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Gergely Csiky

POLEARMS AND EDGE-WEAPONS FROM THE AVAR PERIOD  
Classification – Typology – Chronology – Technology

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The dissertation presents a survey and a typochronological analysis of the polearms and blade-weapons of the Carpathian Basin from the Avar Period (from 568 to the first half of the 9th century). The polearms are defined by a long wooden shaft and an iron tip (spear, pike and javelin), while the blade- (or edge-) weapons are characterized by a long iron blade with one or two cutting edge and a short hilt (single- and double-edged swords, sabres and seaxes).

### Acquisition of Data

A considerable part of the dissertation consists of the database of the polearms and blade-weapons of the Avar Period both from published and unpublished materials. This work resulted in an assemblage of data about 609 polearms and 706 blade-weapons. The catalogue entries contain the descriptions of the weapons concerned, the circumstances of deposition, the other grave-goods, the type, the proposed date of the object and its literature.

### Methods

The study is based on a standardized terminology, which concerns the nomenclature of the single weapon-types and the parts of both the polearms and cutting-weapons. The descriptions are followed by a classification based on a hierarchic system using the characteristics of the blade as the main criteria. According to this process the weapons were classed into form-groups, types, sub-types and variants. Every single unit is identified by an alpha-numeric code describing the formal features of the given object. The weapon-types are presented in 171 plates and their distribution is shown in 52 maps.

A basic aspect of the interpretation of the weapons is their techniques of fabrication, thence the short overview showing the different forgery methods used by medieval blacksmiths was indispensable. The results of the former metallographic analyses were cited and applied in the dissertation.

The chronology is based on the tripartite system, which is at the moment generally accepted and used (Early Avar: 568–650, Middle Avar: 650–700, Late Avar: 700– first half of 9th century). The Early Phase was subdivided into two and the Late Phase into three horizons. The distribution of the different types was presented by maps which help to separate regional types or deduce trade-relations or even ethnic groups. The other grave-groups accompanying the weapons and the investigation of weapon-combinations allow the analysis of some questions concerning the Avar society.

### Polearms

Polearms (L) were divided into four formal groups based on the form of blade:

- L.I : reed-leaf shaped
- L.I : conical
- L.III : leaf-shaped
- L.IV : triangular.

17 blade-type were distinguished inside these main groups. The types were subdivided by the proportion of the blade and the socket into sub-types and by the forming of the socket into variants. The descriptions of the types contain the relevant history of research, the distribution and chronology of the types and their cultural connections. The objects identified as javelins were classed to a distinct group: these finds are between the spears and arrowheads typologically. Apart from the iron tips, the material and length of the wooden shaft was also investigated along with the ferrule. 75% of the total assemblage of 609 spearheads were

suitable for the classification. According to the results the reed-leaf shaped blade (L.I) was the most popular form-group (45 %), but the spears with leaf-shaped blade (L.III) were quite wide-spread (36%) as well. The conical (L.II) and triangular bladed (L.IV) spears were of insignificant quantity during the Avar Period. These proportions were subject to the major chronological changes: during the Early Phase (568 – 650) beside the absolute predominance of the reed-leaf shaped blade (L.I) the big quantity of the wide leaf-shaped blade (L.III.A) was demonstrated, the distribution of which is limited to Transdanubia (former Pannonia). This phenomenon can be interpreted as reflecting the Merovingian relations. The Early Phase is characterized by more polearm of western origin (Dorfmerking-típus, L.III.D), but besides spears of Mediterranean (Byzantine) origin are present (such as the spears with reed-leaf shaped blade and binding-element [L.I.A] and the spears with perforated blade [L.III.E] which can be connected to some Italian examples.

During the Middle Phase the quantity of the polearms is drastically reduced: altogether 37 examples are known from this transitional phase. This feature can be interpreted by the change of the rules of weapon-deposition.

In the Late Phase the quantity of polearms increased again, during that time a considerable displacement of the distribution of spears is observed. The increasing proportion of the conical spearheads (L.II), the reduction of the blade width of the reed-leaf shaped spearheads (type L.I.F) and the appearance of some objects of western origin on the northwestern periphery of the Avar Caganete (Pfullingen-type = L.III.C/2, Eglingen-type = L.III.C/3 and the cross-bar spears [Hakenlanze] = L.IV.A/1) can be considered as general tendencies.

### Blade-weapons

A large part (70 %) of the 706 known examples of the Avar Period blade-weapons was suitable for the classification. Four form-groups were distinguished:

- V.I : double-edged sword
- V.II : single-edged sword
- V.III : sabres with curved blade
- V.IV : seaxes

These main groups were subdivided into 13 blade-types based on the cross-section of the blade, the existence of ring-pommel or false-edge. The distinction of the ring-pommel swords (Ringknaufschwert) is justified by the fact that in most of the cases this part of the weapon was made from the same piece of iron as the blade itself. This types were sub-divided by the existence or absence of cross-guard into sub-types, and in special cases by the existence of precious metal fittings some variants.

In the disseration only the blade-weapons with curved blade were considered to be sabres, the cutting-weapons with straight blade and false edge were mentioned as protosabres or swords with false edge (V.II.C). The classification of the sabre-blades was based on the curvature of the blade, which was defined by the distance of the back of the blade and the chord composed by the base and the point of blade. Beside the bending, the length of the false edge was measured too. The results show that most of the false edges were not suitable for cutting, therefore it only facilitated the thrusting with a single-edged blade.

The fittings (decoration of the hilt, cross-guard, suspension, fitting of the scabbard) of the cutting-weapons were classed separately, and enable a much more accurate dating than the classification of the blades. Among the hilt-fittings there are pommels, hilt-end covering, decoration with precious metal foils, decoration nails (along with the ring-decoration), bone-covering and finger-divider. The classification of cross-guards resulted in the distinction of eight types and 17 variants. Single- and double-point suspension was also treated separately:

the first group was characteristic mainly for the *spathae* (V.I.A/1) of Merovingian origin, the suspending loop with animal-head ending (F.1), the pyramidal spatha-buttons (F.2) and the limestone beads applied in pair (F.3) probably used for this task. The double-point suspension was divided into P- (F.4), D- (or hemicircular = F.5) and triple-arched (F.6) suspension loops and within these types various variants.

Based on the classification of the cutting-weapons the most wide-spread (45 %) form-group was the single-edged sword (V.II). The double-edged swords represent a considerable quantity (26 %) although this group was only characteristic for the Early Phase. The quantity of the sabres (V.III, 21 %) with curved blade does not reach that of the formerly mentioned group. The seaxes can be considered to represent a relatively rare (11%) group of import finds.

During the Early Phase (568–650) the predominance of the double-edged swords is observed although they were used mainly in the first half of that phase and gradually displaced by the single-edged examples. In the second half of this period some early forms of the sabres already appeared, but their number was not considerable.

In the Middle Phase (650–700) a radical change can be observed in the proportion of the cutting weapons since the role of the sabres became dominant in this period. The increasing application of cross-guards on blade-weapons can be observed at the same time. The single-edged swords (V.II) remained a significant part of the weaponry and the role of the seaxes became more important by the evolution of the so-called '*Breitsax*' with wide and long single edged blade (V.IV.C) and its application as a really cutting weapon.

The Late Phase attested a decline in the usage of sabres and the dominant position of single-edged swords generally fitted with cross-guard. A characteristic feature of this period is the increasing significance of the so-called '*Langsax*' (seax with long blade, V.IV.D), the cutting-efficacy of which was similar to the straight single-edged swords.

Relations with the outer sphere are attested in the case of cutting-weapons, as well. The *spathae* (V.I.A/1) characteristic to the Early phase cannot be considered as an import since their usage was limited to the indigenous Germanic population of the Carpathian Basin. In spite of the former type the double-edged swords with casted bronze cross-guard can be regarded as real import objects coming from the Eastern-Mediterranum. The external relations of the close-combat weaponry of the Late Phase is attested by the formerly mentioned '*Langsax*' and shows the integration of this type into the armament contrary to the double-edged swords which are extremely rare during the 8th century.

### Technology

Based on previous metallographic investigations it was possible to detect several forging procedures in the production of the Avar-Period weapons (such as pattern-welding, carburization and forge-welding). According to these data, the spearheads with reed-leaf shaped blade with binding-element and fitted with rings of grid-pattern (L.I.A/3.b) were in fact of good quality, displaying fine microstructure, and have the same material as the apple-shaped stirrups with elongated suspension loop. In contrast with this high-quality early iron objects the weapons investigated from the Late Phase were elaborated with less care and in most cases even the tempering by heat was absent.

### Origin and Cultural Contacts

The Avar weaponry was considerably influenced by the weapon-industry of three main areas: the Eastern steppes, the southern Mediterranean (Byzantine Empire and Italy) and the western Merovingian and afterwards early Carolingian civilisation. The eastern influences

were discussed separately by regions: East-European steppes, Central- and Inner-Asia, the Far East. At the interpretation of the Mediterranean analogies beside the obviously Byzantine effects the role of Lombard Italy was emphasized. These impacts reached the Carpathian Basin uninterruptedly till the first half of the 9th century. The weapons of western origin were interpreted partly as a cultural heritage of the indigenous Germanic population of the Early Avar Phase and partly as the later import goods resulted by the northwestern expansion of the settlement territory of the Avar archaeological culture.

#### The deposition in grave

The finding circumstances of weapons and the art of their deposition was also investigated in the dissertation. The spears were most often placed in a horse-burial or beside the head of the animal in a burial with horse. The cutting-weapons were regularly deposited unguarded on the left side of the deceased, while the seaxes mainly on the right side.

#### Attire – representations

This chapter concerns two larger topics: the suspension in general and the representation of fighters with spear. A general change happened in the suspension of the cutting-weapons during the Early Phase of the Avar culture: the transition between the single- and double-point suspension took place parallel to the same change, which occurred in the wide range of Eurasia. This is attested by the fact that the same art of suspension spread not only in the steppe region but even in China, Central-Asia, Iran and Italy. The role of the artistic traditions and the simplifying manner of the pictorial sources was emphasized as a result of the investigation of spear-representations.

#### Weaponry and Society

This chapter investigated the correspondence of the weapon-combinations with some special grave-goods (ornamented belt or precious metal vessels) and some type of burial rite (burial with horse). The analysis of the distribution of the polearms and cutting-weapons by age-groups of the deceased resulted in the observation that the members of the elder age-groups (maturus and senilis) received weapons much more frequently as grave goods than the younger deceased.

Considerable social significance can be attributed only to the cutting weapons, especially to the ostentatious examples (Prunkwaffe) with precious metal covering of elaborated craftsmanship. Due to the accessible information no 'armed class' can be distinguished as a social unit, since the deposition of weapons in a grave was only regulated by the burial rite of the community. The cemeteries of the Early Phase in Eastern-Transdanubia were analysed separately, because this way the armament of a special (probably ethnic) group was observable, containing both Merovingian and Avar elements. A better understanding of the text is facilitated by several diagrams.

#### Armament and warfare

The warfare cannot be reconstructed only by the means of archaeology but some major changes can still be observed in the transformation of the fighting style. The great proportion of the pike (thrusting spear) in the Early Phase shows the great significance of the heavy-armoured cavalry attested by written sources as well. During the later phases a general shift occurred in the direction of the light-cavalry, represented by the reduced quantity of polearms

and the increasing significance of the sabres. Due to the information available at present, the Avar army – which was considered to be modern and effective at the turn of the 6th and 7th centuries – lost its efficacy by the time of the Carolingian – Avar wars at the end of the 8th century.

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