### Papers in Honour of Rastko Vasić 80<sup>th</sup> Birthday Зборник радова у част 80 г. живота Растка Васића

#### АРХЕОЛОШКИ ИНСТИТУТ

# ЗБОРНИК РАДОВА У ЧАСТ 80 Г. ЖИВОТА РАСТКА ВАСИЋА

#### Уредници

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#### INSTITUTE OF ARCHAEOLOGY

# PAPERS IN HONOUR OF RASTKO VASIĆ 80th BIRTHDAY

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Foreword Увод

Since 1990, after practically 30 years and the publication of the volume of the Starinar journal dedicated to the academician and professor Milutin Garašanin, the Institute of Archaeology in Belgrade publishes a volume dedicated to a doyen of both Serbian and European archaeology, Rasko Vasić. In contrast to university centers, where this kind of publications are usual, due to the position of individuals as professors and teachers (Festschrift, Homage...), the scientific researchers are usually neglected in that respect, which can be seen in the fact that this volume represents the first of a kind published by the Institute of Archaeology. Bearing in mind the significance and the influence of Vasić's work on ex-Yugoslav and prehistoric archaeology of Europe, as well as the fact that he spent his entire career at the Institute of Archaeology, we consider this volume as a humble act of our gratitude for everything our dear colleague Vasić did for archaeology and the Institute, on occasion of his 80th birthday.

Indeed, Rastko Vasić stands as a great of both Serbian and Yugoslav archaeology, distinctly appreciated and esteemed, which stands in opposition to his humble and unobtrusive nature. Vasić's scientific and artistic educations often intertwined in his papers dealing both with the protohistoric art and the particular problems of the Bronze and Iron Age in southeastern Europe. Years of work and scientific questions led him to various phenomena of our prehistoric archaeology, many of which he had himself defined, but from time to time he used to go back and discover the until then unobserved Iron Age art of the Central Balkans. Only a glimpse of his bibliography at the beginning of this volume reveals the archaeological phenomena he had defined and interpreted, and through his serious and responsible scientific work and afterwards authority introduced to archaeology. His first monographs (Културне групе старијег гвозденог доба у Југославији and The Chronology of the Early Iron Age in Socialist Republic of Serbia) were created on basis of his doctoral dissertation and more than a couple of decades since the publication represent often cited literature.

Након безмало 30 лета и Старинара посвећеног академику и професору Милутину Гарашанину из 1990. године, Археолошки институт у Београду објављује једну засебну публикацију посвећену доајену српске, али и европске археологије Растку Васићу. За разлику од универзитетских центара, где је овај тип публикација (Festschrift, Hommage...) уобичајен због позиције појединца као професора и учитеља, научни су радници обично занемарени у томе погледу, што се види и по томе да је ово прва таква засебна публикација наше куће. Но, имајући у виду значај Васићевих дела за бившу југословенску и праисторијску археологију Европе и утицај на њу, као и то што је цео свој радни век провео у Археолошком институту, сматрали смо да је овај зборник поводом 80 година живота један скромни чин наше захвалности за све што је драги колега Васић учинио за археологију и Институт.

Растко Васић доиста представља великана српске и југословенске археологије, изразито уваженог и цењеног, што је у неку руку у супротности са његовом скромном и ненаметљивом природом. Васићево научно, али и уметничко образовање често се сустицало у његовим првим радовима, када се бавио како уметничким протоисторијским темама, тако и конкретним проблемима гвозденог и бронзаног доба југоисточне Европе. Године рада и стручна питања одвела су га ка многим феноменима наше праисторијске археологије, од којих је неке и сам дефинисао, али се с времена на време враћао, а уједно и откривао до тада незапажену уметност гвозденог доба централног Балкана. Само и летимичан поглед на његову библиографију на почетку овог зборника говори о археолошким појавама које је Васић одредио и интерпретирао, а својим озбиљним и одговорним научним радом и доцнијим ауторитетом увео у домаћу археологију. Његове прве монографије (Културне групе старијег гвозденог доба у Југославији и The Chronology of the Early Iron Age in Socialist Republic of Serbia), настале на основама док-

A complete affirmation in Yugoslav archaeology for colleague Vasić was the invitation to write no less than 13 chapters for the 5th volume of the distinguished publication Praistorija jugoslavenskih zemalja, as one of the youngest authors, dealing with less familiar subjects or subjects with scarce background data, undetermined origin or undefined to a great extent. It can be said that even nowadays, after more than 30 years, Vasić's certain syntheses from the aforementioned publication, remain the postulates for the Iron Age of the Central Balkans. Another significant work of Rastko Vasić, although often not emphasized enough, is the fact that under the invitation of the academician Dragoslav Srejović, he participated in writing of 150 separate units in the unique domestic archaeological encyclopedia - Arheološki leksikon – preistorija Evrope, Afrike i Bliskog Istoka, grčka, etrurska i rimska civilizacija, a paper that Yugoslav and Serbian archaeology lacked for a number of decades. His international reputation was confirmed by five monographs published within the prestigious Prähistorische Bronzefunde edition. In parallel with that, through his advice and influence, as well as through his scientific renown, he aided younger colleagues to prepare the volumes for the same edition.

In that context, it is important to mention that defending boards for magister or doctoral thesis on the subject on Bronze and Iron Age could not be imagined without the presence of the colleague Vasić. On such occasions, not a single critique or a bad word could be heard from Vasić, but positive opinion and useful suggestions above all, so that the candidate could properly prepare the thesis for future publication. Rastko Vasić has been a member of the editorial board for the Starinar journal for more than 40 years, as well as for many other corpora and journals in the territory of southeastern Europe. As a member of editorial staff or as a reviewer of papers and monographs, he would always point out the qualities of the submitted material, and if the other members of editorial staff or reviewers decided to reject the material, his benevolent suggestions would help in publishing each useful paper after all, even in some other journal. Also, as a longtime director of scientific projects at the Institute of Archaeology, he would always do his best to help торске дисертације, и даље су, неколико деценија након објављивања, цитирано штиво.

Потпуну афирмацију у југословенској археологији колега Васић доживео је када је позван да, као један од тада најмлађих аутора, напише чак 13 поглавља за том V чувене Праисторије југославенских земаља, и то на неке теме о којима се мало знало или у вези с којима су подаци били штури, нејасног порекла и добрим делом недефинисани. Може се рећи да и данас, након 30 и више година, поједине Васићеве синтезе из ове серије и даље остају једини постулати гвозденог доба централног Балкана. Још један значајан допринос овога типа, чини се, није довољно помињан у досадашњем његовом раду, а то је чињеница да је на позив академика Драгослава Срејовића учествовао у изради преко 150 засебних јединица у јединственој домаћој археолошкој енциклопедији - Археолошки лексикон – преисторија Европе, Африке и Блиског истока, грчка, етрурска и римска цивилизација, делу које је дуги низ деценија недостајало југословенској и српској археологији. Међународни углед потврдио је са пет монографија у престижној едицији Prähistorische Bronzefunde, док је паралелно саветима и својим утицајем, као и научним реномеом, помагао млађим колегама да припреме своје свеске за исту едицију.

У томе контексту, важно је поменути да се без колеге Васића није могла замислити комисија за одбрану магистарских или докторских дисертација на тему бронзаног или старијег гвозденог доба. Том приликом од њега се није могла чути покуда или лоша реч, већ надасве позитивно мишљење и корисне сугестије како би кандитат своје дело адекватно припремио за будуће објављивање. Преко 40 година члан је редакције Старинара, као и многих зборника и часописа на простору југоисточне Европе. Као чест члан редакција или рецензент радова и монографија, увек је истицао квалитете прилога, а уколико би се остатак редакције или други рецензенти одлучили да одбију аутора, он би сесвојим благонаклоним сугестијама трудио да сваки користан рад ипак буде објављен, па макар у неком другом часопису. Такође, као дугогодишњи руководилац научних пројеката у Археолошком институту, young colleagues on each matter, never striking as a boss or a superior.

Plenty of details on the private and professional life of Rastko Vasić, both as an archaeologist and painter and literate, can be found in the continuation of this volume, which was one of the ideas of the editors. Therefore, about 60 pages are dedicated to his life and work, biography and a detailed bibliography, while the interview is illustrated with Vasić's numerous paintings, selected by the celebrant himself. Afterward, there is a collection of papers dedicated to the colleague Vasić, written in English, German, Russian and the ex-Yugoslav languages, assorted chronologically. Unfortunately, certain authors which were invited in agreement with the celebrant did not respond, primarily due to the poor health, so the editors once again point out that they regret the situation, although on the other hand, we are grateful and proud of the content of the volume, on 33 authors of the papers, and the editorial board comprised of prominent names of the word archaeology from nine different countries.

Through this volume, the editorial board and the Institute of Archaeology would like to heartily congratulate the jubilee to our colleague Vasić and to wish him many more years in archaeology.

Vojislav Filipović Aleksandar Bulatović Aleksandar Kapuran трудио се да помогне млађим колегама по свим питањима, не постављајући се притом као шеф.

Многи детаљи о приватном и професионалном животу Растка Васића и као археолога, и као сликара и књижевника, могу се наћи у наставку овог зборника, што је била и једна од идеја приређивача. Стога је првих шездесетак страна посвећено његовом животу и раду, биографији и детаљној библиографији, док је интервју илустрован бројним Васићевим сликама, по избору самог слављеника. Након тога уприличени сурадови посвећени колеги Васићу, на енглеском, немачком, руском и језицима бивше Југославије, поређани по хронолошком реду. Нажалост, поједини аутори позвани у консултацијама са слављеником нису се одазвали позиву, поглавито због нарушеног здравственог стања, па уредници и овом приликом напомињу да жале због оваквог развоја ситуације. С друге стране, поносни смо на садржај зборника – како на 33 аутора прилога, тако и на редакцију, у којој су врхунска имена светске археологије из девет земаља.

Колеги Васићу уредници и Археолошки институт овим зборником од срца честитају јубилеј и желе још много година рада у археологији.

Војислав Филиповић Александар Булатовић Александар Капуран



In the National Museum in Belgrade, 2018 (by Aca Đorđević) У Народном музеју, 2018. године (фото Аца Ђорђевић)

## Bronze Spear and Javelin Heads with Polygonal Sockets - A Balkan Phenomenon

Lyuben K. Leshtakov

*Abstract*: This article disscusses the emergence, distribution and local production of bronze spearand javelinheads with polygonal sockets. A casting mould for such spearheads was found during rescue excavations of a Thracian settlement in Southern Bulgaria. The analysis of similar artifacts shows that they represent a phenomenon characteristic for the LH III A2 – EIA period and produced in the area of the whole Balkan peninsula.

Key words: bronze spearheads, poligonal sockets, stone moulds, warfare, Balkan peninsula.

Warfare during the Bronze age had intensive and interesting development. Several new kinds of metal weapons and defensive armour were invented, some of which were used in large quantites in the first organized armies. This article briefly describes a group of bronze spear and javelin heads, which were used by various cultures across the Balkan peninsula.

Until the end of the 1980s of the 20th c. there were only four major studies regarding the development of bronze age spear and javelin heads. Three of them were dedicated solely to Mycenaean weaponry (Jacob-Friesen 1967; Höckmann 1980 a; 1980 b; Avila 1983). Nevertheless, two attempts were made to compare the Central European and Mycenean weapons (Harding 1984, 167-169; Bouzek 1985, 135 ff.). During the last years J. Řihovsky, M. Gedl, R. Davis and L. Leshtakov published several volumes which examined a large amount of artifacts across Europe (Řihovsky 1996; Gedl 2009; Davis 2012; Leshtakov 2015).

Our distinguished expert, Prof. R. Vasić, has made considerable contributions in this area, and has written extensively on these problems (Bacuh 2001; Vasić 2015). Therefore, this volume is the appropriate place to present a new casting mould for bronze javelin heads from Ancient Thrace. It was found during the rescue excavations of the multilayered settlement Ovčaritza 1, located near Steam-power plant No 2 in Maritsa Iztok Power complex. The excavations were conducted between 1981 and 1983. Later on part of the gathered information was the subject of a brief publication (Кънчева-Русева 1991). The settlement itself was located on a terrace on the left bank of the Ovčaritza river, 2,5 km southwest from the Steam-power plant Maritzsa Iztok 2. It measures approximately 2,5 acres. The research was conducted in four big trenches with a combined surface of 0,875 acres (Leshtakov et al. 2001, 23). It was established that most of the cultural layer was destroyed during the removal of the upper stratum of soil needed for the recultivation of already mined areas in the complex. However, it was possible to establish the remains of two dwellings, eight pits and a pottery kiln dated in the Early Iron Age and three successive horizonts from the late bronze age. The first of them is completely destroyed. The second yielded several archaeological structures. The level of the third horizon was marked by the debris of a burnt dwelling. According to the excavator, the LBA-layer could be attributed to the Assenovets - Razkopanitsa culture, and the EIA-layer to the initial stages of this period in Bulgaria (Кънчева-Русева 1991, 72-73).

<sup>&</sup>lt;sup>1</sup> I would like to express my gratitude to T. Kančeva-Ruseva – the excavator of the site, who gave me permission to publish this find.

The stone mould (Fig. 1, 1) was found during the third and final campaign in 1983 in trench III at a depth of 0,50 m. It was made of micaceous slate and was used to cast bronze javelin heads with poligonal sockets. Unfortunately, only one half of it is preserved. It has a parallel piped shape and measures: length 10,3 cm; width 4,6 cm and height 3,0 cm. All sides were carefully smoothed and all edges were rounded. A wide groove was carved across the back side of the mould. It was used for binding the two halves of the mould together before casting. This is an interesting feature because such grooves occur more often on moulds from the EBA rather from the LBA (Черных 1978, 137, T. 20, 6-8). The two halves of the mould were additionally fixed in position by means of wooden pegs. They were put in small holes visible in the right upper and left lower corner.

The javelin head cast with this mould has a small leaf-shaped blade and a socket with a octagonal cross-section. Its size and shape are almost identical to the one cast with the smallest mould from the Sokol hoard and to another one, found during the excavations of the Roman town Nicopolis ad Istrum (Fig. 1, 2). This type of javelin head was widely distributed across Southeastern Europe during the Br B – Ha B period. Several local variants emerged during this time (Лещаков 2015, 54-57).

What makes this javelin head stand out against the other representatives of the type is its polygonal socket. This kind of decoration can be found also on two other spearheads kept in the National Archaeological Museum in Sofia and a third one found by treasure-hunters in Northwestern Bulgaria.<sup>2</sup> Unfortunately, there is no further information about the circumstances of their discovery. These finds form a group which consists of metal items and the moulds for their manufacture.<sup>3</sup> Among them there are javelin heads, as well as spearheads used in close quarter combat.

The spear and javelin heads with polygonal sockets already have been subject of investigation in several works. In 1973, K. Vinski-Gasparini pointed out that the small javelin heads with polygonal sockets were one of the leading types in her V-th chronological period (Vinski-Gasparini 1973, Sl. 6, 169). Later, some finds from the area of Slovenia and Bosnia and Herzegovina were published (Šinkovec1996, 141; König 2004, 32). Up to this point it seems that such spearheads were unknown in the Eastern part of the Balkan peninsula. Thus, the finds from Bulgaria considerably broaden the area of use and manufacture of these weapons, now spread over the whole Balkans – from the Black sea to the East to the Alps to the West. Mapping of the finds clearly shows that they occur very seldom north of the Danube and Drava (Fig. 2), i.e. they they were part of the weaponry used by the Balkan tribes during the end of the LBA and the beginning of the EIA. Until now we lack such finds from the area of Kosovo and FYROM due to the level of investigation in these areas.

There is no functional reference between polygonal sockets and the use of spear/javelin heads in combat. Their appearance could be described as a new way to break up the wall of the socket into several smaller surfaces. It could be described as a decorative pattern which occured on various types of spear and javelin heads. There are several local variations spread across the Balkans:

- In Bosnia and Herzegovina the angles between the sides of the socket were formed as a narrow decorative rib. This is confirmed by the spearhead from Ometala and the mould from Pivnica (Fig. 1, 4).
- In Albania and Greece there is local development of the so-called "fidle-shaped" spear-heads all fitted with polygonal sockets (Fig. 1, 3).
- Another peculiarity of this area is the combination between polygonal sockets and a set of additional decorative ribs parallel to the midrib and characteristic for the area of the Carpathian basin (Fig.1,9).

<sup>&</sup>lt;sup>2</sup> Personal communication with Ass. Prof. St. Alexandrov.

<sup>&</sup>lt;sup>3</sup> A. Harding supposed that the spearheads with polygonal sockets were manufactured by hammering rather than the edges of the socket being filed away (Harding 1984, 167). The mould from Ovčaritza clearly shows that this was not the case.

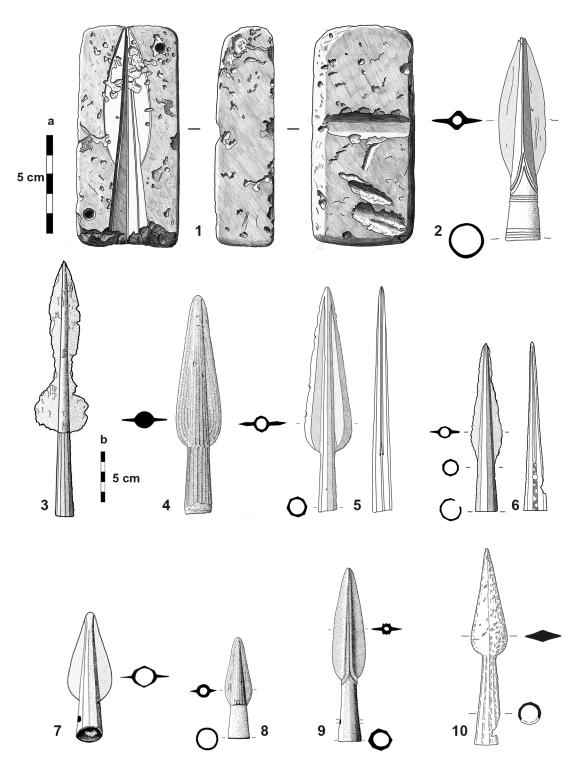


Fig. 1 – Spear and javelin heads with polygonal sockets (1, 3-10) and a javelin head from Nikopolis ad Istrum (2). 1. Ovčaritza; 2. Nikopolis ad Istrum; 3. Pažok; 4. Ometala; 5, 6. Unknown, Bulgaria; 7. Matijevici; 8. Tešanj; 9. Polemistrias; 10. Rudovci.

1-2, 5-6 drawing L. Leshtakov; 3 after Eggebrecht 1988; 4, 8 after König 2004; 7 after Vinski-Gasparini 1973; 9 after Avila 1983; 10 after Vasić 2015. 1-2 with scale A; 3-6, 8-10 with scale B; 7 not in scale.

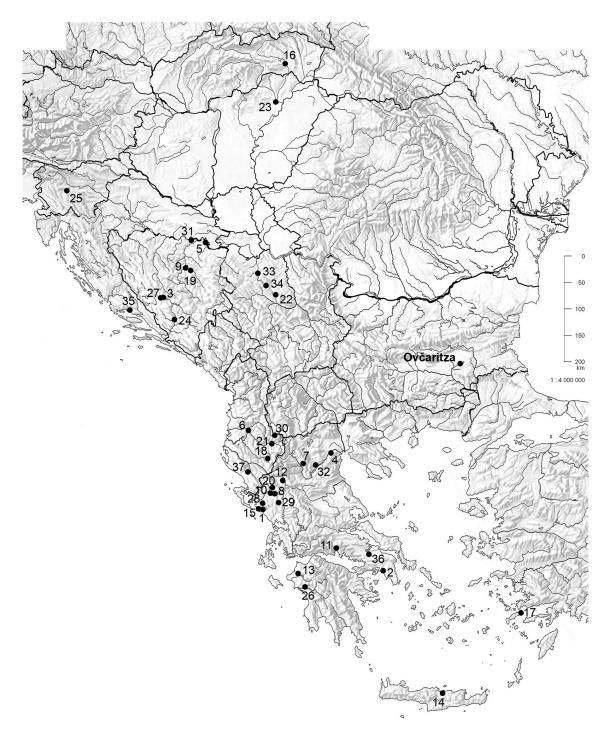


Fig. 2 – Distribution of bronze and iron spear and javelin heads with polygonal sockets in Sotheastern Europe. 1. Agia Kiriaki; 2. Athens; 3. Varvara; 4. Vergina (iron); 5. Vidovice; 6. Vodhinë; 7. Galatini.
8. Gardiki; 9. Grapska; 10. Gribiani; 11. Delfi; 12. Kalbaki; 13. Kangadhi; 14. Knossos; 15. Kiperi; 16. Košice; 17. Langadha; 18. Luaras; 19. Lućica; 20. Mazaraki; 21. Maliq; 22. Matijevici;
23. Mezönyék; 24. Mostar; 25. Notranje Gorice; 26. Olympia; 27. Ometala; 28. Paramitia-Tsardakia;
29. Peston; 30. Peshkepia; 31. Pivnica; 32. Polemistrias; 33. Rodovar (iron); 34. Rudnik; 35. Solin; 36. Thebes; 37. Cepunë.

- One spearhead from Bulgaria also has additional decoration. It consists of a series of oblique lines under the base of the blade (Fig. 1, 6). This pattern is rarely seen on some spearheads found in Olympia and Delfi and it is very likely that the Bulgarian find was imported from Greece.
- Another rare element is the polygonal cross-section of the midrib which occurs more often in Bosnia and Herzegovina and Greece (Fig. 1, 8).

According to O. Höckmann, the origin of the polygonal socket could be traced back in time to a Mycenean spearhead found in Langada. It was dated to LH III A2 and was interpreted as a local variation of Minoan spearheads with fluted sockets (Höckmann 1980, 38). A. Harding also believes that these sockets were in fact a Greek invention (Harding 1984, 167). The search for their origin could be conducted also in another direction. The idea of an item with a polygonal cross-section of the body existed earlier and could be found on some metal vessels from Troy (Antonova et al. 1996, 31, 3; 36, 6). It is possible that weapon manufacturers borrowed it from their colleagues during LH III A2. During LH III B the quantity of the spearheads with polygonal socket rose. In Epirus, the bronzesmiths fitted them on some new, Central-European types. In Ha B, their spread reached the North-Western corner of the peninsula. In Croatia and Bosnia and Herzegovina they appeared on small javellin heads (Fig. 1, 7). According to K. Vinski-Gasparini, phase V of the Urnfield culture in Northern Croatia was marked with some changes of the burial customs and the appearance of new metal items from the Balkan – Iliryan or Thraco – Kymeryan cultural milieu (Vinski-Gasparini 1973, 208-209). Thus, the appearance of the polygonal sockets in this area could be linked with the decline of the Urnfield culture and the emergence of new cultural phenomena during the IX – VIII c. BC. Their spread reached also the Apenine peninsula, where there are numerous finds from the EIA (Harding 1984, 167).

On the Balkan peninsula, the production of polygonal sockets continued during the initial stages of EIA. This is proven by some finds from the Kerameikos necropolis (Müller-Karpe 1962, 89-90), by the stone mould from Ovčaritza, and also by the iron spearhead from Rodovar or Rudovci, Serbia (Fig. 1, 10)<sup>4</sup>. Their use terminates with the emergence of new types of iron spearheads with long narrow blades and sockets (Буюклиев 1985, 31; Avila 1983, T. 39-42). This new change in Balkan warfare is linked to the better compressive and bending strength of iron.

One must note that the spread of the polygonal socket across the Balkans in East/Western directions was not a single event. It was part of the local metallurgical development, manifested earlier with the spread of the bronze double axes of Hermones or Kilindir – Beguntsi types (Buhholz 1983, 80-83) and also with numerous local imitations of Mycenean type C rapiers found frequently in Albania, Bulgaria, Kosovo, Serbia and Romania (Kilian-Dirlmeier 1993, 50 ff.; Филиповић et al. 2015, 12, сл. 3). Similar contacts between the South and the North, or in this case between the East and the West, were not limited only to the spread of metal items but also to the ceramic repertoire (Garašanin 1996, 221 ff.).

Finally, it could be stated that the bronze spear and javelin heads with polygonal sockets are in fact a Balkan phenomenon. They were adopted for production by various cultures during the period from the 15th to 8th c. B.C. and reflect the contacts between the Balkan tribes from East to West and vice versa. This axis is yet insufficiently studied if compared with the vast amount of research devoted to the contacts between the Mycenean world and Transylvania or the Carpathian basin.

<sup>&</sup>lt;sup>4</sup> It was not possible to establish if F. Holste (Holste 1951, Taf. 20, 23) and R. Vasić (Vasić 2015, 24, Abb. 2, 1) published one spearhead with different illustrations or there are in fact two different spearheads.

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