SUMMARY

The basis for dealing with Nordic and continental battle axes from the Funnel Beaker Culture (FBC) was created by Nils Åberg (1918) when he published "Das nordische Kulturgebiet in Mitteleuropa während der Jüngeren Steinzeit".

At the end of the 20th century, Milan Zápotocký (1992) expanded the collection of materials for southern Scandinavia and southeastern and central Europe with his book "Streitäxte des mitteleuropäischen Äneolithikums". Zápotocký classified battle axes into the following main groups: Flat hammer axes (F axes), pommel hammer axes (called K axes in the following), round neck axes (called R axes in the following), double axes (called D axes) and comb-butted axes (N axes). Zápotocký classified the battle axes chronologically into four horizons, which he then synchronized with six developmental levels of the Funnel Beaker Culture.

The field examined here is an expansion of the area that Zápotocký worked on to the West and the South. The areas covered included Germany (Baden-Württemberg, Rhineland Palatinate, Saarland), northern France, northern Italy and Belgium, Luxembourg, Switzerland and the Liechtenstein (Map 1).

The objective of this research is to arrange the battle axes and battle axe fragments of the early and middle Copper age chronologically. Using a metric characteristic analysis that considers the respective axe shape and the resulting form typology, a classification of the battle axes could be made.

A new approach to viewing the classification of the battle axes is separating the axes into a neck part and cutting part. After correlating the two axe parts, a finer classification of the axes and the fragments could be made. The most important measurements were made with the front view of the battle axe. As a result of having a number of types that was too low, the typological investigation of the battle axes was made based only on the series (Table 73).

When analyzing the battle axes, the many neck and cutting parts of the F and K axes were taken into account, in contrast to Zápotocký, who only treated the axes as a whole. With the R and D axes, a classification was only possible with the whole specimen.
A more detailed classification of the battle axe groups is only possible with a precise metric analysis. Based on the evolution of neck and cutting parts of F axes, one can see the seamless transition from the earliest Pfyner group A1/A to the Pfyner group A2/A in Table 95.

With the F axes, a chronological progression using the cutting part groups A, B and C as secure classification elements could be determined. The dovetail-shaped formation of the neck part of the axe is almost only present in the A cutting group, while the form tapering to the neck part exists in the three cutting part groups, A, B and C.

The correlation between the neck and cutting parts of the F and K axes results in the following chronological and cultural progression (Table 98):

- The earliest Pfyner group A1/A.
- The Pfyner group A2/A.
- The Altheimer group A2-A3/B, C follows the Pfyner group A2/A (Table 100).
- Chronologically parallel to the Altheimer group, there is also the Michelsberger-Munzinger-Lake Constance group B1-B3/B,C and the Pfyn-Altheimer group from upper Swabia. The Lake Constance group corresponds to the Egolzwil 5 group.

The chronological progression of the cutting part shapes of the K axes is similar to that of the F axes. The F axes and the K axes of cutting part group C are isochronous to those of the R axe group RA-A1, which are typologically closely related to the axes of type Chamblandes A. The emergence of the Horgen culture must have occurred between Lake Constance and the Bielersee (Twann), that is, on the border of the Jura Mountains in the Schaan (FL) area. The later R axe groups RA-A2, RA-B1 and RA-B2 are then represented in the Horgen, SOM and Remedello areas.

As a result of the influences of the Boleráz group, the F axes and the K axes were replaced by the R axes. In this regard, changes were observed in the neck parts of F axes and K axes of cutting group C.

The classification of D axes tends to be difficult. The procedure of classifying the D axes from the northern range of distribution (Zápotocký 1992, Tables 98-122) and then to parallelize them with D axes from the work area proved to be correct. The advantage of this procedure is the reduced number of double axe series. In the northern distribution area there are only six series, in contrast to 18 in the work area (Ch. V.2.4.2; Fig. 8). In the double axe series groups that were created from the work area, the double pick made of flint or rock, which is often isolated and difficult to categorize, can also be included typologically.

By correlating the neck and cutting parts of the R axes and investigating the double axe cutting parts with the concavity index in the side view and the pick, the following chronological and cultural progression can be determined.

– The R axe groups RA-A1 and RA A2.
– The R axe groups RA-B1 and RA-B2.

– The D axe- and D pick group DA-A1.
– The D axe- and D pick groups DA-A2 and DA-B2.
– The D axe- and D pick group DA-B3.
– The D axe groups DA-A4 and DA-B4.
– The D axe groups DA-A4 and DA-B5.
– The D axe group DA-A6.
– The D axe- and D pick groups DA-A7 and DA-B7.
– The D axe group DA-A8.

The emergence of the SOM culture occurred with the group DA-A1 in the Paris basin with the bearers of the R axe group RA-A1 and the axes of type Chamblandes A (Table 109, Map 58). The SOM double axes from group DA-B3 emerged after the formation of the R axe group RA-B2 (Mondsee group) in the Paris basin (Table 109, Map 59). As a result of the Piora II climatic change in the alpine area (3600-3200 BC), transmigration to the Paris basin could be assumed.

In a comparison of the battle axes, picks and clubs made of stone or deer antlers as part of the findings from the Paris basin with the specimens from the Altheimer group, common characteristics were found.

There are not a high number of battle axes made of deer antlers from gallery graves, burials and hypogaea in the Paris basin. A comparison with the pommel hammer axes demonstrates similar large and small axes, along with plate-like and rounded pommels.

The most impressive is the cambered shape in the side view of the axes from Ainring (Table 110,A1) and Niederwil TG, Gachnang (Table 110,A223) that the deer antler axes demonstrate (Table 110; 111). Similar to the two perforated antler tines with bone peg holes from the earthworks of Altheim, another was found in the Paris basin. The deer antler tine, without a handle here, can be viewed as a pick.

The side view shape and the pommel shape of K axes and deer antler axes confirm connections to the Altheimer group even before the SOM culture in the Paris basin. The deer antler axes (k axes) of this pre-SOM culture thus were manufactured to fit chronologically into the K axe group A2/B. In this period, the battle axes of the Altheimer group appeared, and in group B2/B, the battle axes of the Michelsberg-Munzinger Lake Constance group. The deer antler axes, which appear only in small numbers, are assigned to the early copper age battle axes. The development of these battle axes then led to the battle axes made of deer antlers with a blade of stone. Perforated tines made of deer antlers with bone pegs occur in both cultural areas and can be viewed as a symbol of power.

In analyzing the double pick and double axes (Table 98), the specimens could be classified into two main groups, A and B. The dividing line is at B4/L2 = 64. It was also determined for the F axes, K axes, R axes, lancet axes (L axes), Chamblandes axes (C axes) and double axes (D axes) from the northern distribution area. A breakdown from the axe spectrum of F and K axes occurs in the cutting part group B. The cutting group A is in the B4/L2 < 64 area, that is, with the earliest Pfyner group and with the Pfyner group. B4/L2 > 64 applies to the cutting part group C (Tables 98, 100). Separate development of the D axe group DA-A3 occurs in the B4/L2 > 64 area. Lancet axes only occur in the main group A in the B4/L2 < 47 area, but the cutting part shapes are straight, rounded and scalloped. They appear at the end of the Horgen culture and at the beginning of the Lüscherz group.

Another index refers to the exterior shape of the cutting part: For B6/B4 < 60, the shape is cambered, for 60 to 70 it is straight and for B6/B4 > 70 it is rounded (Table 93).

The first asymmetrical battle axes shapes appear in the F and K axe cutting part groups A/C, B/C, again in the Horgen/Cortaillod border areas with the R axe Twann BE, 319 and the R axe from Lausanne VD, Vidy (Table 108,9).

The Chamblandes axes are also in their own group, like the R axes. Instead of a round neck, the C axes have a flattened neck part. The C axes can be seen as a predecessor shape of the D axe shape, but the exteriors of the cutting parts are slightly rounded and the blade develops into a pick. C axes can be classified into Chamblandes axes A with B4/L2 < 64 and into Chamblandes axes B with B4/L2 > 64 (Tables 108-109).

A Chamblandes axe fragment from the Ainring settlement (Table 111, A44.7) confirms the occurrence of this axe group in the Altheimer group.

The dividing line B4/L2 = 64 should be viewed as an intellectual, cultural border. The axe lengths, that is, the neck and cutting part lengths decrease over time, as can be seen in the case of the F axes shown in Table 95. The cutting part group A presents long, uniform cutting part shapes from the earliest Pfyner group in A1/A. At the end of the cutting part group C, the cutting part shapes of the F axes have a heterogeneous character. The shapes range from ST1, 1/2, 2, 3 forms (Tables 74; 98) to thickened and pointed exteriors of the wide part around the shaft hole. A decrease in the height of the axe can also be seen. The F axes of the earliest Pfyner culture are no longer comparable with the F axes from the cutting part group C.

The individual battle axe groups can only be recorded relative-chronologically. Individual dendro-chronological data, however, still provide a helpful support in creating the overview Tables (Tables 62-69): 3870 BC for the earliest Pfyner culture; 3867-3842 BC for the F axe from Muntelier FR, 094; 3713-3707 BC for the F-axe neck part Zürich ZH, Bauschanze 097; 3738-3651 for the Pfyn-Altheimer group of upper Swabia; 3596-3573 BC for the R axe Twann BE, 319 and 3622-3607 BC for the axe fragment from Twann BE, (Table 108,4) and 3708-3704 BC for the F axe 079 (?), 080 and the F/K axe fragment 081 from Pfyn TG, Breitenloo. The battle axes from Twann with dendro-chronological data from one and the same finding location enable the transition from the early to middle Eneolithic to be determined at 3600 BC in Twann (Table 66).

Using the many fragments of F and K axes, intentional destruction of the battle axes in an enlarged Lake Constance area could be determined (Maps 16-17, 26-27). The possibility that the axes were destroyed in battle does not correspond with the many cutting part fragments with intact cutting line. This cultural treatment appears to decrease with decreasing numbers of neck parts in the F and K axes over time (Tables 98-101). In the Michelsberg-Munzingen-Lake Constance group, the axes are still whole (Table 98, B2/B). The term battle axes came into use in the 19th century, but it is not correct. It should be replaced with hole axes.

The early and middle Copper age groups or cultures were described in chapter II. To quickly classify the battle axes into battle axe groups, a handy overview table with diagrams was included at the end of the book.

The battle axes, which were designed according to certain norms, produced in complex ways and in impressive colors, were displayed on a long shaft, providing an intellectual symbol of power and dominance to the people.

Battle axes are power symbols of the Copper age that do not occur in the complex Chassey-Cortaillod-Lagozza, with the exception of import specimens in the border regions.

Without doubt, ceramics represent a main motif with which groups and cultures can be classified chronologically. The methods applied here to a detailed classification of battle axes also without doubt plays a complementary role in solving cultural and chronological problems. Using the cutting part shape, the side shape and the decrease in length of the neck and cutting parts of the battle axes over time, and taking the main areas A and B into account with the index B4/L2 < 64 >, the progression of the cultural groups can be followed through space and time.

Translated by Sarah Edwardson