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## The first find of a harpoon from the Lublin Region

**Abstract:** A harpoon of type 5 according to J. G. D. Clark (= type 04.01 according to L. B. M. Verhart) was found in the area of the Wieprz-Krzna Canal. In the Polish literature such harpoons are known as the Gniewino type. The <sup>14</sup>C dating of specimens from Bolkowo (MKL-1871: 7760±50 BP) and the Wieprz-Krzna Canal (Poz-31597: 9380±50 BP) indicate their association with the Maglemose circle.

**Keywords:** Mesolithic, Gniewino type harpoon, Maglemose culture

Bone and antler products related to pre-Neolithic settlement are extremely rare in central-eastern Poland. Accidentally found as stray finds of unknown context – often in aquatic environments during fishing or irrigation works, with the original location unknown – these objects are difficult to date and their cultural affiliations difficult to determine. One of the first such finds was a so-called magic staff – an ornamented artefact originating from a peat bog in the area of Woźniki in Łosice District (Werner 1917). Although its cultural affiliation is ambiguous, it is commonly related to the Mesolithic (among others: Kozłowski, Kozłowski 1977, 240; Sulgostowska 1992; Płonka 2003, 243). A similarly dated artefact was recently found on a Vistula River island in Gołąb, Puławy District (Banasiewicz-Szykuła *et al.* 2017, 18), while a single biserial barbed point (Havelan) made of red deer antler was retrieved from the Wilga River near the village of Trzcianka in Garwolin District (Zalewski 2006, 371–372). A separate issue concerns single finds of antler objects, especially T-shaped axes. Single specimens were obtained from the Vistula in the Kazimierz Dolny area, Puławy District (Kopacz 1971) and from the Wieprz River in the area of Zawieprzyce, Łęczna District (Gajewski 1969). They are complemented by two more products from the aforementioned site in Gołąb (Banasiewicz-Szykuła *et al.* 2017, 18). Their presence in the alluvial floodplain terraces is the result of modern flooding of the rivers from which they originate, or their tributaries. Similar forms of axes from the Polish Lowland are dated back to the late Mesolithic or early Neolithic (among others Kabaciński *et al.* 2014). In the upland zone, the context for T-shaped axes are graves and settlement features of the Lublin-Volhynian culture (Zakościelna 2010, 152–153) and of the Funnel Beaker culture (Podkowińska 1955, 15).

The subject of the analysis is a bone artefact with one barb, also classified into the group of harpoons<sup>2</sup>. This is the first such find from central-eastern Poland, and it was obtained

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<sup>2</sup> See polemical remarks on blades and harpoons (Mroczynski, Olszewski 1995, 53).

accidentally during the construction of the Wieprz-Krzna Canal in 1954–1961, under unknown circumstances and in an unspecified place. The 140-kilometre long drainage canal in Polesie connects the Wieprz River in the area of Krasnystaw with the Krzna River near Międzyrzec Podlaski. Although we do not know the circumstances of the discovery, the place of discovery was described as the “beginning of the Wieprz-Krzna Canal”<sup>3</sup>. This probably applies to the first section of this project (put into use in 1958), beginning in the area of Borowica village, Krasnystaw District<sup>4</sup>, located on the edge of the Dorohusk Depression – the southern mesoregion of the lowland part of Volhynian Polesie. It is a monotonous plain with sparse hills not exceeding 200 m in height, with dominant sealed basins filled with peat deposits, and dotted with sand dunes.

The harpoon, which is almost entirely preserved, represents a form with a single claw-like barb, topped with a penetrating point, with a flat-oval shaft widening downwards towards the base, which has not survived. In the side view it is slightly bent. The diversified cross-section results from differently shaped surfaces: one side has a single hollow while the other has two. The convex sections of one surface in the central part of the shaft feature notches perpendicular to the edges – three notches 1 mm wide over a length of 7 mm and two notches 1–2 mm wide over a length of 5 mm by the opposite edge. The dimensions are as follows: preserved length 155 mm, shaft width 19–22 mm, base thickness 6–7 mm; barb length 8 mm (below the indentation), and tip length 55 mm; the distance between the notches and the barb is 44–46 mm; weight: 15.7 g. The state of preservation is good, despite the broken base, which was probably damaged during its use. The dark-brown surface is intensely polished, sometimes on both sides, along the entire length, especially on the side edges and the shaft bulges; the whole piece is slightly mineralized (Fig. 1)<sup>5</sup>.

Harpoons with a single barb located in the apex part and a slender, flattened shaft correspond to type 5 in J. G. D. Clark’s classification (1936, 117, fig. 41: 5) or type 04.01 according to L. B. M. Verhart (1990, 143), in Polish literature called the Gniewino type (Galiński 1986, 17). At least 13 such harpoons are known from the territory of Poland, originating from 7 localities: Bolków, Police District – 2 specimens; Gniewino, Wejherowo District – 2 specimens; Orle (= Góra-Orle), Wejherowo District; Osowa Góra (= Ossowo,<sup>6</sup> = Bydgoszcz-Osowa Góra), Bydgoszcz District; Ostrowo (= Ostrów, = Gil Wielki Lake), Ostróda District; Ujście, Pila District; Wiele, Nakło District – 2 specimens; others were retrieved from the Vistula near Chełmno, Chełmno District, Nowe, Świecie District and Wiecanowo Lake, Mogilno District (Galiński 2015 – with earlier literature there)<sup>7</sup> – Fig. 2.

Entirely preserved harpoons of this type belong to the group of relatively large specimens, measuring 170–215 mm in length, which distinguishes them from other similar products known from Poland. Although they represent the same type, they are differentiated by the position of the barb, which can be located closer to the apex (Bolków and Wiele – 2 specimens, Ostrowo) or farther from it (Gniewino – 2 specimens, Orle)<sup>8</sup>. In this compilation, the analyzed harpoon from the Wieprz-Krzna canal belongs to the second group.

<sup>3</sup> Including a bone awl – similarly preserved.

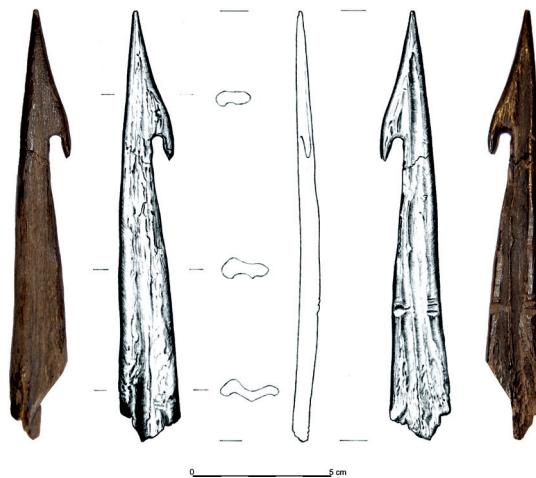
<sup>4</sup> This is how the bone awl was inventoried (Bargiel, Zakościelna 1995, 350).

<sup>5</sup> The artefact is kept in the collection of the Institute of Archaeology, Maria Curie-Skłodowska University in Lublin (KA UMCS/4670) – temporarily at an exhibition in the Lublin Museum.

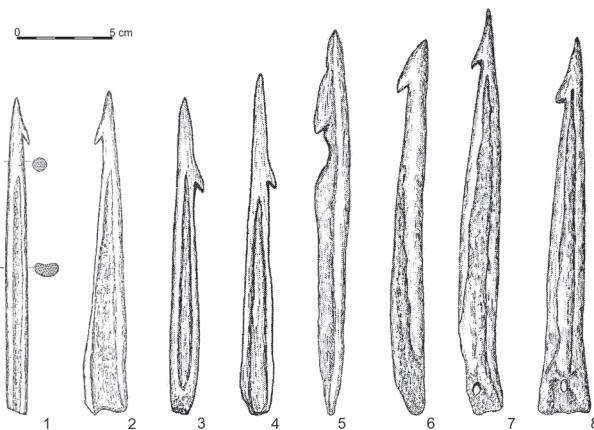
<sup>6</sup> Among 9 finds, except for one single-row harpoon of the Mullerup type for which a drawing is available, the remaining ones are blades „with one or two barbs” (Kozłowski 1919, 91).

<sup>7</sup> I do not include here two fragmentary preserved, problematic specimens obtained in Szczepanki, Giżycko District (Gumiński 2003, 71, Figs 9:c, d; 10:b, c).

<sup>8</sup> The shapes of the following finds known only from brief mentions are unknown: Nowe, Osowa Góra, Ujście, Chełmno, Wiecanów Lake (Galiński 1986, 36 *et seq.* – with earlier literature there).



**Fig. 1.** Harpoon from Wieprz-Krzna Canal (plausibly Borowica, Krasnystaw district) (drawings by W. Zieliński, photographs by M. Drewniak)



**Fig. 2.** Gniewino type harpoons: 1, 2 – Bolków, Police District; 3, 4 – Gniewino, Wejherowo District; 5 – Orle, Wejherowo District; 6 – Ostrów, Ostróda District; 7, 8 – Wiele, Nakło District (after T. Galiński 2013)

The raw material from which the Gniewino type harpoons were made has been identified only for a few specimens. In the case of both products from Wiele, the left and right metatarsal bones (*Metacarpus III et IV, dexter et sinister*) of an adult European deer (*Cervus elaphus* L) were used (Mroczyński, Olszewski 1995, 50), while in the case of the find from Ostrów, the use of "...the right metatarsal bone (*os metatarsalle III et IV dextra*) of an adult reindeer, red deer or moose" was concluded (Sobieraj, Makowiecki 1999, 115). This list can be supplemented by the harpoon from the Wieprz-Krzna Canal area, which was made from the metacarpal bone of a red deer (*Cervus elaphus*)<sup>9</sup>.

The Gniewino-type harpoons (type 5 according to J. G. D. Clark) were recorded in the coastal zone of the Baltic Sea, from Denmark and northern Germany, through Eastern Pomerania

<sup>9</sup> Kind analysis by Adam Nadachowski (Institute of Systematics and Evolution of Animals, PAS Cracow).

and the neighbouring Toruń-Eberswalde ice-marginal valley, the Great Masurian Lakes, and the Kaliningrad District to Lithuania, Latvia and Estonia (Kozłowski 1967, 225 *et seq.*, table I; Galiński 2013, fig. 24) – Fig. 3. Their occurrence is usually associated with the presence of the Maglemose culture population, possibly post-Maglemose (e.g. Kozłowski, Kozłowski 1977, 227, 242; Galiński 1986, 49–50, 58; 2013, 120; 2015, 147; Mroczynski, Olszewski 1995, 57; Kozłowski 2009, 363, figs 8.5.2h; 8.5.2l). The most representative sites containing bone products include Danish encampments in Svaerdborg I and Lundby II and the German Hochen-Viecheln, where harpoons of type 5 (Gniewino type) co-occur with the Mullerup-type ones<sup>10</sup> (Kozłowski 1969, 137–138; Galiński 1986, 50). Specimens with one barb are also attributed to the population of the Kunda culture (Galiński 1986, 50).

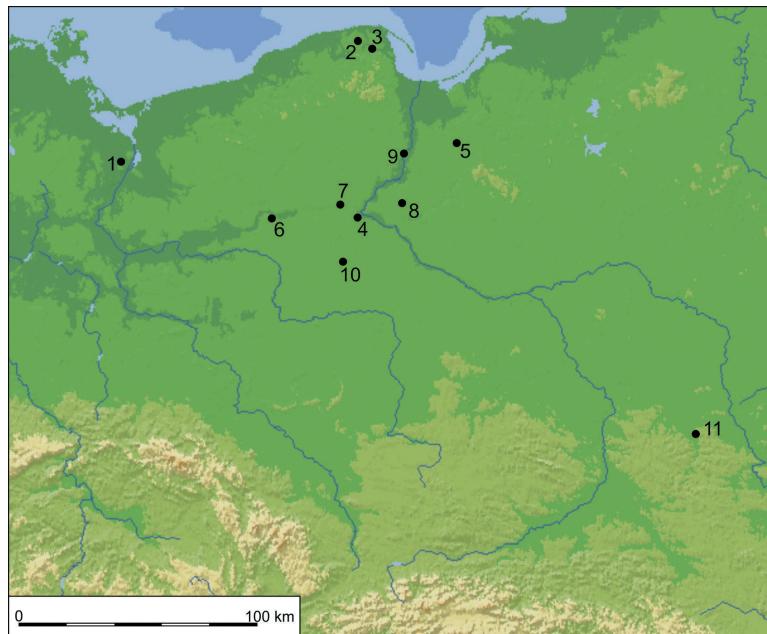
Of all of the Gniewino type harpoons discovered so far, only two specimens have been radiocarbon dated: Bolków – MKL-1871:  $7760 \pm 50$  BP (Galiński 2015, 134, 149) and Wieprz-Krzna – Poz-31597:  $9380 \pm 50$  BP<sup>11</sup> (Fig. 4). The age of the specimen from Orle was determined as the beginning of the Atlantic period on the basis of the palynological analysis (Galiński 1986, 39, 49–50). A similar dating is suggested by flint products referring to inventories of the Chojnice-Pieńki culture (post-Maglemose) discovered in the vicinity of single-barb harpoons in Wiele (Mroczynski, Olszewski 1995, 55–57, fig. 5). Although their chronological discrepancy does not allow for unambiguous cultural affiliation of the harpoons, the dates convincingly place them within the Mesolithic period. Perhaps they should be regarded as intercultural products.

The presence of a harpoon in the area of the southern part of the Wieprz-Krzna Canal corresponds with flint materials recorded on the northern foreland of the Lublin Highland region, especially in the Volhylian Polesie region. Although traces of early Holocene, pre-Atlantic occupation have not as yet been recorded in the immediate vicinity of the analyzed harpoon, artefacts of such chronology were recorded in the northern part of this macro-region. Insets in the form of obtuse triangles, lanceolate and Stawinoga type backed bladelets, as well as double platform micro-cores were discovered in, for example, Jaszczów, Łęczna, and Chojno Stare (Libera 1998, 35–36, 47–48, 99). Much more numerous are chronologically similar inventories obtained from encampments located approximately 50–60 km to the north and/or north-east. In the first case, this refers to the Lubartów region on the middle Wieprz River, from where both microliths in the form of backed bladelets and triangles are known, as well as cores originating from Góra Kocka, Trójnia, Chlewiska, Michałówka, and Szczekarkowa (Libera 1997, 237 *et seq.*; Kludacz 1999, catalogue and list VI, also unpublished materials to be found in the Lublin Museum and in the archives of J. Libera). The second region is the eastern part of the Łęczna-Włodawa Lakeland, where late-Komornica culture encampments ( $^{14}\text{C}$ :  $7630 \pm 160$  BP) were discovered in the village of Luta (Więckowska, Chmielewska 2007, 18, 48). Traces of an evanescent, unspecified (post-) Komornica occupation were also recorded in Okuninka, Sobibór, Wólka Wytycka, and Nieborowa (Libera 1998, 100; Telepko 1986, 3; Tymczak 1998; Boroń 2014, 94). Although these are not numerous inventories, which probably results from the state of research, they undoubtedly point to the continuous presence of Mesolithic communities in the lowland area between the middle Wieprz and Bug Rivers.

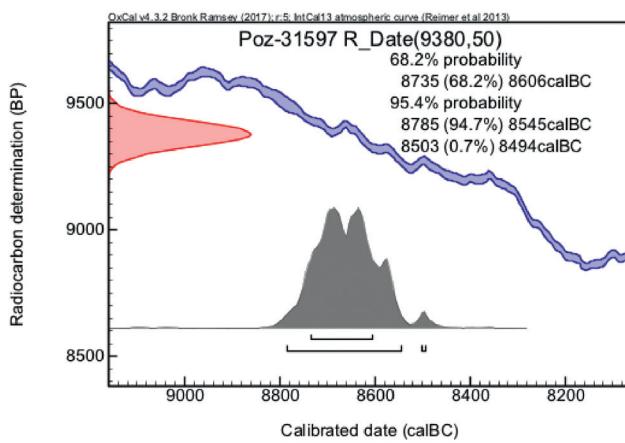
Translated by Tomasz Myśliwiec

<sup>10</sup> Similar mass finds are also known from the area of Poland – a Mullerup-type harpoon was discovered in Osowa Góra along with other 8 products with one or two barbs (artefacts have been lost).

<sup>11</sup> The  $^{14}\text{C}$  analysis was performed at the Poznań Radiocarbon Laboratory.



**Fig. 3.** Distribution of the Gniewino type harpoons in Poland (after T. Galiński, supplemented)



**Fig. 4.** Radiocarbon dating of the harpoon from Wieprz-Krzna Canal (plausibly Borowica, Krasnystaw district), and the graphical probability distribution of the radiocarbon age determination (calibrated with OxCal v3.10 Bronk Ramsey 2005 software)

#### Pierwsze znalezisko harpuna z Lubelszczyzny

Znaleziony w trakcie budowy kanału Wieprz-Krzna harpun, jakkolwiek pozbawiony kontekstu, należy do odosobnionych znalezisk na obszarze województwa lubelskiego. Dotychczasowe pojedyncze znaleziska wykonane z poroży możliwe do powiązania z osadnictwem przedneolitycznym, dotyczą tzw. lasek

magicznych (Woźniki i Gołąb) oraz toporów T-kształtnych (Kazimierz Dolny, Gołąb i Zawieprzyce). Wszystkie zostały pozyskane z akwenów rzecznych: Wisły, Bugu i Wieprza. Jedyny dotychczas harpun uzyskany ze strefy nizinnej przedpolu Wyżyny Lubelskiej pochodzi z Trzcianki. Analizowane ostrze z jednym zadziorem wykonane jest z kości śródrcza jelenia (*Cervus elaphus*). Jego morfologia odpowiada typowi 5 w systematyce J. G. D. Clarka lub typowi 04.01 L. B. M. Verharta, w literaturze polskiej określanych typem Gniewino (T. Galiński). Z terenu ziem polskich znanych jest co najmniej 13 tego typu harpunów pochodzących z siedmiu miejscowości, z których tylko znaleziony w Bolkowie i w obrębie kanału Wieprz-Krzna, posiadają oznaczenia radiowęglowe – w kolejności: MKL-1871: 7760±50 BP oraz Poz-31597: 9380±50 BP. I jakkolwiek ich rozbieżność nie pozwala na jednoznaczne rozstrzygnięcie归属, to wymownie lokuje je w obrębie środkowej epoki kamienia. Zapewne należy je traktować jako wytwory interkulturowe związane z szeroko pojętym kręgiem maglemoskim.

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