

7. SUMMARY

Bearing in mind the wide range of issues discussed in scientific literature, it is clear that our understanding of the transitional period of the end of the Aeneolithic and the beginning of the Early Bronze Age periods is limited with several factors such as detailed analyses of archaeological data on regional level or on the level of find groups and existence of supra-regional models and interpretative patterns. In this study, selected issues of comparative analyses of cemeteries, style and typology, and absolute chronology have been targeted. Thematically biased considerations of this study were based on results of field work that had been conducted under the leadership of the author at the site of Vlíněves (district Mělník). This introductory detailed publication and analysis of the so far the largest cemetery belonging to the Bell-Beaker Culture in Bohemia stresses some general features of the period. Their evaluation and interpretation possibilities are furthermore analysed in subsequent chapters.

Altogether, 34 graves belonging to the Bell-Beaker Culture have been found at the Vlíněves necropolis. The cemetery was located on a small terrain wave, approximately 750m from the nowadays river of Elbe. The above said terrain wave represented a scene horizon determined by places with settlement finds belonging to the same culture. The burials were arranged to a rather closed cemetery that was funnel-likely spread along the terrain wave in the south-north direction. Considering the state of preservation of anthropological material, the structure and distribution of individuals buried on the cemetery shows no anomalies that would enforce interpretation of the males – females distribution or the age structure as a result of a one-time event or purposeful selection of the buried individuals. So far it appears that the cemetery can be dated to the later phase of the Bell-Beaker Culture development in Bohemia, and, according to

the Moravian classification, it can be synchronized with the phase II or with its end.

The Bell-Beaker Culture cemetery could be divided into two separate groups of mutually close graves (groups A, B). Comparison of the graves contents clearly showed that both groups are more or less similar in terms of age and sex determination of individuals as well as structure of the ceramic material. These observations were interpreted as results of separated burial practices in both groups with unknown mutual chronological position and connection. Gradual changes of burial equipment concepts occurring simultaneously in both groups appear to be one interpretation possibility for the existence of two groups of tombs. The second option presumes that each group can be associated with burials of closed communities with different belief systems where similar inner relations that were visualized by grave inventories created similar distributions of grave equipments in both grave groups. In case of the second option validity, the mutual chronological position of both groups is unnecessary to determine.

Besides two flint arrow-heads and one flake, the grave equipments consist only of pottery. Except for two decorated bell beakers the variety of pottery inventory comprises mainly the so-called accompanying pottery (*Begleitkeramik*) of the Bell-Beaker Culture and it does not show any significant differences from other comparable Bell-Beaker Culture cemeteries in Bohemia. Only kettle-shaped vessels / jugs are more numerously attested.

Apart from the cemetery at Vlíněves, three other published Bohemian sites have been used for the comparative analyses of the tomb equipment of the Bell-Beaker Culture: Čachovice (district Chomutov), Lochenice (district Hradec Králové) and Brandýsek (district Kladno). All sites are comparable in terms of their size and method of excavation.

Also both detected groups of graves at Vlíněves (A and B) have been tested separately. Structural similarities of the analysed cemeteries have been studied, and any existence of linear transformation of the chosen description of the grave contents among cemeteries was regarded as similarity.

Validity of comparison and analyses of cemetery structures is limited by results of ethnographic studies that determine wide range of prospective factors that can influence attitudes towards the body, burial rituals, and grave adjustments. The nature of archaeological evidence represents second restrictive factor that is, nevertheless, of the same significance. It is worth noting that the evidence lacks the capability of documenting the cultural contexts of individual artefacts and observed pieces of knowledge. This observation is valid while respecting the premise that in different contexts identical phenomenon or artefact can bear different meaning. Thus, structural analysis cannot be regarded as a compact method of cemetery analyses whose results unconditionally reflect the Prehistoric reality. Similarities and results of search for structures in the cemeteries should be viewed as certain types of tool used for description of the observed circumstances whose evidence towards particular factors that could influence the burial contexts is highly changeable. We may generally assume that the structural analysis evidence towards these factors may be different and ambiguous, and even that the evidence may completely lose its ability of visualizing of certain phenomena. On the other hand, the structural analysis as a descriptive tool creates further space for various possibilities of interpretation.

With the exception of Čachovice, the accomplished comparison of the above-mentioned cemeteries and grave groups at the cemetery of Vlíněves clearly showed two levels of evidence. The first level is represented by the occurrence of small jugs and bowls as grave equipment. Their presence in graves represents a kind of general phenomenon equally distributed on compared sites. This observation acquires even greater importance because the compared cemeteries varied from each other in males – females and children – adults distributions. Moreover, small jugs and bowls are attested on these cemeteries not only together but also separately placed in individual graves with no regularities or clusters identifiable on the cemeteries' ground-plans. The second level is represented by the observation that other finds are attested on cemeteries only to a certain degree, and that neither observed factors nor their combination show any further regularities. Moreover, considering rich-

ness of the whole cemetery equipments, frequency of their occurrences does not exceed certain limit.

Both levels of evidence regarding the cemeteries structure may be considered correlates of burial customs of the Bell-Beaker Culture. These correlates do not have to represent individual factors that the model concept of burial customs is made of but also their variously intense combinations. It is supposed that the value of the supposed interpretation may be significantly influenced by new excavations, observations and identification or defining variability of other qualities.

Applying the model concept regarding various factors that may influence burial customs, it is clear that the analysis cannot address ethnicity or regional and local connections and particularities. This inability is mainly caused by the nature of the input data. Furthermore, it is also obvious that due to extent and number of cemeteries the concept cannot target the issue of the entombment dating. Moreover, due to the nature of archaeological evidence factors of personality traits of the buried individual and his/her economic strength merge together. The above-mentioned first level of evidence of the analysed cemeteries shows most likely correlations in terms of social or biologic age of the buried individual or his/her position within the society. The second level of evidence may represent a correlate of economic strength of the individual or his/her personality traits. On the level of analysable data it is possible to visualize those inclinations as two components of burial equipment. The first component comprises of items highly related to character of the buried individual such as wrist-guards, arrow-heads, boar tusks, buttons with V-shaped boring, pots and kettle-shaped vessels. This type of finds with close relation to the personality of the buried individual corresponds quite nicely with the so-called symbolic packets (archery, craftsman, Beaker package). Their contents are also supplemented by some ceramic forms. The other component of the Bell-Beaker material culture represent quite frequently found small jugs and bowls that on the basis of accomplished analyses can be up to a certain level determined as correlates of social and biologic age or social structure related not only to the buried individual but also that part of community conditioned by the buried personality. Members of this community section expressed with their gifts placed in the grave during the burial ritual their own attitudes towards the buried individual.

As far as hypotheses regarding the cause of emergence of the Vlíněves cemetery is concerned, it seems plausible, on the basis of the accom-

plished analysis of the two detected groups of graves (A and B), that they emerged more likely as a consequence of existence of certain structures within the society using that cemetery than as a consequence of chronological development.

Another tool used for evaluation of archaeological data represents style interpretation and typology analysis. While existence of a style, its transformation and evidence ability are generally accepted quantities, utterance content and existence nature of the style still remain broadly discussed. On the field of archaeology, opinions on approaches towards the style can be related to various concepts of research methodology, mainly to the culture-historical approach, and processual and post-processual archaeology. The possibility of style examination with its various aspects closely relates with the abandonment of style analysis as the decisive analytical tool; an approach that was characteristic mainly for the culture-historical period when the style predominantly fulfilled normative function. In later periods, the style was understood as for example an expression of creator – receiver relation or as a certain phenomenon distinguished by cultural significance etc. Normative approach to the style is closely related to the typology analysis and enables for example to define contents and geographical extent of archaeological cultures etc. In the course of transformation of approaches to the style, some of its elements may become fully independent such as typology analysis as independent analytical tool while others changed their meaning such as archaeological culture, concept of import etc.

In this study, the concept of style as a certain type of communication between the creator and the receiver, between the process of doing-things and the environment that receives the products has been applied for determination of the processes shaping the transition period at the end of the Aeneolithic and the Early Bronze Age periods. The issue of the degree of integration of this type of communication within social interactions remains unanswered mainly due to non-evaluability of archaeological evidence. The concept of style as a form of communication places different demands on spatial determination of areas where the data are analysed or on methods of evaluation of the find collections. Ethnographical studies regarding various functional correlates of pottery shapes may be sought as another possibility for evaluation of the observed period. These studies pointed out that there seems to be more expressed consideration for functional determination while creating more type-distinctive shapes of vessels.

Comparisons have been performed on an arbitrary defined area that well satisfied the demands of certain level of knowledge regarding the Bell-Beaker and the Únětice Cultures consisting of central Germany, traditional settlement region of Bohemia, and the region of the Proto-Únětice Culture. Artefacts belonging on the basis of correspondence analysis to the earliest phase of the Únětice and to the Proto-Únětice Cultures have been used for the Únětice Culture finds comparisons. Diversity of individual ceramic types implies that the process of ceramic inventory transformation underwent in each region with different intensity; reaching from only hardly classifiable, mutually mingling types of the Bell-Beaker accompanying pottery to the mutually better definable types of the subsequent Únětice Culture. This gradual process that seems to correlate with emphasizing of functional characteristics of ceramic types can be most visibly detected in Moravia where its intensity also enabled the independent determination of the Proto-Únětice Culture. The entire process in all three regions headed inexorably towards the well advanced Únětice Culture.

With the only exception of flint daggers, the proportional change can be detected in non-ceramic contents of the Bell-Beaker, the earliest Únětice and the Proto-Únětice Cultures all over the three regions. This transformation is clearly visible on artefacts regarded as embellishments (buttons with V-shaped boring, fasteners, amber, spiral-shaped earrings) or personal possessions of the buried individual (small copper daggers) that are missing in the grave equipments of the subsequent period. On the other hand, items of functional usage or symbolising this usage (wrist-guards, flint arrow-heads, whetstones, bone points, chopped boar tusks, pebbles?) underwent partial change or still endured for a certain period of time as grave equipment items.

The results of accomplished analyses have clearly implicated transformation of grave equipment contents. The non-ceramic equipment underwent transformation influencing its ideological content that changes from the meaning-defined symbols of characteristics of the buried individual that were supra-regionally comprehensible to the expression of community's attitude towards the deceased. As far as the ceramic equipment is concerned, the change from burial to more or less profane pottery is clearly detectable. This transformation process that proportionally underwent in all the observed regions headed towards the well advanced Únětice culture.

It is necessary to evaluate the participation of the Corded-Ware Culture on the Únětice Culture

emergence that was frequently discussed in traditional, culture-historically biased studies, within the context of research development. Eventhough the evaluation of archaeological inventories cannot conclusively disprove individual arguments it is possible to present alternative explanations that do not require the necessity of immediate participation of the Corded-Ware Culture on the Únětice Culture emergence.

Chronology of contexts that were dated on the basis of radiocarbon method represents one of the significant arguments regarding participation of the Corded-Ware Culture on the emergence of the Early Bronze Age. Selective way of sampling of measured radiocarbon dates that assigns various levels of importance to different dates belongs among the important characteristics of this approach.

Radiocarbon data evaluation applied in this study prefers their probability nature. Without the individual dates distinguishing, their evidence is evaluated as evidence of an entire complex that relates to the duration of certain observed phenomenon. The evaluation is based on a concept presenting individual dates as coincidental selection from the duration of certain phenomenon that relates to the given data. Thus, varying degree of correspondence between the measured dates and the model concept has been evaluated for different model concepts characterised by varying beginnings and periods of certain phenomenon duration.

The above-mentioned method of evaluation of radiocarbon dates clearly implicates certain differences in results assigned to the defined regions. Comparison of radiocarbon dates from the Alpine region with dendrochronological dating of the Corded-Ware Culture corroborated the relative low information significance of the radiocarbon dates for our understanding of duration of archaeological cultures. On the other hand, application of the above-mentioned approach in the absolute dating analysis of the Proto-Únětice Culture cemetery in Pavlov (Moravia) provided more precise chronological data.

General evaluation of the radiocarbon dates assigned to Corded-Ware, Bell-Beaker, and Únětice Cultures, and even their regional evaluation has clearly demonstrated that the radiocarbon data cannot be used as primary arguments for the issue of possible mutual chronological relations of the above-mentioned cultures (whether they were subsequent or contemporaneous). Thus, it is clear that interpretations based strictly on radiocarbon dates cannot be regarded as decisive conceptions.

A hypothesis created on the basis of the above-mentioned method has been raised using entirely radiocarbon dates in Elbe region; thus the Corded-Ware Culture was dated between the years 2590–2210 BC, the Bell-Beaker Culture 2320–2110 BC, and the Únětice Culture 2130–1770 BC (the limits represent centres of culture transformation periods). The current number of dates permits neither more specific division within the regions nor more subtle chronological classification. The most effective application of this method seems to be its usage for the discussion regarding the absolute chronology of cemeteries with sufficient number of radiocarbon dates, approximately more than ten dates covering supposed period of duration of 100 to 200 years.

The above-mentioned processes of transformation occurring at the end of the Aeneolithic and at the beginning of the Early Bronze Age can be interpreted only on the level of various hypotheses. The observed change seems to be part of the transformation from the more primitive structured society with variously social integration of its members towards the stratified society with elements of chieftainship that is supposed to exist for sure at the beginning of Middle Bronze Age. The process of transformation that reflects in burial rites may also represent the consequence of changes in economic possibilities. However, due to absence of settlement material such hypotheses must remain deduced more than documented.

(Translated by P. Vlčková-Maříková)