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**Hoarding practices in the Late Bronze Age  
from Central Transylvania**

SUMMARY

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## **Introduction**

The choice of topic for a doctoral thesis is supported by the outstanding importance of the source material from the studied area. Probably the most remarkable legacy of the Carpathian Basin and particularly Transylvania's Bronze Age is represented by the bronze hoards, which due to their wealth and variety eminently stand out from other archaeological records of the period. Although Transylvania formed close relations with the neighbouring regions, throughout the time it had a separate and unique status.

The dissertation focuses on the analysis of a region, which corresponds with today's Cluj, Bistrița-Năsăud, Mureș, Harghita, Covasna and Brașov counties, and with the north-eastern part of Sibiu County. We are well aware that the political-administrative repartition has barely any archaeological significance, but the selected region is used purely out of methodological considerations. The importance of this territory is stressed also by its geographical position, which allowed the blending of influences from other regions and cultural backgrounds as well.

The analysed period corresponds with the beginning and evolved stages of the Transylvanian Late Bronze Age, namely the BzC-BzD-HaA phases. This period has a distinct chronological position, involving the time span between the bronze hoards of the classical Middle Bronze Age and the Gáva culture. The selected period is not accidental because the Romanian chronological repartition includes the HaB1 phase to the Early Iron Age, thus separating itself from the Middle European and Hungarian chronological systems as well.

In spite of the fact that several attempts were carried out in the study of the bronze hoards, up till today not a single monograph was published which deals exclusively with the bronze hoarding of the Late Bronze Age from Central Transylvania. That is why the mentioned region is an unnoticed territory from this point of view in the literature.

## **The goals and the most important questions of the dissertation**

During the analysis of the Late Bronze Age hoarding practices from Central Transylvania, we had the possibility to rely on important and much quoted hoards. In spite of this the information database regarding these finds is very poor, and the seldom elaborated finds are published deficient and incorrect. The standards of such papers do not meet the requirements, and they are not proper for detailed observations either. That is why one of the basic goals of the present research was to collect all these Late Bronze Age hoards and process them according to the requirements of the today's archaeological field. All in all 67

hoards were analysed, with a total of 4679 bronze items, which was completed by 497 stray finds and 18 gold and bronze grave goods.

The most important question of the dissertation was the definition of the “character” of these hoards. This implies the chronological position of the bronze items, the occurrence rate of artefact types related to each other, in brief their chronological and structural characteristics. Thus based on the hoarding practices different depositional regions are expected to be outlined. The already mentioned region is suitable for such an endeavouring, because the influences from different regions meet here, and overlapping in the hoarding practices can be expected.

The main purpose of the typological and chronological classification is the dating of the hoards, and the limitations of the accumulation period. Because in many cases the hoards cannot be linked exclusively to a narrow chronological horizon, often the boundary between the accumulation time and the hide of the bronzes is more than obvious.

We tried to outline the uniqueness and the full-fledged character of the Central Transylvanian hoarding practice. In this sense the morphology of the hoards or the position of the bronze items within hoards will be investigated.

Secondly we will focus on the structure of the finds, which can provide valuable information regarding the selected object category and object type, and the occurrence rate of artefact types related to each other. Combining these information different hoard types can be separated. For a better understanding these will be discussed together with the neighbouring hoarding regions.

Special attention will be given to the fragmentation patterns visible on the artefacts. We will try to answer the following question: the practice of fragmentation was determined by a geographical region, or was the result of different customs from different chronological periods? If we can outline several hoarding patterns based on the selective deposition of different object categories and object types, one can ask if the tradition of fragmentation is suited for similar differentiations in the depositional practice.

For a complete picture regarding the hoarding phenomenon, the stray finds and the metallic grave goods were also taken into consideration. They were put through the same combinatory analysis. We will try to answer the question if the different forms of metal deposition existed beside one another, or did they complement each other?

One of the most important questions regarding the Late Bronze Age hoarding phenomenon is the delineation of the cultural background, and the tracing of archaeological features related to the hoards. We would like to observe with how much accuracy the

classification of the bronze material and the separation of the different bronze hoard types overlaps a specific ceramic style. Can it be stated that certain regional groups buried only specific bronze types? How is the hoarding phenomenon changing in the contact areas and can we expect different anomalies?

### **The methods of the research**

The essential requirement of the study was to improve the documentation of the hoards, and namely the photos, cross-section drawings, measurements, and use and wear marks observations, to the requirements of present state of research. Due to this process several hoard finds were re-examined, which up till today were barely published, or even inexistent in the literature. Rarely the exact find spots of the hoards were identified and excavated as well.

The basic methodological starting point was to give a comparative analysis between the BzC-D and the HaA evolution phases. Although many bronze types show overlapping between the two periods, the structure of the finds and their state of preservation (intact or fragmented objects) point to a clear separation. Both periods were subjected to the same methods of analysis, thus trying to outline the alterations of the hoarding practices.

The tracing of the structural characteristics of the hoards is based on the typological and chronological examination of a large amount of bronze material. Hereby the character, the chronology and the spatial distribution of the artefacts could be highlighted. The “personality” of the hoards is given by the frequency of artefacts and by the occurrence rate of the artefact types related to each other. Thus beside the dominant types subsidiary bronzes existed as well, which contribute in the same amount to the complete picture of the hoarding phenomenon.

In the researched area two large sized hoards were also discovered (Bandul de Câmpie and Dipşa). During the analysis a setback was represented by these hoards. Due to their extremely large size, with hundreds and thousands of bronze items (Bandul de Câmpie/2477 and Dipşa/611 objects) the statistical analysis was heavily distorted. The two mentioned hoards are not suited for frequency and common occurrence analysis either. It is important to stress that the combined analysis of such large hoards with the small and medium sized ones is not advisable.

Also the evaluation of a restricted area cannot offer extensive results. In this respect the selected region has its own limitations, and the bronze hoards have a relatively low occurrence rate.

## **Results of the analysis of the Central Transylvanian hoarding practices**

Regarding the find circumstances and find spots of the hoards discovered in the researched area, unfortunately we have very scarce data available. Therefore general conclusions cannot be drawn.

An important aspect was the examination and classification of the hoard size. This was determined based on the number of the artefacts within the hoards. It is clearly visible that in the BzC-D evolution phase the small and medium sized hoards are common, and in the upcoming period the large sized hoards are dominating. Because several artefacts couldn't be identified in the collections of the museums, the gathered data regarding the weight ratios of the two periods is irrelevant.

One of the main goals of the dissertation was the analysis of occurrence rate of artefact categories and types related to each other, and the separation of different hoarding patterns. It is traceable, that in the BzC-D period the hoards made out of one or two object categories are very frequent. The presence of the clean hoards, which are made out exclusively from one artefact type, is also high. During the next evolution phase, in spite of the fact that the ratios between the object categories remain the same, the monotonous structured hoards lose ground. Except three small hoards the clean assemblages disappear. The hoards dominated by one object category are still occurring in highest number, but the three-four-five object category hoards are gaining in importance. In the BzC-D period the dominance of the tools is indisputable, but due to their high occurrence it is difficult to outline specific patterns. Generally the weapon-tool-ornament combination is dominant, and other object categories play a secondary role. In the HaA period we are witnessing not only the significant increase in numbers of the artefacts, but also their typological diversification. Many new ornament types are produced in this time span, and the raw material is used in unprecedented proportions. The bronze- vessel and sheet fragments are the exclusive requirements for the weapon-tool-ornament combination. Based on the comparison of the artefact categories the difference between the two periods is more than obvious: firstly in the BzC-D phase the *monotonously* structure hoards are dominating, while in the HaA period the *complex* structured hoards play a decisive role.

The combination of the object categories is completed by the find association of the artefact types, namely the occurrence rate of object types and the relation to each other. In BzC-D the sickles and the socketed axes appear in highest number, and in most of the hoards they are used next to almost every other artefact type. Very often they appear near the disc butted axes, spearheads and bracelets. The only dominant ornament is the bracelet. Among

the weapons the disc butted axes can be highlighted, mostly in the northern parts of the region. The spearheads play an important role as well. The raw material has a low significance in this period, but it is totally dependent on sickle. This combination is one of the most obvious hoarding patterns from this period. This is completed by the popular socketed axe-disc butted axe combination. These assumptions are confirmed in the next evolution phase as well, when these combinations appear in larger number in spite of the fact that we catalogued half the numbers of the hoards from the BzC-D period.

The increase in size of the HaA hoards implies their typological diversity as well, although the number of the hoards decreases. One of the main features of this new evolution phase is that nine times the bronze quantity and only half the hoards were used in comparison with the previous period. So the goal was not the repeated action of the hoarding practice, but the burying of outstanding assemblages. As a result the accumulation period of the objects expands, and the typological and chronological frameworks of the bronze items cannot be limited exclusively to one horizon. Thus the burying moment of the hoard is not necessarily overlapping the accumulation period.

In this period beside the two dominant artefact types, namely the sickles and socketed axes, an important role is given also to the bracelets. Similarly to the previous period it is the main ornament type, based mainly on its occurrence. Among the weapons the spearhead is used in most of the combinations, but it is uncommon beside the bracelets. The raw material is employed in an impressive amount. It represents 43% from all the HaA objects, and it is used with the dominant types. The appearance of the small ornaments is an innovation of this period, which are present often in the most complex hoards of the time. The disc butted axes lose ground in favour of spearheads, swords and daggers. In the category of tools we cannot observe any major alterations, and the basic representativeness remains the same. Several artefact types appear, which were hardly used in the previous period, but they are employed in large numbers in specific hoards. Although their occurrence is generally low, and play a secondary role among the other bronze types. The saws, pendants, belts, fibulas and bronze vessels can be listed within this category.

Based on the results of the combinatory analysis we can assert, that the detailed examination of the so called “tool hoards” of the BzC-D period reflects a slightly different picture. If we emphasize that beside the dominant socketed axes and sickles one can hardly find any other tool type, the “tool hoard” phrase doesn’t fully covers the hoarding practices from this evolution phase. Based on the artefact types it would be better to use the *sickle hoards*, *bracelet hoards* and *socketed axes hoards* terms, which is more appropriate for the

structure of the assemblages. Hereby one can observe an alteration occurring in the outline of the hoarding practices, because the bracelets represent the third most numerous artefact type, but after the sickles they dominate most of the assemblages. This trend continues in the next evolution phase as well, and predominates even more, because it will become the most often used type of the period based on its occurrence. In spite of this the sickle-socketed axe combination remains the most frequently used matching, barley exceeding the sickle-bracelet or the socketed axe-bracelet combinations.

The combinatory analysis of the artefact categories and types offered the possibility to separate different hoard types. The *clean hoards* are characteristic mainly for the BzC-D period, and in HaA they are overshadowed by the complex type-spectrum of the hoard finds. The *monotonously structured* or *one sided hoards* are always defined by the dominant artefact types. The *complex hoards* due to the characteristics of the period are more frequent in the HaA phase, but because several types are accumulated in large numbers, the one sided character of some of the hoard finds is still visible. From this point of view the first period is dominated in a proportion of 73% by one sided hoards, and 27% of the finds have complex structure, while in the HaA phase this ratio changes to 50-50%.

One of the main characteristics of the Late Bronze Age hoards is their fragmentation. It is undeniable that the damaged artefacts are mostly the result of a premeditated and intentional action. Very often the broken objects are linked to different aspects of the metallurgy. But as the hoarding patterns show, the degree of fragmentation changes according to chronological periods and geographical regions. Thus the different stages of the bronze processing cannot be explained with the high volume of scrap material within the hoards. For a better understanding of this phenomenon we separated the *damage*, *break* and *destroy* type fragmentations. A special practice could be outlined regarding the bending of the artefacts, but it needs to be separated from the bending which breaks the objects. It is characteristic for the HaA period, and it is used predominantly on bladed types, such as sickles and saws.

We investigated also the question of the missing fragments from the hoards, which never obtained a permanent place in the structure of these finds. Based on these observations and corroborated with the fragmentation patterns a clear separation of the hoarding phenomenon between the two evolution phases is more than obvious. Based on the fragmentation customs two hoarding pictures can be outlined: firstly in the BzC-D period there is the remaining visual of the hoard, and secondly the 'the 'missing hoard'. The missing hoard, as a specially and purposeful structured find never occurs on its own. In the upcoming

evolution phase, with the alteration of the fragmentation patterns the general outline of the 'missing hoard' changes. Due to the high typological variety and to the increased fragmentation the missing parts become more diverse as well. The similarity between the actual hoard and the missing one is obvious. The missing parts correspond typologically and proportionally with the existent objects. Thus the missing parts fit organically in the hoarding patterns of the period, without having the possibility to separate them.

The hoarding practices of the Late Bronze Age from Central Transylvania are completed by the stray finds and the metallic grave goods. From typological point of view the hoards and stray finds show good similarities, and most probably their selection and deposition was guided by the same principles. Within Central Transylvania the two depositional forms cannot be separated from each other.

We get a totally different picture by analyzing the bronze and golden grave goods. These finds differentiate entirely from the other hoarding forms, and they constitute a different artefact category based on their quantity and quality. Among the metallic grave goods a decisive role is played by the clothing items. Other object types are almost entirely ignored. Based on these observations it can be stated that the most important deposition form of the Late Bronze Age from Central Transylvania were represented by the bronze hoards, in contrast to which the grave goods had an insignificant role. The difference between the two archaeological find categories is not a unique Central Transylvanian characteristic. Same patterns were observed in northern Transdanubia, southern Germany, north-eastern Austria and southern Moravia, where the scarcely occurring hoards are replaced by richly furnished graves.

During the typological analysis of the artefact types, it could be observed that rigid boundaries between the evolutions of the different forms cannot be drawn. The basic types can be inserted within a general BzD-HaA time span. One can rarely name exclusive BzD or HaA types. Such exceptions from the first period are the Pecica type daggers, the trapezoid grip plaqued dagger, the B3 type disc butted axe, the Şanţ-Dragomireşti type battle axe, the globe-headed battle axe, the knobbed pin and the narrow belts.

Within the characteristic HaA types we can name the Pecica type swords, the B4 type disc butted axe – although it appears often beside the B3 type, the V ribbed socketed axes, the Sighet type winged axe, the razors with ring like endings, the engraved, ribbed and longitudinally ribbed bracelets, the fibulas, the large sized anchor shaped pendants, the wide richly decorated belts, the Friedrichruhe cups and the Satteldorf type bowls.

The Y ribbed socketed axes represent an evolved typological feature, which are characteristic for the end of the HaA and HAB1 periods. These artefacts are the latest objects from the analysed period and region. Towards a later dating point the socketed axes with framed ribbings from the hoards of Rebrîșoara I and Călugăreni, and the socketed axe with pseudo-wings from Călugăreni as well.

In the research of the Central Transylvanian hoarding phenomenon one of the most problematic issue is the relationship between the hoard finds and the different ceramic styles. Based on the vessels which contain the hoards, we can rarely name a particular ceramic style. But the structure of the finds is showing without any doubt a certain hoarding trend. The most southern representatives of the Upper-Tisza regions metallurgical centres, are the largest and most complete BzD hoards from the researched area, which do not appear south to the Someșul Mic and Someșul Mare Rivers. We are entitled to say that this microregion is the southern peripheral region of the Uriu-Opályi type hoards.

Compared with the above mentioned territory the Upper course of the Mureș and the Olt Rivers, and the Valley of the Târnava Rivers are outlining a different hoarding region. The structure of the finds is simplified, the complex structured hoards disappear, and the hoards are built out of one object category, at best out of one or two artefact types. A predominant role is played by the Transylvanian type socketed axes, hooked sickles, bracelets, pins and spearheads. Based on the cultural situation from Central Transylvania these hoards most probably can be linked to the hoarding practices of the Noua culture. Thus the structure of the hoards is determined by the system of values of a specific community, because the dominant cultural agent leaves its mark on the metal deposition as well.

In the upcoming HaA evolution phase we are witnessing the uniformization of the hoard finds. Due to the increased number and variety of the artefact types the earlier described trends in the hoarding practices fade away almost totally. Although there is still no common position regarding the cultural situation of the HaA period from Central Transylvania, some hoards from this period can be related to the so called Band-Cugir communities, others to the Noua III groups. But due to the varied structure of the hoard finds it is almost impossible to isolate different guidelines regarding the bearing communities. Therefore, at the moment, the different hoarding patterns of the HaA period can be linked with difficulties or great uncertainties to specific cultural group or ceramic style.

Although it wasn't a main goal of the dissertation we addressed also the problem of the late HaA or the HaA2 hoards. This late period was related to a general HaA evolution phase based on the metal artefacts, but the analysis of the ceramic material is outlining a

different picture. In the latest chronological systems the classically defined HaA2 period loses its importance and from chronological point of view it doesn't cover an entire century either, like it was suggested earlier. The ribbed socketed axes which become more and more elaborate, the wide bladed sickles, the solid-hilted knives and swords undoubtedly point towards the HaB1 period. As we have seen the hoarding practices are not defined exclusively based on typological considerations, and the structure, the degree of fragmentation is playing a major role as well. The HaA2 hoards from typological point of view become simpler, thus showing good similarities with the assemblages from the upcoming period. Taking all this into consideration I believe that the HaA2 hoards, which were defined exclusively based on metal, can be linked to the already outlined HaA2-B1 period, and not to the HaA1 hoards. Thus the uniformity of the HaA period is unfolding.

Summarizing the main topic, we can conclude that the Central Transylvanian hoard finds integrate organically into a wider Central European and Carpathian Basin hoarding practice. Because the deposition of the metal artefacts was determined by special principles and changed according to geographical regions, one cannot expect uniformly built hoarding patterns on large territories. Due to the regional characteristics Central Transylvania has a unique status, and the hoards buried in this area differentiate from the surrounding territories. As exceptions we can name the complex structured BzD hoards from the valley of the Someş River, which can be related to the hoarding region from north-eastern Hungary and north-western Romania. In the same period the hoards buried in the south-eastern corner of Transylvania show good similarities with the assemblages from Moldavia.

The comparison of the two main evolution phases of the Late Bronze Age from Central Transylvania reflected the changes in hoarding practices between the two periods. Although rigid boundaries cannot be drawn between several artefact types, the hoarding practices of the BzC-D period on one hand, and the HaA period on the other hand give us totally different pictures. The structure of the hoards, the condition of the objects and the trends of the depositions clearly shows a line of conduct. Thus we believe that it would be more appropriate for the future to use the terms "BzD style" and "HaA style" hoards, which refer to all the periods' criteria. It is highly probable that this differentiation is the result of a selective deposition. Taking all this into consideration we can assert that the Central Transylvanian hoard finds are the results of the local communities system of values and customs and thus they integrate organically into the general "place-structure-condition" hoarding phenomenon.

## Main publications related with the topic of the doctoral thesis

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