

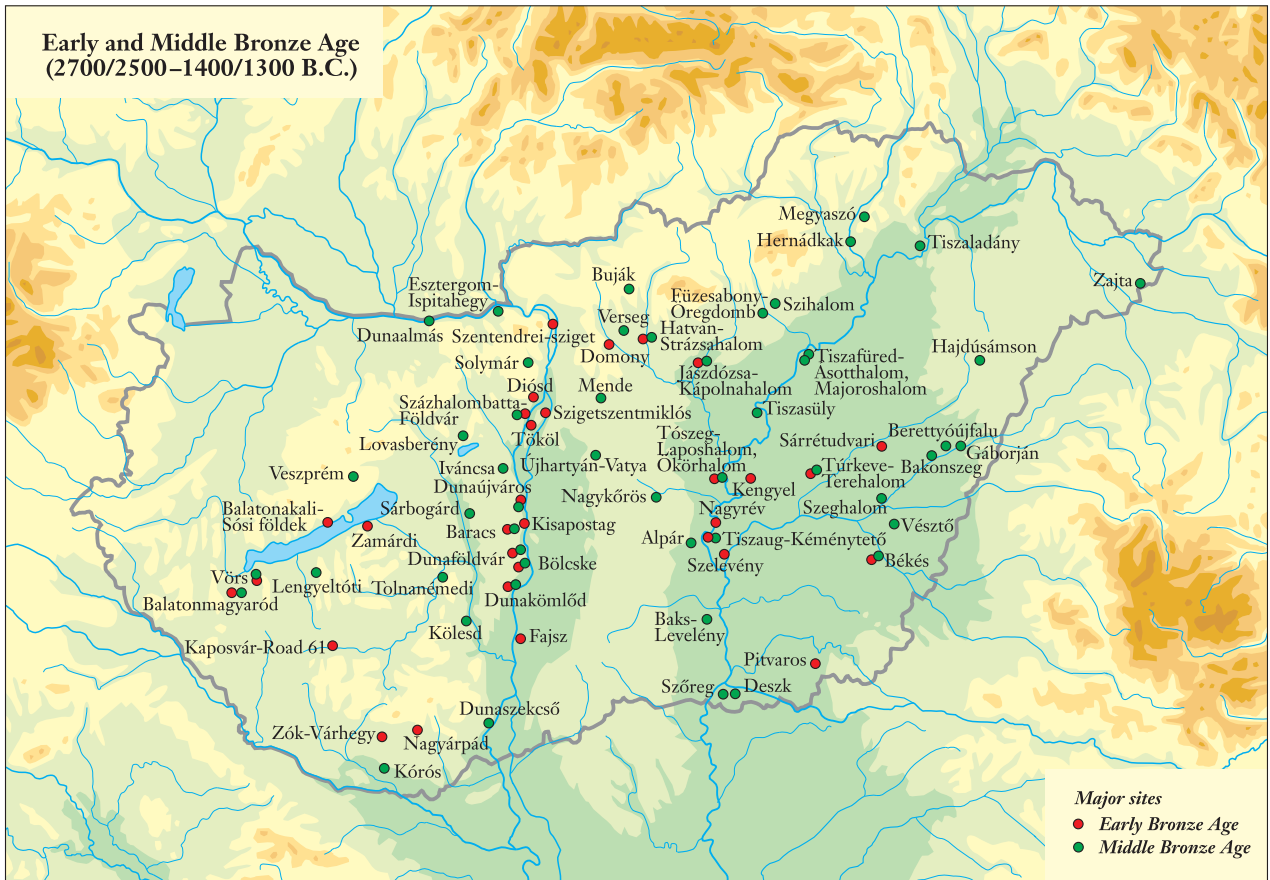
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# VI. THE BRONZE AGE

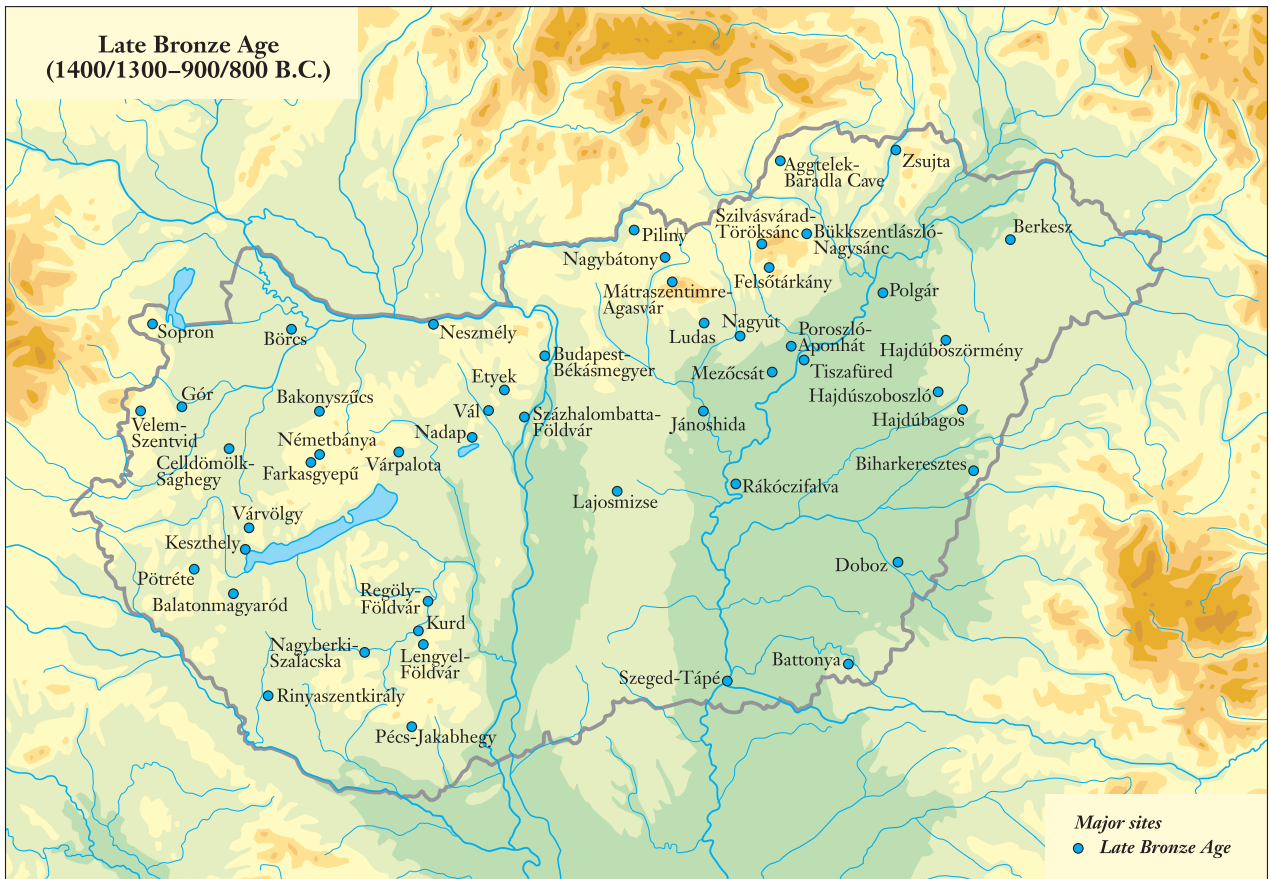
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**Early and Middle Bronze Age  
(2700/2500–1400/1300 B.C.)**



**Late Bronze Age  
(1400/1300–900/800 B.C.)**



## CHANGES IN THE 3RD MILLENNIUM B.C.: THE DAWN OF A NEW PERIOD

Ildikó Poroszlai, Marietta Csányi & Judit Tárnoki

There is hardly a chapter in Hungary's history that does not in some way reflect the consequences of the country's geographic location. The lives of the peoples living here was shaped by the desire to be part of the high civilizations of distant regions, whether in the west or east, and a receptiveness to cultural influences from their direct environment, as well as from neighbouring peoples – the Bronze Age was no exception in this respect. Although cultural impacts from one region occasionally became dominant to the near exclusion of others and brought a uniformity to the historical, economic and cultural landscape of the Carpathian Basin, these two stimuli usually resulted in a duality that can still be felt today.

Recent studies have convincingly demonstrated that environmental and climatic factors strongly affected the distribution of different cultures since climatic changes could lead not only to the disruption of the previous ecologic balance, but – in some cases – they also played a decisive role in the emergence, shift or decline of certain cultures.

The historical period called the Bronze Age spans the second half of the 3rd millennium and the entire 2nd millennium B.C. The period was named after bronze, a metal alloy of copper and tin, copper and antimony or copper and arsenic. Bronze metallurgy was introduced to the local communities by population groups who arrived from the east and southeast, and brought with them the knowledge of this metalworking technique.

The Bronze Age is traditionally divided into three main periods: the Early, Middle and Late Bronze Age. Radiocarbon dates and the dates provided by dendrochronology show that the Copper Age–Bronze Age transition can be dated to the middle third of the 3rd millennium B.C., while the close of the Bronze Age to around 800 B.C. The boundary between two different cultural worlds ran through the Carpathian Basin during the one thousand years long period of the Early and Middle Bronze Age. The greater part of Transdanubia and northern Hungary were part of the western culture province, while in the *Mezőföld* region and the Great Hungarian Plain we witness the spread of Anatolian–South-East European subsistence strategies and the emerge of stratified tell settlements that bound this region to the Mediterranean world, perhaps in part as the result of the immigration of various population groups. Tell-based communities, who rebuilt their houses over the remains of earlier ones, had already settled in the Tisza region during the Neolithic. Their heritage is preserved in the settlement mounds dotting the Great Hungarian Plain.

## THE EARLY BRONZE AGE

Gabriella Kulcsár

In contrast to most prehistorians working in Central and Eastern and South-East Europe, Hungarian scholars link the beginning of the Bronze Age to the cultural changes following the decline of the Baden complex and to the appearance of new cultures.

The appearance of a new, distinctively Bronze Age metalworking technology can first be noted on the northern Balkanic and southern Transdanubian settlements of the Vučedol culture, during the early centuries of the 3rd millennium B.C. The bronzesmiths of the workshops producing the distinctive shaft-hole axes, chisels and daggers employed the same metalworking techniques that first appeared in, and spread from, the Pontic and the Aegean. The northernmost settlement of the Vučedol population, whose villages and hamlets usually lie on elevations rising above the surrounding landscape, has been identified at the site of Somogyvár–Kapuhegy in the Somogy Hills south of Lake Balaton. The brown and black polished Vučedol pottery decorated with deeply incised geometric patterns highlighted with white encrustation or, more rarely, with red painting, represented one of the most elegant styles of the period. The decline of this cultural complex, with its well-organized economy, heralded various new changes.

In contrast to the southerly areas of the Carpathian Basin, the plainland of the Tisza region was populated by communities maintaining close ties with Little Poland, the Ukraine and Transylvania. These communities interred their dead under burial mounds (the so-called kurgans). One of the most impressive burials from this period is the Early Bronze Age grave uncovered at Sárretudvari–Órhalom: the burial contained copper and bronze weapons and ornaments, as well as pottery vessels. Many of the kurgans dotting the Tisza region date from the preceding Late Copper Age (the later 4th millennium B.C.) and can be linked to steppean groups who had already mastered the art of horse breeding. However, much of the history of this population with its eastern steppean traditions in eastern Hungary still lies buried under these kurgans.

In the middle third of the 3rd millennium B.C., the former settlement centres were abandoned; their occupants continued their lives in smaller villages and hamlets. The Vučedol territory was gradually occupied by the Somogyvár–Vinkovci population, a culture blending various elements from the central and southern Balkans; closely allied groups also appeared in the Lower Danube region and Oltenia, as well as in Transylvania and the Körös region (Glina III–Schneckenberg and Gyula–Roşia group).

New cultures also appeared in other regions of the Carpathian Basin; preserving a number of Vučedol elements, the Makó and, later, the Nyírség culture also drew from many other traditions.





Fig. 1. Early Bronze Age footed bowl from Zamárdi

The archaeological record indicates that the Early Bronze Age was a period of constant change, the most important of which was undoubtedly the spread of metalworking techniques. Beside the rather uniform metal artefacts, various pottery types, such as elaborately decorated footed bowls (Fig. 1) that appeared more or less simultaneously in a number of cultures, too reflect a network of trade relations covering fairly extensive areas. The settlements of the post-Vučedol period are little known: scattered refuse pits and fireplaces have been excavated at several sites, but only two larger timber framed structures have been uncovered so far. It seems likely that houses were built from wood and since their foundations were not sunk into the ground, they left few, if any traces in the archaeological record. These settlements suggest a mobile lifeway and an economy based predominantly on animal husbandry, with crop cultivation as a supplementary activity. This would also explain the absence of large cemeteries: most of the known burial grounds contain a handful of burials at the most. These burials include both inhumation and cremation graves; although we cannot speak of a strict burial rite, it would appear that cremation was more com-

mon in the northern and eastern areas, while inhumation was the rule in the south. The burial mounds in the Lake Fertő region reflect the South-East European traditions of the Somogyvár–Vinkovci communities.

## TELL CULTURES OF THE EARLY AND MIDDLE BRONZE AGE

Ildikó Poroszlai

In the Srem, the southern Transdanubian section of the Danube valley and the Sió valley, the early Nagyrév culture emerged in part as a result of continuous cultural influences from the Balkans and in part as a result of Balkanic and local changes. Much of what we know about the early Nagyrév communities comes from the stratified tell settlements that functioned as the major, central villages of this culture. Re-emerging after the decline of the Vučedol period, this settlement form persisted throughout the Bronze Age, although smaller hamlets and farmstead-like sites are also known, such as the one recently investigated near Szekszárd, where a few refuse pits were uncovered. The finds recovered from these pits included the typical, mostly undecorated cups and jugs of this period, together with larger pots and storage jars.

The beginning of the Bronze Age in Western and Central Europe is usually linked to the spread of the Bell Beaker culture. Distributed from Northern Africa to England and from the Atlantic coast to Poland, smaller groups of this rather uniform culture also settled in the Budapest area that thus became a meeting point of northwestern and southeastern cultural traditions. One fine example is the cemetery uncovered at Békásmegyer: 154 graves of this burial ground represent this period. The finds from the burials indicate that a network covering the greater part of Europe existed for the trade and exchange of metals and other commodities.

The end of this almost five hundred years long period saw the emergence of new cultural complexes in the Carpathian Basin that can be easily distinguished from each other on the basis of their lifeways and strict traditions.

Tell economies that had been restricted to a fairly small area during the preceding Vučedol period now became widespread, as shown by the appearance of tell cultures along the Danube and in the Tisza region (Nagyrév, Hattvan, Ottomány and Perjámos cultures); the emergence of these cultures marked the onset of long centuries of peaceful development based on intensive crop cultivation and animal husbandry, lasting until the end of the Middle Bronze Age.

The villages established near major waterways (the Danube, Tisza, Körös, Maros and Berettyó) were occupied by peasant communities with an excellent knowledge of agriculture and animal breeding. They grew various cereals (wheat, barley, oat, rye), vegetables and fruits (bean, lentil,

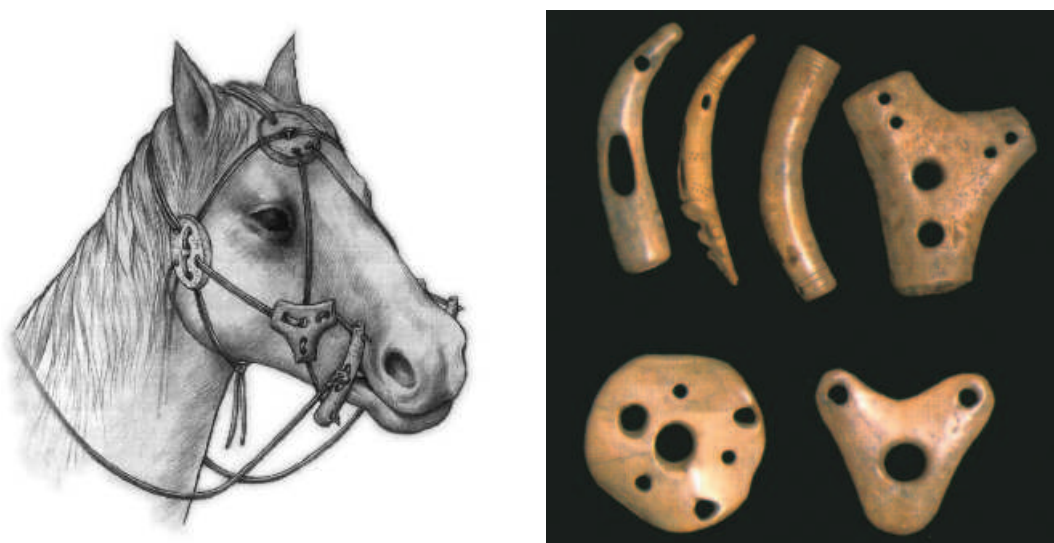


Fig. 2. Harnessed horse (reconstruction) and bronze harness. Tószeg-Laposhalom and Füzesabony-Öregdomb

pea, apple, elderberry, blackberry, cornel-cherry, cucumber, mustard seed) and fodder crops (oat, clover), and they raised cattle, pig, goat and sheep, as well as horse as shown by finds of bits with cheek-pieces and strap distributors carved from bone and antler (Fig. 2). Beside the major bronzeworking centres, metallurgy was also practiced on larger tell settlements as indicated by finds of crucibles, tuyères, moulds, slag and, obviously, the bronze articles themselves: a wide array of tools and implements, dress ornaments such as pendants, spangles and pins, as well as an assortment of other jewellery.

Aligned along regular streets, the houses on these tell settlements were usually built around a framework of wooden posts and had daub walls. The ovens and fireplaces were used for cooking and baking, and there is also evidence for pottery kilns and bronzeworking on some sites. The net weights, fish scales, antler hooks and harpoons reflect the importance of fishing, while spindle whorls and loom weights provide evidence for spinning and weaving. Grinding stones, large storage jars, spoons, vessels used for curing meat, frying pans and strainers were common household utensils. The refuse thrown out into the streets and into the pits – mostly animal bones and other food remains – are all valuable and eloquent testimonies of everyday life.

These settlements and settlement mounds soon attracted the attention of scholars and of laymen interested in bygone ages. Hungarian prehistorians worked out the first, widely accepted chronology of the Bronze Age in the Carpathian Basin on the basis of the successive layers of the Tószeg tell settlement. One of the main achievements of prehistoric research during the past thirty years was the perfection of excavation techniques best suited to the investigation of the superimposed settlement layers and to the recovery of as much information as possible.

Evidence from more recent excavations suggests that the first major Early Bronze Age tell culture, the Nagyrév culture, appeared on the right bank of the Danube, in the area

between Dunaföldvár and Dunaszekcső. The large Nagyrév tell settlements lie on the loess hills flanking the Danube: the lower, 1–3 m thick levels of the tell settlements at Dunaföldvár, Bölske, Baracs, Dunaújváros and Százhalombatta contain the superimposed occupation levels with the remains of timber framed houses having one or more rooms that were occasionally whitewashed. At Bölske, the 3 m thick deposits represent the entire Nagyrév sequence; other settlements were established during the classical or late phase of the culture.

Crossing the Danube, the Nagyrév population reached the Tisza at Tószeg. Nagyrév communities settled along both banks of the river. Their settlements in the Tisza region include Tószeg-Laposhalom and a number of settlements in the Tiszazug area. In areas where the environment was unsuitable for tell settlements, as for example in the Danube–Tisza interfluvium, smaller hamlets and farmsteads were the norm.

#### TISZAUG-KÉMÉNYTETŐ: A BRONZE AGE SETTLEMENT IN THE TISZAZUG

Marietta Csányi

Ensnconced between the Körös and the Tisza, the fertile Tiszazug area rich in water and fish provided an ideal environment for settlement throughout prehistory. It is not mere chance that of the eight Bronze Age tell settlements along the Middle Tisza, four lie in this area, at a distance of no more than 10–15 km from each other. These four tell settlements include Nagyrév-Zsidóhalom, the eponymous site of the Nagyrév culture, and the Tiszaug-Kéménýtető site, excavated between 1980–83.

The investigated area of the settlement lay near the floodplain; the 300 m<sup>2</sup> large excavated area allows an insight into the history of an ancient settlement, the changes in the communities settling here and in the layout of the village. The settlement was first occupied during the Early Bronze

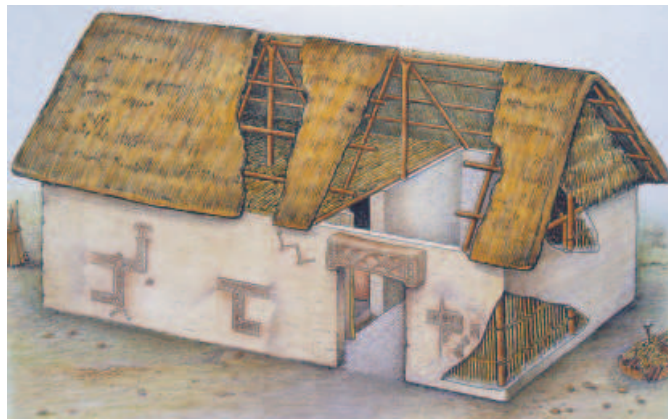




Age, in the Nagyrév period, as shown by the four superimposed occupation levels of this culture. Arriving at the beginning of the Middle Bronze Age, the Hatvan population is represented by a single occupation level.

The early Nagyrév levels yielded a wealth of new information about the culture, especially about the settlement features. The latest occupation level from this period contained the remains of a house, whose walls were covered with elaborate geometric designs (*Fig. 3*), a unique phenomenon from the Bronze Age; the house itself too is an architectural masterwork of the period. This house was destroyed by fire and it is due to this accident – or perhaps an intentional, ritual fire – that the interior furnishings and atmosphere of this Bronze Age building was preserved under the collapsed walls. Similarly to the other residential buildings, this house also had a north to south axis. The 8.7 m by 5.2 m large building was divided into two rooms by a 10–12 cm thick partitioning wall. The larger one functioned as a kitchen: a domed stove was set in one corner and beside this oven stood an open fireplace with a plastered rim. A clay bench ran along the opposite wall, where the family probably gathered on cold winter evenings in the room

*Fig. 4. Pottery jugs from the Nagyrév period. Tiszaug–Kéménýtető, level 2*



*Fig. 3. Debris of a burnt house and its reconstruction. Tiszaug–Kéménýtető, level 2, Nagyrév culture*

heated by the stove. The fragments of several large cooking pots lay on the floor. These vessels, together with jugs, pots and mugs fired to a black or orange colour and decorated with appliqué ribs, were all products of potters working on this settlement (*Fig. 4*).

The above finds indicate that the house, although more carefully constructed than the average, was a typical residential building, whose occupants cared for their creature comforts. The clearing of the western wall brought to light another rare find. The thin clay layer covering the outer surface of the wall was burnt in the conflagration destroying the house and thereby preserved the intertwining geometric motifs of an intricate pattern. Since this house stood in the centre of a larger open area, it is possible that its owner had been one of the outstanding, high status members of the community, whose status was also reflected in the outward appearance of his house.

The best preserved occupation level at Tiszaug had six houses that were arranged in two clusters. The uniform north to south orientation, the two groups of three buildings perhaps corresponding to kinship ties and the geometric patterns ornamenting the house walls reflect a strict principle of organization that offer a glimpse into the universal worldview and ethnic-spiritual mindset of the Nagyrév communities. The tangible reality of everyday life, the settlement and the houses was inextricably bound up with the irrational world of beliefs.

#### BURIALS AROUND NAGYRÉV–ZSIDÓHALOM Marietta Csányi

Settlement and cemetery were two diametric, but nonetheless complementary aspects of the existence of prehistoric man. The excavation of settlements offers a glimpse into the everyday life of vanished communities, while cemeteries allow a better understanding of their beliefs and attitudes. Many cemeteries of prehistoric tell cultures are known, but only in rare instances of archaeological luck

are both the settlement and the cemetery of a given community found. In the case of many prehistoric villages it remains an eternal mystery where the one-time occupants buried their dead. One of the rare exceptions is Nagyrév–Zsidóhalom.

The eponymous site of the Nagyrév culture is an impressive settlement mound on the left bank of the Tisza, on the western edge of the floodplain. The cemetery of this settlement was discovered in 1980 on the sand dunes east of the mound during earth-moving operations. The investigation of this burial ground revealed that the occupants of the Bronze Age village buried their dead farther from the settlement during the early (Nagyrév) period and slightly closer during the later (Hatvan) period. The excavated burials formed four clusters, indicating that this was not a contiguous necropolis; the endless sand dunes bordering the tell in the north and east may conceal several smaller grave groups of six to ten burials.

Twenty-seven burials, forming three distinct groups, date to the Nagyrév period. These grave groups were perhaps the burials of one family and the occasional grave pairs perhaps reflect closer ties within the family.

The Nagyrév burials reflect a wide range of funerary practices. Beside cremation burials, common throughout the Nagyrév distribution, inhumation burials with the deceased laid to rest in a contracted position were also quite common. There were also some differences between the cremation burials: in some graves, the ashes were simply scattered over the floor of the grave pit, while in a few cases they were placed into urns. Food for the journey to the afterworld was placed into jugs, pots, suspension vessels and bowls, as well as other pottery. One grave contained as many as fourteen vessels (*Fig. 5*), and the weapon of the deceased, a dagger with a wide blade, was also placed into the grave among the ashes. Two other burials of the cemetery contained pottery vessels richly decorated with geometric motifs that had a symbolic meaning. Made up of motifs incorporated into more or less identical designs, these patterns occur on vessels found over the entire Nagyrév distribution: zigzag motifs set between two parallel lines, squares and diamonds, as well as motifs resembling upheld arms – the arrangement of these motifs suggests that they were more than simple ornamental elements.

Inhumation burials usually contained fewer grave goods. The deceased were usually oriented east to west, and no more than two or three vessels were placed into the grave, usually beside the head, the feet or the waist.

In spite of the many variations that can be observed in the burial rite, the funerary practices were strictly regulated, depending on the traditions and unwritten laws of the community. The deposition of the deceased or the ashes, the placement of the various articles in the grave, the form and orientation of the grave pit had a strict order that can best be noted in the scattered cremation burials. The vessels were usually closely packed in the northern part of the east to west oriented grave pit with rounded



*Fig. 5. Fourteen vessels found in a scattered cremation burial. Nagyrév–Zsidóhalom, trench B, grave 8*

corners, while the ashes were usually deposited in the eastern corner of the northern part. This burial mode was observed not only at Nagyrév, but at other sites of the culture, such as Tószeg–Ökörhalom on the right bank of the Tisza, where a scattered cremation burial showed a similar arrangement as the ones uncovered at Nagyrév. This strict burial practice was the rule throughout the Nagyrév distribution and reflects a worldview in which symmetry and regularity were important elements. The intricate set of symbols was the visual expression of the link with supernatural powers.

## THE EXPANSION OF THE HATVAN CULTURE

Judit Tárnoki

Named after the Hatvan–Strázsahegy site in northern Hungary where the culture evolved, the Hatvan culture was a neighbour of the Nagyrév culture. The Hatvan culture evolved from the intermingling of earlier local communities and eastern population groups. The earliest upland settlements of the culture are known from the Cserehát Hills, lying between the Hernád–Bodrog–Sajó rivers; the culture later expanded into northern Hungary and the Tisza valley down to the Körös rivers, as well as eastern Hungary, including the Tiszazug area. Over one hundred Hatvan settlements fortified with ditches and/or ramparts, often lying at distances of no more than 5–10 km from each other, were established in the wake of this expansion. The Hatvan communities brought an end to the Nagyrév culture, and rebuilt the destroyed Nagyrév settlements according to their own tradition. The layer sequence of most major tell settlements in the Upper and Middle Tisza region includes Hatvan occupation levels.



JÁSZDÓZSA-KÁPOLNAHALOM:  
A TELL SETTLEMENT IN THE GREAT  
HUNGARIAN PLAIN

Jászdózsa–Kápolnahalom is a typical representative of the Early and Middle Bronze Age tell settlements in the Great Hungarian Plain (*Fig. 6*). Rising 6 m above the surrounding land, the oval mound with its flat plateau towers above the surrounding plainland like a fortress. The settlement was protected by two ramparts and ditches: the outer one enclosed the entire extensive settlement, while the other one ran directly around the mound (the remains of the latter can still be made out). These ramparts and ditches were constructed by the first occupants, in other words, the village was protected against possible attacks from the very beginning. An unusual pit, containing the remains of sacrifices presented during construction work, was found under the floor of the 4 m deep ditch. The remains of these sacrifices included a dozen intact animal skulls (brown bear, aurochs, wild boar, deer and domestic pig).

Work on the tell settlement was directed by István Bóna and Ilona Stanczik between 1966–1975. The mound accumulated to over 5 m during the long centuries of occupation; the very last inhabitants of the village lived in a genuine stronghold.

The first occupants of the settlement, a Hatvan community, chose a small elevation rising above the floodplain in the last century of the Early Bronze Age, around 2200 B.C. They carefully planned the location of the houses that were apparently arranged around a central open space. Houses were quite large in the early settlement phase, their length often exceeding 12 m. These Bronze Age houses differed little from

modern peasant houses. They were constructed of simple materials: the plastered daub walls were supported by a wooden framework, the roof was made from reed and wood, the floor was of beaten clay. These houses did not have a sunken foundation: the posts of the wooden framework supporting the walls and the roof were sunk no deeper than 30–40 cm under the floor level. The early settlement was destroyed by a huge conflagration; the houses uncovered during the excavations had without exception burned down since their floors were covered by a thick layer of burnt debris. There were indications that this conflagration was not a simple natural fire. The overall arrangement, size and internal division of the houses changed considerably in next settlement phase. A fundamental change can also be noted in the archaeological finds: the pottery and the various implements both reflect the appearance of a new population. That the arrival of this new group, the Füzesabony culture, was not a particularly peaceful event is indicated by the fact that a rather valuable hoard, placed into a plain pot, was hidden under the floor of one of the houses, never to be recovered again. The hoard included thirty-seven solid gold hair ornaments, two bronze axes, various bronze ornaments, small gold spangles and a necklace of amber beads. The weight of the gold articles exceeds 140 g; the bronze implements and the amber necklace represented a significant value in themselves (*Fig. 7*).

Similarly to other Hatvan settlements, the pottery was dominated by textile and barbotine decorated wares; other finds included cattle, sheep, goat, pig and horse bones, miniature statuettes of these animals, wagon models, small clay wheels and bird shaped vessels. The latter were most likely used during rituals, perhaps for presenting offerings (*Fig. 8*).

*Fig. 6. Jászdózsa–Kápolnahalom: the tell settlement*







Fig. 7. Gold board. Jászdózsa–Kápolnabalom, level 11

The expansion of the Füzesabony culture can also be observed on other Hatvan settlements in the Tisza region. At Jászdózsa, the archaeological record suggests that even though a Füzesabony group occupied the settlement, the earlier Hatvan community living there was not exterminated and thus the material culture of this population flourished until the very last phase of the settlement.

The houses during this period were smaller (10–11 m by 5–6 m large) and many were divided into two rooms. The alignment of the houses indicates the presence of central open area: the entrances faced this open area and not the narrow streets. This period too was brought to an end by a conflagration destroying the entire settlement (Fig. 9).

The last phase of the settlement was characterized by even smaller, 40–45 m<sup>2</sup> large houses with a covered porch. The streets became slightly wider. The finds from this pe-

riod date this occupation phase to the Koszider period (close of the Middle Bronze Age). The occupants of the settlement eventually abandoned their village and moved elsewhere.

#### CEMETERIES OF THE HATVAN CULTURE

Even though some 100–120 large Hatvan tell settlements are known, many of them occupied for several hundred years, we know surprisingly little about the cemeteries of this culture. The number of known burials is less than a hundred, and less than a half of these burials have been precisely observed and described. The reason for this is to be sought in the burial customs of the Hatvan culture. The admittedly scanty evidence indicates that the major tells were surrounded by a



Fig. 8. Animal figurines. Jászdózsa–Kápolnabalom, Hatvan occupation level

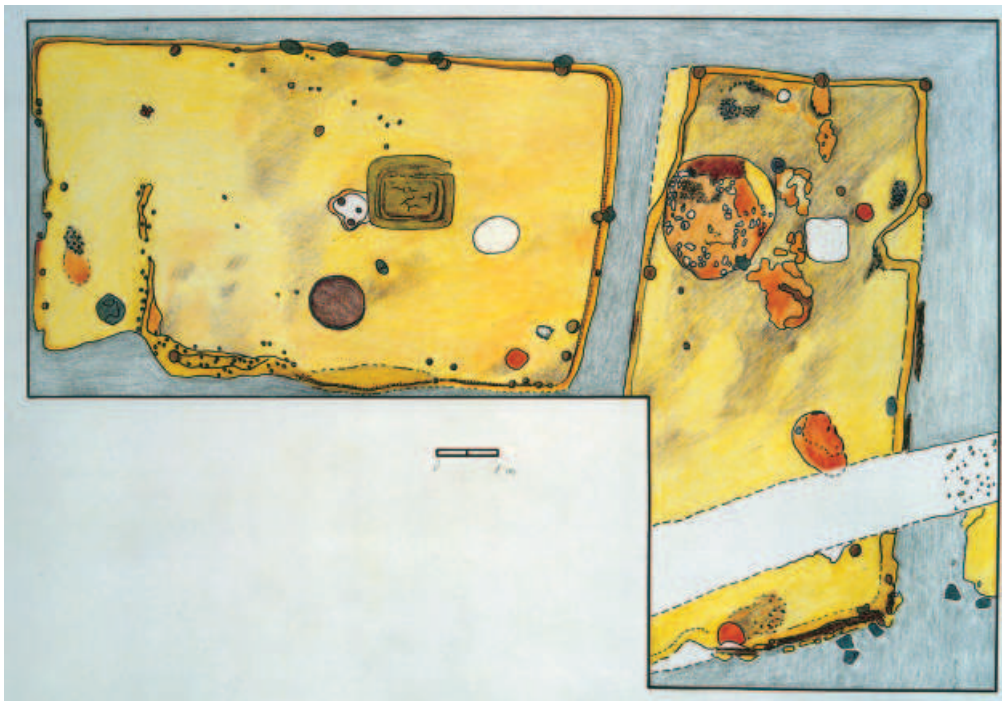


Fig. 9. *Jászdózsa-Kápolnabalom.*  
Drawing of level 6

chain of smaller burial grounds. Graves have been found in thirteen different locations around the Hatvan–Strázsahegy site, while the largest currently known cemetery of the culture, yielding a total of twenty-six burials, has been uncovered at Verseg.

The Hatvan population cremated its dead. The ashes were scattered onto the floor of the grave pit or placed into an urn. The deceased were always provided with vessels containing food and beverage for the journey to the afterworld; often as many as ten or even twenty pots were placed into the scattered cremation burials. It is unclear whether the number of vessels reflected differences in social status since even the most richly furnished burials do not contain truly valuable articles of bronze or gold. Since the deceased were cremated, it is also unclear whether there was any correlation between the quality of the grave goods and the age or gender of the deceased. Similarly, we can only hypothesize that the smaller cemeteries containing a few graves only were the burial grounds of an extended family.

## CENTRAL EUROPEAN ECONOMIES: AGRICULTURALISTS IN TRANSDANUBIA

Viktória Kiss

In contrast to the Tisza region, where tell cultures flourished, the same period in Transdanubia did not see the emergence of tell-based cultures. The peasant communities of Transdanubia, engaged in crop cultivation and stockbreeding, occupied their settlements more briefly. They periodically

abandoned their settlements and moved elsewhere after the exhaustion of their fields, drawing new areas under cultivation. Their lifeways differed significantly from the essentially South-East European economies in the eastern half of the Carpathian Basin.

The close of the Early Bronze Age saw the arrival of new, southern population groups to the territory earlier occupied by the Somogyvár–Vinkovci culture. These groups blended with the local population, giving rise to the Kisapostag culture.

Before firing their wares, the potters of the Kisapostag culture decorated them with elaborate patterns using thin wood or bone implements around which they wound a cord; filled with lime, these patterns adorned the neck of urns and cups. The Kisapostag culture occupied all of Transdanubia (with the exception of the western parts of Vas and Zala counties). Their settlements can be found up to the Danube in the north, the Drava in the south, while the western boundary of the Kisapostag distribution is marked by the Rinya, the marshland of the Little Balaton, the Marcal and the Rába in the west, and the Danube and the Sió in the east.

The settlement network of the Kisapostag culture was made up of dispersed, briefly occupied single-layer villages, the typical settlement of the Early Bronze Age. The settlement uncovered at Vörs–Tótok dombja during the rescue excavations preceding the construction of the Little Balaton reservoir differed from the usual type: it was enclosed by a 2.5–3 m deep ditch with a diameter of 50 m (Fig. 10). The village could be entered through three smaller, 1.5–2 m wide entrances in the ditch; in the northeast, the waterlogged meadow apparently provided a natural protection since the ditch is “missing” along a 10–12 m long section. The houses of this settlement left no trace in the archaeological record



since the Kisapostag population probably lived in above ground houses that have been destroyed by modern agricultural cultivation and can only be observed under extremely favourable conditions. The debris of these houses was not preserved by other overlying occupation levels as in the case of tells. A comparable enclosure was also uncovered at Balatonmagyaród–Hídvégpuszta. Both sites suggest that the Kisapostag communities sought refuge against hostile attacks in the marshland areas of the Little Balaton. The successive layers observed during the excavation of the ditch suggest that the various household articles were ‘buried’ in the ditch after the abandonment of the Vörs settlement, perhaps as part of a ritual that resembled the intentional torching of the tell settlements in the Tisza region.

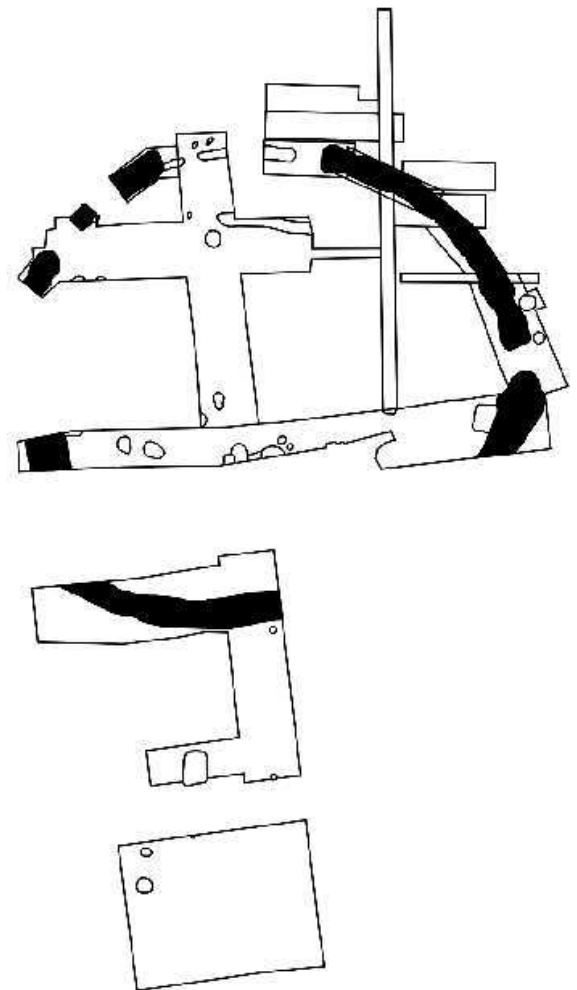
The graves of the Kisapostag culture included both inhumation and cremation burials. In the case of inhumation burials, the deceased were buried in a contracted position laid on their side; they were rarely provided with any grave goods, except for the occasional vessel. Other dead were cremated on a funeral pyre and their ashes were placed into an urn. The reason for this dual rite is unclear since inhumation burials include both graves without any grave goods

and graves with a rich assortment of grave goods. The burial found at Balatonakali, containing two vessels, a gold locking, a bronze arm spiral and heavy bronze weapons can perhaps be interpreted as the grave of one of the community’s leaders.

It is difficult to draw a sharp boundary between the Early and Middle Bronze Age since the layer sequence of certain tells indicates a peaceful and continuous development, although ethnic, economic and historic changes can be noted, as a result of which three major cultural and regional units can be distinguished in the Middle Bronze Age (19th–14th centuries B.C.): the Encrusted Pottery culture of Transdanubia, practicing a Central European economy, the tell cultures of the Tisza region and the Vátya culture – distributed partly in Transdanubia and partly in the Danube–Tisza interfluvium – the latter two both part of the southern cultural *koine*.

The material culture and prosperity of the Bronze Age populations living in this region eclipsed by far that of their Western European neighbours, in part owing to the flourishing economies of these tell cultures and in part to the trade routes passing through the Carpathian Basin.

Fig. 10. Excavated section of the enclosure with a section of the infill levels and plan of the enclosure. Vörs–Tótok dombja





## POTTERS IN TRANSDANUBIA

Viktória Kiss

At the commencement of the Middle Bronze Age, the Kisapostag culture underwent a significant transformation; the new archaeological culture succeeding it was labelled Encrusted Pottery culture by Hungarian archaeological research. The culture was named after its elaborately ornamented pottery: the incised patterns, highlighted by white lime, covered almost the entire surface of the jugs, cups and urns. This population occupied most of Transdanubia, its distribution differing only little from its predecessor: in the north it crossed the Danube and its settlements can be found also in southwestern Slovakia, although it was forced to retreat along the eastern shores of Lake Balaton, its eastward expansion checked by the neighbouring Vatia culture. Earlier, only single layer settlements were known; during the construction of the Kaposvár bypass, a 400 m long village was uncovered. The excavation of the site revealed that similarly to the buildings of the tell cultures in the Great Hungarian Plain, the houses in the larger villages were built around a wooden framework with wattle and daub packed between the posts. Other structures in the villages included sunken economic buildings, as well as storage pits and wells.

The lovely encrusted Kisapostag pottery has been recovered from sites lying far beyond the Kisapostag distribution, both east and west of Transdanubia; its occurrence among the finds of contemporary Middle Bronze Age cultures indicates lively trade connections (*Fig. 11*). Intact vessels and pottery fragments decorated with incised patterns encrusted with white lime have been reported from many tell sites in the Tisza region, as well as from sites in the Bihar



*Fig. 11. Cup with encrusted ornamentation. Jászdózsa–Kápolnahalom*

Mountains and the Transylvanian Ore Mountains; these were probably exchanged for metal ores and finished bronze articles, as well as various commodities made from perishable materials, such as textiles and leather, and perhaps animals. The pottery and bronze ornaments manufactured in Transdanubia were probably exchanged for finished bronze artefacts made in Slovakia, Bohemia and Austria.

### BURIALS OF THE ENCRUSTED POTTERY CULTURE

This population was probably made up of smaller family communities; most of the burial grounds contain twenty to



*Fig. 12. Vörs–Papkert B, grave LXXXII*

## FORTIFIED CENTRES ALONG THE DANUBE

Ildikó Poroszlai

The eastward expansion of the Kisapostag population and their interaction with the Nagyrév population resulted in the emergence of the Vatyá culture along the Danube at the beginning of the Middle Bronze Age. The mobile Vatyá groups expanded their settlement territory dynamically, occupying the previously uninhabited Danube–Tisza interfluvium, the fortified Hatvan settlements along the Tápíó and advanced south along both banks of the Danube.

Their settlements included both single layer and stratified sites, as well as a chain of ‘fortifications’ constructed during the middle phase of the culture that in part protected the settlements and in part controlled the major Danubian fording places. The currently known hillforts were fortified with earthen ramparts and ditches; the settlement layout seems to have been consciously planned on some sites (Lovasberény, Dunaújváros, Alpár). These hillforts also acted as the agricultural and trade centres of a smaller region. Living in an area far from the ore resources, this population owed its prosperity to the fertile loess: agricultural produce and livestock were exchanged for bronze and gold articles. The grave goods from burials reflect the wide range of connections maintained by the Vatyá communities: bronze articles were imported from the west (southern Germany and Bohemia), east and south, amber from the north; the import pottery recovered from Vatyá

Fig. 14. Storage jar of the Vatyá culture. Százhalombatta–Földvár



Fig. 13. Bronze hoard. Zalasabár

thirty graves and only a few cemeteries with over a hundred burials are known (Ménfőcsanak, Mosonszentmiklós). The deceased were dressed in their finest ornaments and cremated on a funeral pyre, with the ashes and the remains of the pyre placed into the grave. The ashes were either inurned or scattered on the floor of the grave pit; vessels containing food and beverage were set around the ashes (Vörs–Papkert; Fig. 12). Sometimes as many as forty vessels, in some special cases even more were placed into the grave.

The distinctive metalwork of this period, known mainly from hoards (Zalasabár; Fig. 13), suggests some form of social ranking and wealth; the moulds found on some settlements indicate the local production of these bronze articles. The female costume of the Middle Bronze Age in Transdanubia can be reconstructed from the dress ornaments found in these hoards and the female clay statuettes brought to light on sites of related contemporary cultures.

Bird statuettes, bird shaped rattles and a variety of miniature clay objects – some of the latter perhaps toys – can be seen as the reflection of religious beliefs.



sites includes the wares of several contemporaneous cultures in other regions. This reflects the dominant position of the Vatyá communities in local and long-distance trade. The most prosperous layer of society was made up by individuals who controlled the trade routes – the hillforts along the Danube were ruled by an aristocracy whose wealth was based on trade. Even so, Vatyá society was essentially agrarian in nature, with pastoralism playing at least as important a role as crop cultivation. Compared to the tell cultures of the Great Hungarian Plain, the material culture was considerably plainer and less varied (*Fig. 14*).

The imposing Vatyá hillforts caught the attention of archaeological research at a rather early date and a research team was formed for their investigation in the 1960s. Very little is known about their internal layout since the various field surveys and excavations conducted over small areas yielded little information concerning the overall structure and function of a given settlement. A total of thirty fortified settlements have been identified to date: fourteen of these have been excavated, but only the finds from three sites have been fully published (Alpár, Bölcske, Százhalombatta). The core territory of the Vatyá culture lay along the right bank of the Danube, where life flourished on the earlier Nagyrév sites (Baracs, Bölcske, Dunaújváros–Kosziderpadlás, Százhalombatta). A number of new hillforts were also constructed during the Vatyá period, for example at Mende, Nagykőrös, Alpár and Solymár. These sites usually have a thinner layer sequence and the associated cemeteries are also smaller, suggesting that these villages and hillforts were occupied for a shorter period of time.

Of the major Transdanubian hillforts, Bölcske spans the entire Nagyrév and Vatyá sequence with its 6 m thick de-

posits. The finds and the structure of the houses clearly prove the Nagyrév origins of the Vatyá culture, as well as the unbroken continuity between the two. Houses were most often built around a framework of wooden posts, they had daub walls, with the clay sometimes plastered over a reed wall, and a stamped clay floor. The changes in the alignment of the houses indicates that the settlement was reorganized around the early and classical Nagyrév transition, although the basic layout of the settlement remained unchanged until the very end of its use-life. The high number of pits is very conspicuous; in the preceding Nagyrév period, the storage and refuse pits, as well as the pits used for other domestic and craft activities were dug outside the settlement nucleus, while in the Vatyá period, these pits were dug near the houses and, occasionally, inside them. These large pits, constant features of most Vatyá tell settlements, make the excavation of these sites rather difficult. There is hardly an undisturbed house floor and the tracing of the levels above the infilled pits is not a simple task (*Fig. 15*). Agriculture played an important role in the economy (einkorn wheat, emmer wheat, barley, pea, lentil, horsebean), as did stockbreeding (pig, goat, sheep, cattle horse) and fishing. Paint grinding was also an important activity as shown by the paint remains found on grinding stones and cores. The paints included black organic substances, a white substance occurring naturally and red ochre. Ochre was mined locally at the Bölcske site. Local bronze metallurgy is indicated by a mould for a flat chisel recovered from a classical Vatyá level, as well as by a number of tuyère fragments and an assortment of wire and sheet ornaments.

The Nagykőrös hillfort stands out among the other similar sites in the Danube–Tisza interfluvium by its unusually



*Fig. 15. Middle Bronze Age occupation level. Százhalombatta–Földvár*





Fig. 16. Százhalombatta–Földvár. View of the site

large size of over 3 hectares and its rather poor finds. The four occupation levels span the classical Vatyá period; the fortification works – an earthen ditch and rampart – were constructed at the end of the settlement's life. The house remains include both single and two roomed structures with daub walls; the imprints of reed mats were observed on the clay floors. It would appear that this large agrarian settlement functioned as a centre for the smaller communities in its environment.

The function of the hillfort at Alpár was to control the central and southern part of the Tisza region. The settlement and the hillfort was separated by an earthen rampart; only the hillfort proper was fortified. The houses in the hillfort and the surrounding settlement had daub walls and clay floors; fireplaces and ovens were found both inside and outside the houses. The large quantities of threshed wheat found in the beehive shaped storage pits indicate that grain was stored inside the settlement.

The Százhalombatta–Földvár site is another well-known Vatyá site by the Danube. About one-third of this fortified tell settlement, established on a loess hill, was destroyed by the mining operations of the local brick factory (Fig. 16). The observations made during the excavations revealed that the settlement was founded during the classical Nagyrév period and was abandoned during the Koszider period. A number of bronze hoards and vessel sets were buried towards the end of the settlement's life.

The finds and the stratigraphy of this site have much in common with the hillfort at Bölske. The continuity be-

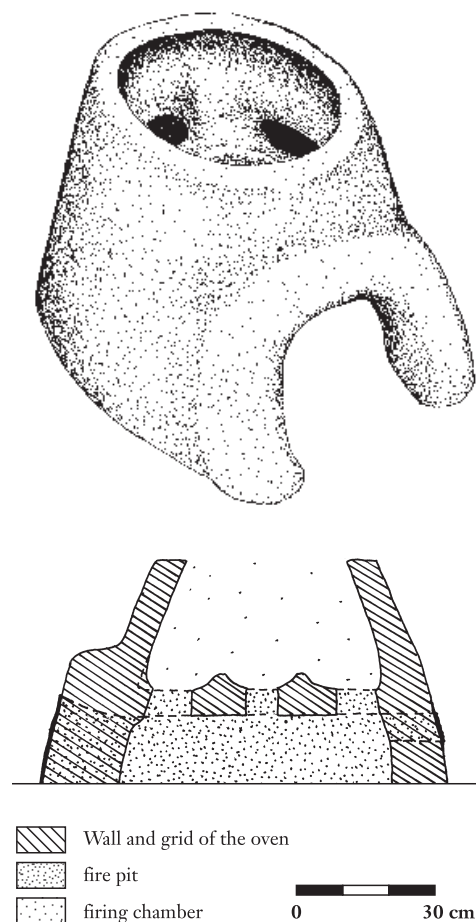
tween the Early Bronze Age Nagyrév culture and the Middle Bronze Age Vatyá culture was unbroken, without a thick sterile fill or destruction level between the two. The houses were built over each other, without any significant changes in their structure and construction technique. The multi-roomed houses had rounded corners, daub walls and a clay floor. The Vatyá and Koszider levels were characterized by a high number of pits, many of which were used for smoking and grain storage or as refuse pits. One of the pits containing grain also yielded a large vessels with a relief decoration symbolizing femininity that can no doubt be associated with the community's beliefs and a fertility cult. The long peaceful centuries in the life of this community were spent with agriculture, stockbreeding, fishing, bronzeworking and weaving. The number of household and craft implements multiplied during the Vatyá and Koszider periods as shown by the strainers, frying pans, spoons, lids, loom weights and a variety of bone and stone implements. The size of the houses and the extent of the hillfort suggest that the settlement had an estimated fifty to seventy houses at any one time in the central village, indicating a population of some four or five hundred people (Figs. 17–18).

The investigation of the central area of the Százhalombatta site was resumed in 1998 as part of a joint Hungarian–Swedish project. The area to be excavated was chosen on the basis of earlier geoarchaeologic soundings in a location where the subsurface probes indicated 6 m thick deposits and an Early Bronze Age fortification ditch. Before beginning the excavation proper, we worked out the sampling



Fig. 17. Clay vessels with unusual decoration. Százhalombatta–Földvár, close of the Middle Bronze Age, Koszider period

Fig. 18. Gridded oven. Százhalombatta–Földvár, Koszider period, layer II



and documentation strategies. The traditional excavation procedures were coupled with the use of a so-called 'total station', an electronic theodolite linked to a computer that in turn was linked to a computerized database, meaning that the data registered during the excavation were immediately entered into the database. The drawings of various features made during the excavation were immediately digitized and presented using GIS modelling. The soil samples were sieved and flotated. This very precise excavation and documentation procedure, combined with various analytical techniques, enables the determination of the function of various buildings, as well as of the activities performed in individual houses. The function of the Vatya pits can perhaps be reconstructed from the sequence of their infilling. Our main objective is to recover as much information as possible about the structure and internal layout of the settlement, its economy, its environment and the social structure of the community. The excavation of the tell was combined with an intensive field survey in the Benta valley and the sondage excavation of smaller sites since we also seek to clarify the interaction between the tell and the smaller settlements in its neighbourhood.

These hillforts were not all abandoned at the same time. Although life came to an end on certain sites already at the





Fig. 19. *Dunaújváros–Kosziderpadlás, board III*

close of the classical Vatyá period (Bölcske, Nagykőrös), their majority was abandoned in the final phase of the Vatyá culture, during the so-called Koszider period (Alpár, Solyvár, Százhalombatta). The Koszider period was named after the Dunaújváros–Koszider-padlás site, where a number of bronze hoards were found in the final occupation level. Since there was no evidence of a violent destruction, it seems likely that these settlements had been abandoned owing to some economic, social and/or climatic change. The occupants buried their valuables (Koszider type bronze hoards, pottery assemblages) because they evidently believed that they would return at some later time to reclaim them (Fig. 19).

#### DUNAÚJVÁROS–DUNADŰLŐ: BURIALS OF THE VATYA CULTURE Magdolna Vicze

Containing many hundreds of graves, the cemeteries of the Vatyá culture reflect the internal development of the culture and are thus suitable for creating a precise internal chronology. At Dunaújváros, for example, the 1600 burials lay in an arc along the western side of the settlement. This arrangement would suggest that the Vatyá community took care to ensure that the deceased lie close to settlement, within eyesight of the living. The burials in this cemetery formed distinct clusters. The arrangement of the burials into smaller groups outlining a boat is perhaps a reflection

of an extended family. The growing number of burials also meant that the boat shaped area outlined by the graves too became larger. It seems likely that these areas were the burial grounds of specific social groups. The chronological sequence of the burials in a smaller group corresponded to the overall internal chronology of the cemetery.

Similarly to the Nagyrév and Kisapostag cultures, the Vatyá population cremated its dead and placed the ashes into large funerary urns. It could also be observed that the ashes were placed into the urn in an anatomical order, with the leg-bones at the bottom, followed by the bones of the body, with the skull and teeth on top. The remains of rectangular and oval burnt fireplaces found between the grave groups in the cemetery suggest that the deceased were prepared for the funeral rite and cremated in the cemetery. The urn was covered with one or two bowls and a small cup was placed inside or beside the urn (Fig. 20).

The grave goods accompanying the deceased in the early Vatyá period often included small suspension vessels that were always ornamented individually. These probably had some special meaning since in many cases the bronze jewellery and dress ornaments were deposited into these vessels. Although only about 5 per cent of the burials were provided with metal at Dunaújváros, these bronze articles showed an unusually great variety. Some weapons and pins were the products of Central European and eastern Alpine metal

Fig. 20. *Reconstruction of an urn burial of the Vatyá culture*





workshops; certain types of bronze pendants, daggers and sheet ornaments reflected eastern and southern metalworking traditions, while amber was imported from the north. The bronze metallurgy of the Vátya culture blended eastern, southern and western metalworking traditions. This is reflected not only by the bronze finds, but also by the pottery from the burials since imports from all the contemporary Bronze Age cultures of the Carpathian Basin occur among them, indicating that the Vátya culture was a cultural complex with rather wide ranging connections.

## THE FLORESCENCE OF THE MIDDLE BRONZE AGE IN THE TISZA REGION: THE FÜZESABONY CULTURE

Ildikó Szathmári

The pottery of the communities living in the Tisza region was ornamented with spiral patterns and channelling combined with knobs. These lovely vessels – carefully polished bowls, pots and jugs with sophisticated patterns – reflect the activity of potters who were masters of their craft and had an excellent artistic taste. The same spiral patterns appear on bone tools and implements, weapons and dress ornaments.

Owing to its distribution, the research of this Middle Bronze Age cultural complex, representing a major geographical and cultural unit, is conducted simultaneously in Hungary, Slovakia, Romania and Yugoslavia. The Füzesabony culture appeared in the Middle and Upper Tisza

region and in the Bodrog and Hernád valleys at the beginning of the Middle Bronze Age. After occupying the settlements of the Hatvan culture, the Füzesabony culture also established a number of new settlements.

The eponymous site at Füzesabony–Öregdomb was investigated by Ferenc Tompa who, beginning in 1931, worked here for several successive seasons and uncovered a roughly 1900 m<sup>2</sup> large area, about one-half of the entire settlement mound. A new control excavation was begun in 1976, directed by Ilona Stanczik of the Hungarian National Museum. Owing to the site's rather bad state of preservation, it was quite difficult to choose a relatively undisturbed area. A 5 m by 10 m large trench and a 51 m long new section offered a wealth of new information about the tell, especially about the lowermost occupation level, and set the findings of Ferenc Tompa into a new perspective. It became clear that the site cannot be assigned to the fortified settlements of the culture and that the 240–260 cm thick deposits accumulated on an open settlement. It also became clear that no other population (Hatvan culture) had occupied the settlement and that the village, with its repeatedly renewed houses, was founded and occupied by a Füzesabony community.

The Füzesabony site was founded during the *floruit* of the culture and its occupants lived there undisturbed until the abandonment of the settlement. The finds from the site suggest that the settlement also functioned as a regional cult centre.

Tompa's excavations offer reliable data for the size of the houses. The simultaneous presence of 4 m by 5–6 m large houses occupied by individual families and of 5 m by 12–14 m large communal buildings has also been observed on

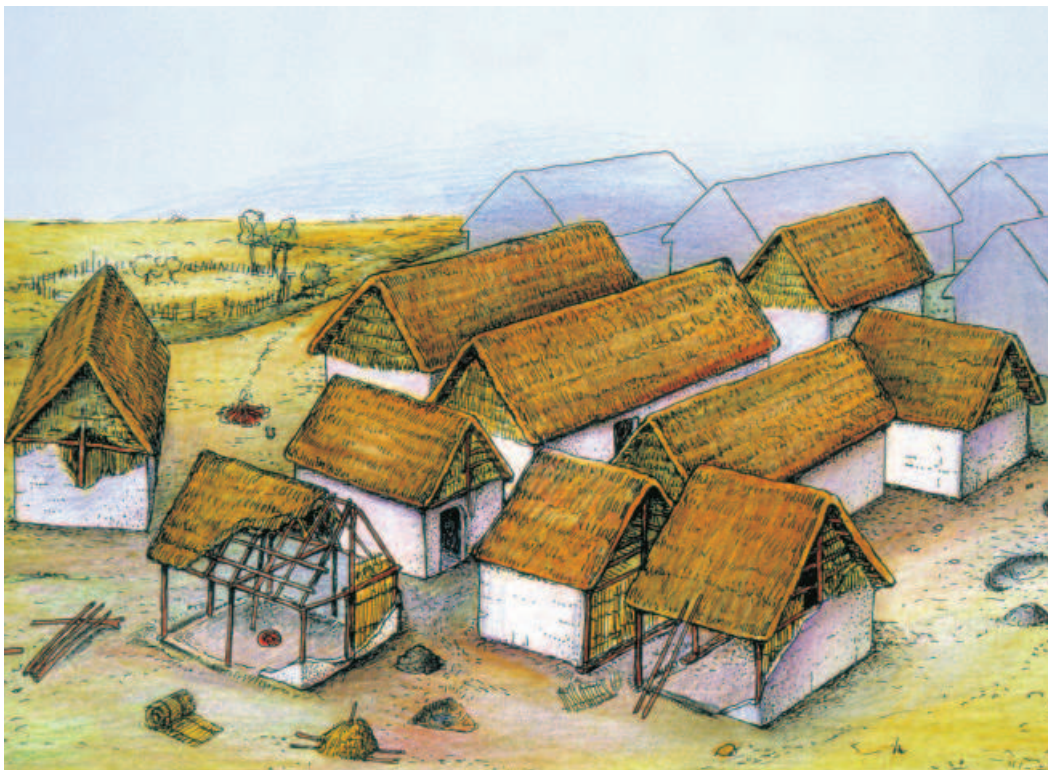


Fig. 21. Reconstruction of a Bronze Age settlement. Füzesabony–Öregdomb

## CEMETERIES OF THE FÜZESABONY CULTURE Marietta Csányi

The Füzesabony culture is perhaps the single archaeological culture whose settlements and cemeteries are equally well known; moreover, the highest number of the currently known Bronze Age burials, some two thousand graves in all, can be assigned to this culture.

The Füzesabony burials are especially important since most of the Bronze Age tell culture populations cremated their dead (Nagyrév, Hatvan and Vatyva culture), while the burials of the other cultures are practically unknown (Ottomány and Gyulavarsánd cultures).

The Füzesabony communities buried their dead in smaller clan or family burial grounds lying a few kilometres from the settlement. Three such burial grounds have been uncovered to date: the Mezőtárkány–Kettőshalom cemetery was used in the early phase of the culture, while the one at Pusztaszikszó in the later Füzesabony period. The third cemetery, uncovered at Majoroshalom on the outskirts of Tiszafüred, is of outstanding importance since it spans the entire Füzesabony period. A total of 635 burials were uncovered at this site. This is the single cemetery that could be associated with a settlement that has also been investigated (Tiszafüred–Ásotthalom).

The Füzesabony cemeteries, including the one excavated at Majoroshalom, reflect a strict burial rite. The deceased were laid to rest on their side in a contracted position, with their hands and feet drawn up beside the body, as if they were indeed sleeping an eternal sleep. Men were always laid on their right side, with their head oriented to the south, while women were laid to rest on their left side with their head oriented to the north, ensuring that their face always looked to the east. This strict burial rite was observed even in the case of infants.

A number of smaller grave groups could be observed in the extensive Majoroshalom cemetery: the graves were either aligned in a row or around an imaginary oval area. Each burial was provided with at least one vessel, although some graves contained several. The cups and jugs were usually placed beside the head or the hips, while larger bowls lay by the feet. Implements and weapons were generally placed by the hands of the deceased. Bronze battle-axes, daggers, spears, axes, chisels, awls and stone blades were usually found in front of the face, near the hands. Outstanding among the richly furnished male burials were the graves of warriors, who were equipped with their complete armament (axes and dagger) or with two battle-axes for the journey to the afterworld; the bronze hafting plate of a battle-axe survived in one of the graves (Fig. 23). The metalwork was also lovingly ornamented with finely engraved, flamboyant patterns.

Many of the bronze lumps, the inseparably fused and unidentifiable metal articles recovered from contemporary cremation burials, can be interpreted on the basis of the finds from these Füzesabony graves. One frequent article,



Fig. 22. Bird shaped vessel and rattle

other settlements from this period (Fig. 21). The internal furnishings of these houses usually included round plastered fireplaces, small clay pyramids for heating, footed grills and portable hearths of clay.

The elegant Füzesabony vessels are genuine masterpieces of the potter's craft. These sophisticated, lavishly ornamented vessels with their shiny black polished surface are pleasing even to the modern eye. It seems likely that they were highly valued in the Bronze Age since they were usually kept in a special place or hung on the walls in the houses. The strainers, spoons, vessel lids, pots and frying pans found on tell sites represent the typical household pottery.

The finds from the two uppermost occupation levels of the Füzesabony settlement represent the late phase of the culture. The earlier classical style gave way to more dynamic and flamboyant patterns with plastic surfaces and large pointed knobs.

There is usually little in the way of evidence for metalworking from Bronze Age tells; however, the few conical headed pins, daggers, rimmed chisels, socketed spearheads and, above all, the seven moulds indicate a local bronze metallurgy.

The cult objects from the settlement reflect the beliefs and the creative imagination of the Füzesabony population. The bird symbol occurs in most Bronze Age cultures. The twenty bird depictions found at Füzesabony exceed the number of similar depictions found on any other Bronze Age site. The seventeen intact and fragmented *askoi* were probably used during various rituals; together with the three bird shaped rattles, they were ornamented in the general style of the period (Fig. 22).

The survival of the Hatvan population in the mountainous region and along the Tisza (from the Zagyva to the Körös mouth) is indicated by cremation burials that differ conspicuously from the inhumation graves of the newcomers.



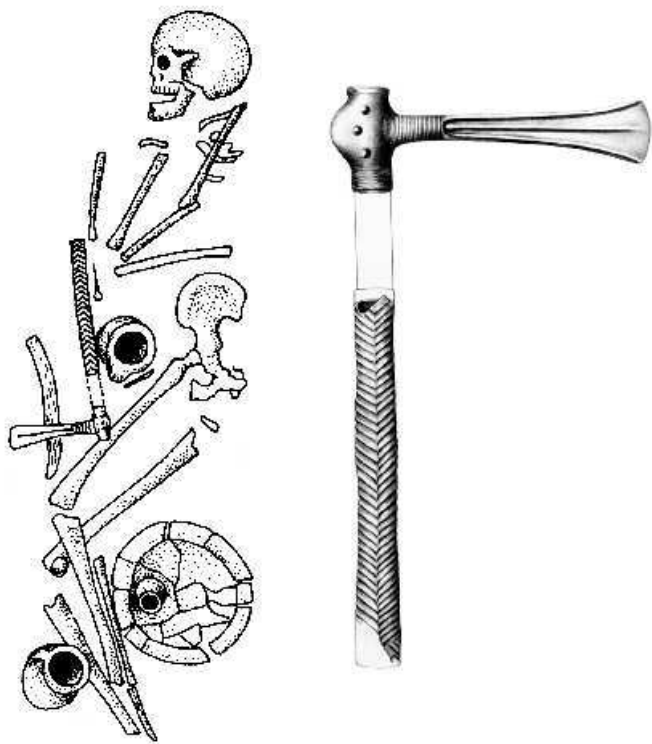


Fig. 23. Excavation drawing of grave B 54 of Tiszafüred-Majoroshalom and its finds

found in both male and female burials, is the plain or ornamented dress fastening pin resembling a large sewing needle. These were usually found by the neck or on the chest, suggesting that they were used for fastening garments. Lockrings, usually made from gold, often lay beside the skull or the shoulders. Women wore necklaces strung of small bronze spiral tubes and larger bronze pendants. The bronze or gold conical and disc shaped plaques with a series of perforations around the edge were used for trimming garments and, judging from their position in the grave, also for ornamenting a headdress, a smaller cap or a veil. A young girl sporting a heavy bronze coil with double spiral terminals on her right ankle no doubt played an important role in the community.

## THE MIDDLE BRONZE AGE POPULATION OF THE BERETTYÓ- KÖRÖS REGION: THE GYULAVARSÁND CULTURE

Marietta Csányi & Judit Tárnoki

Related to the Füzesabony culture and bordering it to the east and southeast was the Gyulavarsánd culture. The Gyulavarsánd population occupied the settlements of the preceding Ottomány culture (Gáborján, Békés, Túrkeve, Bakonszeg, etc.) and also established a number of new ones

(e.g. at Berettyóújfalu-Herpály, Szilhalom and Vésztő-Mágor). Their pottery, decorated with elaborate patterns of spiral motifs, knobs and channelling, had much in common with the Füzesabony wares. The running spiral and channelled patterns appearing on the pottery, bone articles, gold discs and bronze weapons reflect southern influences.

### TÚRKEVE-TEREHALOM: A TELL SETTLEMENT IN THE BERETTYÓ VALLEY

The southernmost and most imposing tell in the Berettyó valley is Túrkeve-Terehalom, rising above the floodplain on the eastern bank of the Boroszló stream, a tributary of the Berettyó that has since dried out. The north to south oriented oval mound, covering a roughly 100 m by 80 m large area, rises some 6–8 above its environment and is one of the largest undisturbed tell settlements in the Great Hungarian Plain. The 580 cm thick Bronze Age deposits were investigated between 1985–1995.

The Túrkeve-Terehalom site lies in the borderland between the tell cultures of the Middle Tisza region, the

Fig. 24. Section of the Túrkeve-Terehalom tell settlement





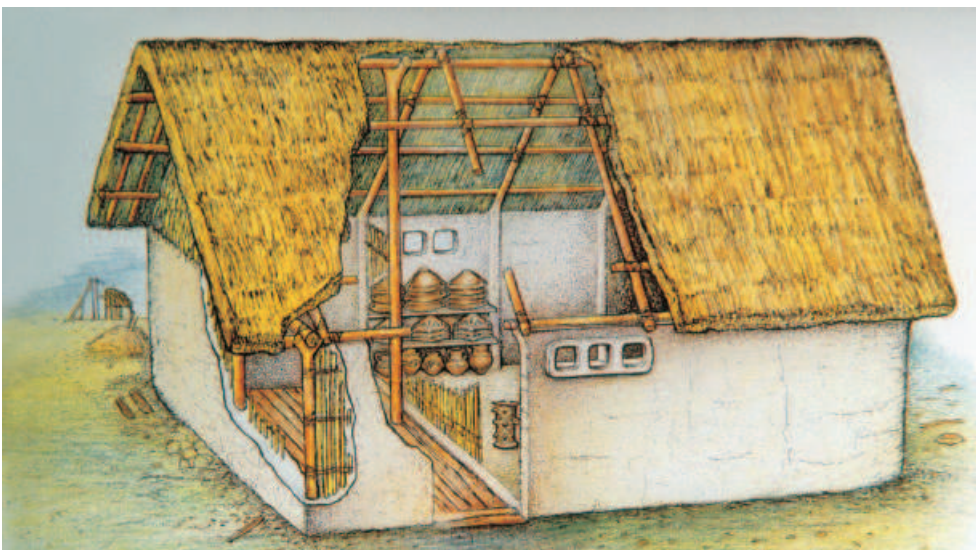


Fig. 25. Remains and reconstruction of a Bronze Age house and a vessel from the floor. *Túrkeve–Terehalom, level 2.*

Berettyó region and the southern part of the Great Hungarian Plain. The find assemblages from this site indicated that its location in this borderland determined the life of the settlement to a large extent.

The excavation of the settlement was begun by opening a 10 m by 10 m large trench, later enlarged to 10 m by 20 m for the investigation of levels 1–2. Although this area only covers a small section of the site's entire area, it nonetheless yielded a wealth of information about the settlement structure. We may say that a series of genuine “Bronze Age marvels” unfolded before our eyes from the uppermost to the lowermost level, even though we did not find fabulous hoards comparable to Priam's treasure – instead, we found burnt and collapsed buildings, the broken bits and pieces of

a family's tableware, unusual clay structures and the practically undisturbed material relics of a Bronze Age village, preserving the imprints of the day to day life of its inhabitants.

The 6 m thick deposits spanned the period from the Early Bronze Age to the close of the Middle Bronze Age (Fig. 24). Numbered from top to bottom, the uppermost levels (nos 1–2) date to the Koszider period marking the end of the Middle Bronze Age, levels 2/A–3–4–5 to the Middle Bronze Age and levels 6–11 to the Early Bronze Age. The tell was inhabited by a Gyulavarsánd community during the Middle Bronze Age and the Koszider period, and by an Ottomány community during the Early Bronze Age. Even though the various occupation levels followed

each other without a break, the settlement structure underwent major changes during the transition from the Early to the Middle Bronze Age. The change in the settlement structure is reflected in the section of the excavation trench. Of the eleven occupation levels, only the buildings of level 4 were not destroyed by fire. The layout of the settlement in levels 6–11 (Early Bronze Age) shows closely spaced buildings in a chequerboard-like arrangement. The fill between the occupation levels barely amounted to a few centimetres; the house floors were renewed repeatedly and the houses were sometimes also partly reconstructed when their floor was renewed.

The houses all had a northwest to southeast oriented longitudinal axis, most likely conforming to the prevailing wind. These buildings had a beaten clay floor, post-framed walls and gabled roofs. The house walls were sometimes reinforced with additional timbers, especially in the corners, the statically weakest points of these buildings. In many cases planks or additional timbers were laid between the upright posts in the foundation trench of the walls. These foundation trenches could also be observed during the excavation of the Early Bronze Age houses.

Level 2 yielded a very special building of this settlement (Fig. 25). The residential building from this level is one of the most imposing structures of this period, while the ceramic wares reflect a potter's craft developed to perfection. The borderland location of the settlement is best reflected in the finds from this level. Genuine Gyulavarsánd wares occurred together with classical and late Füzesabony vessels and Szőreg pottery in a closed assemblage, with all of them bearing distinctive Koszider traits.

Another interesting building was unearthed in level 4: the collapsed building could be reconstructed from the decayed wood remains that were preserved *in situ*.

A geophysical survey of the site was also prepared in order to gain information about the unexcavated part of the tell settlement. The survey revealed that the settlement had been enclosed by a ditch that was filled with water, depending on the water level. The line of this ditch, outlined also by the lush vegetation contrasting with the rest of the environment, can still be made out in the shallow depression encircling the mound. The finds collected from the surface of the mound and its broader environment, and their comparison with other contemporary sites revealed that the mound was the central, fortified part of a large Bronze Age settlement with an outer settlement surrounding it along the line of the ditch from the north, east and south.

The geophysical survey of the site revealed that a roughly 50 m by 80 m large area of the mound, an estimated 80 per cent of its total territory, was densely built up. The results of the survey were also confirmed by the observations made in the excavated area: the houses were closely spaced in all occupation levels and they were usually renewed over the same spot. The width of the streets rarely exceeded 1–1.5 m. The results of the archaeomagnetic sur-

vey suggest that a similar settlement density can be assumed for the entire area of the central settlement.

The high agglomeration of the 'fort', the strict order of the settlement layout indicated by the excavated area reflects a conscious effort to utilize the available space as best as possible, with the obvious intent that the settlement protected with the ditch and earthen bank be suitable for accommodating as many people as possible. However, it could only fulfil this defensive function if, beside providing a roof over the heads of the occupants, an adequate supply of food was also ensured. Judging from various features, such as hearths, fireplaces, shelves for vessels, and the finds themselves (household vessels, tools and implements, animal bones, etc.), the buildings in the excavated area functioned as residential houses. We did not find any structures that could be interpreted as granaries. The evidence from a house in level 7, in which a 20 cm thick layer of charred grain was found among the house debris, suggests that grain was stored in the loft of the houses, the amount being more or less sufficient to tide the family over in wintertime. The storage of the harvested crops in this manner raises a number of questions concerning crop cultivation. Were the fields cultivated communally, with the crops divided between the families after the harvest – since no remains of communal granaries have been found – or were the fields worked by individual families who then stored the harvested crops in their attic? In the latter case, were there communal reserves? It seems likely that there were larger stocks, at least to ensure the necessary seed-corn stock from year to year. However, we found no traces of such granaries in the rather restricted area of the 'fort', suggesting that together with other economic buildings, these stood somewhere in the outer settlement. Both options suggest a highly organized society that is also reflected in the consciously planned settlement with its regular layout.

## TELL SETTLEMENTS IN THE MAROS REGION

Klára P. Fischl

The marshland along the Tisza and the Maros rivers was settled by the Perjámos (or Maros) culture at the close of the Early Bronze Age and during the Middle Bronze Age. The emergence of this culture can be dated to the later phase of the Early Bronze Age and the Nagyrév culture apparently played a role in its formation. The northern boundary of the Perjámos distribution is marked by the burial ground at Mártély and the sites in the Hódmezővásárhely area, the southern one by the southern zone of the Aranka river. In the west, the Perjámos population advanced as far as the Tisza, while in the east as far as Arad in Transylvania.

The Perjámos settlements usually lie on island-like elevations rising above the marshland. Single layer sites can be



found on the chain of smaller ridges (Hódmezővásárhely, Mokrin), indicating briefly occupied villages and a rather mobile population. The archaeological record suggests that the location of the villages, shifted over the same elevation (as at Szőreg), although there is also evidence for the alternation of the settlement and the burial ground (Tiszasziget-Ószentiván). Tell settlements can be found at the Tisza–Maros confluence (Kiszombor, Klárafalva) and in the area where the Maros enters the plainland (Szemplak/Semlac, Pécska/Pecica, Perjámos/Periam).

The stratified settlements at Perjámos and Pécska, dating to the early Perjámos period, were first excavated in the early 20th century using high-standard excavation techniques. The abandonment of these early settlements and the parallel establishment of new ones indicates a major transformation in the life of the culture's population that was also accompanied by the shrinking of the distribution territory, outlined by the chain of Perjámos sites along the Maros at the close of the Middle Bronze Age. The influence of the culture can definitely be demonstrated in the richly decorated pottery of the Koszider period. The Klárafalva–Hajdova site with its 3.5 m thick layer sequence was first excavated by Ferenc Móra in 1931; the investigation of the site was resumed in 1969 by Ottó Trogmayer who separated the successive occupation levels, and in 1987 by John M. O'Shea. The houses of the settlement had wattled walls daubed with clay, their clay floor was periodically renewed. Remains suggesting mortising were also found. On the testimony of the finds, the settlement was established in the later phase of the culture and it flourished during the Koszider period, marking the close of the Middle Bronze Age.

The low number of tells and their concentration in two areas, as well as the fact that there is no evidence for some kind of hierarchy between single layer and stratified settlements suggests that another explanation must be sought for the emergence of tell settlements in this region than in the Great Hungarian Plain. It seems likely that control over the Maros waterway was the main reason that the occupants of the tell sites did not move to another 'island', but remained on the same spot.

The material culture of the Perjámos population, primarily their elaborately ornamented pottery and two-handed jugs, is best known from the inhumation burials in the culture's cemeteries (Deszk A, Deszk F, Ószentiván, Szőreg, Mokrin). Dressed according to their social status (headdress, necklace, belt, armrings, dress fastening pins, tools and weapons), the deceased were laid on their side in a contracted position and provided with food and beverage. Women were usually laid on their right side and oriented south to north, while men were laid on their left side and oriented north to south, ensuring that the face of the deceased always looked to the east. So-called pythos burials, with the deceased placed in a large vessel, also occur in varying frequency in the distribution territory of the Perjámos culture.

## THE KOSZIDER PERIOD

Ildikó Poroszlai

The last phase of the Middle Bronze Age, known as the Koszider period, was a period of spectacular technical development. This period shows a colourful mosaic: following the classical period of tell settlements, but before the start of Koszider period proper, some tell settlements were abandoned (Nagykörös, Böleske), some continued to be occupied (Százhalombatta, Tószeg, Dunaújváros, Bárca, Túrkeve), while elsewhere new settlements were founded (Alpár, Buják, Solymár). Although these indicate some sort of change, the traditional historical explanation – the invasion of the Tumulus culture – is contradicted by the fact that there is no destruction layer in uppermost occupation levels of these tells and that the finds of the alleged invaders do not occur on these sites. The reason for the apparent rupture in the previous balance should thus rather be sought in the interplay of economic, social and/or ecologic factors. In spite of a colourful patchwork of regional groups, the Koszider period nonetheless reflects a general tendency towards uniformization in terms of pottery and metal types. The new pottery style is easily recognizable in spite of regional variants, while bronze metallurgy shows a formal and technical uniformity not encountered previously in the Carpathian Basin. The end of the Koszider period also marks the end of the tell cultures and of the Middle Bronze Age (14th century B.C.).

## THE ADVENT OF A NEW PERIOD: THE LATE BRONZE AGE IN THE CARPATHIAN BASIN

THE TUMULUS CULTURE: INVADERS  
FROM THE WEST  
Marietta Csányi

Although the Bronze Age tell settlements of the Carpathian Basin have much in common with their Anatolian and South-East European counterparts, a development leading to urbanization never began: these settlements retained their village-like nature. It is therefore hardly surprising that they were often affected by socio-economic changes and that they were often conquered by new immigrant groups. These tell settlements were abandoned at roughly the same time – although we will probably never know whether the occupants of these settlements fled for their life or simply migrated elsewhere in search of a new livelihood. What can be ascertained from the archaeological record is that at the commencement of the Late Bronze Age, the history of the Carpathian Basin was largely determined by the

new trajectories of contact with the European regions, whose impact could already be felt in the preceding Koszider period. The Carpathian Basin was caught up in the whirlwind of west to east migrations and cultural influences – in the archaeological record these are reflected by artefacts whose best parallels are to be found among contemporary assemblages from Western and Central Europe. Called Tumulus culture after its distinctive burial mode, this new population occupied the entire Carpathian Basin. This culture is known mainly from its burials.

A total of 278 Tumulus culture burials were unearthed at Jánoshida during the excavations between 1974–1979. Similarly to the assemblages from the contemporary extensive burial grounds at Egyek, Tiszafüred, Tápé and Szalka (Slovakia), the finds from Jánoshida differ markedly from those brought to light on Tumulus sites in southern Germany, Austria and Bohemia; together with the regional differences in the burial rite, this suggests that the local Middle Bronze Age populations also played a role in the formation of this culture.

The burials in the Jánoshida cemetery include cremation burials (both inurned and scattered cremation graves) and inhumation burials (with the deceased laid to rest in an extended or contracted position or placed in a pythos). The deceased were deposited in the grave or cremated on the funerary pyre together with their bronze or gold jewellery and weapons. Food was placed into the graves in vessels. The funerary urns were usually covered with a bowl. The inhumation burials were northwest to southeast or southeast to northwest oriented, with the pottery vessels set beside the head, the waist or the feet (*Fig. 26*).

The gold articles deposited in the graves attracted contemporary grave robbers who plundered these burials. The Jánoshida cemetery was systematically robbed: this does not mean that all the graves were plundered without exception, but only the ones that were known to contain valuable articles. The cremation burials were left untouched since the valuables all perished on the pyre. The poorly furnished child burials were also left untouched (only four of the sixty-eight child burials were robbed, one of them apparently at the time of a secondary burial into the same grave), as were the graves of adults with few or no grave goods. The grave robbers knew exactly which burials were worth robbing since they did not even attempt to open graves that did not contain any valuables. The ratio between the plundered and undisturbed graves allows tentative conclusions concerning possible ranking based on wealth in Late Bronze Age society. Fifty of the 143 inhumation burials in the cemetery had been robbed, although discounting ‘incidental’ robbing (in the case of superimposed burials), this number is only forty-one. However, this ratio of 1:3 is misleading since it is most unlikely that child mortality only affected the poorer layer. The same ratio for adult inhumation burials shows that thirty-seven of the seventy-five adult burials had been robbed, indicating that about one-half of the community’s members were in a position to bury their loved

ones with gold articles. It is unclear whether this reflects the genuine ratio of prosperous individuals within the community or simply that inhumation was the preferred burial rite among the wealthier or high-status members of the community, even more so since little is known about the one-time wealth of the individuals who were cremated owing to the burial rite.

What is certain is that the two burial rites co-existed side by side and that their ratio was influenced by the ethnic makeup of the region and, perhaps, by the social structure of the community using the cemetery. Although inhumation was the dominant rite, cremation burials also occur in the original homeland of the Tumulus culture, in Oberpfalz, southern Germany and Austria. It seems likely that the Tumulus population practiced both rites by the time it arrived to Hungary and that the original ratio of the two burial rites was also influenced by the funerary practices of the local population.

Comparing the ratio of inhumation to cremation burials observed at Jánoshida with the data from other burial grounds in the Carpathian Basin, we find that this ratio reflects the extent to which local Middle Bronze Age population groups played a role in the formation of the new culture. The dominance of inhumation in the Tápé cemetery indicates the important role of the preceding Perjámos culture, while the preponderance of scattered cremation burials at Szalka reflects the survival of the traditions of the Encrusted Pottery culture of Tansdanubia. This would suggest that we cannot automatically assume the numerical superiority of the newcomers, in spite of fundamental changes

*Fig. 26. Inhumation burial with vessels. Jánoshida–Berek*







Fig. 27. Grave 113, with the outline of the grave ditch and the discoloured patch of the robber pit. Jánoshida–Berek

in the material culture and in subsistence patterns – the local population apparently survived the invasion, preserving many earlier traditions, but losing their former influence in shaping the history of this region.

Four burials in the Jánoshida cemetery were encircled by a ditch and the remains of an oval funerary structure were also uncovered (Fig. 27). The deposition of the dead under an artificial mound was a typical mortuary practice of the Tumulus culture over an extensive area, stretching from the Central Danube Basin to southern Germany, Bohemia and Austria. In the Carpathian Basin, however, only a few such tumulus burials are known and this is why the circular grave ditches found at Jánoshida are important. Their significance can be understood in relation to the overall structure of the known tumulus burials in Europe. Most of these tumuli were erected over a circular stone structure, a practice that no doubt reflected a religious belief in an afterlife going back to the early periods of prehistory. The Jánoshida grave ditches can be fitted into this overall picture and they indicate a link with the burial mounds of the Tumulus culture known from other regions. Lying in a region poor in stone, these circular grave ditches can probably be regarded as the local equivalents of the stone rings found under the burial mounds.

The analogies to the rather poor bronze finds from the Jánoshida cemetery, lying far from regions rich in bronze ore deposits and also from the major trade routes, can be quoted from various find assemblages of the Tumulus complex both within and beyond the Carpathian Basin, the only exceptions being the horseshoe shaped pendants that were distributed locally. A glance at the contemporary metal assemblages from southern Germany, Bohemia and Austria reveals that the range of contemporary metalwork was con-

siderably wider, suggesting that only certain types reached the Carpathian Basin during the Tumulus period. The ‘leading’ bronze types of the period were the disc and convex headed pins, tapering or spiral terminalled armrings decorated with bundles of parallel lines, ribbed armrings of sheet bronze and finger-rings.

The pottery from the cemetery is more varied. Pottery types that were common throughout the Tumulus *koine* represent a small percentage of the vessels, most of which can be traced to earlier local wares. The analysis of the Tumulus culture cemeteries uncovered at Jánoshida and elsewhere suggests that only smaller groups ventured as far as the Great Hungarian Plain. The plainland, a unfamiliar environment compared to the original homeland of the Tumulus population, could not have been particularly attractive. Very few traces of their settlements have survived, no doubt owing to the mobile lifeway of this population. The appearance of the Tumulus population nonetheless marks a turning point in the Late Bronze Age history of eastern Hungary, reflected in the spread of new subsistence and settlement patterns among the local population.

#### THE EXPANDING WORLD: MASTERS OF BRONZEWORRING IN THE CARPATHIAN BASIN

Gábor V. Szabó

The archaeological heritage of the peoples living in the central area of the Carpathian Basin during the Late Bronze Age reflects the influence of three major European culture provinces. Occupying the territory of the former tell cultures east of the Tisza was the Gáva culture, part of the South-East European cultural complex extending from the Transylvanian Basin to Moldavia and Bukovina, and along the Danube from the Iron Gates to the Pontic. The western part of the Danube–Tisza interfluvium and Transdanubia was settled by regional groups of the Urnfield culture of Western Europe. In the Northern Mountain Range and its foreland we find the Kyjatice culture, representing a fusion of the local Pilyiny culture, the Lausitz culture distributed in Slovakia and Poland, and of the Urnfield culture of Transdanubia.

The emergence of these three archaeological cultures was closely allied to a process that can be noted throughout Europe, as a result of which increasingly more ‘international’ traits appeared in the colourful material and spiritual culture of the earlier, more or less regional local communities of the 13th–12th centuries B.C. This marked change cannot be attributed to the immigration of new population groups, but rather to the emergence of an extensive network of interregional contacts and the accompanying ‘information flow’. The regular and lively contact between the communities living in different ecologic zones on the continent – and in the Carpathian Basin – was no doubt stimulated by the upswing of bronze production and the use of

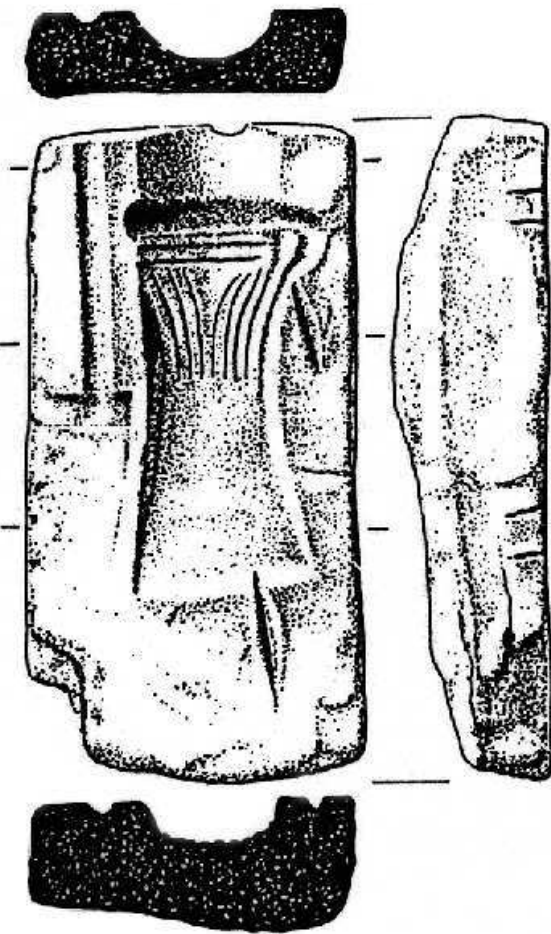


Fig. 28. Mould for a socketed axe. G6r-K6polnadomb, Late Bronze Age, Urnfield culture

metal artefacts, as well as the emergence of metal supply networks.

One eloquent example of the archaeological heritage of this transitional period in Transdanubia is the cemetery excavated by L6szl6 Horv6th at Balatonmagyar6d-H6dv6gpuszt6, investigated during the construction of the Little Balaton reservoir. A settlement ringed by a double ditch and a cemetery with inurned burials, also enclosed by a shallow ditch, was unearthed at the site. The pottery from the four grave groups of the cemetery all included vessels made in the local late Tumulus and early Urnfield tradition.

The same unbroken internal transformation could be observed at a settlement on the outskirts of N6metb6nya that, on the evidence of the radiocarbon samples, existed for some 150 years. The earliest houses yielded Tumulus pottery, while the houses of the later settlement phase contained vessel types of the early Urnfield period.

A similar continuous transition in the Great Hungarian Plain is reflected in the finds from the so-called proto-G6va period, represented by the funerary assemblages from the Csorva cemetery, excavated in the late 1960s, the finds from the T6p6-Kemenesh6t burial ground lying near the

Tumulus cemetery at T6p6 and Polg6r, site 29, a Late Bronze Age settlement investigated as part of the rescue excavations preceding the construction of the M3 motorway, whose clay extraction pits and storage bins yielded pottery bearing both Tumulus traits and the distinctive features of the later G6va culture.

The material and spiritual culture of the Late Bronze Age communities living in the Carpathian Basin shared many cultural traits. The intensive flow of information is reflected in the widespread distribution of metal types and the similarity of vessel forms and their ornamental patterns, made by potters living in regions far from each other.

The use of bronze tools and implements became common at this time. Bronze was no longer used for making prestige items only, but also for producing tools and implements used in day to day life, such as saws, hooks, sickles, socketed axes and awls, that could be acquired by anyone and could be easily manufactured even on smaller settlements, lying far from the major centres, as shown by the moulds for socketed axes and spearheads found at Polg6r, site M-3/1, a settlement of the G6va culture, and the ones for socketed axes, palstaves and arrowheads from G6r-K6polnadomb, a settlement of the Urnfield culture (Fig. 28).

Another major novelty compared to earlier periods is that – perhaps as a result of the widespread use of bronze tools and implements – a number of previously unexploited ecological zones, formerly uninhabited or sparsely populated areas, were colonized beginning with the Late Bronze Age. G6va communities appear in the loess areas with an uncertain water supply lying farther away from major waterways in the Great Hungarian Plain. A similar phenomenon can be noted in the Urnfield distribution, with larger settlements appearing on the sandy hillocks of the Danube-Tisza interfluvium, such as the one dating to the early Urnfield period that was uncovered on the outskirts of Lajosmizse during the construction of the M5 motorway. Five quadrangular houses with daub walls and stamped clay floor were uncovered, as well as a number of pits and a hoard of broken bronze tools hidden in a larger vessel. Urnfield communities also settled in the higher-lying woodland areas of the Bakony Mountains, while a number of Kyjatice groups moved into the mountains and valleys of the Northern Mountain Range, settling in the mountain caves that had remained uninhabited since the B6kk culture of the Neolithic. Many Kyjatice finds have been brought to light from various parts of the Baradla Cave at Aggtelek, where the remains of buildings and burials, as well as a bronze and gold hoard have been found.

The uniformization of beliefs is reflected in the burial mode, with cremation becoming the predominant form of the deposition of the dead. The large cemeteries from this period include the Urnfield burial ground at B6k6smegyer with its 324 graves and the Kyjatice cemetery at Szajla with its 99 graves. Interestingly enough, the single G6va burial ground with 17 cremation graves lay in area that bordered



on the neighbouring Kyjatice distribution (Taktabáj). This conspicuous lack of burials suggests that the Gáva communities followed rather unusual rites for depositing their dead (such as the scattering of the ashes into a river or leaving the body in a sacred grove until it decomposed).

Although the archaeological heritage of the three major Late Bronze Age cultures is fairly well known, considerably less is known about the settlements, the lifeways and the society of these populations.

At the top of the three-tier settlement hierarchy of the Gáva culture were the large villages beside major rivers; these extensive settlements had several houses and economic buildings. A small-scale excavation has been conducted on the one at Poroszló–Aponhát, while another settlement at Baks–Temetőpart was investigated as part of a field survey. A 1–1.2 m thick occupation layer accumulated at the Poroszló–Aponhát site, indicating that the occupants of this settlement pursued a lifeway and a subsistence strategy similar to the Early and Middle Bronze Age tell cultures of the Tisza region. The settlements of the two lower tiers of the Gáva settlement hierarchy, the hamlets, farmsteads and campsites established along the rivers and streams in the Great Hungarian Plain are less known since none have been excavated to date.

The houses uncovered on Gáva sites were built in the same tradition as the earlier Neolithic and Bronze Age houses: measuring 5–6 m by 3 m, they were built around a framework of posts and had walls of wattling daubed with clay. The remains of rimmed fireplaces were usually found on the stamped clay floor, as shown by the house remains uncovered at Doboz and Poroszló–Aponhát.

The efficient agricultural techniques employed by the agriculturalists living in the Great Hungarian Plain is reflected in the sudden increase of large storage jars, coming in a wide variety of forms with varied ornamentation, on most Gáva sites (*Fig. 29*).

Kyjatice communities settled in the Bükk, Mátra and Börzsöny Mountains. Unfortunately, we know next to nothing about their lifeways, no doubt based on the exploitation of higher-lying areas. Very few zoological and botanical samples offering clues to their subsistence strategies have been analyzed so far. Only four of the over thirty fortified hilltop settlements identified during field surveys have been properly excavated (Bükkszentlászló–Nagysánc, Felsőtárkány–Várhegy, Mátraszentimre–Ágasvár, Szilvásvár–Töröksánc), while rescue excavations over a small surface have been conducted on a dozen other sites.

The settlements protected by a timber framed rampart all lay at a relatively high altitude (between 500–900 m a.s.l.). At some sites, building remains were also identified in the area enclosed by the rampart. At Felsőtárkány–Várhegy, for example, 3 m by 6 m large quadrangular houses with daub walls, a gabled roof and a clay floor with a plastered fireplace were found, while at Mátraszentimre–Ágasvár a log cabin with a floor of planks was found. Various explanations have been proposed for the function of these hillforts,

ranging from protection against enemy attacks to social separation and control over trade routes, but none of these have been confirmed yet.

Although practically all of the fortified Kyjatice settlements have been identified, very few open settlements and smaller hamlets or farmsteads associated with these major centres have been investigated so far. A few settlements protected by a shallow ditch and a palisade or fence of densely set wooden stakes have recently been found at Ludas and Nagyút, among the gently rolling hills in the southern foreland of the Mátra Mountains.

Even though the pottery of the Urnfield culture of Transdanubia was bound with many strands to the Central European Urnfield complex, a number of smaller regional groups can be distinguished on the basis of vessel forms and ornamental style. The most characteristic group appeared in the Bakony region during the early Urnfield period. The communities occupying these uplands areas buried their dead under small burial mounds. These small mounds, each erected over the ashes and the grave goods (vessels and various weapons, such as spearheads and daggers), formed smaller clusters. Often fortified with timber-framed ramparts, the settlement centres were established in the interior of the mountainous region, usually on well defensible peaks and ridges. Smaller hamlets and farmsteads with only a few buildings lay near these larger centres. Gábor Ilon uncovered five buildings of such a smaller settlement and nine burial mounds on the outskirts of Némethánya, all standing on an artificial terrace (*Fig. 30*). Archaeometric and other analyses revealed that the occupants were primarily engaged in stockbreeding.

Little is known about the internal layout of settlements, even though extensive work has been carried out on a number of sites, such as Velem–Szentvid and Górház over the past three decades. The most fully investigated settlement is the one at Börzsöny–Paphomlók-dűlő, where András Figler uncovered some 160 houses (*Fig. 31*). The timber framed houses measured 2 m by 3.5 m or 3 m by 6 m; the burnt daub fragments found around these structures revealed that in contrast to the more common wattle and daub, their walls were made of timber posts or thick planks. The settlement was enclosed by a ditch and a fence of wooden



*Fig. 29. Vessels of the Gáva culture*



*Fig. 30a. Late Bronze Age tumulus burials of grave group II. Némethánya–Felsőerdei-dűlő, late Tumulus–early Urnfield culture*



*Fig. 30b. Tumulus III/4, grave 2, and the east-west section of the tumulus*

*Fig. 31. Postholes of Late Bronze Age buildings. Börcs–Paphomlok-dűlő*

*Fig. 32. Late Bronze Age inurned burial from the cemetery. Börcs–Paphomlok-dűlő*

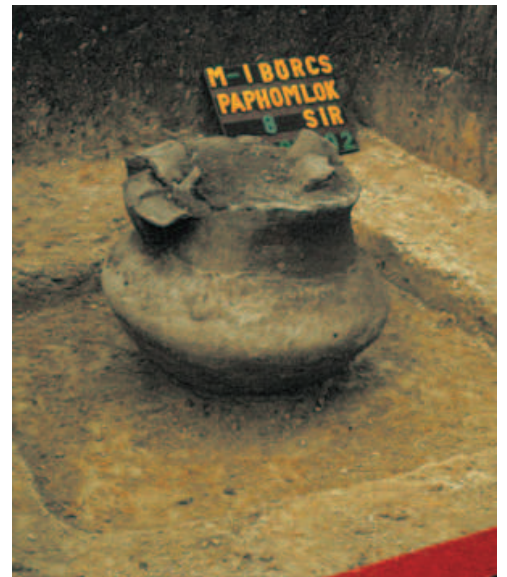






Fig. 33. Scattered cremation burial. Budapest–Békásmegyer, Late Bronze Age, Urnfield culture

stakes. A well lined with wickerwork and fifteen urn burials were found on the edge of the settlement (Fig. 32).

The burial customs of the Urnfield culture can best be studied from the Békásmegyer cemetery, excavated by Rózsa Kalicz-Schreiber. The inurned or scattered cremation burials were furnished with small vessel sets of bowls, cups and storage jars (Fig. 33). The boot shaped ritual vessels and clay amulets perhaps symbolizing the sun and moon deposited in some graves reveal something about the beliefs of this community. Placed beside the ashes of the deceased were the bronze implements used in daily life, such as knives, razors, pins and fibulae; one of the graves also contained an iron knife, indicating a familiarity with this new metal.

## BRONZE AGE METALLURGY

Tibor Kemenczei

### THE EMERGENCE OF BRONZE AGE METALLURGY

The spectacular advances in metalworking throughout prehistoric Europe began with the discovery that the alloy of copper and tin or antimony produced bronze. The know-how of bronze metallurgy arrived to the Danube–Tisza re-

gion from the northern Pontic and the Balkan peninsula in the mid-3rd millennium B.C. The efficiency of subsistence strategies based on crop cultivation and stockbreeding in both southern Transdanubia and in the Tisza region yielded a surplus that could be exchanged for locally unavailable metal ores. Based on this raw material there emerged a flourishing metallurgy by the beginning of the 2nd millennium B.C.

The volume of gold metallurgy too increased in the bronzeworking centres. Some idea of the volume of the metalwork turned out by the bronze and gold workshops can be gained from the 323 bronze and 32 gold hoards, containing many thousands of metal articles, found in the Danube–Tisza basin. The number of bronze finds recovered from graves also runs into the thousands. On the testimony of the rich inventory of metalwork, Transdanubia and the Tisza region were both major centres of European metallurgy.

Owing to the rich inventory of Bronze Age metalwork from Hungary, a series of articles and books were devoted to the description of the bronze and gold finds from the later 19th century. It is now clear that the beginnings of bronze metallurgy go back to around 2800 B.C. The finds from the copper workshop uncovered at the Vučedol settlement of Zók–Várhegy near Pécs, investigated by István Ecsedy in 1977–78, date to this period. The finds brought to light during the excavations included clay moulds, crucibles, tuyères and the remains of a smelting furnace. The bivalve moulds were used for casting axes and chisels (Fig. 34). The casting techniques reconstructed on the basis of the workshop finds from Zók were employed throughout the Bronze Age.

Cupric sulphide ore, chalcopyrite was processed at the Zók settlement; this ore contains a small amount of arsenic and thus the metal articles produced in the workshops were composed of natural arsenic bronze. In later periods of the Bronze Age, when the turnout of bronze articles was higher, a regular trade network ensured the supply of tin and antimony, the alloys necessary for bronze production. Since there are no copper ore deposits in Transdanubia, the bronze workshops in this region acquired the metal ore from the copper mines in the eastern Alps (Bischofshofen–Mitterberg, Liezen–Schladming) or Upper Hungary (Úrvölgy/Spina Dolina, Libetbánya/Lubietova). The sulphide ores (chalcopyrite, fahl ore) mined at these locations were refined at the mines, the metal was then smelted in furnaces and cast into bun, loaf, ring or bar shaped ingots. The pure copper was then transported to the bronze workshops. The alloying of copper with tin or antimony, and the production of the bronze articles was performed in these bronze workshops. Antimony occurs at Szalónak/Schlaining in the Burgenland, as well as in the Börzsöny and Velencei Mountains in Transdanubia, while tin was probably procured from the Bohemian–Moravian Ore Mountains.

Metal was transported to the bronzeworking centres on



Fig. 34. Moulds, crucible and copper axe. Zók-Várhegy, Early Bronze Age

waterways or along them. The Danube, the Drava and their tributaries no doubt acted as major waterways for transportation. The importance of the Kapos river is indicated by the fact that a number of Late Bronze Age hoards have been found in its valley and that Regöly-Földvár, a Late Bronze Age settlement where a number of moulds have been brought to light, also lies by this river.

The hoards found at Fajsz and Dunakömlőd contain the products of early bronze metallurgy in Transdanubia, such as flat chisels and shaft-hole axes. A battle-axe and a dagger blade was recovered from a kurgan burial at Sárrétudvari-Órhalom in the Great Hungarian Plain. The use of copper and bronze shaft-hole axes became widespread in Central Europe during the later 3rd millennium and the early 2nd millennium B.C. Their production on Somogyvár, Makó, Nagyrév and Hatvan settlements is evidenced by a number of moulds found at sites such as Diósd, Domony, Nagyrápád, Szihalom-Földvár, Tószeg-Laposhalom and Túrkeve-Terehalom.

#### BRONZEWORRING IN THE MIDDLE BRONZE AGE

The gradual spread of bronze metalworking techniques, the regular contact between various population groups at the beginning of the 2nd millennium B.C. resulted in the appearance of new cultures in the Danube-Tisza region. Large villages, occupied over hundreds of years, arose along the Danube and east of the river. These large settlements were also major metalworking centres. In contrast, Transdanubia and the Northern Mountain Range was occupied by communities engaged mainly in stockbreeding with more transient settlements.

Corresponding to the contact networks of the population groups pursuing different subsistence strategies, two major regional units producing different types of metalwork can be distinguished in bronze metallurgy. On the testimony of the grave finds from Battonya, Deszk, Pitvaros and Szőreg, lying in the Maros-Perjámos distri-

bution in the southern part of the Great Hungarian Plain, a style of jewellery adopted from the northern Balkans can be noted in this region: torcs, pins with wired head, wire rings, buttons, spectacle spirals and panpipe shaped pendants of sheet bronze. The Transdanubian bronze workshops procured copper from the eastern Alpine and Slovakian mines and created their own local products. Distinctive types include the short copper daggers of the Bell Beaker culture (e.g. from Budapest-Békésmegyer), as well as bronze racket headed pins, heart shaped pendants of sheet metal, cast lunula pendants, flat sheet pendant ornaments with curled edges, neckrings with rolled terminals and flat chisels. The Ercsi hoard contained many of these ornaments; comparable bronze jewellery was also recovered from the burials in the Kisapostag, Nagyrév and early Vátya cemeteries. The development of local bronze metallurgy is also reflected in the wide range of forms and ornamentations on the products turned out by Transdanubian bronze workshops. These bronze articles included disc and comb shaped pendants, coiled arm-rings, spiral terminalled armrings, spherical and conical headed pins, dagger blades and axes, known from the hoards (Esztergom-Ispitahegy, Korós, Lengyeltóti-Tátárvár, Pusztasárákánytó, Tolnanémedi) and graves (Dunaalmás, Veszprém, Vörs, Zamárdi) of the Encrusted Pottery culture.

The bronze industry of the Tisza region during this period produced spectacular weapons and jewellery. The craftsmen used the raw material imported from Transylvania. The copper and gold deposits in the volcanic ranges of the Avas, Gutin and Cibles Mountains of northern Transylvania were discovered and mined already during the Bronze Age. A number of Greek bronze and gold metal workshops also imported raw material from these Transylvanian mines. Mycenaean trade relations with the Transylvanian-Danubian region became regular from the second quarter of the 2nd millennium B.C. These trade contacts between the Bronze Age civilization of the Greek mainland and the eastern half of the Carpathian Basin are reflected in the similarities between the spiral decoration on gold finds from the Mycenaean shaft graves and the patterns ornamenting many gold and bronze articles from Transylvania and the Tisza region.

The bronze hoards found at Hajdúsámson, Szeghalom-Károlydereka (Fig. 35), Téglás, Tiszaladány and Apa bear eloquent witness to the technical skills and the creative artistry of the bronzesmiths working in the Tisza region. The delicate spiral patterns on these axes echo Aegean metalwork. These finely crafted articles were not simply everyday weapons, but also insignia of power and rank owing to their high value and uniqueness. The swords produced in the Tisza region were traded over great distances – they have been found as far as Northern Europe, where they were copied by local craftsmen for the local élite.

Beside these hoards, the bronze axes and daggers, as well as the bronze and gold jewellery recovered from the burials





Fig. 35. Bronze axes. Szeghalom–Károlyderék, Middle Bronze Age

of the Maros–Perjámos communities of the Tisza region (e.g. at Herdnádkak, Megyaszó, Tiszafüred–Majoroshalom, Battonya, Deszk, Szőreg) also testify to the prosperity and impressive wealth accumulated by the élite of these communities.

The output of the bronze industry increased significantly in the mid-2nd millennium B.C. and the production of new metal types can also be noted. One of the stimuli to this process may have been the intensification of interrelations between the metalworking centres in the eastern Alps and the Danube–Tisza region that, in turn, can be ascribed to the appearance of the Tumulus culture in Transdanubia. As a result, the fashion of a certain type of weaponry, implements and jewellery spread from southern Germany to the Middle Danube region. A number of hoards have been found in Transdanubia that contain articles of this type, such as the three hoards unearthed at the Middle Bronze Age settlement of Dunaújváros–Kosziderpadlás, the hoard of coiled armrings, bracelets, disc and conical headed pins, openwork heart shaped pendants, rimmed chisels and dagger blades found in a clay pot at Százhalombatta–Földvár (Fig. 36), the daggers, axes and pins from Sárbogárd and Simontornya, as well as the grave assemblages from Ivánca, Kunszentmiklós, Törtel and Várpalota. These hoards and grave finds reflect the entire range of Vátya–Koszider metalwork in the Danube region.

The workshops in the Tisza region continued to produce ceremonial weapons and insignia of power and rank in this period. A hoard found at Zajta contained three swords ornamented with geometric patterns and a disc butted axe. These ceremonial weapons and insignia were treasured possessions, preserved by successive generations, and very often several centuries elapsed between their manufacture and burial, as shown by the hoards from Téglás and Tiszaladány that contained jewellery and weapons of both the Hajdúsámson and the Koszider metal horizon. The bronze axes and daggers with elaborately ornamented blade deposited in burials (e.g. at Megyaszó and Tiszafüred) indicate that the bronzesmiths of the Füzesabony and Gyulavarsánd communities preserved their individual style for several centuries.

### GOLD METALLURGY

Bronze and gold metallurgy developed side by side in the Carpathian Basin. Gold metallurgy flourished not only because of the high technical skills of the bronzesmiths, but also because the Transylvanian mines and the gold panned from rivers provided a constant supply of gold. The first gold jewellery items were manufactured in the Copper Age, in the mid-4th millennium. The earliest gold ornaments of

Fig. 36. Bronze hoard. Százhalombatta–Földvár, Middle Bronze Age



the Early Bronze Age, oval heart shaped lockrings, reached the Great Hungarian Plain from the steppe north of the Pontic. These lockrings remained in vogue during the later centuries of the Bronze Age. Their earliest bronze variants, covered with sheet gold, are known from Sárrétudvari-Órhalom.

These solid oval lockrings were worn for over a millennium in the Tisza region as shown by the finds from various Early and Middle Bronze burials (Battonya, Szőreg, Hernádkak, Tiszafüred–Majoros) and hoards (Jászdózsa–Kápolnahalom, Szelevény).

In the mid-2nd millennium gold lockrings were usually boat shaped and were made from sheet gold. Many of these ornaments have been found in hoards (Baks–Levelény, Kengyel, Tizzasüly, Nagyberki, Uzdborjád/Kölesd) and grave assemblages (Balatonakali, Tiszafüred–Kenderföldek). The two gold lockrings found together with bronze articles in the Százhalombatta assemblage illustrate the link between bronze and gold metallurgy.

#### THE BRONZE INDUSTRY OF THE LATE BRONZE AGE

The superbly crafted individual and unique weapons and jewellery of the Middle Bronze Age were, from the 13th century B.C. on, succeeded by mass-produced bronze articles in the Tisza region. Bronze workshops turned out great quantities of various bronze types, including the tools and implements needed in daily life. This upswing can be explained by a number of local and external factors, one of these being a profound change that can be noted in the Danube–Tisza region during the 14th century B.C. This period saw the cessation of life on most settlements and the abandonment of cemeteries. The dominant cultural complex of the Danubian region in Central Europe, the Tumulus communities occupied Transdanubia and the Danube–Tisza interfluvium, as shown by the bronze jewellery, swords, daggers and axes echoing general Central European forms and ornamentation from the 13th–12th century cemeteries at Keszthely, Bakony-szűcs, Farkasgyepű, Mezőcsát, Tápé, Rákóczi-falva and Tiszafüred. Although a number of changes can be noted in the overall culture and the subsistence patterns of the communities in the Tisza region and the Northern Mountain Range, the finds from the burial grounds of these communities also reflect the survival of certain bronzeworking traditions and beliefs (Piliny, Zagyvapálfalva, Nagybátony, Hajdúbagos, Berkesz, Csorva). The beginning of the Late Bronze Age is generally correlated with these profound changes.

One major stimulus to the development of bronze metallurgy in the Tisza region was that the metal workshops in this region adopted several artefact types – mainly weapons and implements – from the eastern and western Alpine bronze industry and began their mass production.



Fig. 37. Bronze axes and a spearhead. Ópályi, Late Bronze Age

Another was an increase in the output of Transylvanian ore mining. The strong economic ties between the Tisza region and Transylvania is, from the 12th century B.C. onward, reflected in the great similarity between the pottery, bronze metallurgy and overall culture of the communities living there (Gáva, Reci–Medias cultural complex). The skills necessary for bronzeworking, transmitted from generation to generation, the general advances in the technology of metalworking was another major stimulus to the mass production of a wide variety of bronze articles.

A total of 261 bronze and 23 gold hoards dating from the 14th–9th centuries is known from Upper Hungary and the Great Hungarian Plain. The earliest artefacts in these hoards were usually modelled on Middle Bronze Age types. One characteristic product of the Tisza region was the bronze axe that occurs in many hoards: thirty-four such axes were found at Ajak, while fourteen axes were found in association with other bronze articles at Ópályi (Fig. 37). The importance of this weapon in the armament of warriors is shown by the hoard from Rozsály, where gold jewellery was found together with three bronze axes thrust into the ground. Traded as far Lower Austria, Bohemia and northern Germany, these weapons were also valuable prestige items and symbols of power.

The bronze products turned out by the workshops in the Danube–Tisza region were ornamented with patterns recalling the ones used by the bronzesmiths of Northern and Central Europe. These include bird, sun, wheel, star and



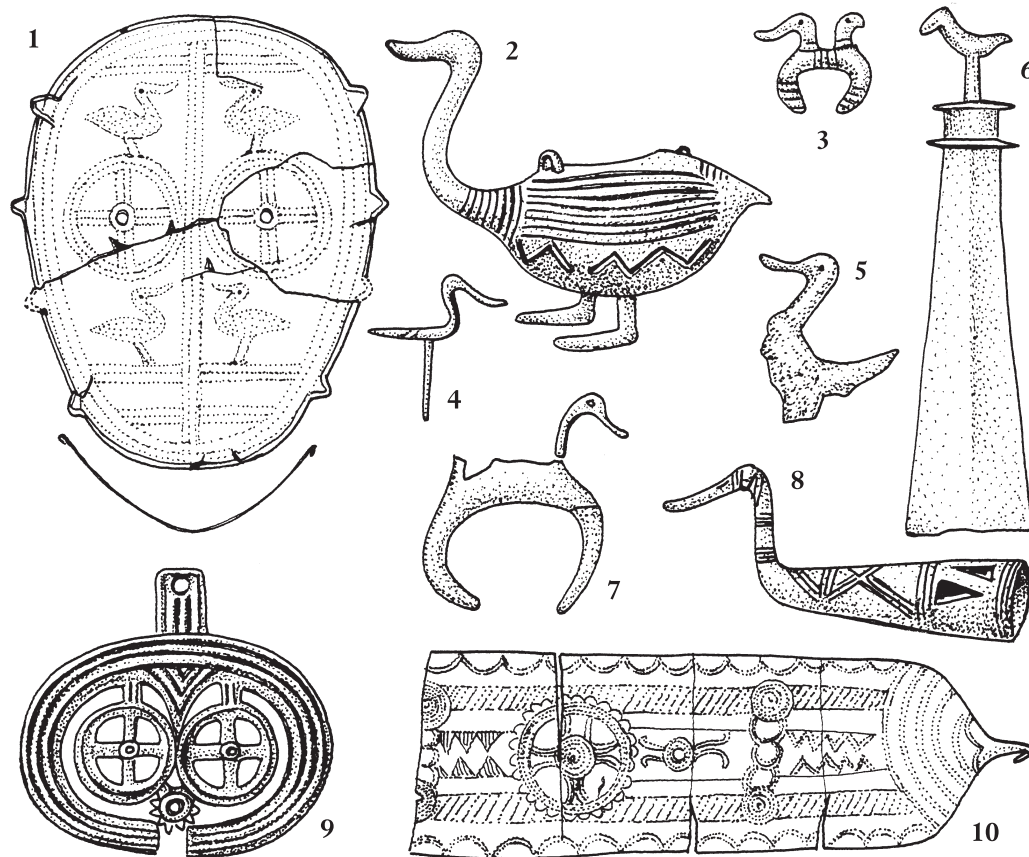


Fig. 38. Bronze articles decorated with bird and wheel motifs.

1. greaves (Rinyaszentkirály),
2. sacrificial vessel (unprovenanced, from Hungary),
3. pendant (Debrecen–Fancsika),
- 4–5. ceremonial objects (Nagydém, Sárazsadány),
6. axe (Pácin IV),
7. pendant (Ópályi),
8. chariot pole terminal (Zsujta),
9. pendant (Kisterenye),
10. belt plate (Vajdáciska)

boat motifs, all used to ornament axes, pendants, belt plaques and vessels (Fig. 38), that were also part of the symbols reflecting religious beliefs. These bronze articles also indicate that the depictions expressing the beliefs of the Late Bronze Age communities in Central Europe were in part drawn from the Danube–Tisza region.

Of the many hundreds of bronze articles from the Kyjatice distribution in the Northern Mountain Range and the Gáva distribution in the great Hungarian Plain, special mention must be made of the weapons and vessels. The fine swords from Krasznokvajda (Fig. 39), Recsk and Zsujta date to the 11th century B.C. A total of sixteen swords were found at the first site, seven at the second and eight at the third. Although these swords were fairly common types, used throughout Europe, they were not imports, but manufactured locally in Slovakian workshops.

In the 10th century B.C., the bronze workshops in the Great Hungarian Plain developed various weapon and vessel types that reached as faraway areas as Scandinavia, northern and southern Germany and eastern France. A hoard of magnificent metalwork was brought to light in 1858 at Hajdúböszörmény–Szentgyörgypuszta. According to the finders, they discovered two hel-

metts, six vessels and some twenty to thirty swords while digging a pit. Unfortunately, only a few of these finds actually reached museum collections. The two-handled bronze bucket is undoubtedly one of the finest creations of the bronzesmiths of the Tisza region. The vessel shoulder is decorated with bird head motifs and circles symbolizing the sun, no doubt the visual expression of Bronze Age beliefs (Fig. 40).

West of the Danube, bronzeworking only attained a comparable degree of advancement, allowing the mass-production of various articles, in the 12th century B.C. The Tumulus culture was supplanted by the Urnfield culture, distributed in the entire Upper and Middle Danubian region. Extensive Urnfield cemeteries have been uncovered at Neszmély, Szentendre, Budapest–Békásmegyér, Tököl and Vál. Very few bronze finds, mainly jewellery, have come to light from these graves and thus the overwhelming majority of Late Bronze Age metalwork is known from hoards. The major bronzeworking centres lay in the hillforts protected by artificial terraces and stone or earthen ramparts. Judging from the moulds and bronze finds recovered from various sites, there were bronze workshops active at Pécs–Jakabhegy, Lengyel–Földvár,



Fig. 39. Bronze swords. Krasznokvajda, Late Bronze Age



Fig. 40. Bronze bucket. Hajdúböszörmény, Late Bronze Age

Regöly–Földvár, Celldömölk–Sághegy, Várvölgy–Kis-láz-hegy and Velem–Szentvid. Late Bronze Age settlement finds, stone moulds, bronze implements, jewellery and five hoards were discovered at the Pécs–Jakabhegy site in the interwar period.

The workshop at Sághegy flourished during the 10th–9th century B.C. Its products – various jewellery articles, implements (Fig. 41), bronze vessels, swords, a gold diadem and ornamental discs – appear in the hoards from this period. Metal analyses have revealed that the loaf shaped ingots of pure copper used by the bronzesmiths were procured from the eastern Alpine mines.

The investigation of the settlement at Velem–Szentvid-hegy, one of the major craft centres of the period, was begun in the early 20th century. The excavations brought to light a high number of bronze articles, three bronze hoards and various settlement finds. A gold hoard was also found in 1929. Between 1973–1994, work was continued on the Szentvid-hegy site under the direction of Gábor Bándi and, later, Miklós Szabó. The remains of Late Bronze Age, Early Iron Age and Celtic houses and various other buildings were uncovered at this site. Bronze casting was also practised on smaller sites as shown, for example, by the moulds from Gór (cp. Fig. 28).

The Transdanubian bronze workshops were part of an intricate network that linked the various regional groups of the Urnfield culture in Central Europe. The communication between these communities involved not only the exchange or trade of various commodities, but also contributed to the adoption of technical skills, metalworking procedures and various elements of religious beliefs. This network of contacts explains the widespread use and popularity of similar bronze articles from northern Europe to the Balkans and Italy during the 14th–9th centuries B.C. The Transdanubian bronze industry was part of the eastern Alpine metallurgical province, whose mines provided

a constant supply of copper necessary for alloying and casting. This trade in raw material was well organized: the occupants of smaller settlements gave agricultural products in exchange for the products manufactured in the bronzeworking centres that, in turn, formed part of the commodities exchanged or traded for copper and other metals. Beside the major waterways, the Amber Road was also one of the arteries linking Transdanubia with the neighbouring regions. Passing near Sopron and Velem–Szentvid, this route was named after amber (a fossil resin), transported from the Baltic to northern Italy along the Orava and Morava rivers, through the Moravian gate to the Danube valley and along the eastern periphery of the Alps. The many hundreds of amber beads from various hoards dating to the 12th–11th centuries, such as Kurd, Pötréte and Regöly–Kesziszállás, reached Transdanubia as part of this trade.

The Amber Road was no doubt one of the main arteries of communication along which cultural impacts from the bronzeworking centres of northern Italy reached Transdanubia and inspired local craftsmen. The bird figures and four-spoked wheels appearing on the bronze greaves from Rinyaszentkirály and Nadap echo the ornamental motifs on northern Italian metalwork. It seems likely that the Transdanubian bronze industry was an important intermediary between the south and the northwest and thus partook in the creation of a uniform Central European bronze metallurgy (weapons, jewellery, tools, implements) and its symbolic depictions.

Fig. 41. Bronze axes, sickle, armrings and pins. Celldömölk–Sághegy, Late Bronze Age





## LATE BRONZE AGE GOLD METALLURGY

Compared to the high number of bronze finds, relatively few gold articles are known from Transdanubia. The most significant finds are undoubtedly the gold diadem and four ornamental discs found at Velem–Szentvid in 1929. The main decorative motif on these gold finds is the concentric circle representing the sun. Gold vessels and gold discs ornamented with similar motifs are paralleled by finds from regions west of Transdanubia and from northern Europe from the 12th–10th centuries B.C., indicating that as a result of regional interaction, the Bronze Age craftsmen depicted the symbols of the Sun cult, an important element of religious beliefs, in the same manner.

Beside the diadems and discs ornamented in the general European taste (Velem–Szentvid [Fig. 43], Celldömölk–Sághegy, Budapest–Óbuda), the goldsmiths of Transdanubia also created their own distinctive products as shown, for example, by the fourteen neckrings and six discs from the gold hoard found in 1926 in the Late Bronze Age hillfort at Várvolgy–Felsőzsid–Kis-láz-hegy, where five bronze hoards also came to light. It seems quite likely that a gold and bronze workshop was also active at this settlement that still awaits archaeological excavation.

The goldsmiths of the Tisza region crafted jewellery in an entirely different style in the 13th–9th centuries B.C. than the workshops in Transdanubia. Most of these were double spiral disc terminalled armrings and plain rings in various sizes, boat shaped lockrings and oval pendants. One of the outstanding hoards among the depot finds containing such articles (Bodrogkeresztúr, Derecske, Hajdúszoboszló, Nyírac nád, Ófehértó, Tarpa, Sáradsadány) is the one found at Biharkeresztes in 1932 that contained a spiral disc terminalled armring and five rings (Fig. 42).

The Late Bronze Age gold metallurgy of the Tisza re-



Fig. 42. Gold hoard. Biharkeresztes, Late Bronze Age

gion had a strong economic basis created by the flourishing bronze industry. The gold workshops produced the various jewellery articles in a virtually unchanged form for long centuries. Goldwork in an entirely different style first appeared in the 8th century B.C.

Most of the Bronze Age find assemblages that can rightly be called hoards in view of their one-time value came to light in the late 19th century and early 20th century, usually from deep ploughing and the earth-moving operations during extensive river regulation, when the earth concealing these treasure was first disturbed.



Fig. 43. Gold diadem. Velem–Szentvid, Late Bronze Age

Relatively few hoards have been found during settlement excavations. Some of these can be associated with major metal workshops (Celldömölk–Sághegy, Velem–Szentvid), while others were hidden in the face of some imminent danger (Dunaújváros–Kosziderpadlás, Jászdózsza–Kápolnahalom, Százhalombatta–Földvár, Várvolgy–Kis-láz-hegy, Velem–Szentvid). The overwhelming majority of the currently known hoards were buried in places lying far from the one-time settlements. The reason for their burial or deposition into bogs and marshes can be

sought in the beliefs of Bronze Age man. Both individuals and communities presented these valuable articles as sacrifices or votive gifts to supernatural powers as part of various rituals held in sacred localities. These articles could take the form of both intact and broken jewellery, weapons, implements and vessels, as well as ingots. The custom of sacrificing valuable commodities gradually disappeared from the 8th century on, and the reason for the burial of the few known Iron Age hoards differed from place to place.