pot with golden objects was recovered, which represents the thus far richest gold find in Germany.
While excavating the foundation for new housing for workers, a worker hit upon an urn with his spade. The upper part of the urn broke away, revealing the yellow metal objects inside. The foreman joined him, raised the entire vessel from the earth and placed it to the side. This was reported to the office, and soon the two directors of the brass works came and took the find to the office. On the following day the director, Mr. Aron Hirsch, sought expertise advice in town; on the third day, a Sunday, he informed me on the telephone about the incident, and very early on the fourth day we drove by automobile to the brass factory. There we had hardly taken our places at an empty table, when one of the young directors entered with golden vessels that were filled with lots of small implements in his hands and arms. He showed them to us, we began to touch and to hold them with astonishment, but then a second person entered and placed a new pile before us, and this went on a third and fourth time. Within only a few minutes the entire table before us was covered with gold. I had never seen it in such a mass since the Schliemann treasures from Mycenae."
The treasure trove consists of six gold vessels, three neck rings and various spirals, bars and wire, amounting to a total weight of 2.6 kg. Most likely it was placed in the ground during the 9th–8th century BC. The trove represents one of the largest Bronze Age gold finds in western and northern Europe. Then again, gold finds of quite a larger magnitude are known from southeastern Europe. The large kantharos from north Bulgarian Vălčitrăn and made of 3.5-cm thick gold weighs 4.4 kg alone.
The owner of the brass works, Aron Hirsch, compensated the finder of the trove, according to law, with half of its value, to be exact 10,000 gold marks, and gave the entire find as a donation to Emperor Wilhelm II, "at his free disposal". After the revolution and abdication of the Emperor, the find arrived in the Museum of Pre- and Early History in Berlin in 1918. Aron Hirsch and his family were Jews, and, thus, had to flee from the Nazis to London in 1933. Like many other finds, the gold treasure from Eberswalde was taken by the Red Army to Moscow in 1945. It is preserved there today in the Pushkin Museum.

27 Bronze wheels from Stade

(Niedersachsen)

The four bronze wheels were found in 1919; they lay 40–60-cm deep in heath sand. The wheels are 58 cm in diameter; the naves are 36 cm long. Each wheel weighs almost 12 kg. Remains of oak wood were found in the felloes, presumably the rest of the original wooden running surface of the wheels.

The wheels are a technical masterpiece of their time. Complicated bronze castings are not found north of the Alps in Europe prior to 1500 BC. Among the greatest achievements in craftsmanship during that time are the lures and miniature wagons with cauldrons (for example, no. 21, Peckatel) and the sun-bark from Trundholm in Denmark. The spoked wheels are particularly outstanding. Indeed, one of the wheels from Stade was produced in one single casting! For this a complicated clay form had to be made, which called for great experience. In addition, perfect command had to be held over the fluid bronze, which nevertheless weighed some 12 kg.

The broad distribution of very similar wheels in the area between southern France and northern Germany is noteworthy. Only examinations of the techniques used in production can explain, whether or not they stem from one single workshop. The wheels were an exceedingly valuable offering. In comparison, wheels from other places were offered to powers believed to be supernatural. Two wheels from Arokalja in Romania date to the 13th–12th century. Four wheels found in Haßloch in the Palatine had been destroyed intentionally and buried in the earth at ca. one meter's depth. One single wheel was discovered in Torfmoor near Coulon (France). In other cases, fragments of bronze wheels represent components of offerings of another structure, namely, in which intentionally broken objects, weapons, jewellery and tools are offered together.

The number of wheel depositions does not allow any deductions as to whether the original wagon had two or four wheels. Therefore, it is not out of the question that the remains in Stade represent the deposition of two wagons. Presumably wheels made completely of metal with four spokes were not particularly capable of carrying heavy loads; rather, they were for representative purposes or as funerary vehicles. Most of the wholly metal wheels date to the 9th and early 8th century BC. One radiocarbon dating of wood remains from one Stade wheel provided only a date in the time between 1120 and 890 BC.

Fig. 20-21.

28 Cauldron from Eberdingen-Hochdorf,
district of Ludwigsburg
(Baden-Württemberg)

In 1978 in Hochdorf near Stuttgart a princely tomb of the early Iron Age was excavated, which dates between 540 and 510 BC. The deceased had an imposing physique of a stocky stature, about 1.90 m in height. He lay upon a bronze couch, which was covered with the skins of different animals, and was enveloped in a red and a blue-and-red chequered cloth. He wore shoes decorated with sheet-gold (Fig. 22); next to him were a number of appliqués from the clothes. A further golden neck ring and a golden bracelet can be interpreted as the insignias of a ruler. Corresponding with the customs of that time, he had only one dagger and a bow and arrows: There is no doubt that he had possessed a number of other weapons in life. But in the tomb the deceased was presented as an aristocratic hunter and, as attested by three fish hooks, as a fisherman. A wooden wagon with bronze fittings was placed in the grave chamber. Upon it stood tableware, comprising of nine bronze plates and three larger bronze basins. Nine drinking horns had been hung on the wall of the chamber, eight smaller ones and a larger horn. The deceased was distinguished as the host. The number of nine participants in the banquet was surely of purely symbolic nature. One of the most impressive finds in the tomb was an 80-cm high cauldron with a capacity for 500 litres, demonstrating that it had been used for bigger banquets as well. Examinations of the remains of textiles attached to the metal showed that the wagon as well as the vessels and utensils set upon it had been completely enveloped in cloth, just as the deceased and the cauldron. Thus, the precious grave goods were no longer visible to the survivors after a certain point in the funeral.

Attached to the rim of the cauldron were three bronze lions and three handles with large rolled escutcheons. The cauldron is the product of a workshop in Lower Italy. One of the lions must have been lost, for it was replaced by a Celtic copy. In Lower Italy cauldrons such as this one were used for mixing wine with water. In the tomb in Hochdorf, however, were the remains of honey, from which honey-mead was made. One golden ladle was also found in the cauldron. The large and striking prestige foods from the Mediterranean world, above all the huge vessels and elaborate pieces of furniture, illustrate the far-reaching contacts that this potentate held during the 6th century BC.

Fig. 22.

29 Bronze flagon from Glauberg,
district of Wetterau
(Hessen)

The Glauberg is a mountain visible from afar with an 8-hectare large plateau, which was settled repeatedly from Neolithic times until well into the Medieval period. During the Iron Age the Glauberg was also fortified. In the 1980s regular excavations were undertaken in order to document and date the fortifications. Aerial photographs revealed the circular ditch of a grave mound that had been levelled through agricultural fieldwork. Uncovered inside this mound were two graves, which had been constructed in the 5th century BC. Grave 1 was a wooden chamber with a layer of stones as cover. The 28–32-year old male was buried with his weaponry: an iron sword, three lances, a bow with a quiver for arrows and a wooden shield with a large iron shield boss. The deceased wore a richly decorated, golden neck ring as well as golden earrings, a golden bracelet and a golden finger ring.

Yet, perhaps the most magnificent grave good is the bronze flagon, which in view of its characteristic spout is also called a beaked jug (*Schnabelkanne*). It was made in a Celtic workshop and ultimately follows Etruscan prototypes. The flagon was wrapped in a plain linen cloth. It measures 52 cm in height and can hold 4.3 litres. The vertical ribs lend the flagon additional stability, while also emphasising its slender elegant form. On the handle at the flagon's rim is a group of figures (Fig. 23). In their midst a young man sits cross-legged. His head is shaven of hair; only a crown of curls decorates the forehead. He wears a composite cuirass of leather in Mediterranean style. To his right and left stand two mystical animals, perhaps sphinxes, whose heads are turned expectantly towards the seated figure. These actually wild and dangerous imaginary beasts are the peaceful companions of the person, for he is bestowed with special faculties. He is perhaps a hero or a deity, a master of animals.

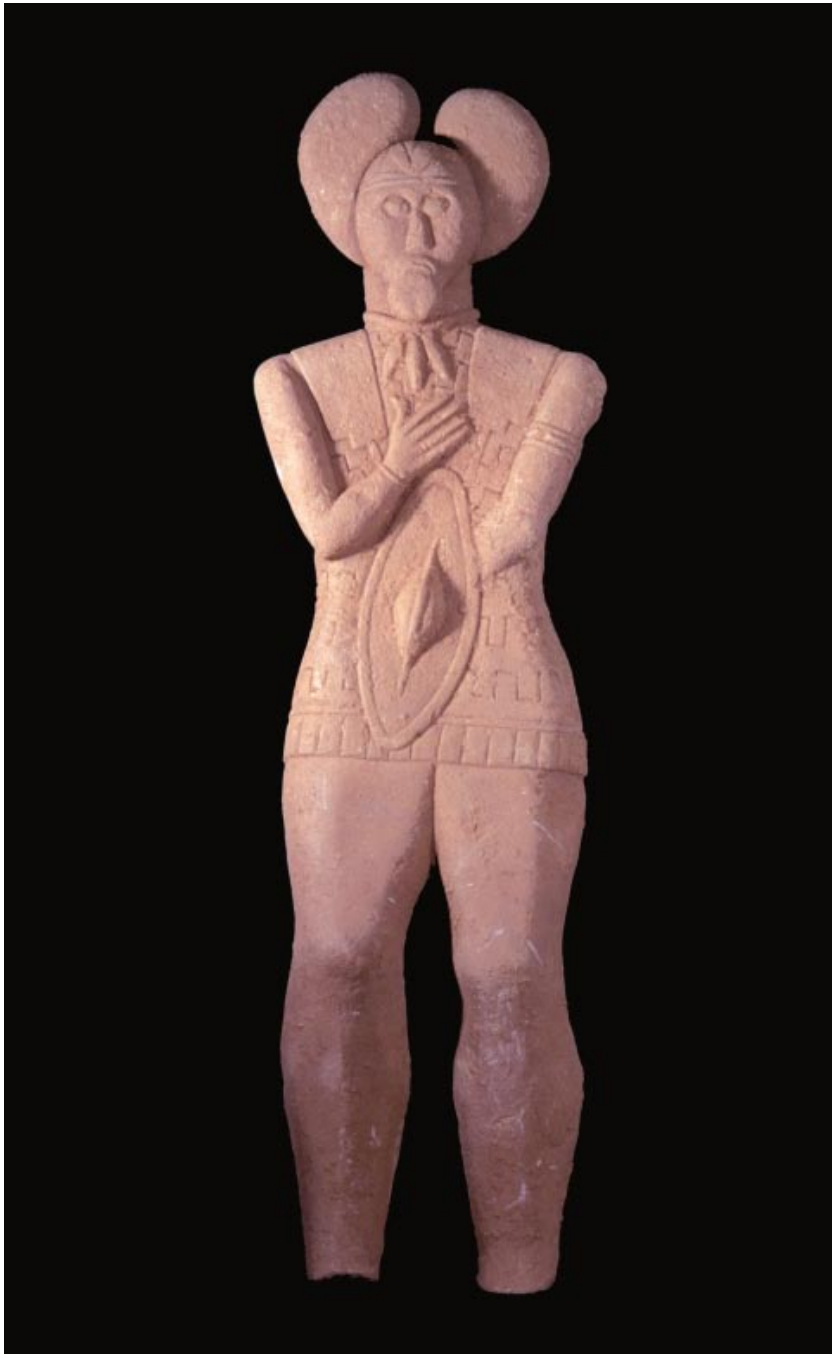
Remains of honey were detected in the flagon. It could be estimated that the honey originally amounted to 2 kg, which would suffice for making mead. In view of the attested pollen from flowers, the honey derived from various areas, some up to 100 km away. This is an important indication of the supra-regional character of the domain of this ruler.

Fig. 23.

30 Statue of a nobleman from Glauberg,
district of Wetterau
(Hessen)

The statue of reddish sandstone is preserved in a height of 1.86 m. It was taller originally, but now the feet are missing. Represented is a Celtic nobleman, who wears a composite cuirass of leather and linen. He holds an oval shield with spindle-shaped shield boss in his left hand and carries a sword on his right side. The right hand is placed upon his chest, surely a meaningful gesture of the nobility. Insignias of nobility can also be seen in the bracelet, the finger ring and the neck ring with bud-shaped pendants. The face is dominated by the large eyes and the moustache and goatee. He wears a crown of leaves: a close fitting cap decorated with leaves and two large upright leaves attached to it. This crown of leaves can also be seen as insignias of nobility as well. Most of this noble's equipment is found again in grave 1: There the interred person had a sword and a shield and he wore a finger ring, a golden bracelet and a neck ring with bud-shaped pendants. But there were neither traces of a crown of leaves nor of a cuirass.

Life-sized statues in stone appeared north of the Alps under the influence from Greek and Italic large statuary. However, the large statues did not prevail forever as a medium for representing rulership. This figure was found together with fragments of three more statues in a ditch, which was connected with the circular ditch around the grave mound. Originally it must have stood in the direct vicinity of the mound. The mound was only part of a huge funerary monument, which visible from far away dominated the landscape the southern foot of the Glauberg. The grave mound was encircled by a ca. 10-m wide and 2–3-m deep ditch, which was interrupted in one place for ca 10 m. On both sides of this gap the ditch was directed some 350 m to the southeast. In other words, a processional avenue led to the mound; both sides of this avenue were lined by a ditch of 6.7-m width and 2.8-m depth. These long ditches in turn belonged to a much larger ditch-and-wall system, which enclosed an area of some 1.5 km^2 at the southern foot of the Glauberg. It separated the sacred sphere of the grave mound from mundane everyday life. And in this sacred precinct the deceased nobles were apparently honoured as heroes.



31 Bowl from Kleinaspergle near Asperg,
district of Ludwigsburg
(Baden-Württemberg)

Today the grave mound Kleinaspergle is still 7.6 m in height and 60 m in diameter. It was enclosed by a ditch of 1.2-m depth and 2.5-m width. The tumulus lies at a distance of ca. 10 km from Hohenasperg, which is conjectured to have been a Celtic princely seat. The grave mound was investigated already in 1879 in a curious way. The excavator drove a shaft into the middle of the mound, where he actually found the central burial, which however had already been robbed in the Middle Ages. West of this grave he came upon an auxiliary grave that was undisturbed and of the 5th century BC.

Among the goods in this grave were, aside from a few pieces of jewellery, foremost drinking vessels. These comprised a bronze flagon and a bronze bucket made in Celtic tradition. Further, two large drinking horns, of which only the metal fittings for the end are preserved, likewise represent Celtic drinking customs. By contrast, the bronze stamnos in which wine was kept came from Etruria.

Most worthy of note are the two Greek clay bowls, produced in a workshop in Athens. One of the bowls has a painted figural decoration. The inner depiction is that of a woman facing right towards an altar and holding a torch. Presumably she is a priestess. In view of the details in painting, this bowl can be assigned to a Greek painter, to whom a number of other painted drinking vessels are attributed. Both bowls found in Kleinaspergle were already broken in ancient times, perhaps in a symposium. Since the bowls were valuable imports and not easily replaced, they were repaired in Celtic times. For this small holes were drilled near the edges of the breaks, and the sherds were held together with bronze clamps. The places of the breaks and the holes were then covered with sheet-gold, which underlines their great value for the owner even more.

32 Silver ring from Trichtingen,
district of Rottweil
(Baden-Württemberg)

Among the most impressive, yet puzzling finds of the later Iron Age is the oval neck ring with the head of a bull as finials. Its diameter is 29 x 25 cm and its weight, almost 7 kg. The ring is composed of a hammered iron core, upon which 16 strips of silver were soldered. Two wider silver strips decorated with triangles were soldered on the inner side, while the outer side displays different narrower strips with chased patterns. Two collars were shoved over the ends of the ring, under which the two cast bull-heads were mounted. Both collars imitate the form of a torque, a Celtic neck ring. Each bull also wears a torque. This is notable, since the ring is not just a piece of jewellery, but the insignia of the Celtic hero and warrior. According to the Roman historian Livius, in 191 BC the Roman consul Nasica looted, among other things, 1471 golden neck rings from the Celtic tribe of the Boier. The Romans later advanced the torque to a military medal.

The ring from Trichtingen was definitely not produced in a Celtic workshop in southern Germany. In view of its stylistic peculiarities it is generally assumed that the ring was made in a workshop on the Lower Danube River. There Greek and Iranian silver work was well known and exerted an influence upon the indigenous Thracian handicrafts. The time of the production of the ring is controversial: Some researchers propose the 4th century BC, while the 2nd century BC is usually assumed as the probable time of fabrication.

The silver ring was discovered in 1928 during drainage work in 60 meters' depth. At the time of the ring's deposition the milieu was also likely wet. Unfortunately, no further evidence could be gained concerning the site. Nevertheless, in all probability the torque was meant as an offering to a Celtic deity. Possibly, the heavy ring was produced solely as an offering in hommage. It has also been contemplated, whether the ring once decorated the wooden statue of a Celtic deity in a sanctuary.

33 Celtic gold coins from Mardorf,
district of Marburg-Biedenkopf
(Hessen)

South of the community of Mardorf, on a slope with the suggestive name of "Goldberg" (gold mountain), single gold coins were found time and again. In 1880 a hoard came to light there, which must have comprised some 200 Celtic gold coins. Most of the hoard was sold further by the population, which had eagerly participated in excavating the trove. Ultimately, twenty gold and four silver coins arrived in the museum.

The first coins to appear north of the Alps are mostly copies of Greek and later Roman coins. The oldest Celtic coins had the gold stater of Philip II of Macedon or Alexander the Great as prototype. In contrast to these, though, Celtic coins lack inscriptions. The coinage was strongly regional, and most of the pieces did not have a large circulation, but instead remained limited to the respective tribal area. Further, opposite those of today, the coins then did not have a universal function.

The deep bowl-shaped staters that are represented in the Mardorf find are individual Celtic creations and belong in the 1st century BC. They are also called *Regenbogenschüsselchen*, or "little bowls of the rainbow". Namely, according to folk beliefs the coins appeared when a rainbow touched the ground (in truth, the rain had washed away the earth beforehand, exposing the coins). Some of the Mardorf coins are "bird head staters" (Fig. 24). The obverse displays the head of a bird with the bent beak in the centre and a wreath on the rim, while the reverse side shows a torque with five tiny pellets. Others are the trefoil stater with a trefoil on the obverse and the torque on the reverse side. The reason for burying the gold coins in the hill cannot be explained definitively. Only 80 meters from the findspot is a spring (the Idsborn), which would make its interpretation as an offering seem worth considering. This significance has been assumed for a number of comparable hoards, which contained gold neck rings in addition to the coins.

Fig. 24.

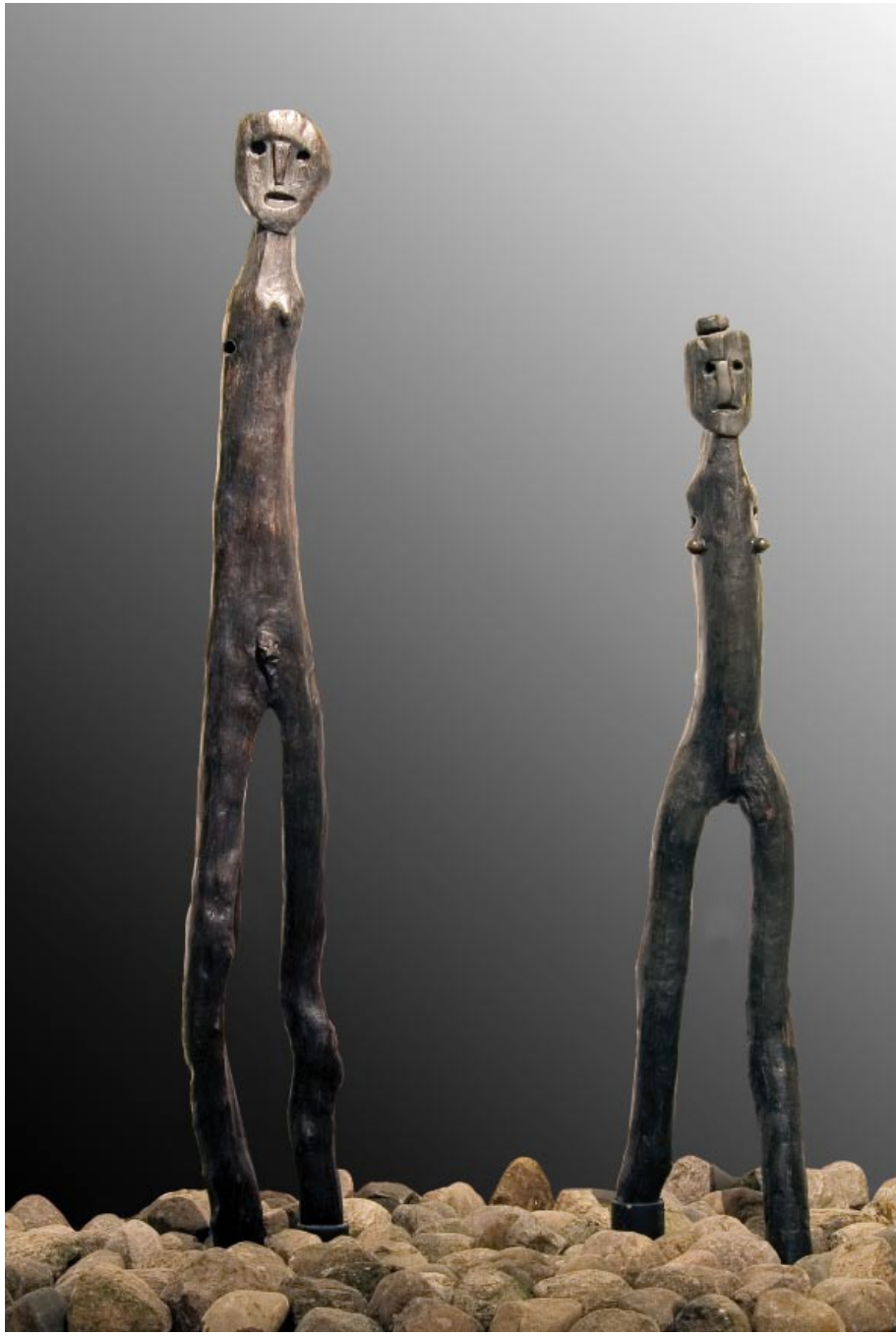
34 Figures of deities from Braak,
district of Ostholstein
(Schleswig-Holstein)

In contrast to the sphere of the Mediterranean, statues made of stone remained an exception in the areas north of the Alps. Yet, heroes and deities were nonetheless portrayed. Figures of divinities, made of wood were erected in sacred precincts; they were likely clothed with beautiful robes and crowned with wreaths of plants. In a few instances a statue wore metal jewellery. Such wooden statues have remained preserved only under favourable conditions, for example, in moors and bogs. However, they were certainly once present in sacred groves and in other dry surroundings.

The two figures from Braak are made of trunk stems of the oak. The male figure still measures 2.75 m in height, the female 2.3 m. The head were carved with care; the female wears her hair in a knot atop her head. The sexual features of both are also carved distinctly. The wood used to make the statues was felled in the early 4th century BC.

Both figures were erected at an open lake or at the edge of the Aukamper Moor, where they were discovered in 1946. Small as well as larger places of cult were often located in such places, where offerings could be deposited. Neck rings and pins have been frequently documented there. In the case of the figures from Braak, however, no finds such as the above came to light. It is not certain whether the figures were clothed, but it is quite possible.

Evidence of such simple wooden figures is already present during the Bronze Age in southern Germany. The deities from Braak are the oldest and the largest anthropomorphic wooden posts found thus far in northern Germany. Simples figures are found in later Germanic sanctuaries, for example, in Oberdorla in Thüringen. Early medieval sources report that in the course of missionary work, cultic figures such as these were demolished. In the course of the violent Christianisation of the Saxons in 772 AD, Charlemagne had the Irminsul, the Saxon cult image, destroyed.



35 **Mask of a cavalrist helmet from Kalkriese,**
district of Osnabrück
(Niedersachsen)

A few years ago Kalkriese was identified as the site, at which in 9 AD the Roman commander P. Quinctilius Varus and three legions, three units of cavalry and three of infantry were ambushed by Germanic warriors under their leader Arminius. Thereby most of the ca. 20,000 Roman legionnaires were killed. It was a dramatic defeat for Rome, which subsequently led to the abandonment of military caserns on the Lippe River; Rome's plans to conquer Germania as far as the Elbe River were no longer pursued as determinedly. The uprising came as a surprise, for Arminius was a Roman citizen and knight, and he enjoyed the trust of Varus. The Roman Empire was shocked for a moment. The statement of Augustus: "Quintili Vare, legions redde!" – "Quinctilius Varus, return the legions" is famous.

The identification of the battlefield in the region around Kalkriese was already proposed by Theodor Mommsen in the 19th century. Later, since the 1980s, numerous pieces of metal armament worn by Roman soldiers were discovered in Kalkriese with the use of metal detectors. Most of the finds are small objects, which the Germanic victors overlooked during their plunder of the dead.

The facemask from Kalkriese, measuring 17 cm in height and 16 cm in width, belonged originally to a helmet of a Roman cavalrist. It is composed of an iron basis and sheet-silver applied to the surface. After the battle the valuable sheet-silver was cut off hastily by a Germanic plunderer. Helmets with a mask such as this one were not only worn in parades. One group of horsemen, who wore such helmets with masks, were probably terrifying at first sight during the battle.

One hundred years ago, on the 1900th anniversary of the battle, Arminius was celebrated as the liberator of the Germans from "foreign Roman domination". The battle was styled into the founding myth of the at that time still young state of Germany, established in 1871. In the commemorative year 2009 other views stood in the foreground. Arminius and his followers were portrayed, basing upon the Germanic followship. The leaders had to reward their warriors and followers with gifts and support for livelihood. The larger the number of followers was, all the greater the leader's obligation to finance his private army. The Germanic economy did not place the necessary means at his disposal. Thus, the followers had to get their needs from other: a robber economy that could only be maintained by raids and plunder.

36 Tombstone from Xanten,
district of Wesel
(Nordrhein-Westfalen)

The 1.27-cm high tombstone of the commander Marcus Caelius is an important contemporary witness to the Varus battle. Known since the 17th century, the stone was illustrated for the first time in 1638.

The inscription reads in the English translation: "For Marcus Caelius, the son of Titus, from the tribe of Lemonia, of Bononia (Bologna), centurion of the 18th legion, 53 and one-half years old. He fell in the war with Varus. Also the bones (of the free man) may be buried here. Publius Caelius, the son of Titus, from the tribe of Lemonia, his brother, had the tombstone erected." Presumably it was an empty grave, a so-called cenotaph, for it is unlikely that the mortal remains of Marcus Caelius could have been transported from the site of the battle to Xanten on the lower Rhine River.

The relief shows Marcus Caelius in the centre. To his right and left are the busts of two slaves, whom he freed. Marcus Caelius wears a cuirass, to which several rows of leather straps are attached on the arms and along the lower rim. A mantel is draped over his left shoulder. Like the mantel and the cuirass, the staff (*vitis*) in his right hand is the insignia of the rank of a centurion too. The staff represented his penal power and was used for the corporal punishment of soldiers. He wears his military medals on his cuirass: two torques, several figural medals and two wide bracelets.

Marcus Caelius is the first Roman soldier, who is known by name in Germany. Although the information on his tombstone is comparably sparse, here one individual among the tens of thousands of fallen soldiers is raised from anonymity. The way in which Marcus Caelius died will never be learned. Possibly he belonged to the tribunes and centurions of first rank, who were executed by the Germanic warriors after the battle. When Germanicus and his troops visited the battlefield six years later, the traces of the battle were still visible everywhere: remains of the defence wall, broken weapons and skeletons of horses. The skulls of slain Roman soldiers were nailed to trees. Germanicus had the remains of the Romans slain in the Varus battle buried under a tumulus.

37 Bronze fountain mask from Treuchtlingen-Schambach, district of Weißenburg-Gunzenhausen (Bayern)

The economical organisation of the Roman provinces based upon to a substantial extent upon large rural estates that were run privately, but ultimately under state directives. Through leasing and sale of state-owned estates, the finance administration steered the economic development of the provinces. Individual farmsteads often had astonishing architecture and luxurious furnishings, yet they remained primarily large farming operations. The individual farm, for which the term '*villa rustica*' has become common, formed the basis for an intensive exploitation of agricultural resources. Crop cultivation and stock-raising stood in the foreground. Handicrafts contributed to the range of products from villae rusticae as well, and, hence, there is evidence of ironwork, lime burning and glass manufacture.

Every villa had a bathhouse, which sometimes was integrated into the main house itself. In this regard, shown here is an especially remarkable accessory for the bath: a bronze fountain mask, 17.3 cm high, which was found in a villa rustica near Treuchtlingen-Schambach. It dates to the 2nd–3rd century AD. The mask portrays the god of the seas Oceanus. Already known among the Greek pantheon, this deity was believed to be the source of all things. From him flowed the seas, rivers, springs and wells. The most famous fountain décor of this kind is the Bocca della Verità in the church of Santa Maria in Cosmedin in Rome, where thousands of tourists hold their hand in the mouth of the mask to prove their honesty.

Water once flowed from the mouth of the Schambach mask, thereby running over the two fish depicted in the corner of the mouth. Shells and snails nestle in the wild locks and beard of Oceanus. Two dolphins are recognisable at his temples and also on the cheeks; that is, animals that the people in Treuchtlingen had never seen themselves, but who were familiar with widely known ancient symbols of luck. The fountain mask was originally a shiny gold colour. Inlays of silver and the shiny redness of copper lent the mask an unusual colourfulness and lastly vivacity. Together with the flowing water the metal fountain mask must have been a magnificent sight in the sun light.

38 Glass beaker from Cologne-Braunsfeld

(Nordrhein-Westfalen)

Glass was produced in the Mediterranean area since the Bronze Age and was known in the form of beads even north of the Alps. In Celtic times colourful glass beads were valued as protective amulets. Glass vessels, by contrast, remained a rare luxury item of the upper class, for example a small bowl from a grave of the early Iron Age at Ihringen.

Since the 8th century BC glass vessels were produced by casting in clay forms. The manufacture of glass was revolutionised in the 1st century BC by the invention of the blowpipe, presumably in a workshop in Jerusalem. The time of production was shortened considerably with the aid of the blowpipe, so that the number of pieces produced could be greatly increased. Thus, glass found its way into everyday use among broader levels of society. Production centres quickly emerged in the Roman Empire, in Italy and in the provinces as well. But north of the Limes, beyond the Roman borders, glass further remained an exquisite luxury item, which was found only in the graves of socially important persons.

Roman Cologne was the site of high-quality and renowned glass manufacture. Among the products was the glass beaker from Cologne-Braunsfeld. It was discovered in 1960 in a family cemetery in a rural estate (*villa rustica*) next to a stone sarcophagus and is dated to the first half of the 4th century AD. Unlike most Roman glasses, this piece was presumably cast in a form and then smoothed, thereby rendering the inscription as well as the net-decoration in relief. Because of the great risk in production, these glasses count among the most precious creations of the diatretarii, the Roman glass cutters. Such diatret glasses were produced during the late 3rd and 4th centuries AD. Thus far, only some 60 examples have become known.

The Greek inscription on the beaker's wall is a call to its owner: ΠΙΕ ΖΗCΑΙC ΚΑΛΩC ΑΕΙ (drink, live well, forever). The inscription on a very similar diatret beaker from north Italian Novara reads: BIBE VIVAS MULTIS ANNIS (drink, live many years)

39 Glass bowl from Augsburg

(Bayern)

Almost 20 cm in size, the glass bowl was found as late as 2000 in Augsburg during excavation work. The bowl together with a dozen undecorated glass beakers had landed in the latrine of a stone building around 350 AD.

The scene depicted on the bowl was incised free-handedly from the underside with a very pointed and hard graver. This technique called for a certain mastery of work; however, the figures on the Augsburg bowl seem rather clumsy in appearance. Further, the serpent is not coiled around the Tree of Knowledge, but around a far too thick trunk. Nevertheless, the depiction is highly significant, for it is one of the oldest known representations of Adam and Eve at the Tree of Knowledge in paradise: "And the woman saw that the tree was good for food, and that it was pleasant to the eyes, and a tree to be desired to make one wise. She took of the fruit and ate, and gave also to her husband with her, and he did eat. And the eyes of them both were opened, and they knew that they were naked; and they sewed fig leaves together, and made themselves aprons" (1 Moses 3,6–7).

In the scene here, Adam and Eve have already tasted the fruit, for Eve holds something in front of her pubis, which could be a fig leaf. The composition of the picture, Adam to the left and Eve to the right of the tree, is in reference to a depiction of the 3rd century AD in Rome and soon became a canon. Finally, it is present among the numerous depictions of the Fall of Man by Lucas Cranach. The inscription on the rim of the glass bowl has a twofold message: it reads: "VIVAS IN DEO P(ie) Z(eses)". It can be translated into two versions, namely, "Live in God, in a pious way and you shall live", if the "P" is taken from the Latin pius (pious). Or it can be translated: "Live in God, drink and you shall live", if the "P" is taken from the Greek pinein (to drink). We need not decide on one or the other variant here, for the ancient owner of the glass bowl was surely incapable of appreciating the double meaning. Quite a similar instance is found on an analogous glass bowl in Cologne that depicts the Fall of Man: "Gaudias in Deo Pie Z(eses)"; "Rejoice in God, drink and live".

Both bowls probably stem from the same workshop in Cologne, in which bowls with pagan mythological motifs, for example, Apollo and Diana or Dionysus and Pan, were also produced, presumably according to the respective customers' wishes. Hence, the Adam-and-Eve bowls were certainly not liturgical objects, but instead drinking vessels for an affluent lifestyle.

40 **Grave in Hassleben,** district of Sömmerda (Thüringen)

Exceedingly rich Germanic graves are rather seldom. All the more remarkable then is the extraordinary, opulently furnished grave, which was discovered in 1913 in Hassleben in Thüringen. It constituted an inhumation, although at that time as a rule the deceased were cremated and their remains buried in a clay vessel. Most of the objects interred with the deceased in the grave were not produced in Germanic workshops, but elsewhere in the Roman Empire. Imported Roman goods are also plentiful in other graves in Thüringen. Thereby, the specialness of the grave goods in Hassleben lies in their great number and their high quality.

Most outstanding are the two massive golden brooches and the golden fingering. Also present were a massive gold neck ring, a collier of glass beads, golden axe-shaped pendants, perforated Roman gold coins and an amber necklace. On both of the deceased's shoulders lay a disc-shaped brooch with amber inlay and a silver brooch. A pin with an almandine setting was among the head jewellery (Fig. 25). Further gifts to mention are a bone comb and bone spindle. Finally a string of amber beads and a hooked key were found in a jewellery box. Besides jewellery, tableware also belonged to the funerary furnishings: a number of Roman bronze plates and vessels, also a silver ladle and a sieve for wine, a glass vessel and various Roman clay vessels. These were accompanied by exquisite kinds of foods: a piglet and a pike, remains of sheep or goat and elk.

The burial took place in the second half of the 3rd century AD: An aureus of Emperor Gallienus (259–268 AD) lay in the mouth of the noblewoman. According to ancient beliefs, this was the payment to Charon, who accompanied the deceased to the world of the dead. The gold coin could have been from the payment to Germanic mercenaries in the Roman military. It is also possible that the grave's rich furnishings are the tangible outcome of one of the Germanic raids into the Roman Empire during 259–260 AD.

Some of the booty that the Germanic tribes either lost while crossing the Rhine River or deposited there in offering was recently retrieved from the river. It illustrates the enormous potential of these raids, which must have exerted quite an influence upon the inner Germanic economy. In any case, the quality of just the looted pieces found in the Rhine River surpasses the metal tableware found in all Germanic princely tombs.

Fig. 25.

41 Opulent wooden chair from Fallward near Wremen, district of Cuxhaven (Niedersachsen)

A unique find is represented in the 65-cm high chair, hollowed out of the trunk of an alder tree. Only the actual seat, which consisted of cloth or leather, is absent. The back of the chair is divided into several zones that are decorated in chip-carved work. Interlaced bands and meander patterns predominate. The front of the chairs is dominated by right-angle ornaments set in one another. The decoration of the opulent chair reflects the influence of the characteristic chip-carved décor of Roman metalwork. A richly decorated footstool also belongs to the chair, which bears the significant rune inscription '*skamella*'.

Seating furniture such as this chair was in use in Scandinavia in the Medieval period as well as in early modern times. It was the seat of the head of the house, whereas the other members of the household had to take their place on more modest sitting arrangements.

The chair from Fallward was found in a grave, which was constructed in the first quarter of the 5th century BC. A dug-out canoe of oak served as a sarcophagus. Other grave goods were a table made of field maple, a bowl made of sycamore maple and bird-shaped vessel of alder wood. The finds demonstrate the great range in which wooden furniture, vessels, implements and many more must have once existed and which in only single cases through especially fortunate conditions of preservation have survived and been documented archaeologically.

The metal fittings of a Roman military belt with the characteristic chip-carved design (Fig. 26) identify the deceased as a Roman officer. Since the 3rd century AD Germanic men could make a career in the Roman army. In the 5th century AD some of them even advanced into the highest offices of state. The Vandal Stilicho, for example, was even a high-ranking general (*magister militum*) and married into the Emperor's family.

As officer in the Roman army, the deceased in Fallward was stationed perhaps in northern Gaul. Through his military service he attained in social prestige, and not the least through his military pay he also strengthened his social position economically. Thoroughly familiar with the Roman way of life, he like many other officers of Germanic origin likely contributed to the spread of Roman techniques and knowledge and, thus, to the "Romanisation" of areas, even those that lay far from the Roman imperial sphere.

Fig. 26.

42 Pectoral from the princely tomb in Wolfsheim,
district of Mainz-Bingen
(Rheinland-Pfalz)

The pectoral was among the furnishings of a grave, which was already found in 1870, but unfortunately was not documented with the desired carefulness. Among the other grave goods were an amber bead, a gold coin of Emperor Valens (364–378 AD), a gold brooch and two golden buckles. A gold bracelet can be seen as the insignia of a Germanic nobleman. A number of other objects are not preserved. The grave belongs in the time between 410 and 440 AD.

The front side of the pectoral is decorated with five rows of almandine inlays. The reverse side (Fig. 27) bears the inscription in Persian: 'Ardaxšīr', which perhaps relates to Ardashir I (d. 241). The rectangular plate was long interpreted as part of a belt buckle. Finally, it could be shown that it was originally part of a Persian collar-armband (Fig. 28). Later a heart-shaped pendant was added to the plate, and then it was worn as a necklace. At that point the rectangular fitting was already an antique.

M. Schmauder drew up a hypothetical course in the life of the deceased; "Descendent of one of the leading families of the Germanic upper class – a so-called *stirps regia*, from the middle course of the Danube River (the brooch is indicative of this region); the Wolfsheim warrior fought in Roman service against the Sasanids. It was there, on the eastern boundary of the Roman Empire, that he possibly stole the buckle, which he wore as a pectoral from then on; likely during the Viking Age of Aëtius he was transferred to the province Germania superior, where he possibly assumed a central position in border defence. He died there on the Rhine, under conditions unknown to us." This course in life, by no means unusual, could also apply similarly to the deceased in the grave at Fallward. The Germanic upper class was integrated into the Roman Empire. From that level of nobles and military leaders emerged the founders of the royal dynasties of the early medieval Germanic kingdoms.

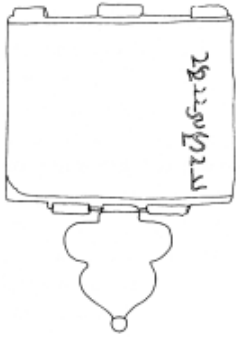


Fig. 27.

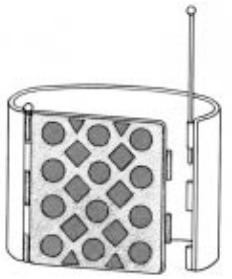


Fig. 28.

43 Eagle fibula from Oßmannstedt,
district of Weimarer Land
(Thüringen)

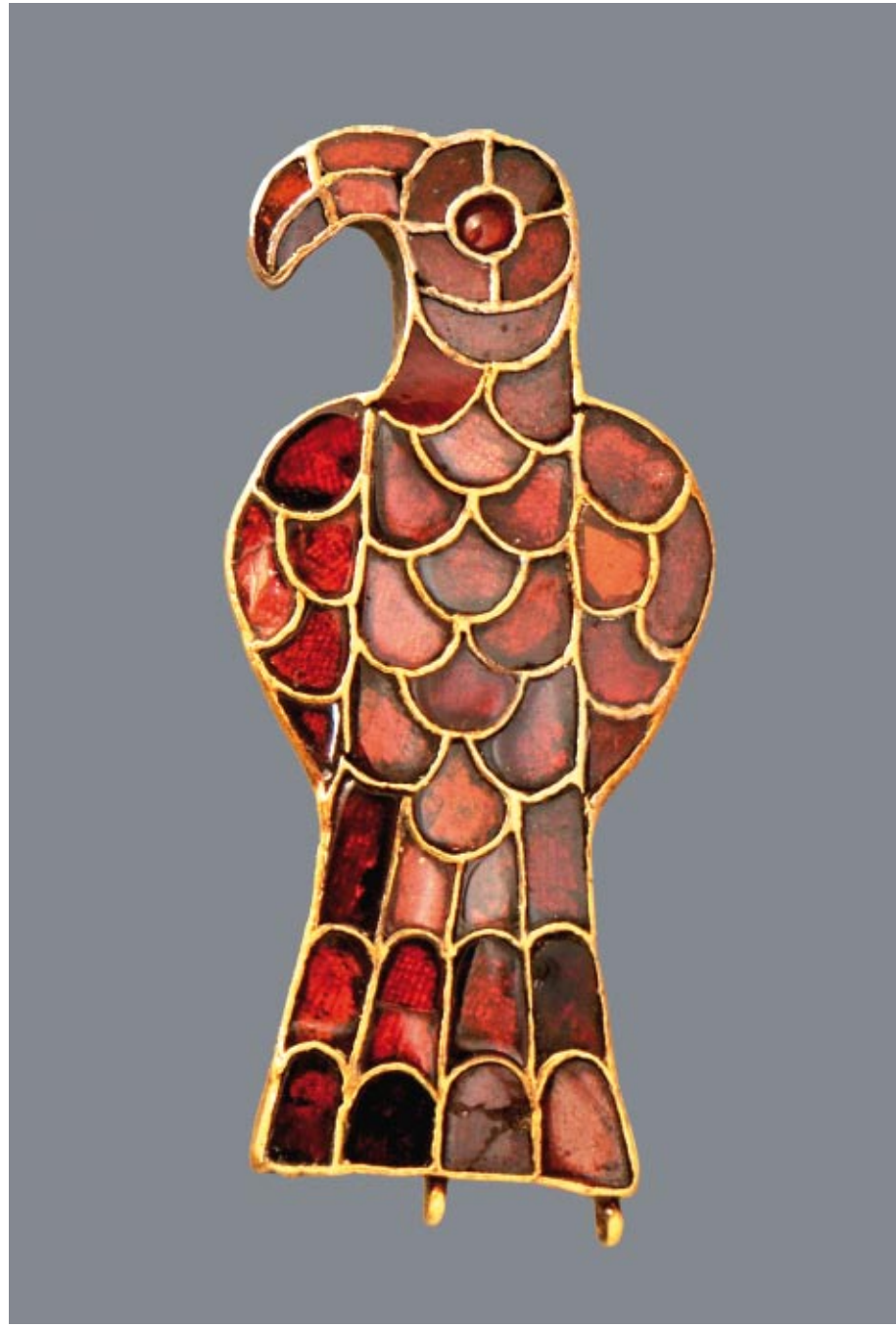
The 6-cm long fibula in the form of an eagle with closed wings stems from the grave of a woman. It was fastened with an amber bead to a gold chain of 1.2-m length. The dress fastener lay in the pelvic area of the woman and held the shroud together. The fibula is a characteristic work in cloisonné technique, which enjoyed great popularity in Central and West Europe since the 4th century AD. This technique was already masterfully executed in Greek workshops of the 2nd century AD in the northern Black Sea area. Ultimately it can be traced back to Hellenistic jewellery. Colourful stones, preferably almandine, were set in small cells, which were formed out of soldered gold strips. For the Oßmannstädt fibula, flat almandine was used as inlays in the 47 variously formed cells, whereas the eye of the eagle was made from a convexly smoothed almandine.

The fibula and further gifts in the grave, among others a golden buckle, a golden finger ring, a broken bronze mirror and two golden earrings, designate the deceased as a member of the upper class. The motif of the eagle as the bird of kings (today of the state) emphasises the position of power in which the woman was a part. The grave is dated to the time between 450 and 490 AD.

The skull of the deceased was artificially deformed (Fig. 29). By bandaging the head in childhood, the skull takes on this characteristic form. Such "tower skulls" were seen as an ideal of beauty, which was particularly fancied by the Huns in the 5th century AD. However, artificially deformation of the skulls was practiced much earlier; it is evidenced in different regions of Eurasia and can be traced back as early as the Neolithic period.

During the 5th century AD the sedentary Huns in the Hungarian plain also drew Germanic tribal areas under their dominance. With the military defeat of the Hun army under its king Attila against a Roman-Germanic coalition on the Catalaunian fields in 451 AD and with Attila's death in 453 AD, Hun influence in Central Europe came to an end.

Fig. 29.



44 Brooch of an equestrian from Xanten St. Victor, district of Moers
(Nordrhein-Westfalen)

The mere 3.4-cm large gilded silver brooch was discovered in grave 66/6 in a Frankish cemetery. Since no further grave goods were found, the dating of the burial is based foremost upon the stylistic assessments, which however differ. A date in the beginning of the 7th century AD was lately proposed for the dress fastener. It could, however, be older and may have been made as early as the late 5th or 6th century AD.

In great detail an equestrian is depicted in gallop. He wears a short upper garment with a V-shaped neck; the fluttering mantel can be seen behind the raised right hand. Clearly visible too are the high leather boots. On his head he wears a helmet with iron plates and a protective nose guard. This is likely the depiction of a rider nomad from the steppe of the northern Black Sea area. It has also been presumed that the fibula arrived in the Rhineland as an import from a northern Pontic workshop.

The tentativeness in the proportions of the horse as well as of the rider cannot be overlooked in this small work. Also, the horse's head does not correspond to our expectations. In its artistic execution the rider image is far from the finesse of Antique portrayals, which were the model for this small fibula. Here we are reminded above all of the Sasanid hunting bowls, on which the mounted king chases after the fleeing game (Fig. 30). These stylistic differences evidently did not disturb the owner of the fibula. He saw himself in a very similar way, as the dashing equestrian, courageous warrior and successful hunter.

Fig. 30.

45 Decorative discs from Eschwege-Niederhone, district of Werra-Meißner (Hessen)

In 1985 a very large grave chamber dating to the first half of the 7th century AD was investigated. The grave was the burial of a man of 50–60 years in age. It had already been robbed in the early Middle Ages. Among the preserved grave goods were weapons, including a sword, bow and arrow and a shield. Signs of his affluent way of life can be seen in the two glass beakers. The bones of pig, sheep, deer, elk, and goose can be interpreted as gifts of food. The partly preserved skeleton of a hawk shows that the deceased engaged in falconry. The headless skeleton of a dog, on the contrary, is to be associated with the robbing of the grave.

In extremely rich burials of this time the deposition of a horse was not seldom, but no skeletal remains of such were found here. Then again there was an iron bridle bit. The three decorative discs also belonged to a horse bridle. They consist of thin sheet-silver, fastened in an enclosing ring of cast bronze. Loops are attached to the ring, through which the leather straps for the chest ornaments passed. The larger disc, 10 cm in diameter, was fastened on the chest of the horse, while the two smaller ones were to the sides, before the saddle.

Visible on the larger disc is an enthroned goddess with a crown upon her head. Two wild lions, which are tame in her presence, face towards her. She holds a bow in her hands. The exotic beasts and the four rosettes on the disc too show that the representation follows an eastern Mediterranean-Oriental theme. In fact, the Iranian goddess Anahita was the prototype for this depiction. Here she is shown as mistress of beasts. The literal meaning of the deific name, "immaculate" and "faultless" also allowed the meaning of the depiction to be changed to the Christian image of the Virgin Mary. The disc was made in a southern German–Alamanni workshop, presumably after the prototype of a Persian original.

The two smaller discs came from the same workshop as well. Exactly the same, they depict an unclothed man standing between two bears with wide-opened jaws. Daniel in the lion's den is most likely meant here. Comparable depictions are also known in Sweden, where they were reinterpreted in the sense of Germanic mythology. The three discs are an example of the constant new interpretation of image motifs. Out of the Persian Anahita emerged a Madonna-image in a southern German workshop, and out of Daniel in the lions' den evolved a Germanic hero in pagan Scandinavia.

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