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## LATE MEDIEVAL BATTLE-AXES WITH TANGS FROM THE POLISH LANDS. A COMPONENT OF TATAR OR LOCAL WEAPONRY?

Large battle-axes with tangs figure prominently among the most exotic and unique forms of weaponry which appear in Central and Eastern Europe in the Middle Ages. Arms of this type are so difficult to interpret that they were not included in the most recent publication on late medieval shock weapons from the Polish lands<sup>1</sup>. The tanged axe was first noticed by Central European researchers thanks to the monograph of medieval arms and armour of the Steppe people in the 12<sup>th</sup>–14<sup>th</sup> centuries written by W. Świętosławski. Discussing Mongol battle-axes, the author called attention to a unique, fan-shaped find unearthed in the thirteenth-century layer at Karakorum. A similar artifact with haft remains was also found east of Lake Baikal<sup>2</sup>. Analyzing traces of Tatar presence in Central Europe in the thirteenth century, the author did not record a single battle-axe with tang<sup>3</sup>. Consequently, the assumption that finds of this type, scarce in the Asian Steppe, had never been used in Europe seemed justified. However, after the publication of both mono-

graphs by the Łódź arms researcher, it turned out that such battle-axes were in fact quite numerous in Polish territory, which made the authors of the present paper attempt to present all discovered finds.

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The source basis for our discussion of this category of arms is relatively rich. The total number of tanged battle-axes discovered in Poland has increased to at least 16 (Fig. 1). What is more, two further items can tentatively be included. The finds can be divided into two types similar in construction.



Fig. 1. Distribution of axes with tangs in the Polish lands. 1. Będzin, Będzin district; 2. Beszowa, Staszów district; 3. Borówek, Łowicz district; 4. Ludwinowo, Włocławek district; 5. Michałowo, Aleksandrów Kujawski district; 6. Opole, Opole district; 7. Przemyśl, Przemyśl district; 8. Pukarzew, Radomsko district; 9. Sadłów, Rypin district; 10. Solec on the Vistula, Solec district; 11. Świebodzin, Świebodzin district; 12–13. Trzpieciny, Zamość district; 14–15. Żary, Żary district.

<sup>1</sup> M. Głosek, *Późnośredniowieczna broń obuchowa w zbiorach polskich (Late Medieval Shock Weapons in Polish Collections)*, Łódź 1996. This may be connected with the fact that such axes could hardly be regarded as shock weapons in the classical meaning of his term. In the finds in question it was only the blade that performed a practical function. A blow struck with the “head” made of thin sheet iron must have been highly ineffective.

<sup>2</sup> W. Świętosławski, *Uzbrojenie koczowników Wielkiego Stepu w czasach ekspansji Mongołów XII–XIV w. (Arms and Armour of the Steppe Nomads at the Time of the Mongol Expansion in the Twelfth-Fourteenth Centuries)*, Łódź 1996, p. 38, plate XV:4–5; by the same author, *Arms and Armour of the Nomads of the Great Steppe at the Time of the Mongol Expansion*, Łódź 1999, pp. 55–56, illustration. XV:4–5.

<sup>3</sup> W. Świętosławski, *Archeologiczne ślady najazdów tatarskich na Europę Środkową w XIII w. (Archaeological Traces of the Tatar Invasions of Central Europe in the Thirteenth Century)*, Łódź 1997.

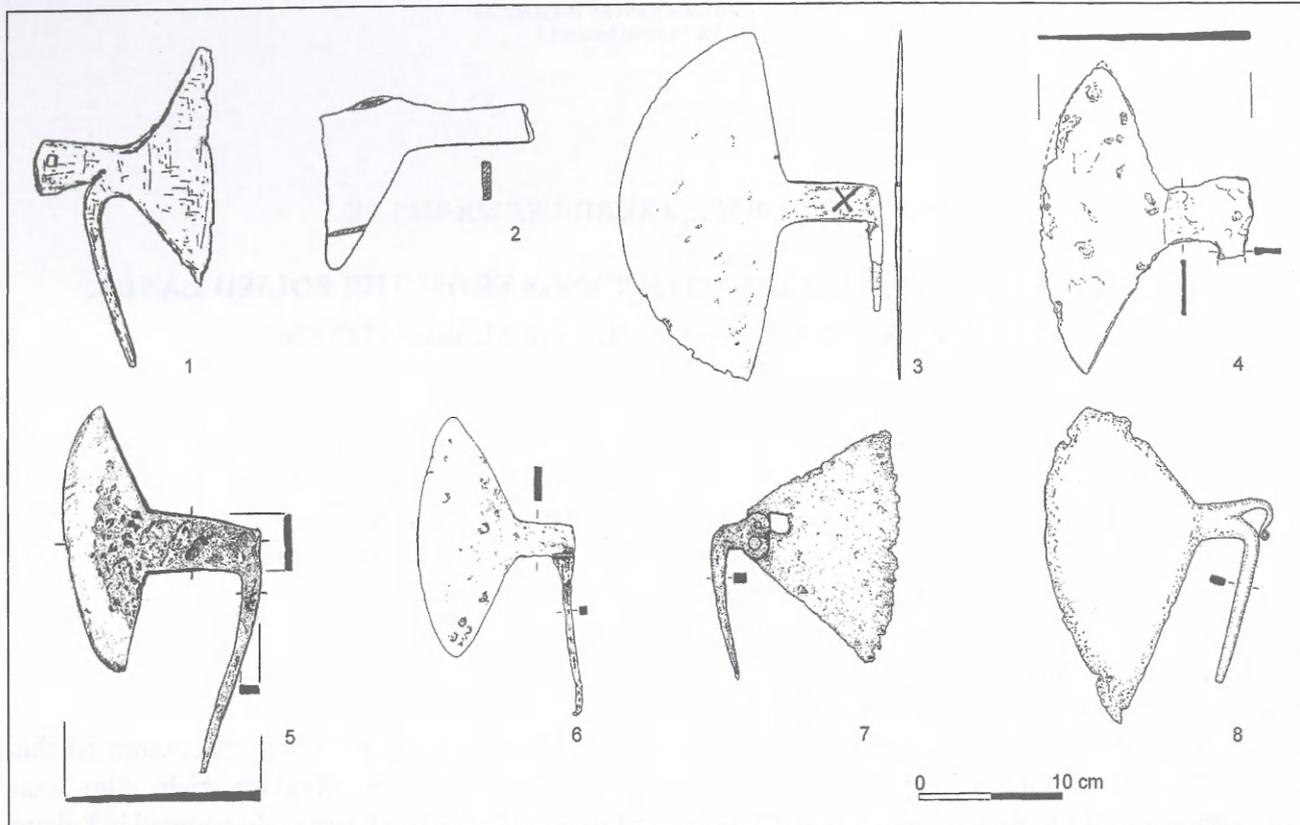


Fig. 2. Type I axes with tangs: 1. Beszowa, Staszów district; 2. Borówek, Łowicz district (not to scale); 3. Przemyśl, Przemyśl district; 4. Pukarzew, Radomsko district; 5. Solec on the Vistula, Solec district; 6. Świebodzin, Świebodzin district; 7–8. Trzepieciny, Zamość district.

Type I is comprised of items with a characteristic, broad, usually symmetrical, fan-shaped blade, which changes into a clearly distinct neck, rectangular in cross-section, and a perpendicularly placed tang tapered from front to rear (Fig. 2). Ten axes belong to this type, half of which come from archaeological excavations. Regrettably, the remaining three items are random finds. In addition, because of their state of preservation, the current status of two other specimens is highly hypothetical and for this reason they could be classified as either Type I or other types.

Undoubtedly, among the first group are fragmentary remains of a find unearthed during excavations on the mound at Bobrówek, Łowicz powiat (county)<sup>4</sup> (Fig. 2:2). Unfortunately, no detailed information about this discovery has been revealed so far. That is also the case with the specimen from Będzin, Będzin powiat, found during

the excavations conducted at Będzin Castle by W. Błaszczuk in the years 1955–1957<sup>5</sup>. Another fully preserved find was discovered in the uppermost layer of the dump hole during the excavations carried out by M. Gajewska and J. Kruppé in the market square at Solec, Lipsko powiat, site 2<sup>6</sup> (Fig. 2:5). A few years ago, in 1998, during the rescue excavations in Świebodzin, Świebodzin powiat, another battle-axe of this type was unearthed in Głogowska Street (site 16) (Fig. 2:6). No more archaeological material was found in this layer<sup>7</sup>. The most recent discove-

<sup>4</sup> A. Kosiorek, „Dwór na kopcu” w Borówku. Wyniki badań archeologicznych (‘Manor on the Hillock’ at Bobrówek. Archaeological Research Results), „Prace i Materiały Muzeum Miasta Zgierza”, vol. 3–4, 2002, p. 231, plate IV: 2.

<sup>5</sup> A. Rogaczewska, *Będzin*, [w:] *Skarby ziemi wydarte. Górny Śląsk i pogranicze (Treasures Torn Away from the Earth. Upper Silesia and the Borderland)*, Katowice 2005, p. 118.

<sup>6</sup> M. Gajewska, J. Kruppé, *Prace archeologiczne przeprowadzone w Solcu nad Wisłą, pow. Lipsko w 1962 roku (Archaeological Excavations Conducted in Solec on the Vistula, Lipsko powiat, in 1962)*, „Kwartalnik Historii Kultury Materialnej”, vol. 12/1, 1964, pp. 54–55, figs. 11:6.

<sup>7</sup> S. Kałagate, *Sprawozdanie z badań ratowniczych w Świebodzinie, stan 16 (Report on the Rescue Excavations in Świebodzin, Site 16)*, a typewritten copy at the archive of the Archaeological Museum of the Central Oder Region,

ry of this kind comes from Ludwinów, Włocławek powiat<sup>8</sup>.

The rest are random finds coming from ancient excavations and accidental contemporary discoveries. For example, a fully preserved specimen was found at Beszowa, Staszów powiat, during the surface researches conducted by E. Majewski in the years 1892–1902 (Fig. 2:1)<sup>9</sup>. Recently, a well preserved axe was excavated in the old riverbed of the San River, the so-called ‘Old San’, in Przemyśl, Przemyśl powiat (Fig. 2:3). The find was found in the mud layer at a depth of approximately 7 m and was probably removed together with the skeleton of a horse and perhaps a human skeleton as well as a number metal objects, one of which resembled a small spearhead with a sleeve<sup>10</sup>. Another partially preserved axe with its tang broken off is held in the collection of the Archaeological Museum in Cracow. According to the archive material, it was found at Pukarzew<sup>11</sup>, Radomsko powiat (Fig. 2:4) and presented to the Museum by Count S. Potocki. The surface researches conducted at the illegal sand pit in Trzepociny, Zamość powiat, site 4, produced most interesting results. Two battle-axes belonging to the type in question were discovered (Figs. 2:7–8)<sup>12</sup>.

1998. We would like to thank S. Kalagate, MA, from the Archaeology and Restoration Workshop of Alina Jaszewska, MA, in Żary for permission to publish this find.

<sup>8</sup> We would like to thank I. Marchelak, MA, from the Professor Konrad Jażdżewski Archeological Research Foundation in Łódź, conducting the excavations at Ludwinów, for information about this find.

<sup>9</sup> E. Dąbrowska, *Studia nad osadnictwem wczesno-średniowiecznym ziemi wiślickiej (Studies in Early Medieval Settlements in Wiślica District)*, Wrocław–Warszawa–Kraków 1965, pp. 67, 180–182, fig. 1:1.

<sup>10</sup> A. Kita, A. Kokowski, *Znalezisko ze „Starego Sanu” w Przemyślu (A Find from the ‘Old San River’ in Przemyśl)*, „Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego”, vol. 24, 2003, p. 355.

<sup>11</sup> The inventory card contains the name Pukarzew. However, no such place is to be found in Poland. Most probably, the object comes from the village of Pukarzew. T. Bochanak arrives at the same conclusion, *Broń ludności kultury przeworskiej z młodszego okresu przedrzymskiego w zbiorach Muzeum Narodowego w Krakowie (Weaponry of the Przeworsk Culture People from the Early Pre-Roman Period in the Collection of the National Museum in Cracow)*, „Materiały Archeologiczne”, vol. 33, 2002, p. 5.

<sup>12</sup> B. Balcer, J. Machnik, J. Sitek, *Z pradziejów Rostocza na ziemi zamojskiej (From the Prehistory of Rostocze in Zamość District)*, Kraków, pp. 88, 138, 147–148, Fig. 54:1–2.

Moreover, the fragmentary remains of the find discovered during the excavations of 1938<sup>13</sup> conducted in Cathedral Square in Poznań, Poznań powiat, and a fragment of a blade unearthed in excavation V in Court Square in Wrocław, Wrocław powiat, might have belonged to Type I as well<sup>14</sup>. The strongest argument for such categorization of both finds would be their fanlike blades and the fact that they were made of thin pieces of sheet metal. Regrettably, the state of preservation of the artifacts makes the above assumption impossible to prove.

Despite the apparent similarities, several of the axes have some unique qualities. For example, the axe from Beszowa, one of the axes from Trzepieciny and the find from Ludwinów have a distinct ‘head’. Another weapon from Trzepieciny has a separately made blade attached to the neck by means of two rivets. It may also be noted that there is a slanting cross cut in the neck of the axe from Przemyśl and that a fragment of the haft has survived on the tang of the find from Świebodzin.

Generally speaking, the majority of finds coming from Polish territory date back to the thirteenth-seventeenth centuries. It should, however, be borne in mind that the thirteenth century items, which in fact date from the end of the first half or the second half of the thirteenth century, for instance, the axes from Przemyśl and Trzepieciny, are random finds and have been dated on the basis that they are analogues with the specimens from Karakorum. In addition, in the case of the Przemyśl axe, some thirteenth-fourteenth century analogues from Bulgaria can be quoted and therefore the find might be of, for example, Old Magyar provenance<sup>15</sup>. The artifact from Solec on the Vistula is much easier to date. It was unearthed in the lowest layers of a ditch filled with rubble coming from a building dated at the fourteenth century. Next to

<sup>13</sup> W. Hensel, E. Niesiołowska, J. Żak, *Badania na Placu Katedralnym w 1938 r., Excavations in Cathedral Square in 1938*, [in:] *Poznań we wczesnym średniowieczu (Poznań in the Early Middle Ages)*, vol. 1, ed. W. Hensel, Warszawa–Wrocław 1959, p. 43, plate XI:1.

<sup>14</sup> J. Bresch, C. Buśko, *Badania na Placu Sądowym (wykop nr IX) (Excavations in Court Square (Dig No. IX))*, [in:] *Rynek wrocławski w świetle badań archeologicznych. cz. I (The Market Square in Wrocław in the Light of Archaeological Research. Part I)*, “Wratislavia Antiqua”, vol. 3, 2001, pp. 110–111, 120, fig. 34:f.

<sup>15</sup> B. Balcer, J. Machnik, J. Sitek, *Z pradziejów Rostocza...*, pp. 138, 147–148; A. Kita, A. Kokowski, *Znalezisko ze „Starego Sanu”...*, pp. 355–359.

it there were two horseshoes belonging to Types IV/2 and VII/1 (after J. Kaźmierczyk)<sup>16</sup>. The find from Ludwinów can be dated precisely as well. It was discovered in a cavity next to pieces of fifteenth-century ceramics. The axe from Borówek was dated by A. Kosiorek at the sixteenth century on the basis of the analogue from Solec on the Vistula, which in turn had been dated at the fourteenth century. Most probably, the stronghold at Borówek functioned from the beginning of the 15<sup>th</sup> to the first half of the seventeenth century<sup>17</sup>. Thus, the item in question should be dated at the same period. Regrettably, the chronology of the find from Świebodzin cannot be satisfactorily established. It has been dated at the second half of the fifteenth or the beginning of the sixteenth century on the basis of the identical stratigraphy, which cannot be considered as decisive through lack of other finds in the layer. The remaining specimens, for example the axe from Pucharzów<sup>18</sup>, cannot be dated and they are generally referred to as medieval battle-axes (Będzin, Beszowa<sup>19</sup>).

Similar battle-axes have also been discovered outside Poland. Undoubtedly, the thirteenth-century find from Karakorum, Mongolia<sup>20</sup>, seems

<sup>16</sup> M. Gajewska, J. Kruppé, *Prace archeologiczne...*, pp. 54–55, fig. 11:1–2; J. Kaźmierczyk, *Podkowy na Śląsku w X–XIV wieku. Studia z dziejów kultury materialnej (Horseshoes in Silesia in the Tenth–Fourteenth Centuries. Studies in the History of Material Culture)*, Wrocław–Warszawa–Kraków–Gdańsk 1978, pp. 77 and 105.

<sup>17</sup> A. Kosiorek, “*Dwór na kopcu*”..., p. 231.

<sup>18</sup> Among the numerous finds coming from this site and dated by Potocki, spurs with star-shaped rowels of late types (15th century) are the most prominent group. One of them was published by S. Kołodziejski, *Les éperons à molette du territoire de la Petite Pologne au Moyen Âge*, [in:] *Mémoires Archéologiques*, A. Kokowski, ed., Lublin, 1985, fig. 8:1, where the place is referred to as Pukarzew.

<sup>19</sup> A. Rogaczewska, *Będzin (Będzin)*, p. 118. Publishing the find from Beszowa, E. Dąbrowska suggested that the object might date back to the Middle Ages. The interesting thing is that a type Vc bearded axe with cap, after A. Nądolski, a knife, carnelian, glass and clay beads, clay, limestone and Owrucki slate whorls, as well as fragments of pottery were unearthed on the same site. The inventory of the finds led the researcher to believe that the site might have been a destroyed burial ground, broadly dated at the 10th–12th centuries. However, any connection of the find in question with the remaining objects was excluded — E. Dąbrowska, *Studia nad osadnictwem...*, pp. 180–182.

<sup>20</sup> S. V. Kiselev, N. Ya. Merpert, *Zheleznye i chugunnye izdelia Kara-Koruma*, [in:] *Drevnemongolskie goroda*, Moskva 1965, p. 206, fig. 110; W. Świętosławski, *Uzbrojenie koczowników...*, p. 38, plate XV:4.

to be of primary importance. It is assumed that such axes were first used by the Dzungar people and only then introduced into Mongolia. Twelve tanged battle-axes have been unearthed at strongholds built by the Dzungar people so far. A. R. Artemev is of the opinion that they may have been brought to Mongolia and Rus by the Dzungar people themselves. According to records, Dzungar troops were among Mongol forces<sup>21</sup>. However, the largest collection of such weapons is to be found in Western Ukraine, mostly in the Volyn region. S. Terskiy quotes thirteen examples of such finds, four of which come from Luchesk, Volinsk oblast (provice), three from Halich-Krilos (Halich), Ivano-Frankivsk oblast, two from Volodimir (Polish Włodzimierz Wołyński), Volinsk oblast. The other finds were discovered at Kremanch (Polish Krzemieniec), Ternopilsk oblast, Holovno (Polish Gołowno) and Lubomil, Volinsk oblast. The author believes that this type of weapon developed in the thirteenth–fourteenth centuries under the influence of ideas coming from the east and as a result of wide contacts with the Golden Horde. Unfortunately, like the ‘Polish’ specimens mentioned above, most of these objects are accidental finds. The item from Luchesk was discovered in the layer dating from the turn of the fourteenth century<sup>22</sup>. Similarly, the weapons from Halich date back to the Late Middle Ages<sup>23</sup>. A single axe was unearthed in the fifteenth-century layer in the backyard at the stronghold of Mstislavl (Polish Mścisław), Magileu oblast, eastern Belarus<sup>24</sup>. It is characterized by a clearly lengthened neck, which was unusual for this type of weapon.

<sup>21</sup> A. R. Artemev, *Problemy vydelenia mongolo-tatarskogo kompleksa vooruzhenia sredi drevnerusskikh materialov XIII v.*, [w:] *Vostochnaya Evropa v Srednevekove*, Moskva 2004, p. 149.

<sup>22</sup> S. Terskiy, *Z istoriyi ukraynskoy zbroyi XIII–XVIII st.: sokiri-berdishí ta alebardi*, “*Visnik Natziionalnogo Universitetu Lvivska Politehnika*”, vol. 528, Lviv 2005, pp. 18–19, figs. 1:2–10, 12–14; also cf.: S. V. Terskiy, *Archeologiya dobi Galitzkho-Volinskoy derzhavi*, Lviv 2002, p. 54, fig. 27. Among the tanged axes shown in fig. 1 in S. Terskiy’s work of 2005 r. picture No. 7, depicting one of the finds from Halich, is missing. Probably, it is the specimen published by M. Figol, *Mistectvo starodavnogo Galicha*, Kiev 1997, p. 188.

<sup>23</sup> S. Terskiy, *Z istoriyi ukrainskoy...*, p. 18; also cf.: M. Figol, *Mistectvo starodavnogo...*, pp. 188, 201, where it is dated at the 13<sup>th</sup> century.

<sup>24</sup> S. Terskiy, *Z istoriyi ukrainskoy...*, p. 19, fig. 1:11.

Several objects of this type come from Czech territory and Slovakia. Two of them were found during the excavations of farms V and XVI at the abandoned village of Mštenice, near Hrotovice, Třebíč kraj (region), the Czech Republic<sup>25</sup>. Their chronology was never established. It may only be noted that a number of characteristic late medieval objects were discovered on farm XVI. The item found at Markvarec, Louny kraj, also dates back to the fifteenth century<sup>26</sup>. In addition, two other, most probably medieval, axes come from the abandoned village of Konůvky, Vyškov kraj<sup>27</sup>. In Slovakia, two similar finds were unearthed on the late medieval sites at Velký Šariš (Šariš Castle), Prešov kraj, and Selec–Hradisko, Trenčín kraj<sup>28</sup>. They do not differ from the items discussed above. However, the find from Šariš Castle has got an eye or a hook attached to it where the neck and the tang meet. It is bent towards the blade and resembles the detail on item from Trzepieciny. In addition, the battle-axe from Markvarec has a bow-shaped neck.

A number of specimens come from Bulgaria. One of them was found at Cherven Fortress, Ruse oblast (province), inside temple 9 and was dated at the turn of the thirteenth century<sup>29</sup>. The other

two battle-axes discovered in the Bulgarian lands were unearthed at the medieval fortress of Carevec, situated at Trnovo, Veliko Trnovo oblast<sup>30</sup>.

Type II is comprised of battle-axes characterized by compact bodies. They have slightly widening blades attached directly to relatively short, perpendicularly formed tangs. Items of this type correspond to axes with distinct sockets. There are six such weapons, four of which come from archaeological excavations. The two remaining objects are random finds. (Fig. 3)

The axe from the stronghold on 'Ostrówek' in Opole, Opole powiat, was the first weapon of this type published (fig. 3:2). It was discovered in the construction layer No. I<sup>31</sup>. Regrettably, information about another tanged artifact (fig. 3:3) discovered at the castle in Sadłów, Rypin powiat<sup>32</sup>, is scarce. Two further battle-axes come from Żary, Żary powiat. One of them (fig. 3:4) was discovered at the end of Traugutta Street, in a cultural layer containing materials, waste products and parts of leather shoes<sup>33</sup>. The other tanged battle-axe was unearthed in Osadników Wojskowych Street, not far away from the first find, in an archaeological layer (stratum unit 113) during the archaeological excavations conducted by K. Kamiński, MA, in 2005. It was badly damaged, probably as a result of a fire<sup>34</sup>. In September 2002, in the fields belonging to the former National Agricultural Farm in the village of Michałowo,

<sup>25</sup> R. Nekuda, V. Nekuda, *Mstěnice. Zaniklá středověká ves u Hrotovic. Part 2. Dům a dvůr ve středověké vesnici*, Brno 1997, p. 86, fig. 151:8–9; also cf.: M. Slivka, *Človek ako kompozitum a persona „kus mäsa“ vo vzťahu k zvieraciemu mäsu*, [in:] *Mäsiarstvo a údenárstvo v dejinách Slovenska*, Martin 1999, p. 52, fig. 4:4.

<sup>26</sup> L. Čepička, V. Dolinek, *Výběrový katalog expozice Vojenského historického muzea*, ed. Praha 1991, p. 18 — item. 14.

<sup>27</sup> L. Belcredi, *Zemědělské a řemeslnické nástroje na zaniklých středověkých osadách*, 'Archaeologia Historica', vol. 8, 1983, p. 419, plate IV:4, where the place is wrongly referred to as Mstěnice. Belcredi wrongly considered this partly preserved artifact (plate IV:5) to be the axe from Konůvky — see: Z. Měchurová, *Železné předměty ze zaniklé středověké vsi Konůvky na Slavkovsku (okr. Vyškov)*, 'Acta Musei Moraviae', vol. 80, 1995, p. 154, plates IV:15 i V:9; M. Slivka, *Človek ako kompozitum...*, p. 52, figs. 4:3. This axe does not correspond to the objects from above-mentioned Mstěnice. It should, however, be assumed that at least one more find was unearthed in the Czech Republic or Slovakia.

<sup>28</sup> M. Slivka, *Človek ako kompozitum...*, p. 52, fig. 4:1–2.

<sup>29</sup> V. Nesheva, *Metaloobrabotvane, uvelurstvo, predachestvo, shivachestvo, tyakachestvo i obushcharstvo, obrabotka na kost, dyarvoobrabotvane. Selsko, stopanstvo i ribolov*, [in:] *Srednovekovnyat Cherven*, vol. 1, Sofia 1985, p. 183, fig. 32; Kita, Kokowski, *Znalezisko ze 'Starego Sanu'...*, p. 355.

<sup>30</sup> A. Nikolova, *Domashniat bit i vyaoryazhenieto v dvoreca na Carevec spored arheologicheskia material*, [in:] *Carevgrad Tyrnov, dvorecyat na bolgarskite care prez vtorata byalgraska drzhava*, vol. 2, Sofia 1974, pp. 295, 369; Kita, Kokowski, *Znalezisko ze 'Starego Sanu'...*, p. 355.

<sup>31</sup> K. Wachowski, *Militaria z grodu na Ostrówku w Opolu (Military Accessories from the Stronghold on Ostrówek in Opole)*, [in:] *Studia nad kulturą wczesnopolskiego Opola. Militaria-wyroby bursztynowe (Studies in the Culture of Early Polish Opole. Military Accessories and Amber Artifacts)*, Wrocław–Warszawa–Kraków–Gdańsk–Łódź 1984, p. 17, fig. 5.

<sup>32</sup> E. Dziubek, L. Kajzer, *Kultura materialna mieszkańców zamku (The Material Culture of Castle Dwellers)*, [in:] *Zamek w Sadłowie na ziemi dobrzyńskiej (The Castle at Sadłów in Dobrzyń District)*, 'Budownictwo obronno-rezydencjonalne Kujaw i Ziemi Dobrzyńskiej' 6, Rypin 2004, p. 202, fig. 36:8.

<sup>33</sup> J. T. Nowiński, *Żary. Archeologiczne fragmenty z dziejów miasta (Archaeological Fragments from the Town's History)*, Żary 2005, p. 56, photo 20.

<sup>34</sup> The authors would like to thank K. Kamiński, MA, for permission to publish this find.

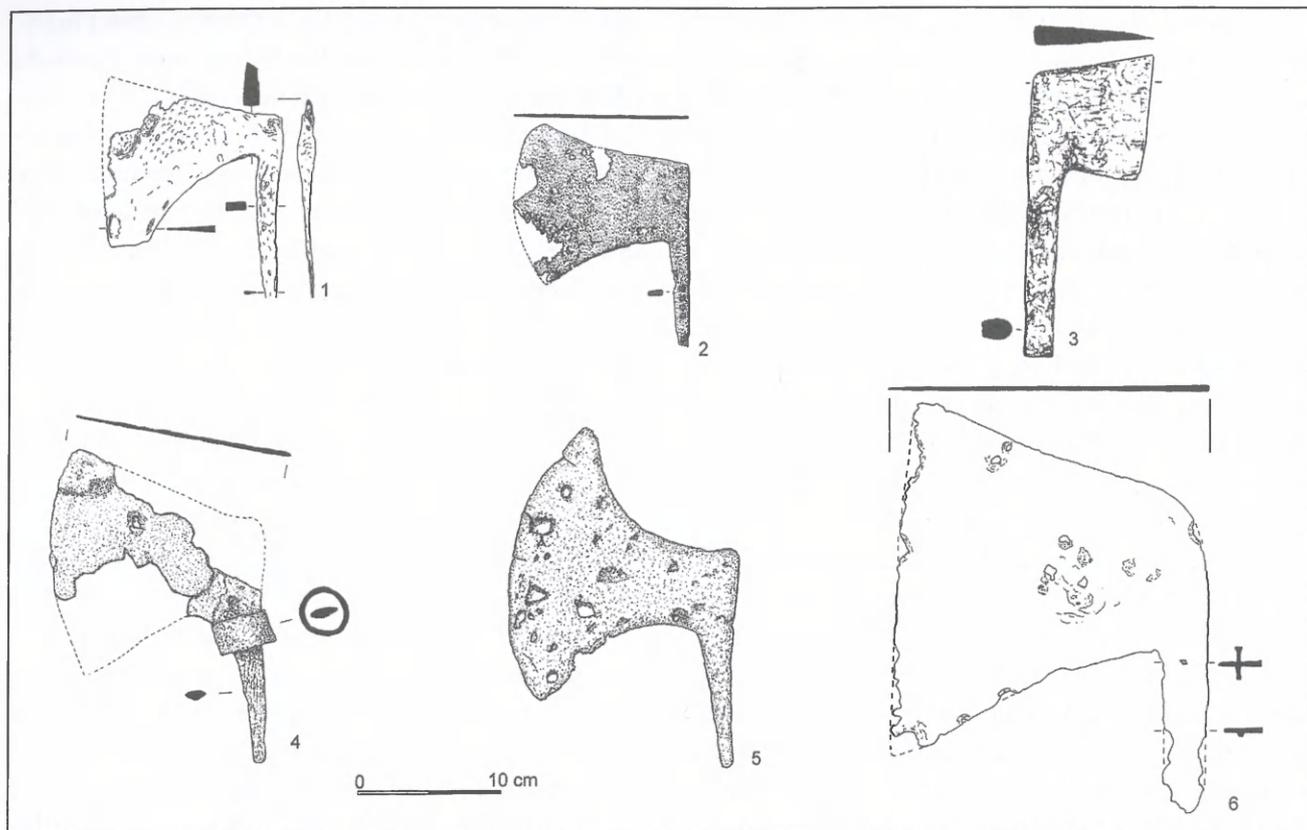


Fig. 3. Type II axes with tangs: 1. Michałowo, Aleksandrów Kujawski district; 2. Opole, Opole district; 3. Sadłów, Rypin district; 4–5. Żary, Żary district; Unknown site (collection of the Archaeological Museum in Cracow).

Aleksandrów Kujawski powiat, (fig. 3:1) another axe of this type was accidentally discovered by means of a metal detector. According to its finder, the weapon was lying directly below the surface of the old road<sup>35</sup>. The last large battle axe with tang presented in this paper can be found in the collection of the Archaeological Museum in Cracow (fig. 3:6). Unfortunately, the origin of this find remains unknown<sup>36</sup>.

Like in the case of Type I, some of the axes belonging to Type II possess certain unique characteristics. For example, the object from Michałowo has a blade shaped in such a way that it looks like a bearded axe. The damaged specimen from Żary is equipped with a ring used to attach the tang to the haft. The find of unknown provenance has two fragmentarily preserved rivets on its mas-

sive bar (used instead of a tang) which were also used as a fixing device. The other find from Żary has a wide fan-shaped blade, corresponding to that of Type I. However, lack of a distinct neck, a short tang as well as the overall proportions suggest that the weapon in question belongs to Type II<sup>37</sup>. Four round points can be seen on the tang of the axe from Opole. They may be interpreted as either ornamental details or openings for attaching the haft (?)<sup>38</sup>. Finally, the find from Sadłowo has a clearly lengthened tang.

The chronology of Type II is difficult to establish. The battle-axe from Żary is relatively easy to date, as it was discovered among items dating back to the first half of the fourteenth century. The other, unpublished, find coming from the same site can be dated by means of analysis of

<sup>35</sup> The Director and the Archaeological Department of the Historical Museum in Sanok would like to express their gratitude to Mr Włodzimierz Zduńczyk from Warsaw for presenting the Museum with finds from Michałów.

<sup>36</sup> The authors wish to thank Elżbieta Chochorowska, MA, Joanna Arct and Radosław Liwoch, MA, from the Archaeological Museum in Cracow for permission to use this find and the specimen from Pukarzędz.

<sup>37</sup> The possibility that the find is a transitory form between type I and type II cannot be excluded. However, because of the fact that only one such specimen has been unearthed so far, it has not been classified as transitory type I/II.

<sup>38</sup> This solution was suggested by A. Kita i A. Kokowski; who, however, mention only three openings for rivets, A. Kita, A. Kokowski, *Znalezisko ze 'Starego Samu'...*, p. 355.

the archaeological layer where it was discovered. The layer is tentatively dated to the end of the thirteenth and the beginning of the fourteenth century. The axe from Michałów was found together with a Type IV/1 horseshoe (after J. Kaźmierczyk)<sup>39</sup>. Because of the random character of the find, the author can only tentatively date the find at the second half of the thirteenth or the fourteenth century. Regrettably, the specimen from Sadłów cannot be dated precisely. The authors of the present paper place it among objects broadly dated at the end of the fourteenth or the first half of the seventeenth century.<sup>40</sup> Further, construction layer No. I in Opole is broadly dated at the period between the fourteenth century and post-medieval times<sup>41</sup>. Using the well-dated find from Żary as the reference point, the remaining specimens can be roughly assigned to the same or similar period. Type II is hardly ever found outside Poland. One of the scarce foreign artifacts published in the scientific literature is a battle-axe coming from the region east of Lake Baikal. It has a well preserved haft and a blade lengthening upwards. Unfortunately, the find is not precisely dated. The fact that W. Świątosławski places this weapon among nomad accessories of the twelfth-fourteenth centuries implies this chronology<sup>42</sup>. A similar axe connected with the Mongol expansion was discovered during the excavations carried out at the stronghold of Stara Râzania, Râzan oblast, Russia. It is characterized by a deeply cut blade, distinct at the bottom, and a short neck joined to its tang<sup>43</sup>.

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In the majority of publications the objects discussed in the present paper are identified as axes. Of course the term is to be considered as hypothetical. Axes are classified as shock weapons

and the specimens discussed here are not equipped with the most characteristic part of a shock weapon, the head. Nonetheless, the use of this term seems well justified because of the main function performed by these objects, which was also decisive in the case of other axes. It is not surprising that in the majority of publications dealing with this category of arms, the authors had difficulty interpreting and classifying the finds. In the ancient literature such weapons used to be wrongly identified as halberds<sup>44</sup>. Discussing the artifact from Żary, J.T. Nowiński argues that it was a specialized axe-shaped knife made of thin sheet metal, used for cutting skins and leather. L. Belcredi, Z. Měchurová and M. Slivka interpret the specimens coming from Czech and Slovakian territory in a similar way<sup>45</sup>.

According to another interpretation, axes of this type coming from western Ukraine were the prototypes of the broad axe (berdish). S. Terskiy, the author of this hypothesis, negates their potential economic functions. Further, he supports the hypothesis that axes were two-handed weapons with a long haft. In addition, the large size of the axe suggests that the weapon was used mainly by the infantry and not the cavalry<sup>46</sup>. Unfortunately, the above hypothesis seems unconvincing. All broad axes are equipped with classical sockets and mostly asymmetrical blades supported by the haft because of the two-handed character of the weapon<sup>47</sup>. Thus, any attempts at establishing connections between the two categories of finds are highly tentative though the possibility that they exist cannot be ruled out<sup>48</sup>.

<sup>39</sup> E. Dąbrowska, *Studia nad osadnictwem...*, p. 67; Ya. Nikolova, *Domashnyat bit i vyaoryazhenieto*, pp. 295, 369; V. Nesheva, *Metaloobrabotvane...*, p. 183; Cf.: A. Kita, A. Kokowski, *Znalezisko ze 'Starego Sanu'...*, p. 355; A. Kosiorek, *'Dwór na kopcu'...*, p. 231.

<sup>40</sup> L. Belcredi, *Zemědělské a řemeslnické...*, p. 419; by the same author, *Terminologie, třídění a kód středověkých kovových předmětů*, 'Archaeologia Historica', vol. 14, 1989, p. 454, plate 5:2.19; Z. Měchurová, *Železné předměty...*, p. 154; M. Slivka, *Človek ako kompozitum...*, p. 52.

<sup>41</sup> S. V. Terskiy, *Archeologiya dobi...*, p. 54; S. Terskiy, *Z istoriy ukrainskoy...*, pp. 18–19.

<sup>42</sup> H. Seitz, *Blankwaffen I*, Braunschweig 1965, pp. 241–243, abb. 154:I, 159–160, 299–300.

<sup>43</sup> The find from Holovno presented by the author seems to be closely related to broad axes. Its decorative (?) turned up blade top may have served as a support on the haft, S. Terskiy, *Z istoriy ukrainskoy...*, fig. 1:13.

<sup>39</sup> J. Kaźmierczyk, *Podkowy na Śląsku...*, p. 73.

<sup>40</sup> E. Dziubek, L. Kajzer, *Kultura materialna...*, p. 206.

<sup>41</sup> K. Wachowski, *Sredniowieczna broń miotająca na Śląsku w świetle znalezisk na Ostrówku w Opolu (Medieval Projectile-Throwing Weapons in Silesia in the Light of Finds from Ostrówek in Opole)*, 'Archeologia Polski', vol. 27, 1982, plate I.

<sup>42</sup> W. Świątosławski, *Uzbrojenie koczowników Wielkiego Stepu...*, p. 38, plate XV:5; by the same author, *Arms and armour...*, p. 55, plate XV:5.

<sup>43</sup> A. R. Artemev, *Problemy vydaleniya...*, p. 149, fig. 3: 2.

K. Wachowski is of the opinion that the object from Opole performed a symbolic function. The researcher considers it a purely artistic artifact and negates its battle or practical functions. S. V. Kiselev and N. Ya. Merpert perceive the function of the Karakorum axe in a similar way<sup>49</sup>. Also L. Kajzer excludes the possibility that the axe from Sadłów was used in battle and interprets the find as a carpenter's hatchet<sup>50</sup>. A. Kita and A. Kokowski disagree with the above statements, arguing that the axe may have performed a military function. Having a relatively broad blade and a short haft, it must have been as effective as an axe equipped with a classical socket.<sup>51</sup>

Because of their shape, resembling modern choppers used for cutting meat, the finds in question are sometimes believed to have been used for this purpose<sup>52</sup>. Although the supporters of this thesis have provided no evidence, their interpretation is not to be refuted. Axes which are similar in form have been discovered in Hungarian territory and have been dated at the end of the thirteenth or the fifteenth century. In this case, the main difference lies in the fact that the neck and tang were placed at the bottom part of the lengthened blade. Sometimes the specimens mentioned above have parts analogous with the axes discussed in the present paper, for example a snail-shaped eye, hook or hoop iron<sup>53</sup>. Further, similar, fourteenth or fifteenth century artifacts have been discovered in Slovakia<sup>54</sup>. Probably, both categories of finds had similar ancestors and at least part of the ob-

jects presented here functionally corresponded to choppers<sup>55</sup>.

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Generally speaking, the chronological framework of this category of finds extends over the thirteenth and the fourteenth centuries. However a number of questions have remained unanswered: When, which way and how did they reach Polish territory? Is their appearance a result of a direct invasion or an import? Are they a local product being a consequence of a foreign idea? Having at our disposal only very scarce and dubious sources, the above questions seem difficult to answer. A. Kita and A. Kokowski's hypothesis about the possible connection between the axes discussed here and the ninth-tenth century Magyars does not seem plausible<sup>56</sup>. The authors based their assumption upon the find from Przemyśl, which is the only evidence of the fact that tanged axes were used by the Magyars. No such objects or, at least, similar artifacts are mentioned in contemporary records and inventory lists of the people of the Pannonian plain<sup>57</sup>. According to another hypothesis formulated by the same researchers about Bulgarian specimens, axes with tangs might have appeared in the Bulgarian lands as a result of con-

<sup>49</sup> K. Wachowski, *Militaria z grodu...*, p. 17; S. V. Kiselev, N. Ya. Merpert, *Zheleznye i chugannye...*, p. 206.

<sup>50</sup> E. Dziubek, L. Kajzer, *Kultura materialna...*, p. 202.

<sup>51</sup> A. Kita, A. Kokowski, *Znalezisko ze 'Starego Sanu'...*, p. 355. In extreme cases, such axes were classified as throwing weapons. This interpretation, however, seems improbable because of the poor stability and relatively large size of a great number of finds — cf.: *Výběrový katalog...*, p. 18 — item. 14.

<sup>52</sup> B. Balcer, J. Machnik, J. Sitek, *Z pradziejów Roztocza...*, p. 88; S. Kałagate, *Sprawozdanie z badań...*

<sup>53</sup> I. Holl, N. Parádi, *Das mittelalterliche Dorf Sarvaly*, *Fontes Archaeologici Hungariae*, 1982, abb. 20.

<sup>54</sup> D. Čaplovič, F. Javorský, *Archeologický výskum profánnej stredovekej architektúry v Pavlanoch*, „Archeologické výskumy a nálezy na Slovensku v roku 1982”, Nitra 1983, pp. 70–71, fig. 301:11; Z. Drenko, *Zaniknutá kostolná pevnosť vo Svodíne*, „Zborník Slovenského Národného Múzea”, vol. 96 — *Archeológia* 12, 2002, p. 124, fig. 14: 1.

<sup>55</sup> A find equipped with a suspension opening unearthed at the foot of Wzgórze Pańskie, on the western side of the Market Square, in Gniezno, Gniezno powiat, seems to confirm this hypothesis. It was classified as an axe or butcher's chopper, and approximately dated at the 17th century, T. Sawicki, *III. 62. Toporek — tasak rzeźniczy (An Axe — A Butcher's Chopper)*, [in:] *Wielkopolska bracia cechowa w okresie staropolskim. Katalog wystawy (The Guild Fellows of Great Poland in the Old Polish Period. The Exhibition Catalogue)*, Gniezno, p. 104, III.62. A similarly dated find (16th–17th century) with an opening in the neck comes from the village of Kolki, Volinska obl., Ukraine. The interesting thing is that this axe had never been covered with earth and, most probably, comes from the armoury of one of the Volyn castles, S. Terskiy, *Z istoriy ukrainskoy...*, fig. 4:20. Another specimen, equipped with a short handle, which comes from Sienkiewiczze, Polesie district, is known from the monumental work by K. Moszyński, where it is referred to as a chopper, K. Moszyński, *Kultura ludowa Słowian (The Folklore of the Slavs)*, vol. 1, Warszawa 1967, p. 192.

<sup>56</sup> A. Kita, A. Kokowski, *Znalezisko ze 'Starego Sanu'...*, p. 358.

<sup>57</sup> Cf. e.g.: *The Ancient Hungarians. Exhibition Catalogue*, ed. I. Fodor, Budapest 1996.

tacts with Bulgarians living in the region of the Volga River, who found themselves under Mongol rule after 1236<sup>58</sup>, that is the time when the finds from Tyrnovo and Cherven were in use. A. Kita and A. Kokowski indirectly suggest that part of them ran away to Bulgaria as a result of the Mongol invasion. Although the above hypothesis seems much more plausible, no archaeological evidence has been discovered in the region of the Volga River to support this assumption<sup>59</sup>.

Thus we arrive at the fundamental issue of our discussion: Was this form of weaponry of Asian provenance and if so, how did it reach Poland? In the light of hitherto established facts and the research outcome, it is impossible to quote any examples of finds which might be a starting form for axes in Polish territory. The fact that a group of such artifacts appeared east of the Ural Mountains<sup>60</sup> and their tang-like form suggest that the objects were of foreign origin, which has already been pointed out by several researchers publishing their finds<sup>61</sup>. A.R. Artemev's findings seem to confirm the above assumption. The researcher published twelve, mostly unknown, finds recorded in the territory conquered by the Mongols and Dzungar people. According to his hypothesis, these axes were not of Mongol provenance but were made by the Dzungar people and appeared in Eastern Europe during the Tatar invasion<sup>62</sup>. Examining the distribution of these finds in Central and Eastern Europe, one comes to the conclusion that the majority of the objects (except the finds from Borówiek, Ludwinów, Michałów,

Pukarzew and Sadłów, see below) were discovered on the thirteenth century route of Mongol forces or in the regions which might have been explored by the nomads. Undoubtedly, that was the case with Rus finds. Both Halich and Vlodzimierz Volynski were seized by force and the whole duchy of Halich and Vlodzimierz was conquered before 24<sup>th</sup> December 1240<sup>63</sup>. However, the possibility that the finds were consequently adopted in Rus, particularly its western part, cannot be excluded. According to S. Terskiy, they were brought to Volyn in their final form by Mongol troops and then spread across further lands<sup>64</sup>. The situation is similar in the case of Bulgarian specimens. Contrary to the opinion expressed by A. Kita and A. Kokowski, they may not be assigned to the Volga Bulgarian people. The source information we have at our disposal leads to the conclusion that Tatar forces were present in Bulgaria as early as 1242 or 1243, during their withdrawal from Hungary, when Batu-Khan's army made the local authorities of Tyrnovo (!) pay them a yearly tribute.<sup>65</sup> From then onwards, to 1277, when the Tatars were expelled from the country during the Ivayllo's rebellion, Bulgarian rulers remained under Tartar domination. These wide and varied contacts between them may have led to the appearance of this form of finds in the Bulgarian lands<sup>66</sup>.

Comparing a map of the distribution of tanged axes in Polish territory with the routes of the thirteenth century Tatar invasions prepared by S. Krakowski and W. Świętosławski<sup>67</sup>, numerous correlations can be noticed. Moreover, on the majority of sites other finds of undoubtedly eastern provenance were unearthed, which may plausibly be considered as Mongol products. Thus, both

<sup>58</sup> S. Krakowski, *Polska w walce z najazdami tatarskimi w XIII w. (Poland's Struggle against the Tatar Invasions in the 13th Century)*, Łódź 1956, p. 56.

<sup>59</sup> The inventory record of one of the most important settlement centres of the Volga Bulgarians lacks analogous or at least similar finds — Bilyara, P. Sh. Huzin, *Predmety vooruzheniya*, [in:] *Kultura Bilyara. Bułgarskie orudya truda i oruzhie IX–XIII vv.*, A. H. Halikov ed., Moskva 1985, pp. 130–29.

<sup>60</sup> S. V. Kiselev i N. Ya. Merpert mention another find coming from the Far East, discovered at the Iguan stronghold remains in Manchuria, connected with the Chin epoch (1115–1234) — S. V. Kiselev i N. Ya. Merpert, *Zheleznye chugunnye...*, p. 206.

<sup>61</sup> B. Balcer, J. Machnik, J. Sitek, *Z pradziejów Roztocza...*, p. 138; S. V. Terskiy, *Archeologiya dobi...*, p. 54; S. Terskiy, *Z istoriy ukrainskoy...*, p. 19; A. Kita, A. Kokowski, *Znalezisko ze 'Starego Sanu'*..., pp. 357–358.

<sup>62</sup> A. R. Artemev, *Problemy vydeleniya...*, p. 149.

<sup>63</sup> S. Krakowski, *Polska w walce...*, p. 64; B. Włodarski, *Polska i Ruś 1194–1340 (Poland and Rus 1194–1340)*, Warszawa 1966, pp. 119–120; T. Jasiński, *Przerwany hejnał (A Broken Bugle Call)*, Kraków 1988, p. 16.

<sup>64</sup> S. Terskiy, *Z istoriy ukrainskoy...*, p. 19.

<sup>65</sup> S. Krakowski, *Polska w walce...*, p. 153; T. Wasilewski, *Historia Bułgarii (A History of Bulgaria)*, Wrocław 1988, p. 95.

<sup>66</sup> Notably, V. Nesheva suggested that the find discovered in Temple No. 9 at the stronghold of Cherven could have been a trace of an encounter, V. Nesheva, *Metaloobrabotvane yurelurstro...*, p. 183.

<sup>67</sup> S. Krakowski, *Polska w walce...*, maps 4 i 5; W. Świętosławski, *Archeologiczne ślady...*, fig. 51.

axes found in Trzepieciny, together with a spear-head with tang, should be regarded as nomad objects. A number of artifacts of Tatar origin come from nearby Bondyż-Folwark, Zamość powiat. The village of Trzepieciny lies on the probable route of the Mongol invasions. Therefore, the assumption that axes from this place are traces of the first thirteenth century Tatar invasion<sup>68</sup> or rather of one of the reconnaissance missions sent in January and February of 1241 seems plausible<sup>69</sup>.

That is also the case with the find from Przemyśl. Heads of various types unearthed at the eleventh-thirteenth century stronghold in Przemyśl were classified by W. Świątosławski as objects of nomad origin<sup>70</sup>. Although the town was never mentioned in records containing accounts of nomad invasions, it is undoubtedly situated in the zone of direct infiltration by Tatar troops during the second (1259–1260) and the third (1287–1288) invasions of Poland, which was emphasized by A. Kita and A. Kokowski, dating the object at the second half of the thirteenth century<sup>71</sup>. The random character of the find, the skeletons of a horse (and probably of a man) as well as an object resembling a spear-head (?) discovered next to it confirm the assumption that the axe was lost in warfare.

The connection between the axes found and the exact dates of nomad invasions ought to be stressed here. It should, however, be borne in mind that like the Ukrainian sites, both places are situated in the zone which from the year 1240 onwards may have constantly been infiltrated by the Mongols and the finds may not be associated with the Tatars' presence in the Polish lands. This is the territory of the Duchy of Volodimir and Halich, which was conquered and subjugated by the Tatars, whose rulers were obliged to pay tribute to the khans. Consequently, the finds may be dated at the thirteenth, fourteenth and even the fifteenth century. Also the above-mentioned find from Luchesk, unearthed in the vicinity of the so-called Tatar Quarter, a neighbourhood inhabited by the victorious nomads, dates back to the fourteenth or

the fifteenth century. S. Terskiy is of the opinion that weapons of this type may have been brought by their owners to the Halich-Volodimir lands as early as the fourteenth century<sup>72</sup>.

The finds from Beszowa and Solec on the Vistula, discovered near the routes of the Mongol army of 1241 but already within the Polish duchies are to be considered separately. As I said above (note 18), the object from Beszowa was unearthed together with other artifacts, which are regarded by E. Dąbrowska as possible remains of an early medieval burial ground. According to this researcher, the find in question dates back to a later, medieval period. However, the possibility that all the objects date from the same time cannot be excluded. A Type Vc axe (after A. Nadolski), which is generally dated at the eleventh-twelfth century, as well as the other finds, including a whorl made of Ovruch slate, could have been in use at the time when the axe with tang, most probably of eastern provenance, appeared in Beszowa. It was only about a dozen kilometers away that the Battle of Chmilenik took place on 18<sup>th</sup> March 1241. In the battle, the Polish army suffered a defeat, which made it possible for the Tatars to head on for Cracow<sup>73</sup>. Thus, A. Majewski's discovery in Beszowa may not be a damaged burial ground. The numerous finds may be the remains of a settlement and the objects unearthed on the site may have been scattered as a result of an unexpected incident, for example the arrival and a sudden attack by a Tatar military unit. Of course there is no evidence to support this hypothesis. On the other hand, the find from Solec may only indirectly be assigned to the Tatar invasions as suggested by its chronology.

The interpretation of specimens discovered in Silesia seems to be much more complicated. However, a number of premises suggest that they are connected with the Mongols. While the find from Będzin, dating back to the Late Middle Ages, is of unclear provenance<sup>74</sup>, the artifact from Opole, where two encounters with Tatar troops are known to have taken place, is easier to classify. One of the battles was won and the other lost by the forces of Opole and Little Poland<sup>75</sup>. The written records

<sup>68</sup> B. Balcer, J. Machnik, J. Sitek, *Z pradziejów Roztocza...*, pp. 88–89, 138, 148, 54:4–6.

<sup>69</sup> W. Świątosławski, *Archeologiczne ślady...*, p. 19, fig. 51.

<sup>70</sup> W. Świątosławski, *Archeologiczne ślady...*, p. 54, fig. 19:b–d.

<sup>71</sup> A. Kita, A. Kokowski, *Znalezisko ze 'Starego Samu'...*, p. 358.

<sup>72</sup> S. Terskiy, *Z istoriy ukrainskoy...*, p. 19.

<sup>73</sup> S. Krakowski, *Polska w walce...*, pp. 135–136; W. Świątosławski, *Archeologiczne ślady...*, p. 19.

<sup>74</sup> A. Rogaczewska, *Będzin*, p. 118.

<sup>75</sup> S. Krakowski, *Polska w walce...*, p. 139.

are further confirmed by archaeological sources. During the excavations conducted at Ostrówek in Opole, two tiny, rhomboidal and fork-shaped nomad arrowheads, a bronze whip-end, shaped like a bird's head, as well as a horn plate, part of horse harness, were unearthed<sup>76</sup>. The find in question comes from layer I, dated at the fourteenth century, that is, at post-medieval times. However, the unclear stratigraphic situation of the site implies that the object may have been moved from an earlier layer.

The story of the axes with tangs found in the central part of the region on the Oder River appears to be the most interesting. Information about the arrival of Tatar troops in south-western Poland can be found in *Annales* by Jan Długosz (Johannes Longinus). The written records are further confirmed by archaeological sources. A small delta-shaped arrowhead and a horn fragment of horse harness, a butterfly nut (?)<sup>77</sup>, associated with the Tatars were discovered in Wrocław. A fork-shaped arrowhead was unearthed in Strzegom<sup>78</sup>. After the

<sup>76</sup> W. Świątosławski, *Archeologiczne ślady...*, pp. 50–51. Some of them, for example, the end of a whip handle, were discovered in layers stratigraphically earlier than the 13th century, which means that they should not be automatically associated with his incident, M. Wołoszyn, *Obecność ruska i skandynawska w Polsce w X–XII w. — wybrane problemy (Rus and Scandinavian Presence in Poland in the 10<sup>th</sup>–12<sup>th</sup> Centuries. Selected Problems)*, [in:] *Wędrowka i etnogeneza w starożytności i średniowieczu (Travel and Ethnogenesis in Antiquity and the Middle Ages)*, ed. E. M. Salamon, J. Strzelczyk, Kraków 2004, pp. 262–263.

<sup>77</sup> W. Świątosławski, *Archeologiczne...*, pp. 70–73; C. Buśko, *Dzwon z Nowego Targu świadectwem pobytu Tatarów we Wrocławiu? (The Bell from Nowy Targ as Evidence of the Tatars' Stay in Wrocław?)*, [in:] *Archeologia et historia Urbana*, Elbląg 2004, pp. 529–534. Theoretically the assumed fragment of an axe with tang found in Wrocław might be associated with the Tatar invasion of 1241. However, the fragmentary character of the find makes us take a very cautious approach.

<sup>78</sup> This find was accidentally discovered during works conducted at the stronghold in Strzegom. W. Świątosławski associates the artifact with the Mongol invasion, W. Świątosławski, *Archeologiczne ślady...*, p. 58. M. Jahn, A. Nadolski and, most recently, K. Jaworski, on the other hand, suggest an early medieval chronology, M. Jahn, *Die Skythen in Schlesien*, 'Schlesiens Vorzeit in Bild und Schrift', Neue Folge 9, Breslau 1928, p. 22; A. Nadolski, *Studia nad uzbrojeniem polskim w X, XI i XII wieku (Studies in Polish Arms and Armour in the 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> Centuries)*, Łódź 1954, plate XXI:6; K. Jaworski, *Grody w Sudetach (VIII–X w.) (Strongholds in the Sudety Mountains (8<sup>th</sup>–10<sup>th</sup> Centuries))*, Wrocław 2005, pp. 68–69, fig. 18.

Battle of Legnica, on April 9<sup>th</sup> 1241, Tatar troops ravaged southern Lusatia and their reconnaissance unit reached as far as Saxony. Although written records provide no information on Tatar missions sent northwards, the assumption that such expeditions took place seems probable in the light of the most recent, though scarce, discoveries made at Witków, Żagań powiat, Zielona Góra, Zielona Góra powiat, and Krosno Odrzańskie, Krosno Odrzańskie powiat.

A single arrowhead with tang was found on each site. A forked, leaf-shaped arrowhead unearthed in the fourteenth century layer and resembling group XIII (after W. Świątosławski), classified as Tatar<sup>79</sup>, comes from the excavations of a knight station at Witków. It may only be noted that despite the fact that such heads are widely regarded as nomad objects, they were in widespread use in Western Europe as well. Therefore, the provenance of particular forms remains an open question. A small delta-like, leaf-shaped arrowhead comes from the excavations conducted in Lisowskiego Street in the Market Square in Zielona Góra. It was found in the earliest layer, dated at the mid fourteenth century, on the basis of the fragments of ceramics it contained. This layer may be considered remains of an ancient irrigation system<sup>80</sup>. The object could be classified as an arrowhead belonging to group I (after W. Świątosławski)<sup>81</sup>. About a dozen such finds have been discovered in the Polish lands.<sup>82</sup> The most recent find of probable nomad provenance comes from the excavations carried out at the Piast castle in

<sup>79</sup> W. Świątosławski, *Archeologiczne ślady...*, pp. 87–88.

<sup>80</sup> The authors would like to thank P. Dziejic, MA, and S. Kałagate, MA, for permission to use material from their unpublished excavations, *Wstępne wyniki badań ratowniczych przeprowadzonych w Zielonej Górze, stan. 18, wykop XIV (Introductory Results of the Rescue Excavations Conducted in Zielona Góra, Site 18, Dig XIV)*, a typewritten copy at the archive of the Archaeological Museum of the Central Oder Region, 2000.

<sup>81</sup> W. Świątosławski, *Archeologiczne ślady...*, pp. 75–77.

<sup>82</sup> J. Ginalski, P. N. Kotowicz, *Elementy uzbrojenia i oporządzenia jeździeckiego z grodziska wczesnośredniowiecznego „Horodyszczce” w Trepczy, pow. Sanok, stan. 2 (Pieces of Horse Harness and Armour from the Early Medieval Stronghold. 'Horodyszczce' in Trepcza, Sanok Powiat, Site 2)*, "Materiały i Sprawozdania Rzeszowskiego Ośrodka Archeologicznego", vol. 25, 2004, p. 214.

Krosno Odrzańskie<sup>83</sup>. This find, unearthed in the layers dating back to the mid thirteenth century, was classified as group XIV (after W. Świętosławski)<sup>84</sup>. Similar heads with linear tangs (Type 2) were also published by T. Kempke, who described them as specimens of northern provenance<sup>85</sup>.

No evidence confirming the Tatar interpretation of the objects mentioned above can be found in Jan Długosz's chronicle. The chronicler says that Jadwiga and her court moved from Trzebnica to Krosno, *where she stayed undisturbed while the Tatars ravaged the Silesian lands*<sup>86</sup>. However, it ought to be borne in mind that Długosz's account was written over two hundred years after the events of 1241. This is why the issue of the reliability of this record, particularly of the description of the war with the Tatars, has frequently been raised and discussed<sup>87</sup>. A small Tatar unit could have arrived in the vicinity of Krosno but seeing the well fortified town, the invaders retreated.

Also the axes found in Żagań and Gubin might be evidence of Tatars' presence in Lower Lusatia. These iron finds are richly incrustated with silver with a copper base and on both sides decorated with zoomorphic ornamentation in the form of an aurochs. They had been dated at different periods, but in 1996 an analogous axe was unearthed in barrow No.7 in the village of Olen-Kolodez, on the Don, Voronezh oblast, in the grave of a Mongol warrior, dated at the second

half of the thirteenth or the beginning of the fourteenth century<sup>88</sup>. The find from Olen-Kolodez seems to have been part of the loot brought to the Steppe from Central Europe. If that were the case, this situation would be the reverse of the one discussed above: A European object discovered in a nomad environment. The very form of the artifact is suggestive of such an interpretation. A bearded axe, characteristic of Central Europe<sup>89</sup>, was unknown among the nomad people in question, who preferred narrow-bladed pickaxes<sup>90</sup>.

The discovery of these specimens and the axes from Żary seems to suggest that a small Tatar unit reached Lusatia and the region lying along the central part of the Oder River. The damage caused by this invasion must have been relatively slight, because no mentions referring to it are to be found in the records. The expedition could have taken place after the Battle of Legnica, when the Polish forces were scattered, which made it possible for the enemy to plunder neighbouring territory. The above situation may have lasted for almost a month, until about May 10<sup>th</sup>, 1241<sup>91</sup>.

The find from Świebodzin is difficult to interpret. The site is situated about 40kms to the north of Krosno and Zielona Góra, where Tatar finds were unearthed. On the one hand, this distance could be covered in a day, but on the other, the Tatar unit heading for Świebodzin would have had to cross the Oder River, which was a daunting task at that time of the year because of low water temperature and high water level caused by the melting snow.

The finds coming from Sadłów, Michałów, Ludwinów, Pukarzew and Borówek are to be ex-

<sup>83</sup> P. Dziedzic, *Elementy uzbrojenia i oporządzenia jeździeckiego z badań na zamku piastowskim w Krośnie Odrzańskim (Pieces of Horse Harness and Armour from the Excavations at the Piast Castle in Krosno Odrzańskie)*, „Sprawozdania Archeologiczne” (forthcoming).

<sup>84</sup> W. Świętosławski, *Archeologiczne ślady...*, pp. 88–89.

<sup>85</sup> T. Kempke, *Starigard/Oldenburg. Hauptburg der Slawen in Wagrien. III. Die Waffen des 8.–13. Jahrhunderts*, Neumünster 1991, pp. 27–29.

<sup>86</sup> *Ioannis Dlugossii Annales seu Chronicae Inclicti Regni Poloniae*, lib. VII, K. Pieradzka, D. Turkowska ed., Warszawa 1975, s. 19.

<sup>87</sup> M. Cetwiński, *Co wiemy o bitwie pod Legnicą? (What Do We Know about the Battle of Legnica?)*, ‘Acta Universitatis Wratislaviensis. Historia L’, No. 800, 1985, p. 78; W. Korta, *Problemy bitwy legnickiej i stan badań (Problems Connected with the Battle of Legnica and the Research Results)*, [in:] *Bitwa legnicka. Historia i tradycja (The Battle of Legnica. History and Tradition)*, W. Korta ed., Wrocław–Warszawa 1994, pp. 7–10.

<sup>88</sup> K. Yu. Efimov, *Zolotoordynske pogrebeniya iz mogilnika Olen-Kolodez*, ‘Donskaya Arheologiya’, vol. 3–4, 1999, pp. 93–108; also cf.: F. Biermann, *Mittelalterliche Kriegausrüstung mit der Darstellung eines gehorten Tieres*, Waffen- und Kostumkunde. Zeitschrift für Waffen- und Kleidungsgeschichte’, vol. 1, 2002, pp. 63–79; K. Radatz, *Prunkaxte — Zeugnisse des Mongoleneinfalls nach mitteleuropa*, ‘Archaologisches Korrespondenzblatt’, vol. 32, 2002, pp. 295–310; M. Wołoszyn, *Obecność ruska i skandynawska...*, note. 29.

<sup>89</sup> A. Nadolski, *Studia nad uzbrojeniem...*, pp. 46–47.

<sup>90</sup> Cf.: W. Świętosławski, *Arms and armour...*, plate XIV:1–3.

<sup>91</sup> Cf.: *Ioannis Dlugossii Annales seu Chronicae Inclicti Regni Poloniae*, lib. VII, Warszawa 1974, ed. K. Pieradzka, p. 19, note. 41.

mined separately. They were all unearthed far away from the thirteenth century Tatar routes and thus can hardly be associated with the Tatar invasion. It should only be noted that among the objects discovered during the excavations conducted at the castle in Sadłów, a needle-like, armour-piercing arrowhead, classified as type XIV (after W. Świątosławski) was found<sup>92</sup>. Regrettably, lack of any data concerning the stratigraphy and dating of the artifacts makes it impossible for the researcher to formulate any plausible hypotheses.

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The above-quoted hypotheses might be considered evidence of the presence of Tartar troops in the area where they were found. However, this does not mean that the axes were brought and then lost by the Tatars themselves. In the majority of cases analysed here, tanged axes may be regarded as local weapons connected with the Tatars or nomads, particularly because of their fourteenth-fifteenth century chronology. The reasons

<sup>92</sup> W. Świątosławski, *Archeologiczne ślady...*, pp. 88–89. It was wrongly identified by L. Kajzer as an angular tanged bolthead, E. Dziubek, L. Kajzer, *Kultura materialna...*, p. 199, fig. 29:8.

for this phenomenon cannot be plausibly explained. The examination of other finds of Tatar provenance leads to the conclusion that the locals may have become familiar with such axes and adapt them to suit their needs. The assumption that part of these objects were taken as loot seems equally credible. Consequently, they were considered as valuable and remained in the possession of their owners as status symbols or for sentimental reasons. This is why they were unearthed only in fourteenth and fifteenth century layers. As far as the function performed by the group of finds in question is concerned, it seems that axes of this type, originally used in warfare, subsequently became everyday objects. Hence, the widespread opinion that they were a kind of butcher's axes.

The present article is only an attempt to outline the issues connected with this category of finds. More detailed data can be provided by a comprehensive publication of specimens coming from across the eastern border of Poland and a discovery of new sources, which would verify the hitherto existing hypotheses and above-quoted opinions. Although pioneering research has already been conducted, many fundamental questions remain unanswered.

*Translated by Zuzanna Poklewska-Parra*

