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PL ISSN 0081-3834, e-ISSN: 2719-647X

DOI: <https://doi.org/10.23858/SA/75.2023.1.3197>

<https://rcin.org.pl/dlibra/publication/277410>

Jak cytować:

Polit, B. (2023). Second life of damaged things: repairing and modifying jewellery from the Crimea in the Sarmatian period. Sprawozdania Archeologiczne, 75(1), 357–370.
<https://doi.org/10.23858/SA/75.2023.1.3197>

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SECOND LIFE OF DAMAGED THINGS: REPAIRING AND MODIFYING JEWELLERY FROM THE CRIMEA IN THE SARMATIAN PERIOD

ABSTRACT

Polit B. 2023. Second life of damaged things: Repairing and modifying jewellery from the Crimea in the Sarmatian period. *Sprawozdania Archeologiczne* 75/1, 357-370.

Crimean jewellery from the Sarmatian period (2nd century BC – 4th century AD) includes a small but interesting group of adornments with traces of damage and repair. These artefacts were elements of grave inventories of the people of the Late Scythian and Sarmatian cultures – deposited exclusively in female and child graves. Most of the repaired personal ornaments are earrings and bracelets. Their quality is usually very low. The existence of repairs made jewellery look less attractive and they were limited to modifications allowing their owners to use such adornments again. The general quality of the repairs seems to indicate that they were performed by people lacking expert knowledge of jewellery making.

Keywords: Ukraine, Crimean Peninsula, Sarmatian period, jewellery, repairs

Received: 12.10.2022; Revised: 22.05.2023; Accepted: 15.07.2023

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INTRODUCTION

Metal jewellery from the Crimea in the Sarmatian period (2nd century BC – 4th century AD) is a numerous and diverse group of artefacts. The fact that the people of the Late Scythian and Sarmatian cultures inhabiting this region were fond of jewellery is clearly indicated by archaeological materials. Jewellery is found in the graves from the discussed territory often enough to make us suspect that there was a great disparity between the Crimea and the other settlement zones of the above-mentioned societies (Polit 2022, 175). Owing to project 2014/13/N/HS3/04575, financed by the National Science Centre, it was possible to collect earrings, bracelets, finger rings and band rings and subsequently analyse their typologies and chronologies (Polit 2022). This collection of adornments includes an interesting but small group of artefacts with traces of repair and later modifications. The items in question were discovered at several sites (Fig. 1). Previously, the fact that certain Crimean adornments from the Sarmatian period have such traces of repair did not arouse scholars' interest, although archaeologists attempted to tackle the question of fixing mending other types of artefacts in ancient times (Przychodni 2005; Zagórska-Telega 2017; Treister 2019, further literature there). With this regard, it is vital to discuss the

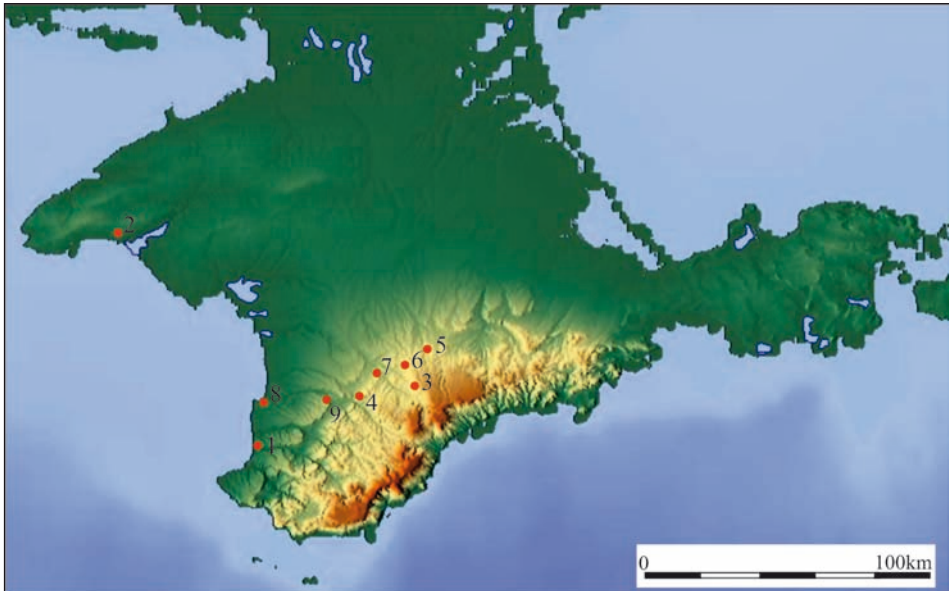


Fig. 1. Map presenting the locations of the Crimean sites mentioned in the article. 1 – Belbek IV (Sevastopol Municipality); 2 – Beliausa (Chornomorske Raion); 3 – Druzhnoe (Simferopol Raion); 4 – Levatki (Simferopol Raion); 5 – Neyzats (Bilohirsk Raion); 6 – Opushki (Simferopol Raion); 7 – Scythian Neapolis (Simferopol); 8 – Ust-Alma (Bakhchysarai Raion); 9 – Zavetnoe (Lenine Raion)
(based on <https://maps-for-free.com>, illustration by B. Polit)

problem of jewellery repairs – particularly describe their types and attempt to answer who performed them and where. Unfortunately, it is not very possible to conclusively answer the two latter questions.

TYPES OF REPAIRS AND THEIR EXAMPLES

Traces of repairs and modifications are mainly present on earrings and bracelets. In the former category of adornments, they can be found especially on silver specimens. It was mainly the fastenings of earring that were mended. Examples of such an operation are two earrings discovered at the Zavetnoe cemetery (Zaytsev *et al.* 2007, fig. 15: 4; 19: 18). One of them, found in Grave 310 (Niche 1, Burial 1), is made of smooth wire (Fig. 2: 1). One of its ends is bent in the shape of a hook, and the other is broken away. In order to repair the object, a hole was punched in the damaged end. The aperture and the hook formed a new fastening. An identical operation was performed on an earring discovered in Grave 311 (Fig. 2: 2). In both cases, the repair was crudely performed, which resulted in lowering the aesthetic value of the adornments, but at the same time made it possible for their owners to still use them.

The hoops of wire earrings were often damaged as well. These elements were rarely repaired, but a specimen discovered at the Druzhnoe necropolis can serve as an example here (Khrapunov and Masiakin 1998, fig. 3: 11; Khrapunov 2002, fig. 167: 11). The artefact was found in Grave 67 (Niche N, Burial A), dated to the second half of the 3rd century AD. It is made of thin bronze wire, one end of which is bent in the shape of a hook, whereas the other forms a loop. It represents type Polit V/2/A – such jewellery is one of the most common earring types used in the Crimea during the Sarmatian period (Polit 2022, 35). The

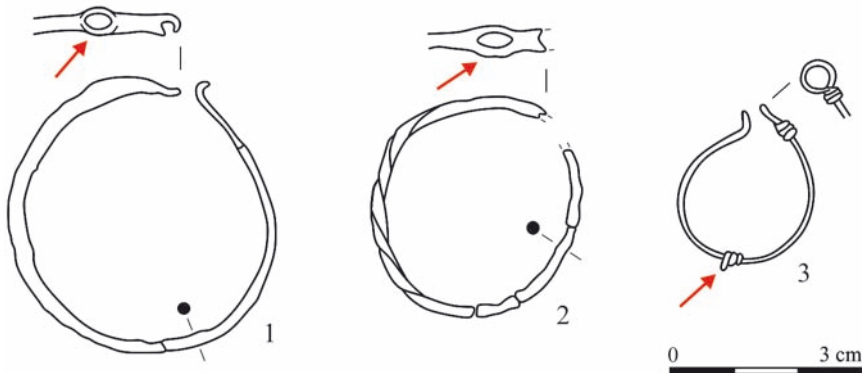


Fig. 2. Examples of earrings with repair marks. 1 – Zavetnoe, Grave 310, Niche 1, Burial 1; 2 – Zavetnoe, Grave 311; 3 – Druzhnoe, Grave 67, Niche N, Burial A (after 1-2 – Zaytsev *et al.* 2007, fig. 15: 4; 19: 18; 3 – Khrapunov 2002, fig. 167: 11)



Fig. 3. Bracelet with repair marks found in Grave 9 (Niche S) from the Opushki necropolis. The scale only applies to the bracelet drawing (drawing by S. Muld, photo by B. Polit)



Fig. 4. Bracelets discovered at the Zavetnoe necropolis, Grave 210. The adornment on the right was extemporaneously repaired (after Bogdanova 1962, pl. 3)

morphology of this adornment indicates that its delicate hoop was damaged and then repaired by binding together its two parts (Fig. 2: 3), which resulted in a slight distortion of the artefact.

Repaired bracelets are usually fractured specimens. They were fixed by permanently joining together their two parts. Such an item was found, *e.g.*, at the Opushki necropolis, on the left hand of one of the women buried in Grave 9 (Niche S). There is a detailed publication on this richly equipped funerary feature with two niches (Khrapunov and Stoyanova 2013, 184-188). The authors of the paper dated the grave from the second half of the 2nd to the first half of the 3rd century AD and, what is important, mentioned that the bracelet had been repaired, although they did not discuss the repair in detail. The bracelet has ends stylised in the shape of viper heads and corresponds to types Polit A/XV/5 and Trufanov A/VI/A (Trufanov 2001, 76; Polit 2022, 100). Its hoop was broken and then repaired by joining together both parts with the use of rivets (Fig. 3). This operation was preceded by slightly hammering the place where both parts meet. The current diameters of the bracelet are 58 × 60 mm, but it was bigger before the damage. This is the only known Crimean adornment repaired with this technique.

Traces of small repairs are present on bracelets with wound ends, which were popular in that period (Fig. 4). Such repairs were mainly performed on broken away ends of adornments with terminals carelessly wound around the hoop. A specimen discovered at the Zavetnoe necropolis, in Grave 210, is an excellent example of this operation (Bogdanova 1962, tabl. 3: 4).

It should be noted that some adornments were modified instead of being repaired. Such operations were mainly carried out on fractured bracelets: one fragment was bent to form a new, small bracelet. Artefacts recycled this way were asymmetrical and had warped hoops (Fig. 5: 1-9). Such objects were mainly found in child graves, *e.g.*, at the necropolises of Beliausa (*e.g.*, Grave 27), Levadki (*e.g.*, Grave 120), Opushki (*e.g.*, Graves 12; 25 and 32) and Ust-Alma (Grave 936) (Stoyanova 2012, fig. 6: 10; 15: 3-4; 23: 2; Dashevskaya 2014, tabl. 47: 28-29; Puzdrovskiy and Trufanov 2017, 81-82, fig. 178: 5; Muld and Antipenko 2019, fig. 1: 4). Such remodelled bracelets were occasionally found in the inventories of graves containing the bodies of young women – they were threaded on fibula needles (Fig. 6). The locations of such fibulae allow us to suspect that they were pinned near the right or left shoulder. Adornments joined this way appeared in the 2nd century AD (*e.g.*, Belbek IV, Grave 231; Scythian Neapolis, Grave 40), and continued to be used until the first half of the 3rd century, which is shown by materials found at the Neyzats cemetery, in Grave 103 (Symonovich 1983, 65; Khrapunov 2007, fig. 4; Guschina and Zhuravlev 2016, 171).

There are cases of Crimean adornments that were damaged and then remodelled into other types of jewellery, which changed their original functions. Items found at the Neyzats cemetery, in Grave 511 are an example of this recycling method (Khrapunov 2013, fig. 73: 25-26). The feature contained two circular artefacts with one pointed and one zoomorphic end. One of them was discovered near the left parietal bone of a man in the *Maturus* age (Burial 1; Fig. 7: a). Another, analogous, artefact was deposited near the right parietal bone of a woman (Burial 2; Fig. 7: b). The locations of these adornments were the reason why scholars referred to them as earrings. At face value, this interpretation appears to be



Fig. 5. Examples of recycled bracelets discovered in child graves. Neyzats:
 1 – Grave 76; 2 – Grave 163, Opushki; 3 – Grave 12; 4 – Grave 21; 5-6 – Grave 25; 7 – Grave 32;
 8 – Grave 47, Burial 1; 9 – Grave 47, Burial 2 (photo by B. Polit)

correct, but the morphology of the artefacts and the close resemblance of their ends to the terminals of zoomorphic bracelets allow us to suspect that they were originally wrist ornaments. Both artefacts were probably two parts of the same bracelet which was damaged (broken) and then remodelled to form the earrings. This assumption is corroborated by the fact that the adornments were found in the same grave. Nevertheless, metallographic analyses are necessary to definitely solve this puzzle.

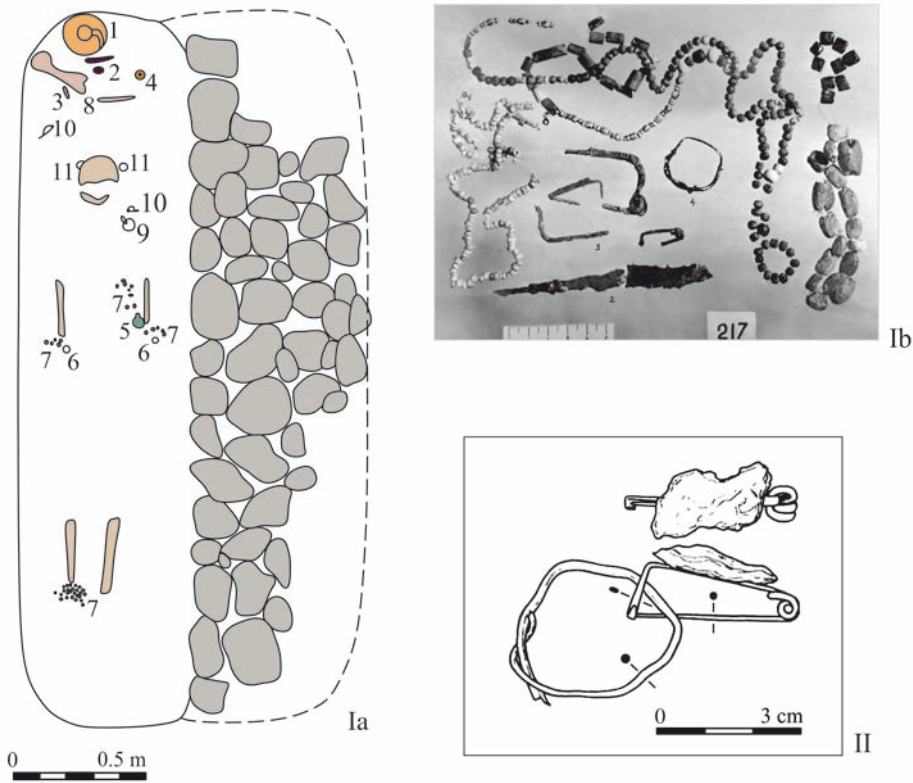


Fig. 6. Examples of modified bracelets threaded on fibula needles.

Ia – plan of Grave 217 from the Zavetnoe necropolis: 1 – pitcher; 2 – parts of a jewel casket; 3 – knife fragment; 4 – spindle whorl; 5 – mirror; 6 – finger rings; 7 – beads; 8 – animal bone; 9 – fibula with a modified bracelet; 10 – fibula; 11 – earrings. Ib – archival photograph of artefacts discovered in Grave 217 from the Zavetnoe necropolis, including a fibula and a modified bracelet that was originally threaded on its needle; II – Neyzats, Grave 92 (after Ia, Ib – Bogdanova 1962, tabl. XVI, II – Khrapunov and Stoyanova 2018, fig. 1: 21)

There are also groups of artefacts that were not repaired – for example, finger rings with bezel classified as types Polit IX and X. The posterior, thinner part of their shank is often damaged and does not have traces of repair.

Undoubtedly, the character of the above-presented repairs and modifications indicates that they were performed after the artefacts were damaged during use. Repairs did not consist of correcting defects during the production process. Most of the repairs and modifications were crudely executed simply by joining and bending adornments or their fragments. They did not require specialist knowledge or tools. Only the bracelet from the Opushki cemetery was fixed with the use of a more sophisticated method. The operation consisted of hammering and abrading the adornment, punching holes in it and joining

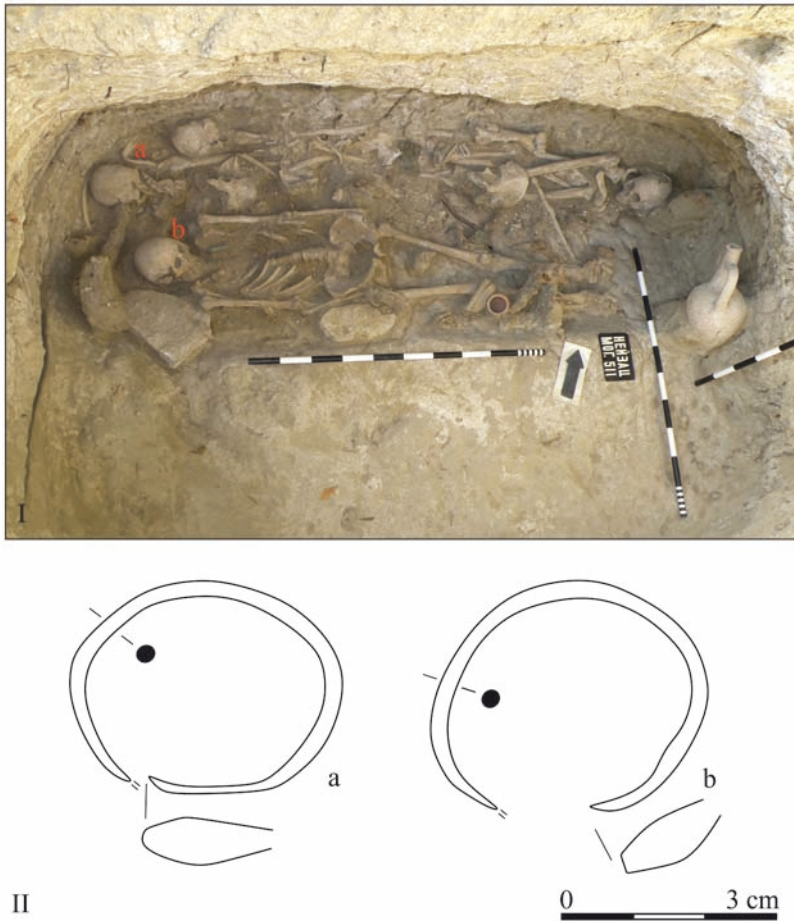


Fig. 7. Recycled jewellery discovered in Grave 511 from the Neyzats necropolis. I – locations of the adornments in Grave; II – earrings made of a damaged bracelet. Symbols a and b correspond to the markings used in part I (after Polit 2021, fig. 64)

together both ends with rivets. We can suspect that the repair required appropriate knowledge and some specialist tools.

It is possible that the poor quality of the repairs or modifications of small adornments resulted not only from a lack of expert knowledge or specialist tools, but also from the fact that it was impossible to correctly perform such operations. The earrings from Zavetnoe were repaired by fixing one of the broken ends. Restoring the original look of adornments required joining together broken elements, *e.g.*, by soldering. Because of the thinness of the wire used in the production of earrings, the above-mentioned method of restoration could not be performed on this type of adornments. All modifications required changing

the functions of these artefacts. This is probably the reason why other techniques were employed here. Earrings were repaired by punching new holes to serve as fastening elements.

WHO REPAIRED ADORNMENTS?

Jewellery products should be repaired by experts in jewellery craft, because any incompetent operation lowers the aesthetic value and, as a consequence, price of a fixed item. The traces of repair on Sarmatian period jewellery from the Crimea compel us to think why they were performed in such an incompetent manner and who repaired them. This is puzzling because we can suspect that the discussed adornments belonged to women having a stable social position. This is clearly indicated by the inventories of their graves. For example, in the Zavetnoe necropolis, some of the graves contained not only original artefacts (*e.g.*, in the case of Grave 310 [Niche 1, Burial 1] an enamelled Kropotov 16/65 [= Hellström VII.4.4] type fibula and in Grave 311, a Kropotov 16/29 [= Hellström VII.3a] type fibula), but there was also a considerable variety of other adornments found in these features (Kropotov 2010, 308; Hellström 2018, 136, 270). Most probably, the owners of the repaired jewellery were affluent women for whom buying or exchanging damaged adornments was not a problem. They were provided with the services of specialist artisans, so the low quality of the repairs is even more puzzling. We should remember that we know of similar examples of tastelessly repaired adornments from the Sarmatian environment discovered in rich graves. For example, in Burial Mound 55 located in Kalinovka (Volgograd



Fig. 8. Repaired bracelet from Burial Mound 55 (Burial 8) located in Kalinovka (Volgograd Oblast, RU) (after Korolkova 2008, fig. 5)

Oblast, Russia), two spiral, zoomorphic bracelets made of gold were discovered near Burial 8. One of them was damaged and next repaired in ancient times (Fig. 8). It should be noted that – although this operation was not performed in a sophisticated manner – the places of the fracture were properly prepared for further repair with the use of tools and then bent and joined together (Korolkova 2008, fig. 5). What can therefore explain the low quality of the repairs? T. Bochnak and P. Harasim – when discussing the question of repairing weapons in the Przeworsk and Oksywie cultures – reached the conclusion that poorly performed repairs might indicate that the warriors of these two cultures had no access to production and distribution centres, whereas the local artisans had a modest knowledge of this craft in comparison to the makers of the original artefacts (Bochnak and Harasim 2015, 529). In light of the above-presented facts, we should try to guess where such Crimean jewellery workshops might have been localised and think about what was the access of the local population to experts able to perform professional repairs. Undoubtedly, specialist production centres operated in the classical ancient cities in this region, but their presence in barbarian settlements was not confirmed. Nevertheless, new findings concerning jewellery from the Crimea in the Sarmatian period allow the possibility that at least some adornments were produced by the barbarian population, especially simple forms whose origin is linked with local traditions (Polit 2022, 100). If the local artisans produced adornments, there must have been at least minor workshops, which are still to be discovered. We must remember that previous archaeological works were mainly focused on researching cemeteries. Settlements were only sporadically excavated, which could be the reason why we know no workshops from the discussed region. It should be mentioned that most of the necropolises have even several hundreds of burials. Undoubtedly, large settlements must have functioned near such vast cemeteries. We can suspect that they were inhabited by people with high aesthetic tastes, fond of enriching their costume with different types of jewellery. It appears that the high demand for adornments resulted in the presence of people providing access to such products (traders and artisans).

Although we do not know typical goldsmithing tools from the Crimea, some graves contained tools that might have been used in metal processing. Especially worth mentioning is an interesting discovery at the Druzhnoe necropolis (Khrapunov 2002, 43). A set of blacksmith tools was found near the wall of the burial chamber of Grave 78 – dated to the 4th century AD. The report of this assemblage by I. N. Khrapunov mentions that it included a pair of iron pincers, iron hammer, iron anvil, unspecified iron items and two artefacts described as ‘moulded stones’ (Khrapunov 2002, 4, tabl. 183; 184: 5). A closer look at the items whose function remains unknown allowed us to suspect that one of them – with the remains of a wooden handle – was a file, whereas the other was a riveter (Khrapunov 2002, tabl. 183: 2, 5). The two stones are probably smooth planes. The set of blacksmith tools from the Druzhnoe necropolis is similar to those discovered at sites right across the Middle European *Barbaricum* (cf. Kokowski 1981; Żygadło 2002). Iron pincers analogous to those found in Druzhnoe were discovered in the robbed vaulted Grave 272 at the Neyzats

cemetery (Khrapunov 2011, fig. 37: 11). It is possible that this artefact belonged to a set of blacksmith tools, but the rest of the instruments were later stolen from the grave.

It appears that the above-presented simple repairs and modifications were performed by local people in small – maybe even domestic – workshops. We cannot rule out the possibility that the owners of the adornments – or their partners – carried out these operations. What is interesting, the similar method of repairing the two earrings from the Zavetnoe necropolis – as well as the similar chronologies of Graves 310 and 311 – allow us to suspect that they were repaired by the same person. Only the repair of the bracelet found at the Opushki cemetery might have caused some trouble. It was mended by riveting, which required some knowledge and tools, but still might have been performed in a home workshop. As Treister observed, the technique of riveting was employed across Sarmatia and Scythia. Already in the 2nd-3rd centuries AD, nomads were able to repair vessels with riveted patches (Treister 2019, 319).

CONCLUSIONS

Repaired jewellery can only occasionally be found in the Crimean materials from the Sarmatian period. Nevertheless, it appears that the people of the Late Scythian and Sarmatian cultures repaired damaged adornments. The scarcity of such jewellery in archaeological materials is to a great extent the result of not including information on traces of repair of objects by archaeologists analysing them. Re-examining the published materials for finding traces of repair – which resulted in finding them on certain artefacts – proves this observation correct. We need to bear in mind, however, that some traces of repair might have been overlooked and not included in drawings and descriptions. This is why the number of such items may be much higher. This should not be surprising, as people have been repairing damaged items for ages (*e.g.*, Treister 2019). Still, we must remember that repaired artefacts – especially jewellery – often lost their aesthetic and functional value. They were repaired because of economic reasons. Although the number of adornments discovered across the Crimean Peninsula allows us to suspect that they were easily accessible for people from different social groups, losing or damaging them was not meaningless for their owners. Items of jewellery were material goods whose value depended not only on the price of the used raw materials, but also on labour input, because such artefacts – even not very sophisticated items – must have been produced by artisans with proper skills. If a damaged adornment could be fixed, it was repaired or recycled and reshaped to be worn by a child (Polit 2018, 446-447). The discussed materials clearly indicate that fragments of damaged adornments were reused, and the principle of not wasting products that can be reused was also present in other periods (Skóra 2014, 215, 216; 2020, 96; Mączyński and Polit 2017; Mączyński 2019, 49). It is possible that damaged adornments were treated as scrap metal and recycled by melting.

It is also worth considering if such jewellery was worn every day, or, as items of lesser value, they were mainly deposited in graves. Taking into account the fact that repaired jewellery was discovered in graves along other adornments – sometimes of the same type – we can suspect that it was worn during the lives of the buried persons.

Acknowledgments

I would like to thank Piotr Moskała for translating the article.

References

- Bochnak T. and Harasim P. 2015. Reparierte Waffen der vorrömischen Eisenzeit in der Przeworsk- und Oksywie-Kultur. *Archäologisches Korrespondenzblatt* 45/4, 519-533.
- Bogdanova N. A. 1962. *Otchet ob arkhelogicheskikh issledovaniyakh 1962 g. mogilnika pervykh vekov n.e. v rayone s. Zavetnoe Bahchisarayskogo rayona Krymskoy oblasti*. Typescript held in the Archive of the Institute of Archaeology of the National Academy of Sciences of Ukraine, D. 3974-3977 (1962/45).
- Dashevskaya O. D. 2014. *Nekropol Beliausa*. Simferopol: Predpriyatie Feniks.
- Guschina I. I. and Zhuravlev D. V. 2016. *Nekropol rimskogo vremeni Belbek IV v Yugo-Zapadnom Krymu 1* (= *Trudy Gosudarstvennogo istoricheskogo muzeya* 205). Moskva: Gosudarstvennyi istoricheskiy muzey.
- Hellström K. 2018. *Fibeln und Fibeltracht der Sarmatischen Zeit im Nordschwarzmeergebiet (2. Jh. v. Chr. – 3. Jh. n. Chr.)* (= *Archäologie in Eurasien* 39). Bonn: Dr Rudolf Habelt-Verlag GmbH.
- Khrapunov I. N. 2002. *Mogilnik Druzhnoe (III-IV vv. nashei ery)*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.
- Khrapunov I. N. 2007. Dve mogily s pogrebeniyami zhenschin iz mogilnika Neyzats. *Materialy po arkhologii, istorii i etnografii Tavrii* 13, 31-55.
- Khrapunov I. N. 2011. Nekotorye itogi issledovaniy mogilnika Neyzats. In I. N. Khrapunov (ed.), *Issledovaniya mogilnika Neyzats*. Simferopol: Dolia, 13-113.
- Khrapunov I. N. 2013. Otchet ob arkhelogicheskikh issledovaniyakh mogilnika Neyzats v 2012 g. Simferopol. Typescript held in the private archive belonging to the author of the research.
- Khrapunov I. N. and Masiakin V. V. 1998. Mogila s dvumia podboyami III v n.e. iz nekropolia Druzhnoe v Krymu. *Rossiyskaya arkhologiya* 4, 133-149.
- Khrapunov I. N. and Stoyanova A. A. 2013. Tri podboynye mogily iz nekropolia Opushki v Krymu. In E. V. Smyntyna (ed.), *Varvarskiy mir severopontyiskikh zemel v sarmatskuyu epokhu: sbornik statei k 60-letiyu A. N. Dzigovskogo*. Kiev: Vidavets Oleg Filiuk, 184-207.
- Khrapunov I. N. and Stoyanova A. A. 2018. Fibule in the Cemetery of Neyzats. In B. Niezabitowska-Wiśniewska, P. Łuczkiwicz, S. Sadowski, M. Stasiak-Cyran and M. Erdrich (eds), *STUDIA BARBARICA. Profesorowi Andrzejowi Kokowskiemu w 65. rocznicę urodzin I*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, 456-479.

- Kokowski A. 1981. Pochówki kowali w Europie od IV w. p.n.e. do VI w. n.e. *Archeologia Polski* 26, 191-218.
- Korolkova E. F. 2008. Sarmatske ukrasheniya i sibirskoe zoloto drevnikh kochevnikov. In *Sokrovishcha sarmatov. Katalog* wystawki. Sankt Petersburg, Azov: Izdatelstvo Azovskogo istoriko-arkheologicheskogo i paleontologicheskogo muzeya-zapovednika, 15-28.
- Kropotov V. V. 2010. *Fibuly sarmatskoy epokhi*. Kiev: ADEF-Ukraina.
- Mączyński P. 2019. Remarks on using tools with truncated edges in the Lublin-Volhynian culture on the example of materials from site no. 7 in Las Stocki, Puławy County. *Analecta Archaeologica Ressoviensia* 14, 41-56.
- Mączyński P. and Polit B. 2017. Discovered Once Again. Interpretation of flint artefacts from funerary constructions of the late Scythian Culture. *Archäologisches Korrespondenzblatt* 47/3, 383-396.
- Muld S. A. and Antipenko A. V. 2019. Khimicheskii sostav splava detaley kostiuma iz pozdneskifskogo mogilnika Levadki v Centrelnom Krymu. In D. G. Savinov (ed.), *Greki i varvarskiy mir Severnogo Prichernomoria: kulturnye traditsii v kontaktnykh zonakh. Materialy V mezhdynarodnoy naucznoy konferentsii «Arkheologicheske istochniki i kulturogenez»*. Sankt Petersburg: Skifiya-print, 42-46.
- Polit B. 2018. Several remarks on metal bracelets from child graves of the Late Scythian culture. In B. Niezabitowska-Wiśniewska, P. Łuczkiwicz, S. Sadowski, M. Stasiak-Cyran and M. Erdrich (eds), *STUDIA BARBARICA. Profesorowi Andrzejowi Kokowskiemu w 65. rocznicę urodzin*, Tom I. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, 442-455.
- Polit B. 2021. Biżuteria okresu sarmackiego na Krymie – klasyfikacja typologiczno-chronologiczna 1. Rzeszów. The manuscript of the doctoral dissertation is stored in the repository of the Rzeszów University.
- Polit B. 2022. *Jewellery of the Barbarian Societies from the Crimea in the Sarmatian Period. Earrings, Bracelets, Band Rings and Finger Rings*. Rzeszów: Wydawnictwo Uniwersytetu Rzeszowskiego.
- Przychodni A. 2005. Die Bestattungen der Schmiedehandwerker aus dem Gräberfeld der Przeworsk-Kultur in Korytnica, Kr. Jędrzejów, Woiw. Świętokrzyskie, Fundstelle 1/22. *Acta Archaeologica Carpathica* 40, 79-107.
- Puzdrovskiy A. E. and Trufanov A. A. 2017. *Polevye issledovaniya Ust-Almingskogo nekropolia v 2004-2007 gg.* Simferopol: IP Brovko A. A.
- Skóra K. 2014. Bransolety i dzieci. Kilka spostrzeżeń o ozdobach, dzieciństwie i obrządku pogrzebowym w kulturze wielbarskiej. In J. Andrzejowski (ed.), *In Medio Poloniae Barbaricae. Agnieszka Urbaniak in memoriam (= Monumenta Archaeologica Barbarica, Series Gemina 3)*. Warszawa: Fundacja Monumenta Archaeologica Barbarica, Instytut Archeologii Uniwersytetu Warszawskiego, 211-222.
- Skóra K. 2020. *Omnia mors aequat? Soziale Stratigraphien in der römischen Kaiserzeit und Völkerwanderungszeit im Gebiet der Wielbark-Kultur*. Łódź: Instytut Archeologii i Etnologii PAN, OBDT w Łodzi.
- Stoyanova A. A. 2012. *Detskie pogrebeniya iz mogilnika Opushki (po rezultatam raskopok 2003-2009 gg.)*. Simferopol: DOLYA.

- Symonovich E. A. 1983. *Naselenie stolitsy pozdneskifskogo tsarstva (po materialam Vostochnogo mogilnika Neapolia Skifskogo)*. Kiev: Naukova dumka.
- Treister M. 2019. Second-Hand for the Barbarians? Greek and Roman Metalware with the Signs of Repair from the Nomadic burials of Scythia and Sarmatia. In V. Cojocaru, L. Ruscu, T. Castelli and A. I. Pázsint (eds), *Advances in Ancient Black Sea Studies: Historiography, Archaeology and Religion (= Pontica et Mediterranea 8)*. Cluj-Napoca: Mega Publishing House, 313-345.
- Trufanov A. A. 2001. K voprosy o khronologii brasletov s zoomorfnyimi okonchaniyami (po materialam krymskikh mogilnikov pozdneskifskogo vremeni). In I. I. Guschina and D. V. Zhuravlev (eds), *Pozdne skify Kryma (= Trudy Gosudarstvennogo Istoricheskogo muzeya 118)*. Moskva: Gosudarstvennyi istoricheskii muzey, 71-77.
- Zagórska-Telega J. 2017. Uwagi na temat naprawianej zapinki typu A.236c z Michałowic. In J. Andrzejowski, C. von Carnap-Bornheim, A. Cieśliński and B. Kontny (eds), *ORBIS BARBARORUM. Studia ad archaeologiam Germanorum et Baltorum temporibus Imperii Romani pertinentia Adalberto Nowakowski dedicate (= Monumenta Archaeologica Barbarica, Series Gemina 6)*. Warszawa, Schleswig: Instytut Archeologii Uniwersytetu Warszawskiego, Zentrum für Baltische und Skandinavische Archäologie, Fundacja Monumenta Archaeologica Barbarica, 585-598.
- Zaytsev Yu. P., Voloshinov A. A., Kyunelt E., Masiakin V. V., Mordvintseva V. I., Firsov K. V. and Fless F. 2007. Pozdneskifskiy nekropol Zavetnoe (Alma-Kermen) 1-3 vv. n. e. v Yugo-Zapadnom Krymu. Raskopki 2004 g. In Yu. P. Zaytsev and V. I. Mordvintseva (eds), *Drevnaya Tavrika*. Simferopol: Universum, 249-290.
- Żygadło L. 2002. Narzędzia żelazne związane z obróbką metali w kulturze przeworskiej. In S. Orzechowski (ed.), *Hutnictwo świętokrzyskie oraz inne centra i ośrodki starożytnej metalurgii żelaza na ziemiach polskich*. Kielce: Świętokrzyskie Stowarzyszenie Dziedzictwa Przemysłowego w Kielcach, 167-176.