

## RECENT DATA ON THE LATE COPPER AGE DIADEM FROM VÖRS

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*The grave with a diadem that was uncovered in 1952 in Vörs is one of the most prominent Copper Age burials in the Carpathian Basin. There are various opinions in the literature in connection with the burial and the diadem found on the skull: whether it was the grave of a man or a woman, perhaps it was a shaman, what the diadem was made of, brass, bronze or copper, and how it was made, by casting or hammering. The research connected with metalworking that has picked up in recent years has, however, completely ignored the diadem (Fig. 1). The “republishing” of the diadem serves to bring the object renewed scientific attention, supplemented with the results of current research possibilities – two non-invasive examinations of the metal.<sup>2</sup> Questions also arose in connection with the circumstances of its discovery, and to clarify these it was necessary to reexamine the original documentation and review the history of research on the diadem. The study provides a precise location for the discovery of the find and examines the functions of diadems of various sizes on the basis of the information from a recently published find in Anatolia.*



*Fig. 1: The Vörs diadem (Bondár, Mária: Spätkupferzeit. In: Sieben Jahrtausende am Balaton. Sonderausstellung vom 24. September 1989 bis 26. November 1989 in Mannheim. Sonderausstellung vom 10. Dezember 1989 bis 26. Februar 1990 in Oldenburg, hrsg. Róbert Müller Mannheim: Städtisches Reiß-Museum Mannheim, 1989, Taf. 4; photograph: Tibor Kádas)*

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<sup>2</sup> The detailed study will be published in the next issue of the periodical *Antaeus*. Bondár, Mária: The Vörs diadem: a unique relic of Late Copper Age metallurgy. Supposition, fact, new results. *Antaeus* 33 (2015), in press. In 2014 Iván Gresits performed an energy-dispersive X-ray fluorescence analysis (ED-XRF) on the diadem at the Nuclear Spectroscopy Laboratory of the Budapest University of Technology and Economics' School of Chemical and Biological Engineering, Department of Chemical and Environmental Process Engineering. The results of this will be included in an appendix to the aforementioned essay. The object was examined using another method – neutron radiography (NR) and prompt gamma activation analysis (PGAA), as well as time-of-flight neutron diffraction (TOF-ND) analysis – at the Budapest Research Reactor within the framework of the collaboration with the laboratory of the Budapest Neutron Center (BNC) participating in archaeometric research (the Nuclear Analytical and Radiographical Laboratory of the Hungarian Academy of Sciences Energy Science Research Center and the Institute for Solid State Physics and Optics' Neutron Spectroscopy Department of the Hungarian Academy of Sciences Wigner Research Center for Physics). The investigations were performed within the framework of the EU FP7 NMI3 project entitled *Studies on local metal production of the Carpathian Basin from the late Copper Age until the Middle Bronze Age (3500–1500 BC)*. Here I would like to thank Viktória Kiss, as well as Zsolt Kasztovszky, Zoltán Kiss, Boglárka Maróti, György Káli and Eszter Horváth who performed the examinations.

## THE DISCOVERY OF THE LATE COPPER AGE GRAVES IN VÖRS AND THE RE-IDENTIFICATION OF THE SITE

The first news about the grave was brought to light in 1954 in the excavation report in the Archaeological Bulletin (Archaeologiai Értesítő):

*“Vörs (Somogy County, Fonyód District). Three silo pits were dug on the northeastern edge of the village about 100 m to the northeast of the so-called majorsági (farmstead) buildings. Three graves with skeletons were discovered in the pits.*

*As a result of the quick reporting of the find, one of the graves was excavated in a professional manner. Two of the graves were essentially in an east-west orientation, and their dating could be determined on the basis of one of the observed graves. A contracted skeleton lay on the left side of the professionally excavated grave, with its head to the south-southeast. There was a bronze band about 2 cm wide with embossed decorations around the head. The two ends of the band ended in points and it was twisted together at the forehead. There were pierced shell beads on the neck. At the feet were two vessels belonging to the Pécel culture. One of the previously discovered graves was also from this period, because a similar vessel was part of the grave goods. The third grave also contained a skeleton, and the wheel-thrown gray vessels found as grave goods can be classified to the La Tène C period. Tamás Pekáry”<sup>3</sup>*

The town of Vörs belongs to the Kis-Balaton region. Due to the water conservation reconstruction performed in several phases beginning in the 1980s this lake has become a well researched area, however the Late Copper Age grave with a diadem was discovered prior to this in 1952.

An original typewritten copy of Tamás Pekáry's excavation report with his own drawings of the vessels and a rough sketch of the site can be found. From the report we also know that Imre Szentmihályi, the director of the Zalaegerszeg Museum was in Vörs on the 20<sup>th</sup> of October 1952 when the skeletons were discovered. Following this they informed Tamás Pekáry, who went to the site the next day. Lacking a tape measure, the young assistant museum studies specialist could only approximately determine the precise distance of the graves from the outermost building of the farmstead (Fig. 2). He presumed that he would have the opportunity to measure the position of the pits later. From the report, in addition to the brief report published in the *Archaeológiai Értesítő* (Archaeological Bulletin), we also have the following information about the diadem, “The two ends of the band narrow,

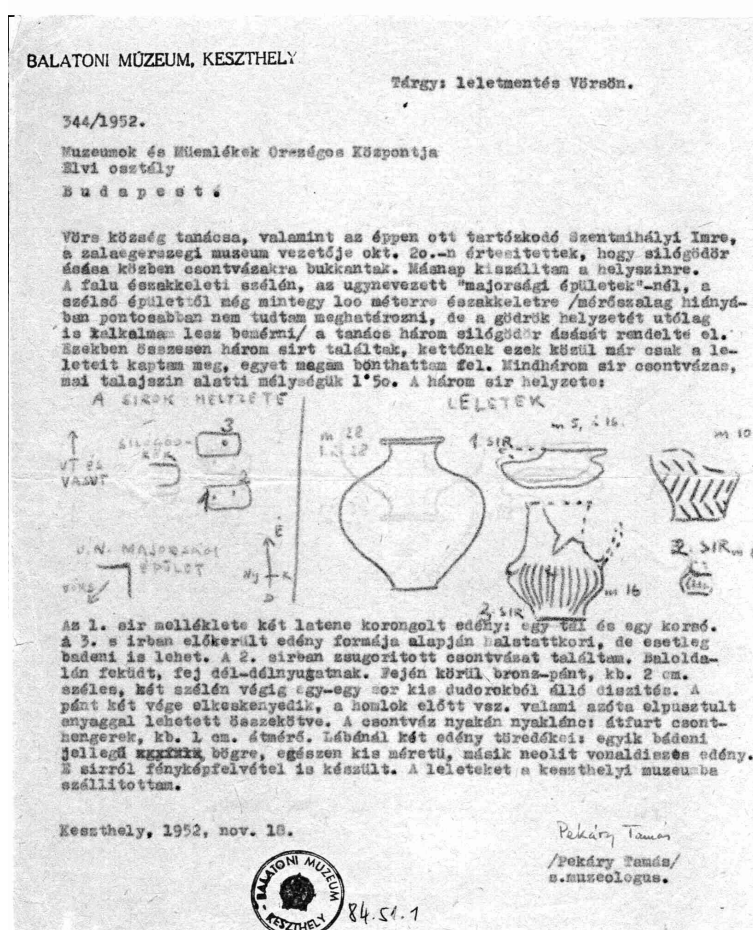


Fig. 2: Tamás Pekáry's excavation report (Keszthely Balaton Museum Documentation Department 344/1952)

<sup>3</sup> Pekáry, Tamás: Vörs. *Archaeologiai Értesítő* 81 (1954), 72. Tamás Pekáry's excavation report dated 18 November 1952 can be found in the documentation department of the Balaton Museum in Keszthely under number 344/1952. Tamás Pekáry (1929–2010) left the country in 1956 and settled in Switzerland and then Germany. As a student of András Alföldi he became a renowned historian of Roman Period economics and was a professor emeritus at the University of Münster from 2003.



and in front of the forehead it may have been connected with some kind of material that has since decayed.” From the documentation it is also clear that in the grave with the diadem there were not whole vessels, but two fragments, which Pékary sketched and provided their dimensions. Beads made of “bone cylinders” with a diameter of about 1 cm were found on the neck of the skeleton, but he did not sketch these. Photographs were taken of the grave, and the finds were transported to the Keszthely Museum.<sup>4</sup> The numbering of the graves was slightly mixed up, he first marked the finds from the grave he excavated as part of grave 3, then corrected this to be grave 2.<sup>5</sup>

János Banner received Pekáry’s brief excavation report quoted above in the final minutes before he completed the manuscript for his monograph on the Pécel culture. He mentions two archaeological sites from Vörs in the work, under the names Vörs (site 42) and Vörs- majorsági épületek (farmstead buildings; Fig. 3).<sup>6</sup> Banner did not concern himself with the location of the site. He did not publish Pekáry’s site plan. Today on modern maps there is a section called “Vörsi major” (Vörs Farmstead) or “Tsz major” (Co-op Farmstead) within the administrative territory of Vörs, so on the basis of the conformity in geographical names the research has accepted that the grave with the diadem came from there. However, thoroughly examining the original documentation shows that this identification of the site is incorrect.

In attempting to compare the site from Pekáry’s sketch map to a current map and identify the farmstead buildings, it can be seen that the current “Vörsi major, Dél-Balaton Tsz” (Vörs Farmstead, South Balaton Co-op) is not to the northeast of the village, but to the west, as if Pekáry had oriented the site plan backwards (Fig. 4). When it came to light that the farmstead indicated on present-day maps cannot be the same as that on Pekáry’s extremely simplified sketch site plan, I reviewed the reports from later excavations performed at Vörs looking for a reference point to determine the precise location of the diadem’s site. I also pestered the archaeologists from Zala and Kaposvár with questions on what they knew about Late Copper Age archaeological sites, the skeleton and

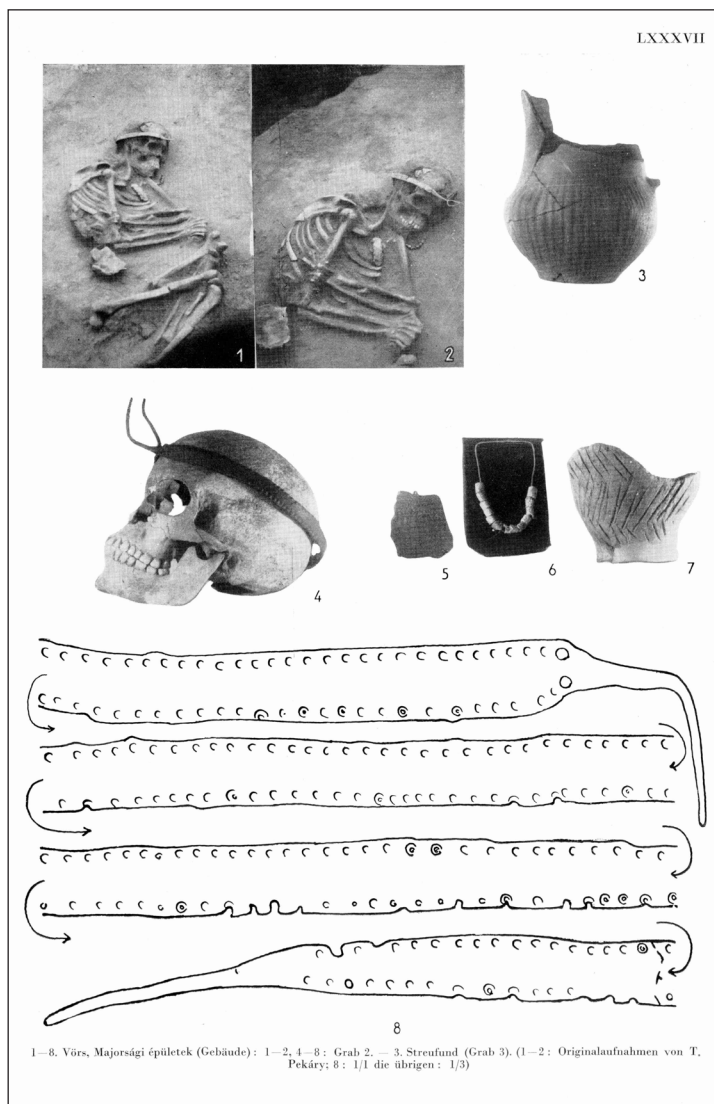


Fig. 3: The grave with a diadem from Vörs and the finds discovered in the grave. (Banner, János: *Die Pécel Kultur*. Budapest: Akadémiai Kiadó, 1956, Taf. LXXXVII.)

<sup>4</sup> Today Vörs is within the collection territory of the Kaposvár Museum, but in the 1950s finds from the Lake Balaton area landed up in Keszthely.

<sup>5</sup> The previously discovered grave containing a fragmented jug from the Baden culture became grave 3. The finds were inventoried into the collection of the Balaton Museum in Keszthely in 1963, and the inventory number of the diadem and the skull is 63.53.1.

<sup>6</sup> Banner, János: *Die Pécel Kultur*. *Archaeologia Hungarica* 35. (Budapest: Akadémiai Kiadó, 1956), 111. Taf. LXXXVII. The latter site can be found in the book under number 324.

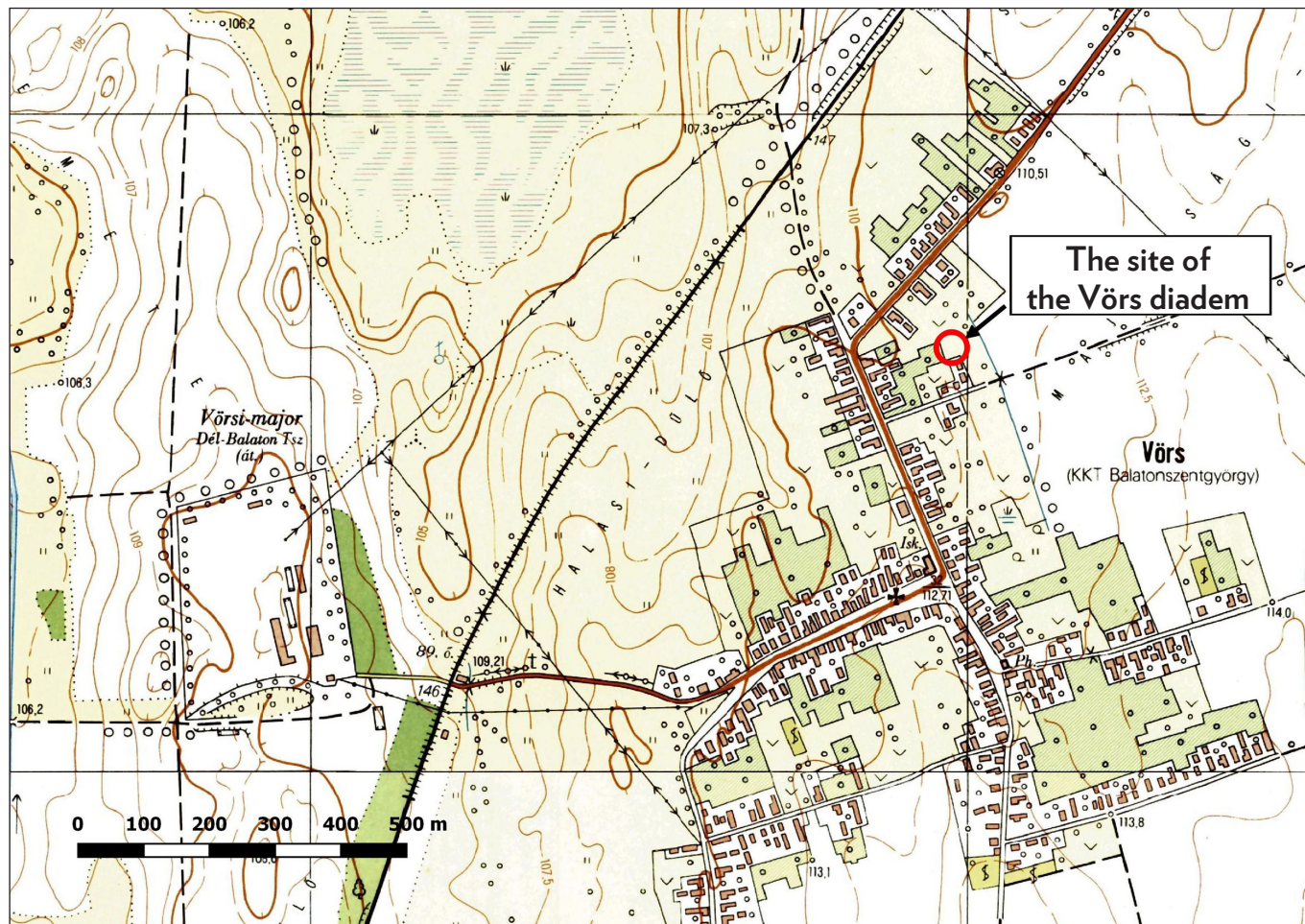


Fig. 4: The site of the Vörs diadem (georeferenced version prepared by Bence Vágvölgyi after Dénes Tóth and László Költő)

previous analyses.<sup>7</sup> After a great deal of research I found a mention of the work of the retired teacher Dénes Tóth on the internet.<sup>8</sup> In this, the paragraph on the diadem briefly summarizes the most important information found in the literature.<sup>9</sup> Dénes Tóth – who settled in Vörs in the 1970s– heard about the grave with the diadem from his neighbor, who had been there in person when they dug the silo pit. The former site was near the fishing pond at the end of Dénes Tóth’s yard, so he determined the location of the site, identifying it with street names and lots.<sup>10</sup> The farmstead building mentioned in the site report prepared during the excavation of the grave was on the territory of the Festetics Manor House (Vörs, Alkotmány u. 10, land registry lot number 23), and not at the site indicated as “vörsi major” on modern maps. So it was shown that it was worthwhile to check on the basis of original sources even data that was considered trustworthy. László Költő, who knew the location well, placed the site of the diadem on the map on the basis of the information from Dénes Tóth (Fig. 4-5).<sup>11</sup>

<sup>7</sup> I would here like to thank Szilvia Honti, P. Gergely Németh, László Költő, László Horváth, Róbert Müller, Bálint Havasi and Judit P. Barna for their assistance in various ways.

<sup>8</sup> Tóth, Dénes: *Vörs története* (History of Vörs). (Vörs: private publication, 2002). (László Valló’s book review. *Szabadszék* 2003/3, 17 January, 20).

<sup>9</sup> *Ibid.*, 16.

<sup>10</sup> Dénes Tóth provided the precise data of the site to László Költő, who gave me the information. I would like to hereby deeply thank both the esteemed teacher Dénes Tóth and my colleague László Költő for helping to correctly identify the site that had been considered unequivocal for decades.

<sup>11</sup> The georeferenced version (Fig. 4) and the map extract of the broader surroundings and Kis-Balaton were prepared by Bence Vágvölgyi (Hungarian Academy of Sciences, Research Center for the Humanities, Institute of Archaeology) (Fig. 5), and I hereby thank him for his assistance.







Fig. 7: The Kültepe finds (from Kulakoğlu, Fikri – Kangal, Selmin, eds: *Anadolu'nun Önsözü, Kültepe-Kaniş Karumu Asurlular İstanbul'da*. Bu katalog, Aya Sofya, Aya Irini Müzesi'nde 29 Aralık 2010 – 28 Mart 2011. Kayseri Büyükşehir Belediyesi Kültür Yayınları 78. İstanbul: Turizm Bakanlığı ve Kültepe Kazi, 2010. kat. 319–321.)

at the foot of the High Tatras in Veľká Lomnica (Fig. 6).<sup>13</sup> This latter is a long oblong band with the traces of perforations along the edge and with no horn like ends, so completely different from the example from Vörs.

So, there are plate metal bands that are shorter as well as longer examples, in other words objects genuinely like tiaras – for example the Vörs diadem and then the Bronze Age metal crowns that differ from this type – and “fragments” much smaller than the circumference of a head, for example the short band with a rounded end that is essentially oval from Veľká Lomnica. Not

long ago I found a possible explanation for this dichotomy, in connection with the group of finds recently made public from Kültepe in Turkey. A large host of authors introduced the results of research into Kültepe that began anew in 2009 in the Turkish language catalogue prepared for a major exhibition.<sup>14</sup> In this book they reported on a skull on which there were various objects made of gold plates: a diadem on the forehead, one small square sheet on each eye and a thin oval sheet on the mouth (Fig. 7). The latter is essentially an exact parallel to the Veľká Lomnica piece. It can be seen from the Kültepe find group that three different metal objects are connected to the cult of the dead: a diadem on the head, sheets covering the eyes and a shorter piece in other cases mistakenly believed to be a headband or diadem, which in reality was a plate that closed and covered the mouth of the deceased. So, the “fragmentary” or “short” metal bands performed a different purpose and were not diadems.

It is still not known whether the actual diadems were also a part of everyday or special attire or only objects related to the cult of the dead. Nor is it known what social status they indicated or whether they did indicate status at all. However, it is worthwhile to further analyze this group of finds. The Anatolian analogy can be dated to the second half of the 3<sup>rd</sup> millennium B.C., or in other words the Early Bronze Age. This dating raises further questions in understanding similar phenomena existing in areas far separated from one another: how did it spread from one place to another, or is it a case of elements of the systems of beliefs producing similar phenomena independent of one another.

<sup>13</sup> Novotná, Mária: *Halsringe und Diademe in der Slowakei*. Prähistorische Bronzefunde XI, 4. (München: C.H. Beck'sche Verlagsbuchhandlung, 1984), Kat. Nr. 362, Taf. 61. 362.

<sup>14</sup> Kulakoğlu, Fikri – Kangal, Selmin, eds: *Anadolu'nun Önsözü, Kültepe-Kaniş Karumu Asurlular İstanbul'da*. Bu katalog, Aya Sofya, Aya Irini Müzesi'nde 29 Aralık 2010 – 28 Mart 2011. Kayseri Büyükşehir Belediyesi Kültür Yayınları 78. (İstanbul: Turizm Bakanlığı ve Kültepe Kazi, 2010), 300, kat. 319–321.

## RECOMMENDED LITERATURE

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