There are two main research centres in the studies on the history of old Polish (medieval and post-medieval) weaponry. The first such centre was developed in Łódź by Professor Andrzej Nadolski and his team (including Marian Głosek, Andrzej Nowakowski, Jan Szymczak, Witold Świętosławski and others)¹ and resulted in the publication of two key monographs entitled *Uzbrojenie w Polsce średniowiecznej 1350-1450 / Arms and Armour in Medieval Poland 1350-1450* and *Uzbrojenie w Polsce średniowiecznej 1450-1500 / Arms and Armour in Medieval Poland 1450-1500*.² The second research centre was established in Kraków at the National Museum by Professor Zdzisław Żygulski Jr., which led to the 1975 publication of a study on the history of Polish armaments from the early Middle Ages to the late 18th century entitled *Broń w dawnej Polsce na tle użbrojenia Europy i Bliskiego Wschodu / Weapons in Old Poland as Compared with Arms and Armour of Europe and of the Near East*,³ presenting the evolution of armaments in Poland in a broad European and Middle Eastern perspective based on archaeological, iconographic, and written sources. In light of the longstanding rivalry between the two academic communities, one may say that the said book was not very...
enthusiastically received by the so-called ‘Lódź milieu of arms studies,’ as demonstrated, for example, by a rather critical review by Andrzej Nadolski. It should be emphasised, however, that the study by Zdzisław Żygulski Jr. had a very broad thematic spectrum and an extensive source base and to this day remains the most comprehensive discussion of the history of Polish arms, covering almost 1000 years.

Daniel Gosk’s book Średniowieczne kapaliny z ziem polskich na tle Europejskim / Medieval Kettle Hats in Poland as Compared to Europe, published by the Malbork Castle Museum in 2022, seems to have grown out of this ‘Kraków’ trend, as evidenced by both the layout of the work and the table of contents, which contains four main chapters with a clearly Europe-wide research focus: I – Kettle hats in the countries of Latin civilisation, II – Structure and terminology of kettle hats, III – Production and costs of kettle hats, and IV – Kettle hats in Poland. This monumental book has a total of 472 pages and presents historic materials not only from Poland but from all over Europe.

The author’s main objectives were to determine the chronological spread of kettle hats, identify the fields of military activity in which such helmets were used, and describe the cost of their purchase, their construction forms, and the technical details of their manufacturing (p. 13).

The introduction is devoted primarily to a detailed presentation of the state of research on kettle hats, both in Poland and Europe (pp. 14-18). As the author rightly points out, these helmets have not been given much attention so far in Polish literature on arms and armaments, and the available publications usually discuss them from the perspective of individual finds. The state of research in Western Europe is not much better, although there are several studies of a more synthetic nature. Thus, there is an indisputable need for more studies on kettle hats both from Poland and other European countries.

The second part of the introduction is dedicated to the source base and its characteristics. The catalogue of helmets is based on 125 examples from European and American collections. Unfortunately, only about 55 artefacts are of unquestionably medieval provenance, while the remaining 70 specimens, representing as many as two-thirds of the collection, are of uncertain chronology and some are described as having been made as late as the 19th or even 20th century. The author has included them in the catalogue on the grounds that they are usually an expression of a historical collecting trend and that, even if they were made almost contemporaneously, they reflect the design features and construction of the original medieval artefacts (pp. 19-21). Unfortunately, such an approach poses considerable risk: we do not know the circumstances in which these types of replicas were made or whether they preserved all the features of the original specimens. Also, the production processes of this type of replicas could also differ depending on the experience and skills of their makers, although Daniel Gosk assumes that the black-smithing techniques of the 19th and early 20th century were not fundamentally different from those used in the Middle Ages. However, Grzegorz Żabiński’s research into selected swords from the collection of the Malbork Castle Museum shows that weapons made in industrial times nevertheless differ significantly in their parameters from their medieval predecessors.

Daniel Gosk devotes the first chapter (Kettle hats in the countries of Latin civilisation) to the timing of the appearance and use of kettle hats in the countries of Europe and the Latin Kingdom of Jerusalem, a Crusader state created at the end of the 11th century. A compilation of finds and sources from western and central Europe shows that kettle hat-type helmets appeared first in the Iberian Peninsula as a modification of headguards, as a result of battles with the Arabs, who commonly used projectile weapons.

The first mention of a capiello de ferro type helmet comes from 1142. This type of head protection also appeared quite early in the Kingdom of France (chapeau de fer, 1165), England, and Scotland (capellum ferreum, 1180/1181). In central European countries, such as the Kingdoms of Bohemia and Hungary and the State of the Teutonic Order, this new type of helmet did not appear until the first quarter of the 14th century.

According to Daniel Gosk, the second theory explaining the origins and spread of kettle hats in Europe is associated with the development of helmets with a brim and a high, spherical skull in Byzantium. It seems, however, that this type of head protection, despite regular military contact during numerous Crusades, did not gain more widespread use in Latin Europe.

It should also be emphasised that from the beginning of their appearance, kettle hats were used by both ordinary soldiers and the elite, such as King Louis IX of France and King Richard the Lionheart of England (p. 42, 46). Medieval iconography contains numerous images of rulers wearing kettle hats with crowns (e.g., the depiction of Louis IX in the so-called ‘Maciejowski Bible’). This information contrasts quite strongly with the earlier findings of Polish weaponry specialists who

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4 Nadolski 1975.
5 The exception is the article of Olgierd Ławrynowicz 2009.
6 E.g., Goll 2014.
7 Żabiński and Stefaniński 2014.
identified kettle hats with infantry and ordinary knights, strongly denying their use by, for example, members of the royal court.8

The next chapter, Structure and terminology of kettle hats, was devoted to issues of production (part 1, pp. 79-108) and terminology (part 2, pp. 108-116). The most relevant part is therefore part 1, in which the author divides kettle hats into two basic groups: segmental helmets made from several metal plates (group A, pp. 79-91), and the single-piece helmets (group B, pp. 91-108).

The first group, containing kettle hats with a composite structure (segmented) was divided into five subgroups (named A to E): A – with a rib, B – made from three pieces of metal, C – with a flat skull made from five pieces of metal, D – with a flat skull made from two pieces of metal, and E – made from one piece of metal.

Daniel Gosk uses both iconographic representations and artefacts to distinguish the different groups. While the division itself does not raise major objections, it is worth noting here the considerable difficulties in interpreting the iconographic representations. Similar problems were encountered earlier by Jan Pierzak in classifying great helmets, especially those variants with a flat skull, which were classified on the basis of iconographic representations alone.9 Also in the case of kettle hats, the interpretation of some depictions is very complicated, as demonstrated by the example of group E, i.e., helmets with a brim riveted to a one-piece skull (p. 83, 91). In this case, we technically have a helmet composed of two elements. Thus, where iconography shows a horizontal line separating the skull from the brim, it is difficult to establish whether this is simple tectonics or whether the helmet is made of two elements. In many cases such a clear distinction is not possible.

The second group – helmets with a skull formed from a single piece of metal – includes as many as eight subgroups (from A to I): A – with a ridge, B – with a comb, C – with a peak, D – with a spitz, E – domed skull, F – with visors, G – Burgundian, H – boat-shaped, and I – construction forms from the end of Middle Ages. Defining the various forms will not always be straightforward, and problems will certainly arise in distinguishing between kettle hats with a peak and those with a spitz.

It is also worth mentioning a disputable matter of adding to the group of the kettle hats with combs the specimen with relics of the purported ‘comb’ found at Pilcza Castle in Smoleń (p. 284, cat. no. 1.43). These structural elements were once identified as bevers of shallow kettle-type or sallet-type helmets,10 although not all researchers supported that classification.11

However, because only the lower fragment has survived (without the top of the skull), in addition to considerable damage to the artefact and its deformation makes it difficult to ascertain the type of the skull finish (whether with a comb or another form of topping). Thus, it seems there is not enough evidence for the author to classify the specimen from Pilcza Castle as a kettle hat with a comb.

Another issue is that of the helmet from the Maritime Museum in Gdynia. In the catalogue (p. 381, cat. no. 1.119) the author notes that ‘its general condition rather rules out its provenance as a collectible replica,’ yet in another place (p. 108) he concludes that ‘it is difficult to consider it unequivocally as a medieval object,’ without specifying the basis on which he makes this assertion. It is also regrettable that the author’s summary was not accompanied by a table listing in a chronological order the occurrence of each type and variant of kettle hat in the 13th-15th centuries.

The second part of chapter II contains an analysis of the names under which kettle hats appear in written sources. While terms such as ‘iron hats’ (capellum ferreum, pilleus ferreus, Eisenhut) or ‘kettle hats’ are widely known, caleptra, klobuczek, and pekilhube were interpreted in different ways. Probably the most interesting are the author’s findings concerning the co-occurrence of the terms caleptra and klobuczek in Polish sources. In the past, Jolanta Dankowa and Andrzej Nowakowski implied that the term caleptra referred to a type of basinet or basinet with a visor.12 However, its juxtaposition in the quote ‘pro caleptra alias klobuczek’ from the 1394 accounts of the court of Queen Jadwiga and King Władysław II Jagiello indicates that this was a type of kettle hat.

Furthermore, the above-mentioned annotation would also prove the use of this type of helmet by the royal court in Poland as well (sic!).

The author also tries to explain why the kettle hat appears in Polish sources under different terms, with pilleus ferreus and klobuczek appearing separately. Gosk proposes the interesting hypothesis that the phrase pilleus ferreus refers to helmets with a domed skull and a wide, perpendicular brim, whereas the klobuczek is a genus of helmets with a low, drooping brim and without a distinct skull (pp. 112-113). This is an interesting observation, the accuracy of which should be confirmed by further research.

8 Nowakowski 1990, 55.
9 See Pierzak 2005, cf. also the commentary: Michalak and Marek 2021, 125.
10 Głosek and Muzolf 2002, 42; see also Glinanowicz 2005, 148, Table V:3.
11 Ławrynowicz 2009, 188.
The term *pekilhube* is also discussed (pp. 113-114). Hitherto, helmets of this name have been identified mainly as basins with a spitz skull\(^\text{13}\) based on the observation made by Tadeusz Grabarczyk, who found such a helmet in a list of armaments from Alexander Severs’s rota of 1498.\(^\text{14}\)

According to Gosk, this term may refer to a broader group of headguards, which would be characterised by the presence of a skull with a spitz, irrespective of the type of helmet (i.e., it could apply to both basins and kettle hats).

The third chapter, *Production and costs of kettle hats*, reviews basic data on manufacturers, production stages, and surface colouring of kettle hats (pp. 129-140). The latter issue has already been studied in relation to production in Poland and in the State of the Teutonic Order, but the author undertakes it once again to characterise the process in detail, including its technological aspects. The discussion on production costs (pp. 140-143) is also not particularly new and does not provide information beyond what has already been published in other Polish literature on the subject.

The final chapter, *Kettle hats in Poland*, is dedicated to the discussion on the use of this type of helmet in the Polish military (including the territory of Silesia) in the Middle Ages and their significance for knights (pp. 151-155), urban contingents (pp. 155-160), and mercenary troops (pp. 160-164). A crucial point made by the author in this respect is the prevalence of this type of head protection among mounted knights, which has not been properly emphasised in Polish arms literature so far. On the other hand, the use of kettle hats by burghers and mercenary troops from the second half of the 15th century onwards is widely known and well documented, but also certainly worth emphasising.

The analytical part of the chapter is supplemented by an extensive, two-part catalogue, which includes 125 kettle hats from European and American collections (pp. 229-391) and 47 iconographic representations from the wider Polish lands showing the use of the kettle hats (pp. 393-467). The illustrations have been prepared with great care and are certainly a highlight of the publication. However, there are a number of inaccuracies in the catalogue concerning the dating of the helmets.

For example, helmets from the Germanisches Nationalmuseum in Nuremberg (pp. 271-272, cat. nos. 1.31 and 1.32) are identified by Daniel Gosk as collection copies, but cat. no. 32 was dated to the 19th-20th century, while cat. no. 31 was dated to the 15th century (an obvious mistake, since it must be either a collection copy or an original late medieval artefact). In another example, the author states that the helmet from the Museum of the Polish Army in Warsaw (p. 297, cat. no. 1.54) is a copy from the 19th-20th century. However, we find in the description of the artefact that there is a maker’s mark on the brim of the helmet, which seems to contradict Gosk’s dating, as he himself states in the *Introduction* (p. 18), that he considers helmets with maker’s stamps more likely to be originals.

Daniel Gosk’s book is a very solid study on one of the most important types of medieval helmets. It remains to be hoped that it will gain a much broader readership both in Poland and in Europe than a similar publication on pot helmets from Poland,\(^\text{15}\) which, as already mentioned, unfortunately was not favourably received by Polish arms and armaments researchers.\(^\text{16}\) In any case, in my opinion, Daniel Gosk’s study on medieval kettle hats is certainly worth recommending.

**References**


\(^{13}\) Most recently Głosek and Wasiak 2011.

\(^{14}\) Grabarczyk 2009, 448-450, Figs. 2-4; Grabarczyk 2015, 93-95.

\(^{15}\) Pierzak 2005.

\(^{16}\) Highly critical, for example, Michalak and Marek and 2021, 125.


