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BOHEMIA AND MORAVIA IN THE BRONZE AGE

Roughly at the break of the 3rd and 2nd millennia B.C. the historic development in Bohemia and Moravia had reached the threshold of the Bronze Age, forming the framework of their further destiny for the following one-and-a-quarter millennium. This beginning, as it happens with most epochal dividing lines in human history, was of course not a clear-cut boundary between the outgoing and incoming epochs. Some of the economic, social and cultural moments characterizing the Bronze Age appear already in the Late Eneolithic Cultures, but they became fully developed much later, after the moment we regard as the beginning of the Bronze Age.

The development scheme of the Bronze Age in the Czech Provinces has been worked out some generations ago and besides its extension to the recently discovered Věteřov culture and Nitra group and attaching to it the Early Hallstatt cultures it has not been enriched essentially in the recent decades. There was, however, great progress in studying the inventory of the individual cultural groups, in working out their internal periodization and in discerning their mutual chronological and eventually genetic relations. Though many views are still subject to discussions and the individual researchers still differ in the solution of certain problems, the basic picture of the epoch, the succession of the individual cultural entities and the general tendencies of their orientation and mutual relations can be considered final.

The beginning of the Bronze Age in the Czech Provinces is represented by the territorial branch of the *Únětice culture*, a big Central European complex comprising besides the territories of the present Bohemia and Moravia also large parts of central

Germany, Silesia, southern part of Great Poland, Lower Austria and the south-western spur of Slovakia. During its roughly half thousand years of duration it acted as an equalizing element, whose characteristic features, namely the typical inhumation rite, with uniform position and orientation of the skeletons, and in the later stages also the specific shapes of the bronze tools make the impression of a compact entity. The more sensitive indices, such as pottery, however, show that the Únětice culture under the seemingly uniform general features formed several local groups arising from the varieties of the local Eneolithic substrata and from the unequal conditions of economic development. In the territory of Bohemia we can distinguish the North-West Bohemian group in the basins of the Bílina and Ohře Rivers; the progressive Prague-Slaný group, very rich in finds, especially in the later development stages; the locally limited Jizera-Basin group around Mladá Boleslav; the late and considerably independent south Bohemian group; the Kolín-Poděbrady group and the east Bohemian group in the wider Hradec Králové region. The eastern periphery of the Únětice area is represented by the not yet detailly classified Moravian-Lower Austrian group, with finds in south-west Slovakia.

The problems of the origin of the Únětice culture still belong among the basic problems of the Bronze Age archaeology. In spite of the existence of numerous theories voiced in this respect we still have not found any plausible answer. One thing seems to be sure, the lengthy process of cementing of various Eneolithic components, as supposed by the older literature, is out of question. Some of these components, (e.g. the Řivnáč cul-

ture) could not at all, and some others (e.g. people of the Corded Pottery) very probably could not participate in such a process for chronological reasons, not to mention the fact that there is a complete lack of support in the finds for similar theories. We can see probable components of the earliest Ůnětice culture in the Late Eneolithic Bell Beaker culture, coping not only with the necessary territorial and chronological requirements but having also a series of common features in the archaeological inventory. They are related also with the Late Eneolithic cultures of the Carpathian region, whose pottery elements, though quite rarely, can be identified in the proto-Ůnětician finds throughout Moravia up to central Bohemia. We know practically nothing about the process proper of the formation of the Ůnětician culture; only one thing is sure — it is not a simple development continuation of the above-mentioned two components, i.e. of the Bell Beaker and Carpathian cultures, but it is the product of a hitherto not clarified historical process, with the possible contribution of other elements.

In the development of the Ůnětice culture in Bohemia and Moravia we can clearly distinguish 5, eventually 6 successive phases, forming two conspicuously contrasting periods, the Early and the Late Ůnětice periods. The Early period of the Ůnětice culture comprising the first 3 (eventually 4) chronological phases, appears as a culture of basically Eneolithic character and is known almost exclusively from graves containing as a rule numerous pottery products, sometimes also stone and bone tools and only rarely a minute copper ornament. The settlement of the territory was quite limited, and there is a well perceptible trend of its gradual extension from the east, i.e. from Moravia. South-east Moravia formed in this period the western periphery of the Slovak *Nitra group*, whose close contacts with the Early Ůnětician environment are archaeologically supported by mutual influences in the pottery and bronzes.

In the Late Ůnětician period, i.e. in the last two phases of its duration, in the classical and post-classical phases substantial changes had occurred. The Prague-Slaný local group had become the dominating centre in Bohemia. It shows a large accumulation of settlements, the graves contain local bronze jewels and imported Baltic amber and Transylvanian gold. This group is directly responsible for the Ůnětician expansion to the earlier only sporadically populated south Bohemia, to the underpopulated Jizera Basin and its influence was felt both in the east, around Kolín, Pardubice and Hradec Králové, in north-western Bohemia in the foothills of the Ore Mountains, and also beyond the Ore Mountains in Saxony and Thuringia. The rich cemeteries above all in the Prague-Slaný region, the scarcely studied settlements with documents of intense farming and the finds of Ůnětician imports in many European countries give evidence of a violent economic expansion of the Ůnětice culture during its late period; this is the moment when our country fully enters the Bronze

Age. The question is whether the Late Ůnětician period was a direct continuation of the Early period; the material culture of the two periods is quite different, giving the impression of two related, but more or less independent cultures. It cannot be ruled out that the beginnings of the Late Ůnětice period had been marked — besides an overall economic upswing — also by new cultural influences, still unknown to us.

The rise of the *Věteřov culture* in Moravia, Lower Austria, Upper Silesia (where the Polish researchers endeavour to prove the existence of an independent cultural group by emphasizing certain local aberrations) was of extraordinary importance for the final stage of the Ůnětice culture in particular, and for the further development of the Bronze Age in Bohemia and Moravia in general. The origin of the *Věteřov culture* is well documented by its pottery; its shapes had been derived mostly from the West-Slovakian *Maďarovce culture*, and to some extent also from the pottery of the Late Ůnětician culture. The form and intensity of the participation of these two elements, i.e. of the *Maďarovce* and Late Ůnětice cultures in the *Věteřov culture* is still an open question. There are basically two theories: according to one the *Věteřov culture* is a mixture of a Late Ůnětician basis influenced and partially changed by the progressive and expansive *Maďarovce culture*, while others hold that the *Věteřov* finds form direct, peripheral part of the west-Slovakian *Maďarovce* circle. The character of the *Věteřov* finds and sites seem to prove the latter version, since they are extensive fortified or at least strategically situated production and commercial centres, analogous with similar *Maďarovce* objects and completely differing from the settlements of the Ůnětice culture. They reflect a high standard of economic development with a certain degree of specialization in some production branches and with far-reaching trade contacts and advanced level of social organization. All this, alongside with the presence of imported goods of Aegean origin and the absence of independent cemeteries are features ranking the *Věteřov culture* more likely with the circle of the contemporary cultures in the northern part of the Carpathian Basin, not with the Ůnětice culture. The problem of mutual relations of the Late Ůnětice and *Věteřov* cultures is not yet clear. Their territorial expansion practically coincides, enabling us to presume a certain form of peaceful symbiosis; one theory went so far as to believe that the fortified *Věteřov* centres were sometimes surrounded by Late Ůnětician settlements, forming their farming hinterland. These problems, however will have to be solved later, after a systematic and complex research of some of the suitably situated micro-regions.

The Late Ůnětician culture of east, central, south and partly also north-western Bohemia shows signs of close contacts with the *Věteřov culture*, not only in the form of isolated, mostly pottery, imports, but also in the form of migration of smaller groups of people. It can be documented by the existence of fortified hill settlements containing *Vě-*

teřov-type inventory, but their fortification has sometimes only symbolic character, especially in east and middle Bohemia. The chronological horizon of the Věteřov interference in Bohemia forms the transition between the Early and Middle Bronze Age (approximately middle of the 2nd millennium B.C.), it is in fact the period in which the Únětice culture is definitively fading out of the archaeological picture of Central Europe; there are no reliable indications of any form of its continuation in any of the subsequent cultures, and thus the further destiny of the numerous Únětice people is one of the further so far insoluble questions.

The Middle Bronze Age (1500—1300/1250 B.C.) in a large part of Europe ranging roughly from the Rhine River to central Slovakia and from the Alps to the Baltic, is characterized by a complex of tumulus cultures, arising from the local Early Bronze Age substrata and interconnected by the same standardizing, typically Middle Bronze Age characters, i.e. by the erection of tumuli and by a uniform horizon of mass-production bronze tools. The tumulus culture appears also in the Czech Provinces and is here represented by two local branches: by the eastern group of Bohemian-Palatinian Tumulus culture in south-western and south-Bohemia, and the Middle-Danubian Tumulus culture in south Moravia.

The *Bohemian-Palatinian Tumulus culture* in the Plzeň, Klatovy and Horšovský Týn regions forms the eastern group of a uniform culture, whose western branch is on the western side of the Bohemian Forest, in the territory of Bavaria and in the Upper Palatinate. For a very long period it was regarded as a heterogenous element brought to the almost unpeopled south-west Bohemia from Bavaria and from the Palatinate. The systematic research of the recent decades, however, has enabled us to reassess our views concerning the Eneolithic and Early Bronze Age settlement of west Bohemia, opening new prospects for deriving the origin of the west Bohemian tumuli from local traditions. The Early Bronze Age *Proto-Tumulus horizon*, found at two localities, in Vochov near Plzeň and during the systematic research between Meclov and Březí near Horšovský Týn, can be considered its direct development basis. The analysis of the pottery, so far the only archaeological manifestation of this group, shows generally Early Bronze Age features and the technology of its processing, shapes and ornaments show close connection with the contemporary Bavarian finds. There has been discovered a similar pottery group arising from the local Straubing Early Bronze Age culture, preceding the Palatine tumuli of the Middle Bronze Age and called "transitional pottery" by the south-German researchers. In spite of the limited number of finds we are already able to say that both branches of the Bohemian-Palatinian Tumulus culture, i.e. the Bavarian-Palatinian and also the west Bohemian, had the same chances for their formation in their respective regions, i.e. the south-German group arose from the so-called "transitional pottery" and

the west-Bohemian one from the Proto-Tumulus horizon.

The geological character and terrain features of the area of the extension of the Bohemian-Palatinian culture was not very suitable for farming. The hilly countryside at 300—500 m above the sea level and covered with green-woods more suited cattle grazing, farming had only supplementary character. The lack of archaeological vestiges of settlements, both on the Czech and German side of the border, also indicate that the people of this culture had a comparatively mobile way of life, and they dwelt in comparatively light shelters. The custom of building tumulus graves is sometimes regarded as an indirect proof that this pastoral society was not completely settled. The building of tumuli belongs in fact to the sphere of burial rites, but it is without any doubt closely connected also with the existing economic and social basis.

The tumulus cultures of clearly farming orientation, such as the culture of the Middle-Danubian tumuli in Moravia pay considerably less attention to the construction, size and furnishing of their tumuli than the Bohemian-Palatinian people.

The Bohemian-Palatinian culture was biritual. The earlier hypothesis of the development from inhumation to birituality with a gradually increasing share of cremations is in contradiction with the newest analyses of facts and now we know that the Bohemian-Palatinian culture, in both of its branches, in the south-German and Czech, used both burial rituals from the very beginning. The share of the identified skeleton burials is, however, much lower, in the west-Bohemian branch there are only some 35 such burials; it is quite possible, that some of them were overlooked during earlier excavations, since the podzol forest soils have almost completely absorbed the skeletons.

The development of the west-Bohemian Tumulus culture had several periods, beginning with the Proto-Tumulus horizon, through its early and middle phases, when the inventory took its classical shape and standardized the archaeological character of the culture, to the final demarcation of its territory through minor territorial shifts, up to the latest horizon representing the decline of the Middle Bronze Age around 1300/1250 B.C. The Bohemian-Palatinian Tumulus culture in its latest period (or perhaps already in the middle period) of its development entered into close contact with the Middle-Danubian Tumulus culture, stretching in the meantime from Moravia to north and central Bohemia and through the connecting roads via Beroun and Hořovice penetrating also to the Bohemian-Palatinian sphere in south-west Bohemia, enriching the local culture with many new elements. The final period of the Bohemian-Palatinian Tumulus culture is represented by the Late Tumulus — Milaveč stage, which is a transition phase in the development from the Tumulus culture proper to the Late Bronze Milaveč culture.

The development of the south-Bohemian branch of the Bohemian-Palatinian culture around České Budějovice and Písek have not been studied tho-

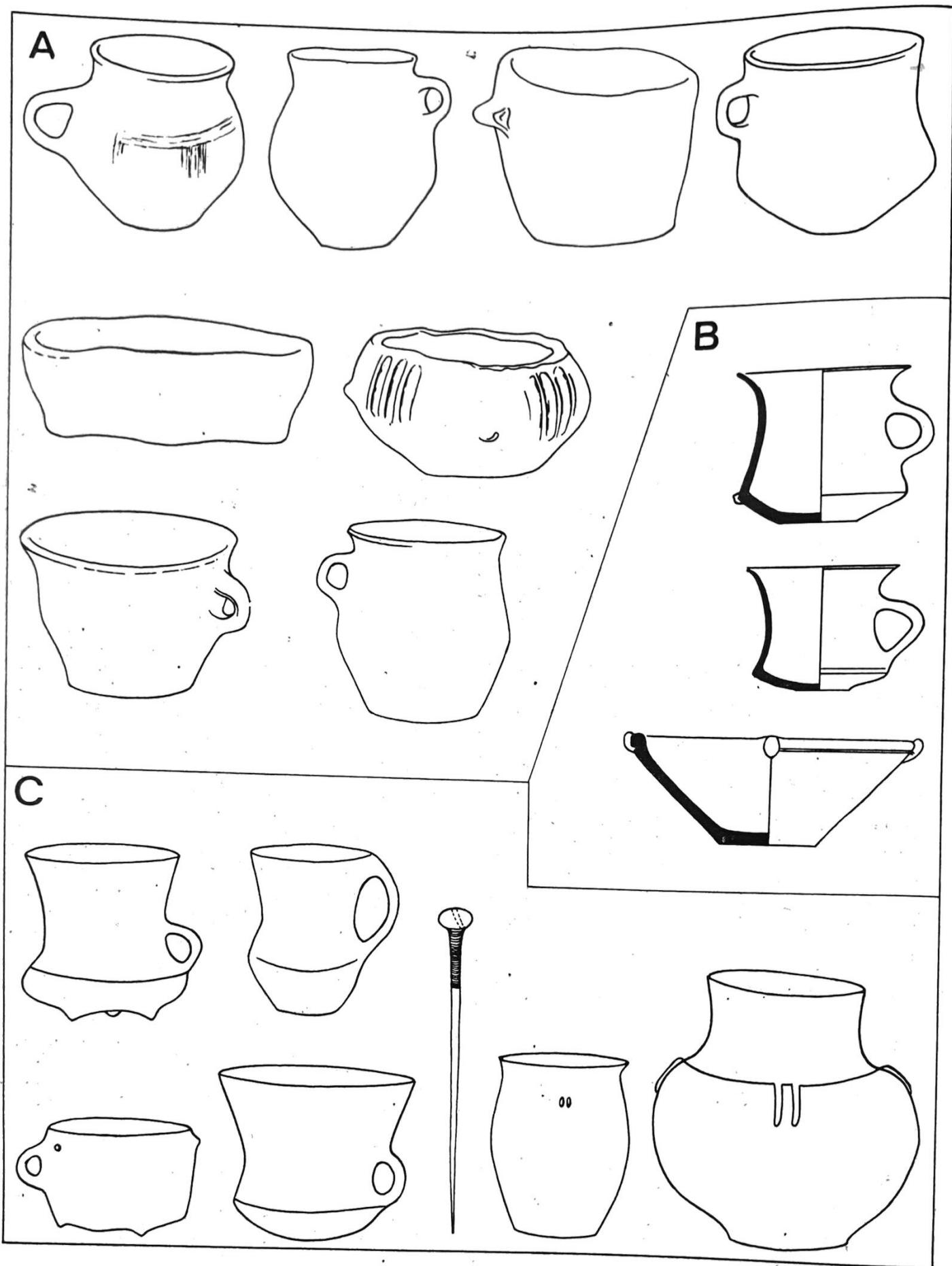


FIG. 1. Early Bronze Age. A — Únětice culture, early period (Praha-Dolní Počernice, grave 75); B — Únětice culture, late period (Bantice, Znojmo District, grave 1971); C — Věteřov culture (selection of finds from various Moravian localities).

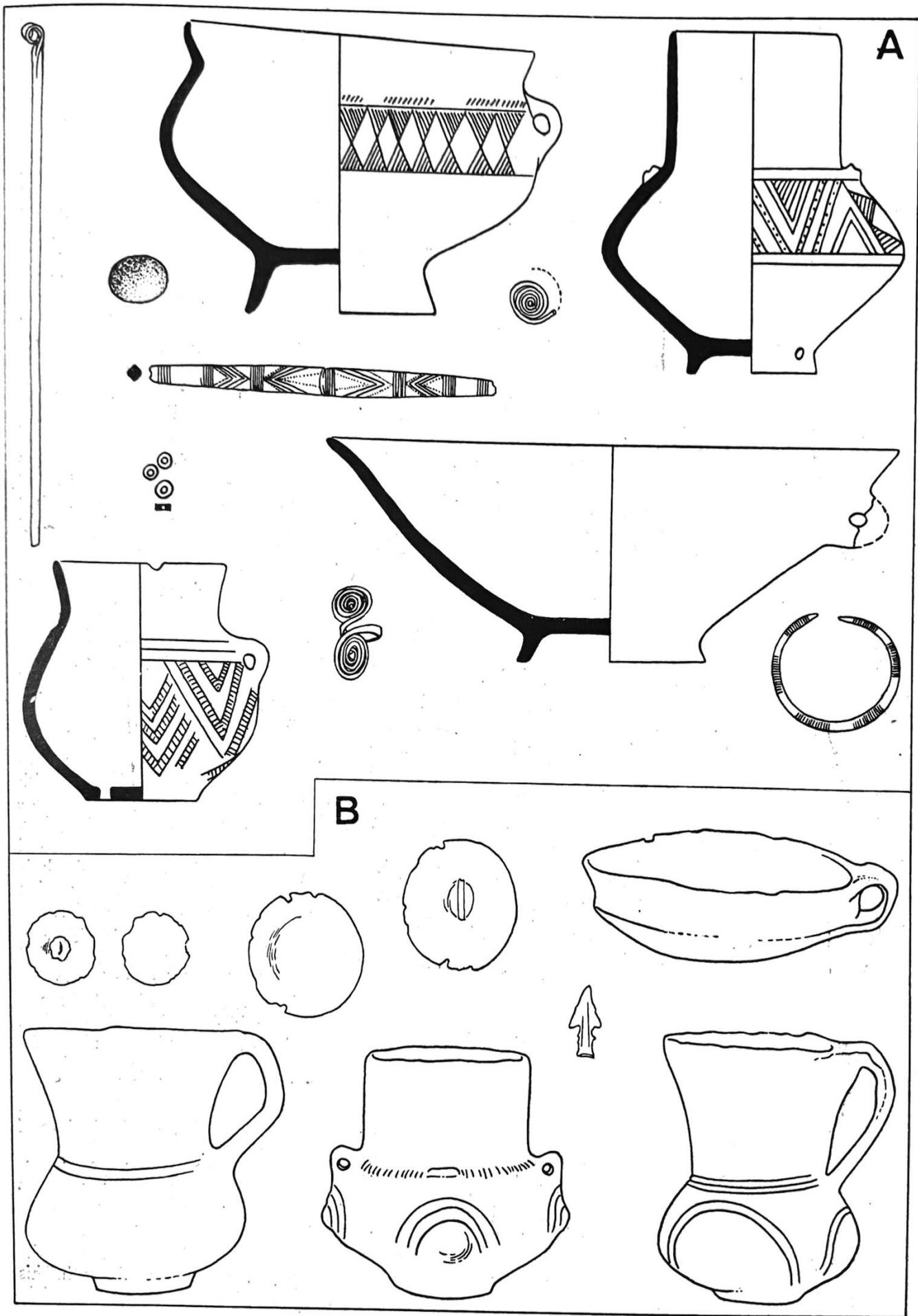


FIG. 2. Middle Bronze Age. A — Bohemian-Palatinian Tumulus Culture (Meclov, Domažlice District, tumulus 1/1965, burial 6); B — Middle Danubian Tumulus culture, Bohemian branch (Praha-Dábllice, inhumation grave).

roughly and we do not know much about it. Its genetic basis was not formed by the proto-tumulus horizon, it arose from the late, south-Bohemian branch of the Únětice culture, strongly influenced by the south-German Straubing culture building tumuli more often, in contradiction to any other Únětice group. From this branch, affected at the break of the Early and Middle Bronze Ages by Věteřov influences from central Bohemia, grows at the threshold of the Middle Bronze Age the south-Bohemian group of Tumulus culture; later and through other channels it was also influenced in various cases by the central Bohemian Tumulus culture. To learn more details about its development and structure we shall have to carry out further research.

The other representative of the Middle Bronze Age Tumulus complex in Bohemia and Moravia is the *Middle-Danubian Tumulus culture*, occupying besides south Moravia also the western part of Slovakia and the Austro-Hungarian borderland. Its foundations lie in the Věteřov-Maďarovce complex towards the end of the Early Bronze Age. As far as its economic basis is concerned the Middle-Danubian Tumulus group greatly differs from the culture of the Bohemian-Palatine Tumulus culture. It has a clear-cut agricultural orientation, in keeping with the favourable natural and climatic conditions of its territory, and this fact is reflected also by the more permanent farming character of the settlements, though they have not been thoroughly studied. The structure of the tumuli of the Middle-Danubian culture is much simpler compared with the showy west-Bohemian tumuli provided with complicated internal stone structure. The Middle-Danubian tumuli are smaller as a rule and are formed by an earth mound and they mostly contain inhumation burials, either in stretched or in contracted position. Cremation burials, usually in urns, are rare and appear mostly outside Moravia, above all in Lower Austria. After consolidating its inventory the Middle Danubian Tumulus culture, obviously already at the initial phase of the Middle Bronze Age, began to penetrate to central and north-western Bohemia. Here, in contact with the periphery of the west-Bohemian tumuli, the two cultures were in close contact and mutually overtook some of the elements of their respective inventories. Thus the Tumulus culture in the northern half of Bohemia deviated somewhat from its original Moravian forms and is considered as their local central-Bohemian branch, modified by the close contact with the west-Bohemian Tumulus group. Hence the direct influencing deep inside the west- and south-Bohemian tumulus region; reflected by the mixed character of some of the localities near Beroun and Hořovice with strong influences in the inventory of the Middle and Late phases of the West-Bohemian tumuli, e.g. with the typical Middle-Danubian grooving of the pottery.

The *pre-Lusatian culture* is also considered as one of the tumulus cultures, in spite of the fact that the building of tumuli was not the only way of burying their dead; they used also flat, mostly in-

humation burials. This culture also resulted from local development, as indicated by numerous Věteřov, eventually Maďarovce-type elements in its pottery. For a long time it was known chiefly from Upper Silesia and from the southern part of Great Poland, only the research realized in the fifties extended their original area to north and central Moravia, thanks mainly to the analysis of the finds in Hradisko u Kroměříže. The earlier settlement strata of this locality (A) contains typical Věteřov inventory from the break of the Early and Middle Bronze Ages, while in the later layer (B) the Věteřov motifs are accompanied by pottery types (footed bowls, bowl-like cups, etc.) with ornaments (breast-like bosses), indicating the development towards the early Lusatian culture. Similar examples of direct genesis of the proto-Lusatian culture from Věteřov basis have appeared also in other localities of the Kroměříž region (Bezměrov, Hulín).

Generally the complex of Tumulus cultures of the Middle Bronze Age brought about a certain slow-down of the development rate; it did not bring any substantial civilization progress for central Europe comparable to that of the previous Early Bronze Age — on the very contrary — it put an end to the intense contacts with the more progressively developing Aegean area and the economy of most Tumulus cultures, obviously based on mobile pasturing, without permanent settlements, was a step backwards from the settled farming cultures of the Early Bronze Age. The positive side of these cultures was that they settled more or less systematically some areas of inferior quality and attached them to the central European cultural region and they speeded up the development of the bronze metallurgy on the level of large production centres with extensive marketing areas, extending at the same time also nomenclature of the manufactured models, namely in the sphere of tools and weapons and finally they formed also a wide cultural and ethnic basis, as a genetic starting point for the formation of the cultural groups of the Late Bronze Age.

The *Late and Latest Bronze Age* is placed in absolute dating between the years 1300/1250—700 B.C. and it is the culmination of the development of Bronze Age and the gradual formation of the pre-conditions for the transition to the full Iron Age. Outwardly its beginning looks like a sudden development-break symbolized by a very conspicuous unification of the funerary rite in wide areas of central Europe in the form of cremation (but not always urnfield-type) cemeteries. The beginnings of this phenomenon reach back to the Middle Bronze Age, when the importance of cremation burials is greatly increasing, but together with certain identical features in the archaeological inventory it was explained for a long time as the result of a presumably mighty expansion of the Lusatian culture from the northern areas of central Europe towards south. This expansion formed allegedly the impuls for the origin of a series of mixed cultures formed by the progressive Lusatian culture, the leading element, and by the remnants of the local substrata. The results of the post World War II research have completely

changed our views concerning the beginning of the Late Bronze Age. The new finds and repeated analyses of the earlier ones have gradually refuted any possibility of a large-scale Lusatian expansion, proving that the so-called mixed cultures of the Late Bronze Age are mostly autochthonous, arising through development from the local Middle Bronze Age bases. We must admit that this development was not necessarily straightforward in all cases. The southern belt of central Europe, from south Germany to the Carpathian Basin and the northern Balkans was the scene of large-scale migrations and probably of local inter-tribal conflicts. Though Bohemia and Moravia were not within the direct reach of these events, we cannot rule out that also here was the origin of some of the Late Bronze Age cultures accompanied by small-scale migration and exchange of the population. There are still many things in the development of this epoch that have not been clarified, but the archaeological inventory of the so-called mixed cultures indicates that there was a more or less continuous development from the Middle Bronze Age, without any demonstrable external interference.

In the Late Bronze Age the territory of Bohemia and Moravia became a contact area of three Urnfield groups: south and west Bohemia adhere to the sphere of the south German Urnfields, the north-eastern part of Bohemia and north Moravia belonged to the sphere of the Lusatian Urnfields, while south Moravia formed part of the Middle-Danubian Urnfield culture.

The south German Urnfields are represented in Bohemia by two cultures, by the *Knovíz culture* which had crystallized in the Prague Basin and in its south-western vicinity and through gradual colonization occupied central and north-western Bohemia alongside with an enclave in the Middle-Vltava Valley, and by the *Milavče culture* in west Bohemia. Thanks to their common origin from the Bohemian-Palatine Tumulus culture of the Middle Bronze Age the two groups are closely related, though there are some differences between them due to the different character of the two areas, due to independent development, and in the case of the *Knovíz* group also due to certain external impulses coming from the south-west. The *Knovíz* culture is known mainly from settlements, whose network is surprisingly dense, but it was formed mostly by small hamlets; archaeologically they are characterized by a large number of cultural pits with rich contents. Remnants of dwellings are so far very rare. The *Knovíz* people cremated their dead and the burials are situated in small cemeteries not corresponding to the supposed density of the settlement. Larger burials grounds form an exception. The non-ritual skeleton "burials" inside the settlements form an interesting and not yet clarified moment of the *Knovíz* rite. There are scattered, sometimes only fragmentary human remains in the refuse pits — sometimes only separated bones with traces of violence, which can be perhaps explained by the existence of ritual anthropophagy. Analogous finds in other Late Bronze Age cultures

indicate that it was a characteristic phenomenon of the period reaching far beyond the boundaries of the *Knovíz* culture.

The decline of the *Knovíz* culture (Reinecke's Phase HB) is characterized by the appearance of the so-called *Štítary-type*, forming a link between the *Knovíz* culture proper and between the *Bylany* culture of the full Hallstatt period. In spite of the indubitable material and also ethnic relationship with the *Knovíz* group the *Štítary* type differs from it in many points. Obviously it is not the result of a straightforward development from the *Knovízian* basis, external impulses, perhaps from south-west and from the sphere of the Lusatian Urnfields had contributed to its formation. This way of development is not characteristic only of the *Knovíz* culture, in fact all our Latest Bronze Age cultures, corresponding at their final stage to the HB phase, show well perceptible development changes towards the full Hallstatt period.

The west Bohemian (and to a certain extent also the south-Bohemian) *Milavče* culture show a lower density of settlements, compared with the *Knovíz* culture, and in keeping with its precursor in development, with the west-Bohemian Tumulus culture, it also shows an extension to the hilly country less suitable for intensive farming. Its economy was based on pasturing and cattle-grazing. Most *Milavče* finds appeared in cremation graves, traditionally covered by tumuli, in contrast to *Knovíz* burials, its tumuli often occur in earlier Bronze Age cemeteries. In the Latest Bronze Age, at phase HB, the *Milavče* culture was replaced by the *Nynice* group of cremation graves, forming a counterpart to the central-Bohemian *Štítary-type*, filling the hiatus between the end of the *Milavče* culture proper and between the subsequent Hallstattian Tumulus culture.

The complex of the Lusatian Urnfields was represented at its beginnings by the *Lusatian culture*, whose importance was earlier overestimated. Today prevail more sober views, especially as regards its supposed expansion to the south and its share in the formation of other cultural entities of the period. In our country it occupied the north-eastern quarter of Bohemia and northern Moravia, not to mention a few small enclaves e.g. around Cheb and near Ústí nad Labem. At least north Moravia belonged to its crystallization centre, whose core lay more to the north, in Silesia. It is indicated by the extension of its genetic basis, of the Middle Bronze Age Proto-Lusatian culture around Kroměříž, together with certain indices of further local development to the initial phase of the Lusatian culture (Hradisko near Kroměříž, layer C). The Lusatian culture had definitely farming character with a dense network of settlements. To this situation corresponds also the density and extension of cemeteries, typical "Urnfields", with the number of graves sometimes well overpassing the one thousand mark; these cemeteries were of course in use for longer periods and their inventory represents several phases, eventually the whole course of the culture. In the Latest Bronze Age (HB) there were

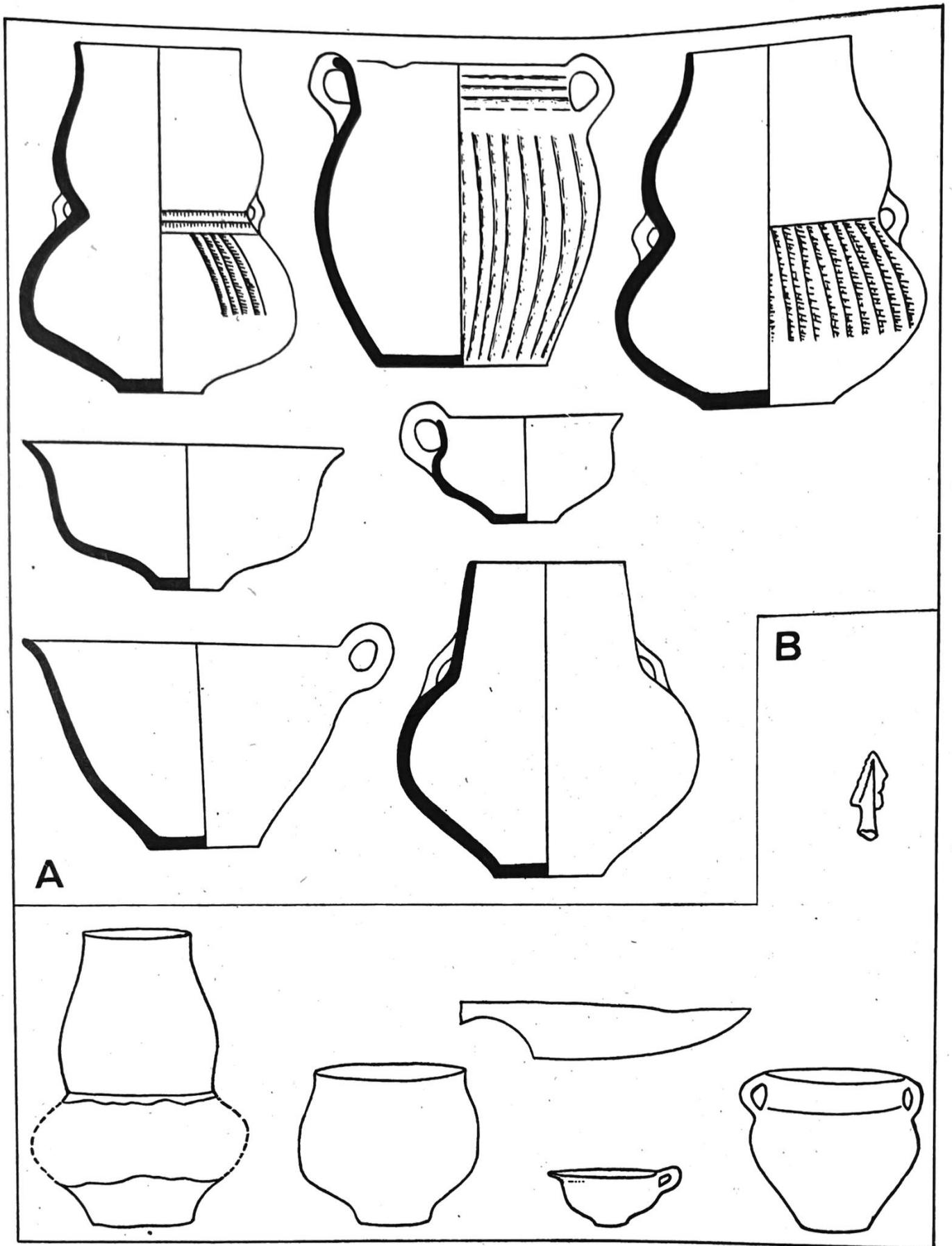


FIG. 3. Late Bronze Age, sphere of the south-German urnfields. A — Knovíz culture (selection of pottery from various localities of north-western Bohemia); B — Milavče culture (Ejovice — “Kokotsko”, Rokycany District, tumulus 59).

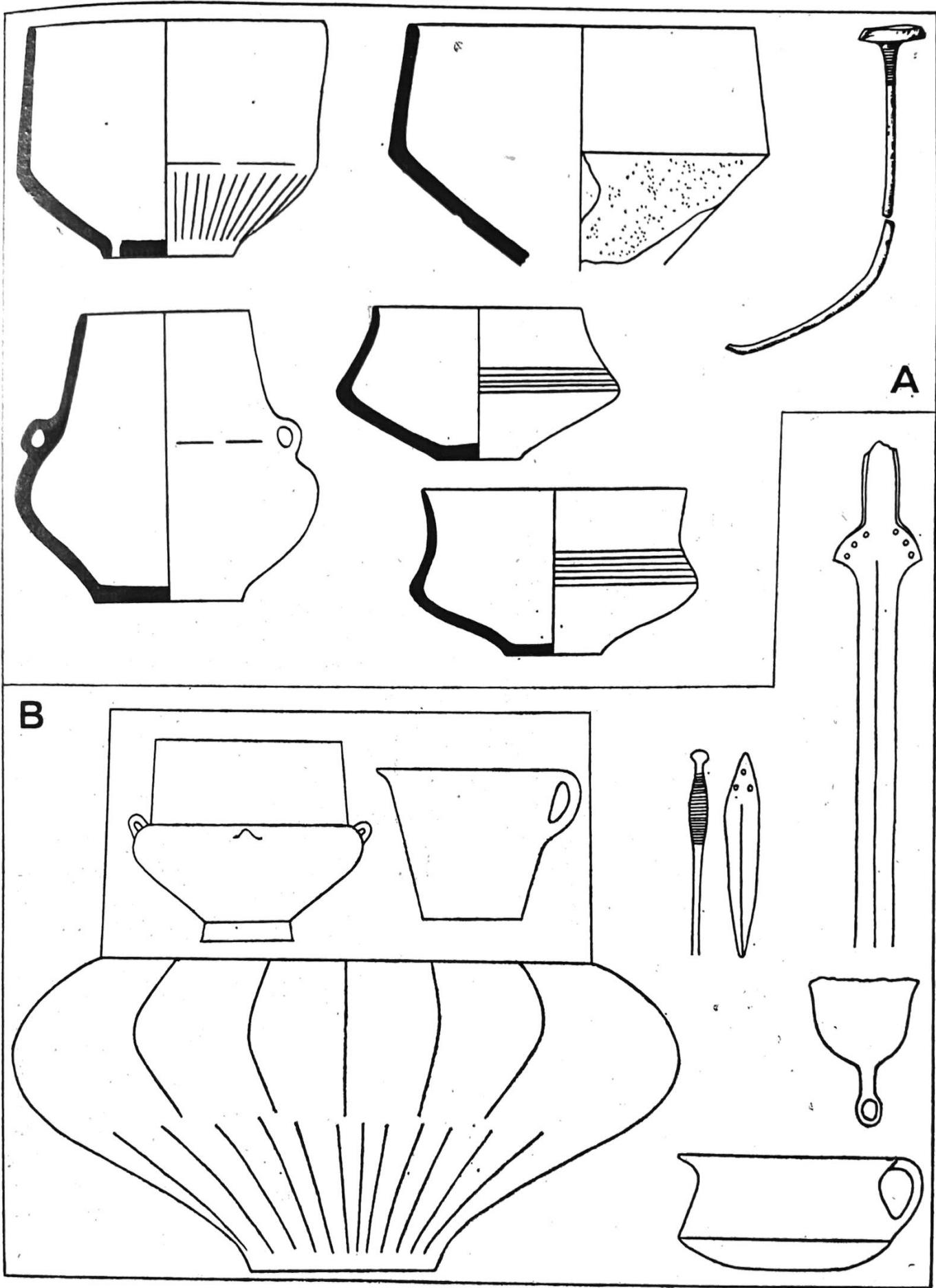


FIG. 4. Late Bronze Age, sphere of the Lusatian and Middle Danubian Urnfields. A — Lusatian culture (Kunětice, Pardubice District, grave 1/1962); B — Velatice culture (Velké Hostěrádky, Břeclav District, from tumulus I).

profound development changes also in the Lusatian culture — these changes were obviously more profound than in the case of the Knovíz and Milavče cultures. Its successor the *Silesian culture* was not only a development modification and continuation of the Lusatian culture in its area of extension, but in some places, e.g. in north-eastern Bohemia it might have arisen in connection with eventual new migration waves from Silesia. This presumption can be supported e.g. by the fact that the use of old Lusatian cemeteries for burials was discontinued and new cemeteries were founded.

The third Urnfield complex, covering south Moravia (and also large parts of south-west Slovakia, north-west Hungary and eastern Austria) are the Middle-Danubian Urnfields. Its oldest component, the *Velatice culture*, as documented by its pottery, had grown fluently from the Middle-Danubian Tumulus culture, more exactly from the Velatice-Tumulus horizon on the break of the Middle and Late Bronze Age. The main source for studying the culture of the farming people of Velatice besides the few settlements are mainly the burial sites with their characteristic cremation (urn or pit) graves. Its later development stage in the Phase HB, the *Podolí culture* had organically grown from the Velatice basis through the transitional Velatice-Podolí horizon; this development is represented e.g. by the two phases of the Klentnice burial site near Břeclav.

The cultures of the three Urnfield spheres, as presented here, have their peculiarities following from their different origin, and various development conditions, but they have also a number of common features connecting them into a wide cultural horizon, culminating the development of the Bronze Age and in its final stage preparing the ground for the rise of the Middle European civilization to the full Iron Age. Besides their most conspicuous common feature, the cremation burial rite, we can mention also the growth of the intensity of settlement with a wide network of farming villages. This feature indicates with the exception of the west-Bohemian Milavče culture, a substantial, at least quantitative development of the agricultural production. The processing of bronze had greatly developed. It was widely used for the manufacture of tools (axes, knives, sickles, some forms specialized) and the mining of metals was soon unable to supply the numerous metallurgical workshops with raw material, and therefore the fragments of damaged implements were collected and used for reprocessing. The Late Bronze Age is characterized by a large number of bronze hoards some of them having the character of workshop scrap-yards. Other hoards have votive character, and some hoards evidently arose for security reasons in this tumultuous period. This feature of the Late Bronze Age is expressed also by the construction of hill forts, typical of all cultures of the period. Their dating is mostly only approximate, they are not all contemporaries. Some of them evidently arose in order to secure the frontiers of the settlement area, others were economic and commercial centres, and still

others house also some form of administrative centres. A new development feature is well perceptible also in the internal life of the Late Bronze Age cultures, namely the beginning of a more visible social differentiation, reflected by the rich burials of certain individuals; we might mention e.g. the rich Knovíz tumuli near Zatec, the tumulus with the bronze chariot in Milavče near Domažlice and other tumuli of the Milavče culture, the Velatice-Čaka tumuli in west Slovakia, etc.

The sphere of the Urnfield cultures are connected also with the many times approached but still open problems of the ethnicity of the individual groups. In the past this problem was often complicated by forced and unhistorical identification of the cultures of the Late Bronze Age with some of the later ethnic or linguistic groups. But it is obvious that the large Urnfield complexes for the most parts gradually fading into the cultures of the Full Iron Age had got to contain the inchoate forms of some of the known ethnic groups of the later periods. The problem is complicated also by the fact that we do not know to which degree can the prehistoric cultures be regarded as ethnically uniform populations. Perhaps we might regard the complex of south German Urnfields and its Czech components, the Knovíz and Milavče cultures as a development basis, from which the Proto-Celtic "aristocracy" with the Early La Tène material culture arose step by step in the course of the further development, in the Hallstattian, Bylany and Tumulus cultures.

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