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– SUMMARY –

DOCTORAL THESIS

Ironwork hoards in Roman Dacia

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Keywords:

Ironwork, hoard, deposition, Roman Dacia, safety hoard, ritual activity, iron implements, agricultural tools, woodworking tools, household objects.

Summary

Ironwork hoards are collections of iron objects (ranging from complete tools to scrap) that were found as a group, associated with a single, mostly closed archaeological context. Usually, they were concealed, however, the intention of a future retrieval is seldom evident. Such assemblages are not very rare in the Roman period throughout the empire, while their study benefited from varying degrees of interest in different regions of the former Roman Empire.

From Roman Dacia, which thus presented both a geographical and a chronological delimitation of the subject, 14 ironwork hoards were selected for in-depth analysis. Though their number is clearly greater, not many assemblages were published. Furthermore, a selection had to be made according to the available information as well, as the quantity of data did not always allow a reassessment of the hoards.

The discussed assemblages are the following:

1. **Apoldu de Sus** (Sibiu County): five agricultural tools related mostly to viticulture were found in one heap in 1975, during systematic research, next to an annexe building of a *villa rustica*. The hoard can be dated to the 3rd century AD.
2. **Bumbești-Jiu** (Gorj County): a small assemblage of two adze-like hoes and two axes were found in 1955, during a rescue excavation, north of the headquarters building of the auxiliary fort. It represents most probably a safety hoard hidden in the middle of the 3rd century AD.
3. **Căianu Mic** (Bistrița-Năsăud County): the hoard of 19 objects and fragments was found by chance in 1975, in a remote location, at 6 km distance from the auxiliary fort at Ilișua. It comprised a great variety of items (agricultural, woodworking and metalworking tools, horse equipment, wheel fitting, and weaponry), having only one example of each object type, most of which can be dated to the 3rd century AD.
4. **Chinteni** (Cluj County): the small assemblage of four pruning hooks and a silver *denarius* of Severus Alexander was found in 1988, during systematic research, next to the baths of a *villa rustica*. The hoard can be dated to the second part of the 3rd century AD.

5. **Dedrad** (Mureş County): four tanged and one socketed ploughshare, as well as a coulter, were found by chance in 1964, at approximately 10 km distance from the auxiliary fort at Brâncoveneşti. Sporadic traces of a Roman Age settlement had been noted close to the hoard. The assemblage can be dated generally to the 2nd and 3rd centuries AD.
6. **Lechinţa de Mureş** (Mureş County): the ironwork assemblage was found in 1951, during systematic research, in a poor state of preservation, thus only five tanged ploughshares, some knives and further smaller fragments could be identified. The objects, dated to the 2nd–3rd centuries AD, were placed between two complete querns, buried in a pit at the top of a dominant plateau over the Mureş River, with the Roman settlement being located down in the valley.
7. **Mărculeni** (Mureş County): the largest ironwork hoard from Roman Dacia was found by chance in 1965, in a remote area at approximately 2 km distance from the auxiliary fort at Călugăreni. It comprised over 80 clearly identifiable tools and objects, the most numerous being the agricultural implements, followed by woodworking tools, household objects, multiple utility- and metalworking tools. The assemblage contained a few copper alloy objects as well, like a whole vessel. Together with fastenings, fittings and further small fragments, the number of items from the hoard totals nearly 300. It seems to have been a safety hoard, dated to the second part of the 3rd century AD.
8. **Mediaş** (Sibiu County): the small hoard of 14 ironwork objects was found in 1977, during rescue excavations, in two separate groups inside a dwelling next to a supposed smithing workshop of a rural settlement. Most objects are metal- and woodworking tools, but a scythe and other more diverse items were also included. The assemblage might be related to the mentioned workshop and was dated in the second part of the 3rd century AD.
9. **Obreja** (Alba County): the hoard has been unearthed in 1966, during systematic excavation inside the rural settlement, though it could not have been directly connected to any dwelling or pit. It comprised 14 objects, mostly agricultural and basic wood-working tools, making up approximately one set of implements that might have been used by one person or household. The hoard can be dated to the 3rd–4th century AD.
10. **Odorheiu Secuiesc** (Harghita County): the hoard was found in 1955 by chance, on the territory of the civilian settlement next to the auxiliary fort. Unfortunately, at the time it was not recorded in detail, thus its composition remains unclear, however, a part of the assemblage was reconstructed based on the surviving unprovenanced implements in the museum deposit. The assemblage, dated in the 3rd century AD, comprised mostly agricultural, wood-working and metalworking tools, but also household and other object fragments as well.

11. **Orheiu Bistriței** (Bistrița-Năsăud County): the hoard was found by chance in 1909, in the southeastern corner of the auxiliary fort, and can be dated to the 3rd century AD. Much of the original composition is lost, however, based on a surviving list of the items, possibly the whole assemblage (24 items, mostly agricultural and woodworking tools and household objects) can be reconstructed. It also comprised three bronze vessels.
12. **Runcu** (Gorj County): the hoard, composed of seven socketed scythes was found by chance in the entrance of a cave in the Sohodol Gorge. The assemblage was never published as a whole, but based on the available information, it can be dated to the 3rd century AD.
13. **Șardu** (Cluj County): the very small assemblage, comprising only a socketed ploughshare and a three-piece plough-drawing chain, was found in 2021, during rescue excavations, inside a semi-sunken dwelling, dated to the 3rd–4th centuries AD.
14. **Tibiscum / Jupa** (Caraș-Severin County): the hoard came to light in 1985, during systematic research, inside one of the side rooms of the headquarters building of the auxiliary fort. Based on the reports, the assemblage comprised iron nails and blade fragments placed in a white stone *mortarium*, supposedly at the bottom of a hypocaust system, however, as it was never fully published and the iron pieces seem lost today, nor its composition or interpretation will ever be entirely certain.

The objective of the thesis was the in-depth analysis of the phenomenon of hoarding and depositing ironwork in Roman Dacia through a detailed re-examination and comparative studies of the known assemblages. Besides the 14 hoards that were selected, further five discoveries (Baciu, Căpreni, *Romula*, Roșia Montană, and *Ulpia Traiana Sarmizegetusa*) with a high degree of uncertainty were featured separately in a supplement (*Appendix I*).

The most important step in the reassessment of the finds was the in-person study of the comprising objects, documented via measurements, photographs and in most cases also drawings. This happened in the case of $\frac{2}{3}$ of the hoards, however, taking into account the number of items they contained, nearly 90% of the objects were reanalysed in the past years.

The structure of the thesis mirrors the general approach applied during the research: each assemblage was first studied in depth individually, followed then by a comparative analysis of the finds, where the goal was to create interpretive patterns that might help reconstruct some of the unknown or more uncertain details of the depositional circumstances. Furthermore, a great emphasis was put also on the general context of hoarding in this period.

Thus, *Chapter 1* has an introductory character, comprising a short presentation of theoretical aspects of artefact studies, as well as the applied methodology and an overview of the

structure. This is completed by a survey of literary sources and the most relevant international works on the topic of ironwork hoards, as well as the Romanian research history on the subject.

The role of *Chapter 2* was to emphasize the larger context of these assemblages. Thus, for a better understanding of the attitude of ancient society towards depositing ironwork, or hoarding in general, an overview was presented of the precedents, *i.e.* ironwork hoards from the Late Iron Age, and of the similar assemblages from after the abandonment of the province (up until the 5th century AD). These subchapters are important for the study of a possible continuity of some of the traditions connected to ironwork depositions. The third topic discussed in this chapter is the subject of other types of depositions from Roman Dacia, excluding objects made of iron. These are considerably more numerous and varied than the ironwork assemblages, which can emphasize the complexity of the act of deposition.

Chapter 3 presents the catalogue of the hoards, in alphabetical order. For each assemblage, after a short tabulated part with the most important information, in a descriptive text, the details of the finding conditions and any other relevant data were presented, followed by the actual catalogue of the comprised objects. The catalogue was included in the main text because it represents the basis of the research, being especially important for the next chapter, the typological study of the comprised implements.

Chapter 4 offers an overview of the available information regarding the object types met in the hoards, independent of the depositional aspect. The implements were grouped into major categories according to the area where they were employed: agriculture, woodwork or metalwork. A fourth type comprises multifunctional tools, which could have been employed in several crafts. Other object types, related to transport and household activities, but also jewellery, weaponry, fastenings and fittings, complete this list. As the present typological examination discusses only the items from hoards and not all iron tool finds from the province, it cannot be regarded as a comprehensive study on iron tools from Roman Dacia. But, as hoards contain the largest number of implements, this discussion remains useful. The formulated results were based on the works of several internationally acknowledged researchers while taking into account the local characteristics as well. The correlation of the very specific terminology used in different languages for tool types was considerably difficult. For this reason, I composed a small dictionary of the corresponding terms in English, German, French, Romanian, Hungarian, and Latin. Initially made for personal use, this tool was then included in the thesis as *Appendix II*, in the hope that it might prove useful for others as well.

Chapter 5 presents the actual discussion regarding the presented ironwork hoards. Here, they are compared from five different perspectives: composition, context, dating, the identity

of the owner, and interpretation. In the case of each feature, similar assemblages were grouped and discussed. While the focus here was on the comparative analysis, based on the result of this, in *Chapter 6* the conclusions are drawn, first separately in the case of each hoard, then more generally on the phenomenon of hoarding ironwork in Roman Dacia.

The first conclusion of this detailed study is that the Dacian ironwork hoards are a lot more varied than one might expect. The only better-defined group is made up of the large assemblages found in the vicinity of forts along the eastern *limes* of Dacia. These are mainly the hoards from Mărculeni, Odorheiu Secuiesc and Orheiu Bistriței. They are all dated after the middle of the 3rd century AD and comprise a large array of objects, especially tools, but also household items like vessels, sometimes gridirons, tripods, *etc.* These assemblages are very similar to the broad horizons of ironwork hoards characteristic for the German *limes* in the 3rd century AD that are quite convincingly connected to the ongoing barbarian raids in the region. Both versions of safety hoards, the ‘*Angsthorte*’ and the ‘*Plündererdepots*’, frequently appear in this period, their separation not always being possible. This is true for the assemblages from Dacia as well: while in the case of Mărculeni, there are some slight arguments that it might be a hoard of looted material, in the case of the other two, no such conclusion can be made. Besides these, only the assemblage from Bumbesti-Jiu has arguments in favour of an interpretation connected to barbarian attacks from the second part of the 3rd century AD. For the rest of the hoards, however, nothing confirms such an explanation. This does not mean that a historic interpretation must be excluded in these cases, but rather that they represent only one possibility, next to the local or personal-level explanations or threats, which, in their turn, might be influenced by larger-scale events.

The votive or ritual reasons, including magic as well, are much harder to grasp. Thus, only those assemblages were interpreted as votives that presented arguments in favour of a symbolic significance. It is important to note that iron objects and tools, even if they have practical functionality, could still be the subject of religious offerings as well. Such a possibility can be mentioned for example in the case of Lechința de Mureș and Runcu, both connected perhaps to some sort of agricultural rituals. Additionally, an interpretation along the lines of magical practices was proposed in the case of *Tibiscum*, but there are too many uncertainties there preventing a well-founded interpretation.

Generally, the great majority of the assemblages are quite surely dated in the 3rd century, in some cases even to the second part of the 3rd century AD. While some hoards might also be of a 2nd-century date (like Dedrad or Lechința de Mureș), a clear continuity of the hoarding patterns cannot be observed from the pre-Roman Dacian milieu into the provincial Roman era.

For a while, after the abandonment of the province, smaller assemblages of iron agricultural tools were still deposited, but this trend shifts in the 4th and early 5th centuries AD towards being more and more surely the results of ritual activities (see for example Bratei or Ernei).

After the conclusions, the thesis ends with the two already mentioned appendices, the bibliographic index, and the lists of abbreviations, illustrations and plates. The final pages contain the five maps showing the distribution of hoards and 43 plates illustrating the objects comprised by the discussed assemblages.