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TWO FLINT AXES FROM SADŁOWICE, OPATÓW DISTRICT, ŚWIĘTOKRZYSKIE VOIVODESHIP: CONTRIBUTION TO THE RESEARCH OF THE GLOBULAR AMPHORA SETTLEMENT IN THE SANDOMIERZ UPLAND

ABSTRACT

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Two axes made of striped flint were discovered in Sadłowice (Opatów District), located in the central part of the Sandomierz Upland, by the Opatówka River. One of them is exceptionally large. These artefacts probably come from a damaged grave (or graves) attributed to the Globular Amphora culture.

Keywords: Globular Amphora culture, axes, striped flint, cemetery, Sandomierz Upland

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In 2015, the Sandomierz representation of the Voivodeship Heritage Protection Office in Kielce was notified that an inhabitant of the village of Studzianki (Opatów District, Świętokrzyskie Voivodeship) was in possession of two flint axes. They had been possibly found during field works (after ploughing). It is not known precisely when it happened, but most probably around 2010 or even earlier. The discovery was made within the limits of

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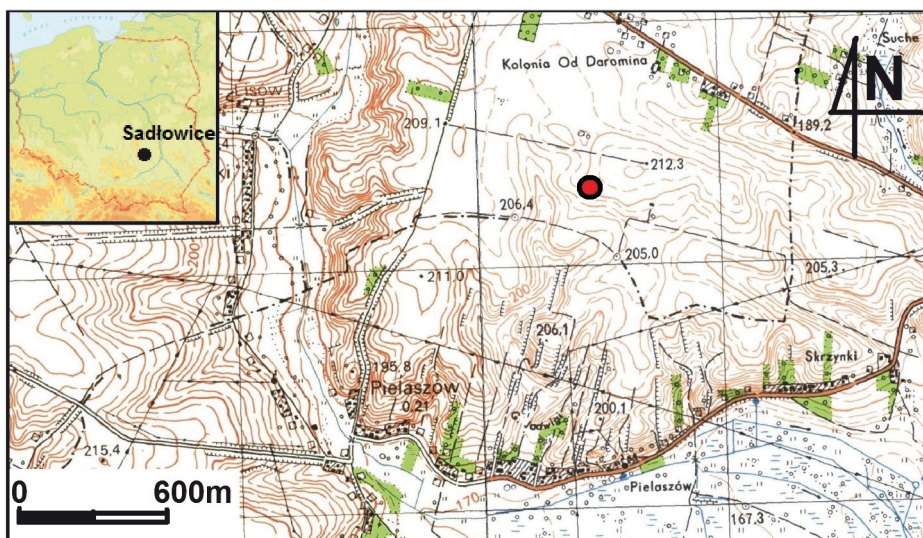


Fig. 1. Sadłowice, site 34. Discovery site of the axes. Topographic map 1:25 000; sec. 144.44; Główny Urząd Geodezji i Kartografii, Warszawa 1978. Prepared by M. Florek

the nearby village of Sadłowice, on one of two neighbouring plots of land: ID Nos. 451 and 452 (Fig. 1).

The site of the discovery is located in the central part of the Sandomierz Upland, near the highest point of a local upland hummock elevated over 40 metres above the level of the Opatówka River valley, on its northern bank. About 100 metres north of the site, there is a small, closed depression, which is sometimes flooded (so-called – “wymok”).

According to information provided by the owner of the field, the ploughed axes were found one next to the other, at a distance of several metres. Large, flat stones were also ploughed up near the place of the discovery. Some of them were deposited on the ridge separating the fields, which was confirmed during the inspection of the site in 2015. No archaeological artefacts had been found there before (this statement also applies to the surface survey conducted within the framework of the Polish Archaeological Record in the year 2000). The place of the discovery was marked as Sadłowice Site 34 (AZP 87-72/242) and was probably a Globular Amphora cemetery.

Description of the axes:

Axe I (Fig. 2) – flat axe made of striped flint; its shape is regular and each surface is symmetrical; quadrilateral cross-section; trapezoidal in the horizontal view, with the strongly broadened blade; wedge-shaped in the side view, with slightly convex front surfaces; horizontal, almost flat butt, slightly arched, polished in places; polished and bur-nished on the entire surface; on one of the front surfaces, there are traces of diagonal

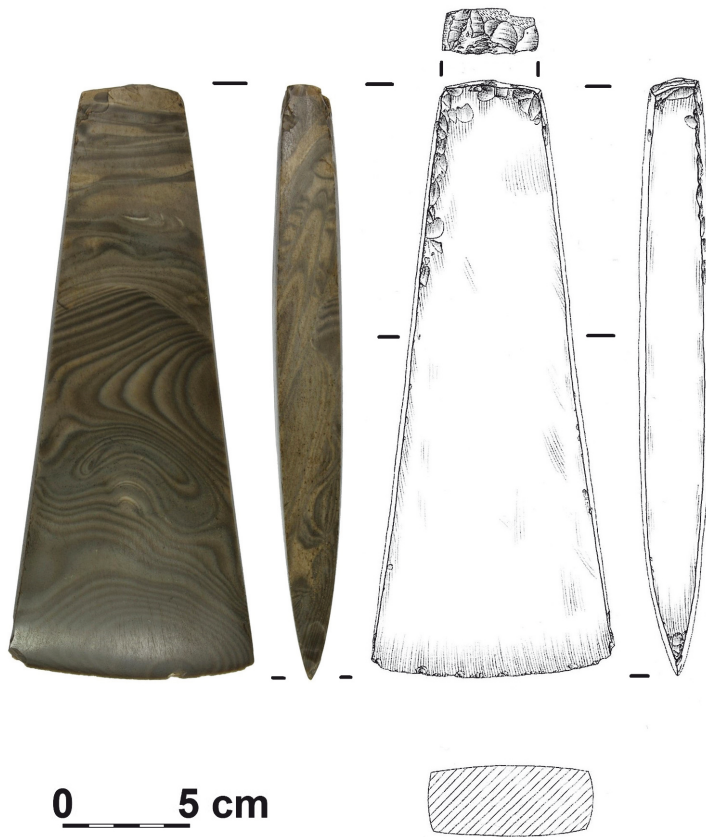


Fig. 2. Sadłowice, site 34. Axe I. Prepared by M. Bajka

abrasions, recently made as a result of strong pressure applied with a metal tool (plough?); minute chipping on the blade; traces of unpolished, single scars left by blows visible on the upper part of the tool, near the butt; dimensions: length 23.3 cm, width 9.6 cm, thickness 2.8 cm, weight 815 g.

Axe II (Fig. 3) – axe made of striped flint, quadrilateral cross-section, rectangular in the horizontal view, slightly narrowing towards the butt, somewhat lenticular in the side view; slightly arched butt, horizontal, partly polished; polished and burnished on the entire surface, less thoroughly on the side surfaces; side of the blade is damaged (chipped); single unpolished scars left by blows on all the surfaces; dimensions: length 15.8 cm, width 4.6 cm, thickness 3.0 cm; weight: 365 g.

The shape and the method of finishing the axes by polishing and burnishing their whole surfaces as well as the used raw material (striped flint) indicate that both artefacts should

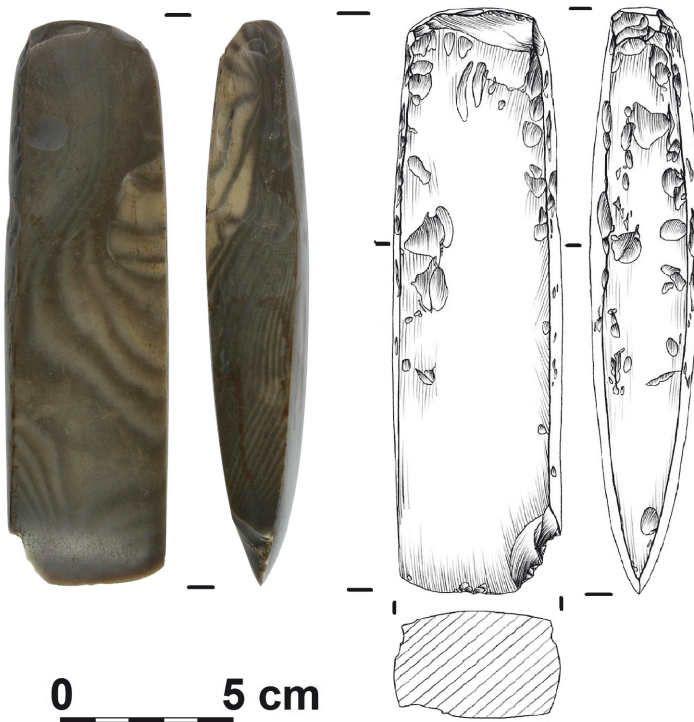


Fig. 3. Sadłowice, site 34. Axe II. Prepared by M. Bajka

be associated with the Globular Amphora culture (Nosek 1967, 234; Balcer 1983, 209; *cf.* also Libera 2009, 169-178). Axe I is a flat form with a trapezoidal shape (outline) of the front surfaces, which is typical of the Globular Amphora culture. On the other hand, axe II, having the quadrilateral cross-section and nearly parallel side surfaces, is the so-called “thick axe” according to the nomenclature by J. Budziszewski (*cf.* Budziszewski and Gruzdź 2013, 169).

The exceptionally large size of axe I is noteworthy. Its length (23.3 cm) allows us to include it in the group of the most sizeable axes attributed to the Globular Amphora culture. Other artefacts of this type associated with the same archaeological culture and having similar, although more modest sizes (all trapezoidal in the horizontal view and made of striped flint) were discovered in the following localities: Klementowice (Puławy District, Lublin Voivodeship): a loose find from Site 5, length 20.5 cm (Uzarowiczowa 1968, 217-223, fig. 5: f) and an axe from Grave 1 on Site 47, having the length of 19 cm (Nogaj-Chachaj 1996, 25-29, fig. 3); Huta Dzierążyńska (Tomaszów Lubelski District, Lublin Voivodeship): a loose find, length of 17 cm (Niedźwiedz *et al.* 2013, fig. 60: 1); Opole Lubelskie (Lublin

Voivodeship): a loose find, length of 19.2 cm (Nogaj-Chachaj and Stasiak 1997, 256-259, fig. 2). An axe of a similar size (length of 21.4 cm), but of uncertain cultural affiliation (Globular Amphora or Trypillian culture), made of Volhynian flint, was also discovered in Zwięczyca (Rzeszów District, Subcarpathian Voivodeship) (Kadrow 1989, 7, 8, fig. 1). Nevertheless, the lengths of Globular Amphora axes vary between 5 and 20 cm, but they are usually not particularly large specimens, having the average length of about 11 cm (Balcer 1983, 209; Libera 2009, 169).

None of the two axes has any traces of use, and the minor damage to their surfaces is mechanical and results from post deposition processes. This fact indicates that they come from a damaged grave or graves (*cf.* Balcer 1983, 209). The possibility that the place of the discussed discovery is the site of a Globular Amphora cemetery is indicated by the presence of numerous stones on the surface (including regular sandstone slabs, which were probably construction elements of damaged graves). Also the location of the site (the highest part of the vast upland hummock elevated over the valley of the Opatówka River), typical of the Globular Amphora cemeteries from the Sandomierz Upland, indicates that they are probably artefacts from a grave (or graves) attributed to the mentioned archaeological culture.

So far (as of the end of 2020), 189 Globular Amphora sites, including 36 defined as certain or alleged Globular Amphora cemeteries, or possibly single graves, have been recorded (Fig. 4). If the two axes indeed come from a damaged grave (or graves), of which there is every indication, this would mean that this is the 37th cemetery of the discussed culture from this territory.

The presented numbers certainly do not reflect the actual state of the Globular Amphora settlement in the Sandomierz Upland, which was attested by discoveries made in 2021 (*e.g.*, finding previously unknown archaeological sites attributed to this culture – in seemingly thoroughly researched areas – during the construction of the Ostrowiec Świętokrzyski – Sandomierz pipeline). On the other hand, it is not likely that future discoveries will considerably change the map of the distribution of the Globular Amphora culture settlement in this area charted based on previously recognised sites.

The settlement of the Globular Amphora culture in the Sandomierz Upland appears to be connected with the valleys of the Vistula and Kamienna and – to a lesser extent – with the valley of the Gorzyczanka River. Still, of the greatest importance was the valley of the Opatówka (Kowalewska-Marszałek 2019, fig. 1: b). The cemeteries and single graves of the Globular Amphora culture – as well as settlements located in their vicinities – were established near the edges of these valleys and those of their small tributaries (*e.g.*, by such minor rivers as the Przepaść, Polanówka and Gierczanka), on promontories and elevations overlooking them. Sites located at greater distances from these valleys are usually traces of settlement left either by small, short-lived camps or by certain forms of economic exploitation of this area. Most probably, particularly important was the valley of the Opatówka River, playing the role of an axis of the Sandomierz Upland, connecting the valley of the

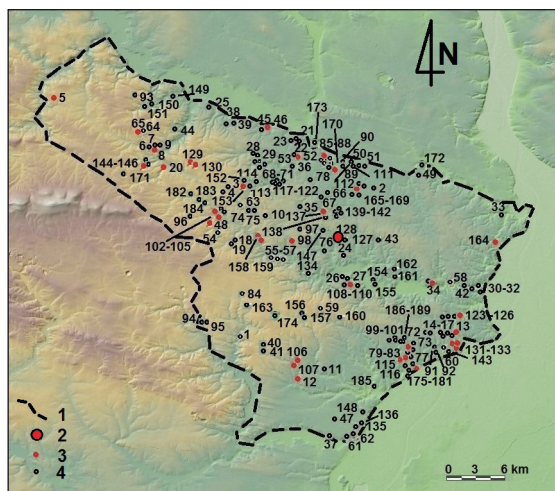


Fig. 4. Sites of the Globular Amphora culture from the Sandomierz Upland. Compiled on the basis of information from the provincial register of archaeological monuments. Prepared by M. Florek. Map key: 1 – border of the Sandomierz Upland; 2 – Sadłowice, site 34; 3 – cemetery, grave; 4 – settlement, settlement trace

1. Beradz 1, community Klimontów; 2. Bidziny 7, community Wojciechowice; 3. Bogustawice 12, community Sadowie; 4. Bogustawice 14, community Sadowie; 5. Boleszyn 2, community Waśniów; 6. Broniszowice 6, community Bodzechów; 7. Broniszowice 10, community Bodzechów; 8. Broniszowice 12, community Bodzechów; 9. Broniszowice 19, community Bodzechów; 10. Brzezcie 17, community Opatów; 11. Bystrojowice 9, community Samborzec; 12. Byszów 22, community Klimontów; 13. Chwałki 1, community Obrazów; 14. Chwałki 6, community Obrazów; 15. Chwałki 17, community Obrazów; 16. Chwałki 21, community Obrazów; 17. Chwałki 26, community Obrazów; 18. Czerników Karski 3, community Opatów; 19. Czerników Karski 5, community Opatów; 20. Czerwona Góra 3, community Sadowie; 21. Ćmielów 1, community Ćmielów; 22. Ćmielów 33, community Ćmielów; 23. Ćmielów – Przepaść 9, community Ćmielów; 24. Daromin 45, community Wilczyce; 25. Denkówek 5, community Bodzechów; 26. Dobrocice 16, community Wilczyce; 27. Dobrocice 17, community Wilczyce; 28. Drzenkowice 27, community Ćmielów; 29. Drzenkowice 31, community Ćmielów; 30. Dwikozy 3, community Dwikozy; 31. Dwikozy 14, community Dwikozy; 32. Dwikozy 19, community Dwikozy; 33. Dziurów 19, community Zawichost; 34. Gałkowiec-Ocin 15, community Wilczyce; 35. Gierczyce 10, community Wojciechowice; 36. Glinka 3, community Ćmielów; 37. Gnieszowice 55, community Koprzywnica; 38. Goździelin 4, community Bodzechów; 39. Goździelin 8, community Bodzechów; 40. Goźlice 56, community Klimontów; 41. Goźlice 60, community Klimontów; 42. Góry Wysokie 14, community Dwikozy; 43. Grochocice 6, community Ożarów; 44. Gromadzice 25, community Bodzechów; 45. Grójec 5, community Ćmielów; 46. Grójec 24, community Ćmielów; 47. Jachimowice 3, community Samborzec; 48. Jałowyś 28, community Opatów; 49. Jankowice 4, community Ożarów; 50. Jasce 23, community Wojciechowice; 51. Jasce 26, community Wojciechowice; 52. Jastków 3, community Ćmielów; 53. Jastków 24, community Ćmielów; 54. Jurkowice 5, community Opatów; 55. Karwów 22, community Opatów; 56. Karwów 24, community Opatów; 57. Karwów 28, community Opatów; 58. Kichary Nowe 2, community Dwikozy; 59. Kleczanów 1-2, community Obrazów; 60. Kobierniki 5, community Samborzec; 61. Koprzywnica 22, community Koprzywnica; 62. Koprzywnica 26, community Koprzywnica; 63. Kornacie 39, community Opatów; 64. Kosowice 3, community Bodzechów; 65. Kosowice 12, community Bodzechów; 66. Koszyce 2, community Wojciechowice; 67. Koszyce 4, community Wojciechowice; 68. Krzczonowice 52, community Ćmielów; 69. Krzczonowice 54, community Ćmielów; 70. Krzczonowice 63, community Ćmielów; 71. Krzczonowice 69, community Ćmielów; 72. Lenarczyce 11, community Obrazów; 73. Lenarczyce 26, community Obrazów; 74. Lipowa 1, community Opatów; 75. Lipowa 2, community Opatów; 76. Lisów 31, Wojciechowice; 77. Łojowice 3, community Samborzec; 78. Łukawka 6, community Wojciechowice;

Vistula with the Świętokrzyskie Mountains (Holy Cross Mountains). There are 16 cemeteries (more than a third of the total number of the known necropolises attributed to the Globular Amphora culture) located along this watercourse. A smaller number of such sites are distributed along the Vistula, but they include a local cluster near the place where the

79. Malice 1, community Obrazów; 80. Malice 6, community Obrazów; 81. Malice 8, community Obrazów; 82. Malice 19, community Obrazów; 83. Malice 20, community Obrazów; 84. Małżyn 10, community Lipnik; 85. Mierzanowice 1, community Wojciechowice; 86. Mierzanowice 3, community Wojciechowice; 87. Mierzanowice 4, community Wojciechowice; 88. Mierzanowice 5, community Wojciechowice; 89. Mikułowice 6, community Wojciechowice; 90. Mikułowice 35, community Wojciechowice; 91. Milczany 13, community Samborzec; 92. Milczany 29, community Samborzec; 93. Mychów Kolonia 38, community Bodzechów; 94. Mydłów 38, community Iwaniska; 95. Mydłów 51, community Iwaniska; 96. Niemienice 16, community Sadowie; 97. Nikisiałka Duża 4, community Opatów; 98. Nikisiałka Mała 44, community Opatów; 99. Obrazów 1, community Obrazów; 100. Obrazów 2, community Obrazów; 101. Obrazów 3, community Obrazów; 102. Opatów 6, community Opatów; 103. Opatów 17, community Opatów; 104. Opatów 61, community Opatów; 105. Opatów 62, community Opatów; 106. Ossolin 2, community Klimontów; 107. Ossolin 42, community Klimontów; 108. Pęczyny 1, community Wilczyce; 109. Pęczyny 9, community Wilczyce; 110. Pęczyny 10, Wilczyce; 111. Podgajcze 1, community Wojciechowice; 112. Podgajcze 5, community Wojciechowice; 113. Podole 4, community Opatów; 114. Podole 29, community Opatów; 115. Polanów 1 (Złota-Gajowizna), community Samborzec; 116. Polanów 6, community Samborzec; 117. Przeszryn 1, community Ćmielów; 118. Przeszryn 2, community Ćmielów; 119. Przeszryn 5, community Ćmielów; 120. Przeszryn 9, community Ćmielów; 121. Przeszryn 13, community Ćmielów; 122. Przeszryn 37, community Ćmielów; 123. Rzeczycza Mokra 1, community Dwikozy; 124. Rzeczycza Mokra 2, community Dwikozy; 125. Rzeczycza Mokra 5, community Dwikozy; 126. Rzeczycza Mokra 13, community Dwikozy; 127. Sadłowice 17, community Wojciechowice; 128. Sadłowice 34, community Wojciechowice; 129. Sadowie 3, community Sadowie; 130. Sadowie 23, community Sadowie; 131. Sandomierz 43, community Sandomierz; 132. Sandomierz 44, community Sandomierz; 133. Sandomierz 78, community Sandomierz; 134. Stabuszewice 46, community Lipnik; 135. Sońniczany 6, community Koprzywnica; 136. Sońniczany 33, community Koprzywnica; 137. Stodoły 1, community Wojciechowice; 138. Stodoły 11, community Wojciechowice; 139. Stodoły Kolonia 3, community Wojciechowice; 140. Stodoły Kolonia 6, community Wojciechowice; 141. Stodoły Kolonia 7, community Wojciechowice; 142. Stodoły Kolonia 52, community Wojciechowice; 143. Stročnice 3, community Samborzec; 144. Stryczowice 4, community Waśniów; 145. Stryczowice 7, community Waśniów; 146. Stryczowice 63, community Waśniów; 147. Studzianki 10, community Lipnik; 148. Szewce 2, community Samborzec; 149. Szewna 14, gm. Bodzechów – osada; 150. Szwarszowice 15, community Bodzechów; 151. Szwarszowice 29, community Bodzechów; 152. Trębanów 1, community Ćmielów; 153. Trębanów 2, community Ćmielów; 154. Tułkowice 14, community Wilczyce; 155. Tułkowice 35, community Wilczyce; 156. Usarzów 51, community Lipnik; 157. Usarzów 55, community Lipnik; 158. Wąworków 1, community Opatów; 159. Wąworków 3, community Opatów; 160. Węgrce Panieńskie 18, community Obrazów; 161. Wilczyce 10, community Wilczyce; 162. Wilczyce 64, community Wilczyce; 163. Wilkowice 6, community Klimontów; 164. Winiary 3, community Dwikozy; 165. Wojciechowice 1, community Wojciechowice; 166. Wojciechowice 4, community Wojciechowice; 167. Wojciechowice 6, community Wojciechowice; 168. Wojciechowice 8, community Wojciechowice; 169. Wojciechowice 20, community Wojciechowice; 170. Wojnowice 4, community Wojciechowice; 171. Worowice 6, community Waśniów; 172. Wólka Chrapanowska 7, community Ożarów; 173. Wólka Wojnowska 32, community Ćmielów; 174. Zdanów 19, community Obrazów; 175. Złota 2, community Samborzec; 176. Złota 3, community Samborzec; 177. Złota 38, community Samborzec; 178. Złota 45, community Samborzec; 179. Złota 62, community Samborzec; 180. Złota 68, community Samborzec; 181. Złota 72, community Samborzec; 182. Zochcin 35, community Sadowie; 183. Zochcinek 13, community Opatów; 184. Zochcinek 17, community Opatów; 185. Żuków 2, community Samborzec; 186. Żurawica 4, community Samborzec; 187. Żurawica 5, community Samborzec; 188. Żurawica 7, community Samborzec; 189. Żurawica 8, community Samborzec

river meets the Polanówka – its minor tributary – in the vicinity of Złota. The third major settlement cluster attributed to the Globular Amphora culture and including cemeteries is linked with the valleys of the Kamienna and its small tributaries like the Gierczanka and Przepaść. Its establishment must have been considerably influenced by the access to the nearby deposits of striped flint in the territory of the Iłża Piedmont.

The noticeably scattered character of the Globular Amphora settlement – or even its lack – in the northwestern part of the Sandomierz Upland – where only one cemetery has been found (Boleszyn, Waśniów community), but without a single recorded settlement or settlement trace – is probably the result of the poor state of research of this territory. Still, the fact that the northeastern part of the Sandomierz Upland lacks any settlement remains that could be attributed to the Globular Amphora culture is puzzling, since this area was previously densely settled by the people of the Funnel Beaker culture (Kowalewska-Marszałek 2019, fig. 1).

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