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Annette Frölich

IRON AGE MEDICAL INSTRUMENT CASES EXCAVATED IN DENMARK FIRST-AID EQUIPMENT FOR WOUNDCLOSING, EXCAVATED FROM A DANISH OFFERING BOG AND FROM A FEMALE GRAVE

Annette Frölich
Vilvordeparken 11
2920 Charlottenlund
DENMARK
acfroelich@dadlnet.dk

REINTERPRETATION OF THE FINDS FROM THE OFFERING BOG IN NYDAM.

In the second and third quarter of the 19th Century the Danish archaeologist, Conrad Engelhardt (1825 - 1881), Fig. 1, performed excavations in the Danish Iron Age offering bogs. In Denmark the Roman Iron Age is dated to the period from the birth of Christ to 375 AD¹. Caused by the exceptional conservation conditions in the bogs² Engelhardt found and unearthed a remarkable artefact material. During the years 1859 - 1863 Engelhardt excavated the offeringbog at Nydam and published his results in the year 1865³. The Nydam bog is located in the Southern part of the Danish peninsula Jutland, Fig. 2. Engelhardt dated the finds to the Roman Iron Age after 34 Roman coins⁴, found in the bog. The coins were minted by the Emperors Vitellus to Macrinus in the years 69 - 217 AD. Later ex-

cavations in the bog have taken place, the latest after 1984. Among the originally unearthed war booty was a boat build of oak. Wood from this boat has been investigated and is determined to have been constructed from trees felled in the period 310 - 320 AD⁵.

Among the extensive amount of excavated artefact material are some items with medical interest, those shown at Fig. 3. The excavated material was taken to the local museum, which at that time was located in Flensburg, then a Danish town. The registration and description of each item of the excavated material was done, and the registration protocol is still kept at the museum which now is located at Schloss Gottorf in Schleswig, Germany. From the handwritten registration book can be seen that the pair of tweezers and the double cylinder came into the museum and was described contemporary.

¹ HANSEN 1993, 169.

² WIELL 2003, 66-83.

³ ENGELHARDT 1865.

⁴ HORSNÆS 2003, 330-330.

⁵ RIECK 2003, 304 refer to N. Bonde 1990 Dendrochronologische Altersbestimmung des Schiffes von Nydam, Offa 47, 157-168.

Fig. 1. Conrad Engelhardt (Stine Wiell, *The Spoils of Victory*, page 66.)

Identifying these artefacts found in a war booty offering bog raised some questions: What could the use of this equipment have been, and why were they offered into a war booty offering bog together with war equipment. Had the tools been used by warriors? The last question can after the reinterpretation be answered with a “yes”.

At the time of the offering of war booty in the bog in Nydam many young men from the geographical location which now is Denmark served as auxiliary soldiers in the Roman Army. It is, for example, known that they fought in the Marcomannic wars in the second Century. Serving in the Roman Army the Scandinavians got knowledge about, and contact with, first aid of wounded soldiers and generally with Roman medical treatment⁶. First aid given to wounded soldiers was already then well known. It is illustrated, from about 500 BC, on Greek ceramic vases as shown at Fig. 4.

⁶ KÜNZL 2002, 27 - 31.



Fig. 2. Nydam offering bog. Bornholm (Drawing by Annette Frölich)

Necessary tools for closing a wound are a pair of tweezers and a needle or some pins. The pair of tweezers is a very important instrument for getting a secure grip in the edge of a wound and especially these kind of tweezers which have a ring or a band around the branches which makes the tweezers self-closing, when the ring or band is moved down so it closes the branches of the tweezers. Such a band was found on the pair of tweezers excavated from Nydam shown in the illustration, Fig. 3. The surgical method which we may suppose may have been used for wound closing in the Danish Iron Age are shown at Fig. 5A and B. Consulting the registration protocol on Engelhardt's excavations in the Nydam bog we can read that inside one of the cylinders of the double-cylinder were found “a little splinter of wood”. A few years ago, during a new excavation in the bog, were found and identified the small pins illustrated in Fig. 6. Most possible the “..... little splinter of wood” described, was one like the two examples shown in the picture, Fig. 6.

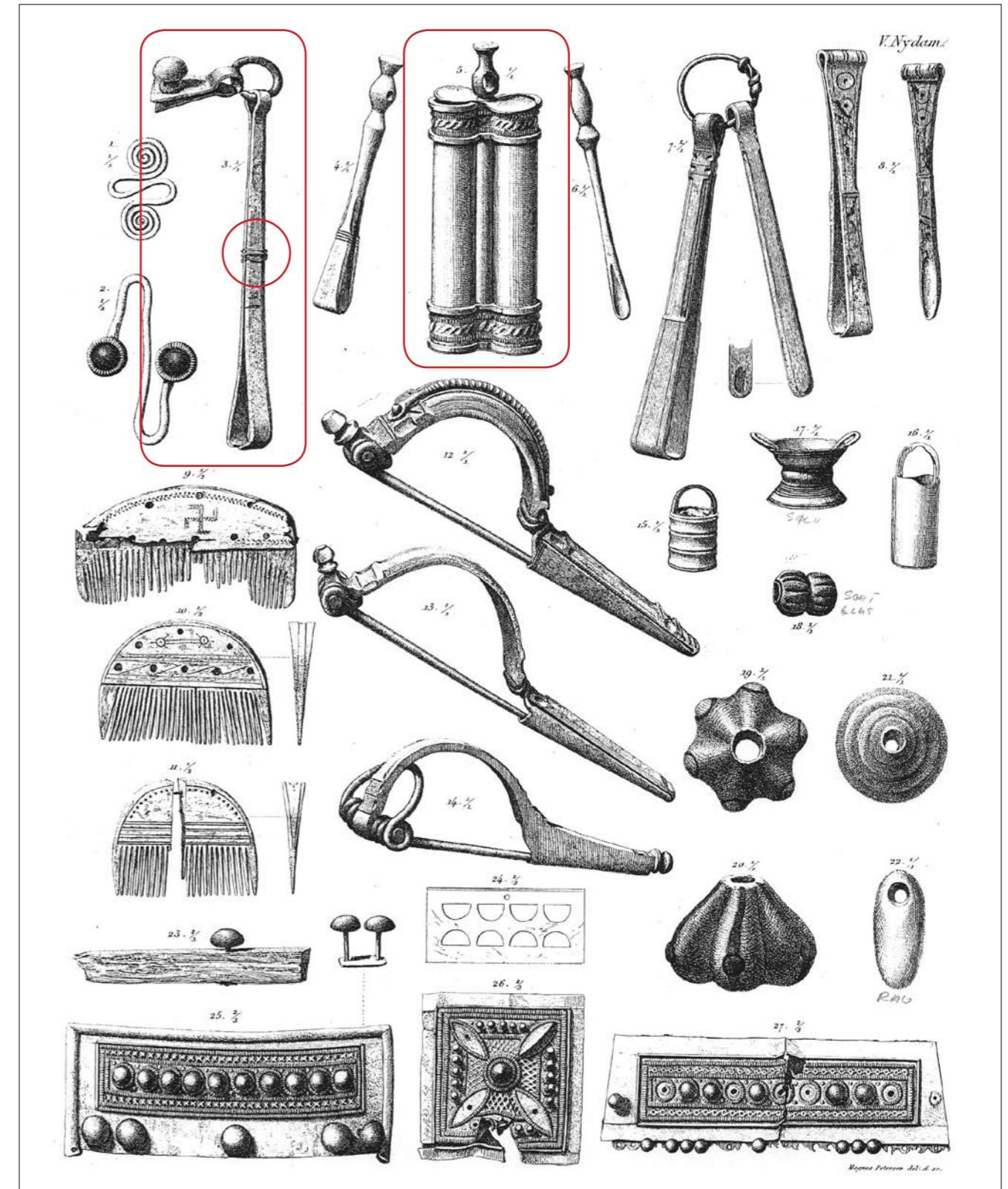


Fig. 3. (Engelhardt, Conr. 1865. Nydam Mosefund 1856 - 1863. Kjöbenhavn.)

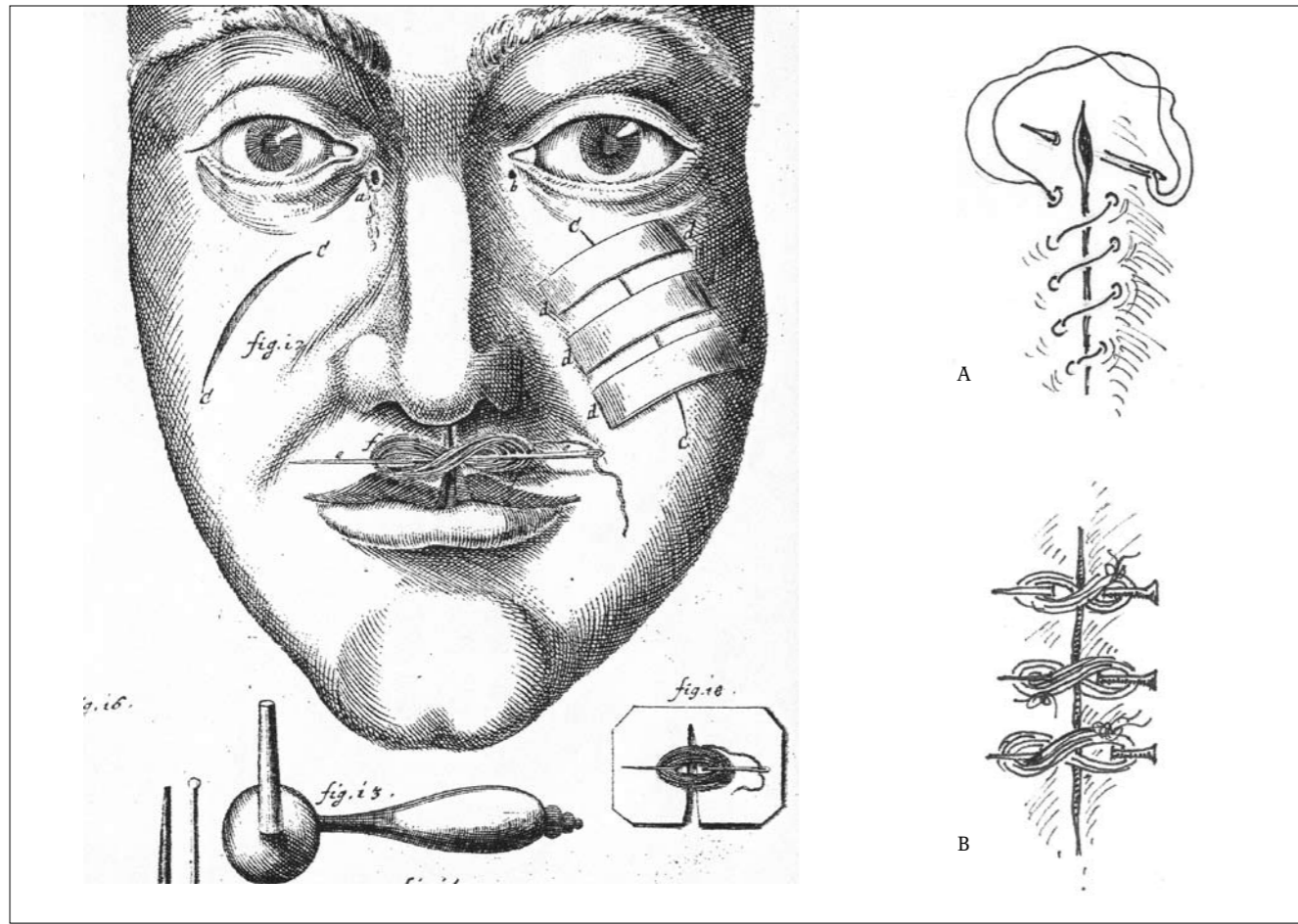


Fig. 5. Wound closing methods, by using wound pins and by sewing a wound (A: from Heister 1724 tavle XI fig. i2; A and B: drawings by Carsten Frölich).



Fig. 4. Achilles is treating a wounded Patroclus (Künzl 2002 page 15 Fig. 10.)



Fig. 6. Thorns excavated from the war booty offering bog in Nydam and very suitable for wound-closing (Fotos by Annette Frölich).

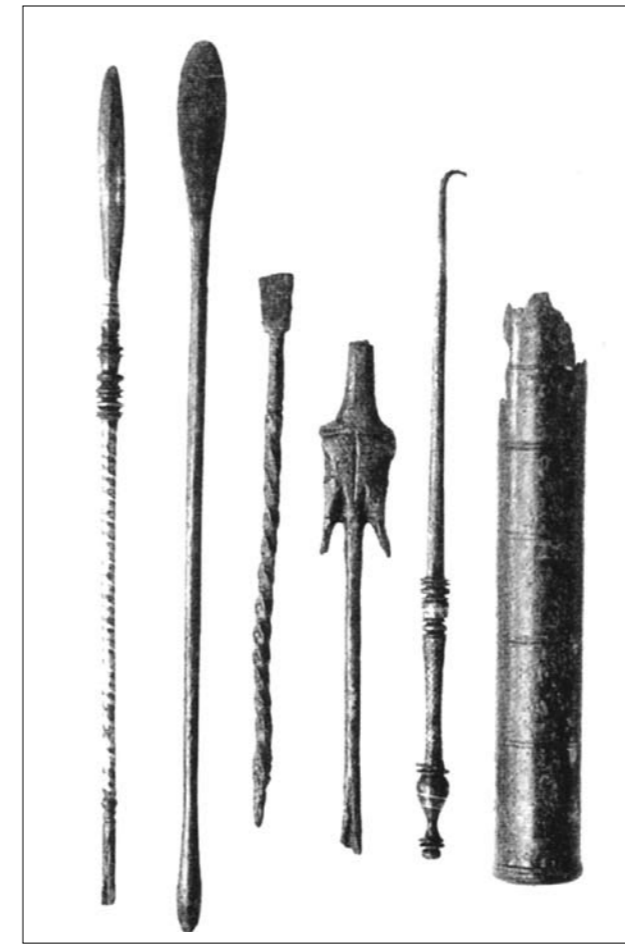


Fig. 7. Roman instrument cases (Künzl 2002 page 45 Fig. 60).

Roman cylinders, double - and even triple - cylinders are well known. They were used as instrument cases like the one shown in Fig. 7. Instrument cases of different design are found in various contexts, among which are graves. In Germany, in Wehringen, Bayern, is excavated a surgical instrument box, Fig. 8, from a grave which was interpreted as being a female grave.

Bearing in mind excavations of surgical instruments from female doctors graves inside the Roman Empire⁷, and the remarks from Tacitus concerning the habit among Germanic tribes how warriors wounded⁸ during battles were treated and the much later descriptions of the surgical treatment of wounded combatants on Iceland in the Viking - and early Middle Ages⁹, it was of marked interest also to re-interpret a find from an excavation performed at the island of Bornholm and published in the year 1886.

⁷ KÜNZL 2002, 94 Fig. 131.

⁸ LUND 1993, 244.

⁹ HELGADOTTIR 1985, 17 - 29.

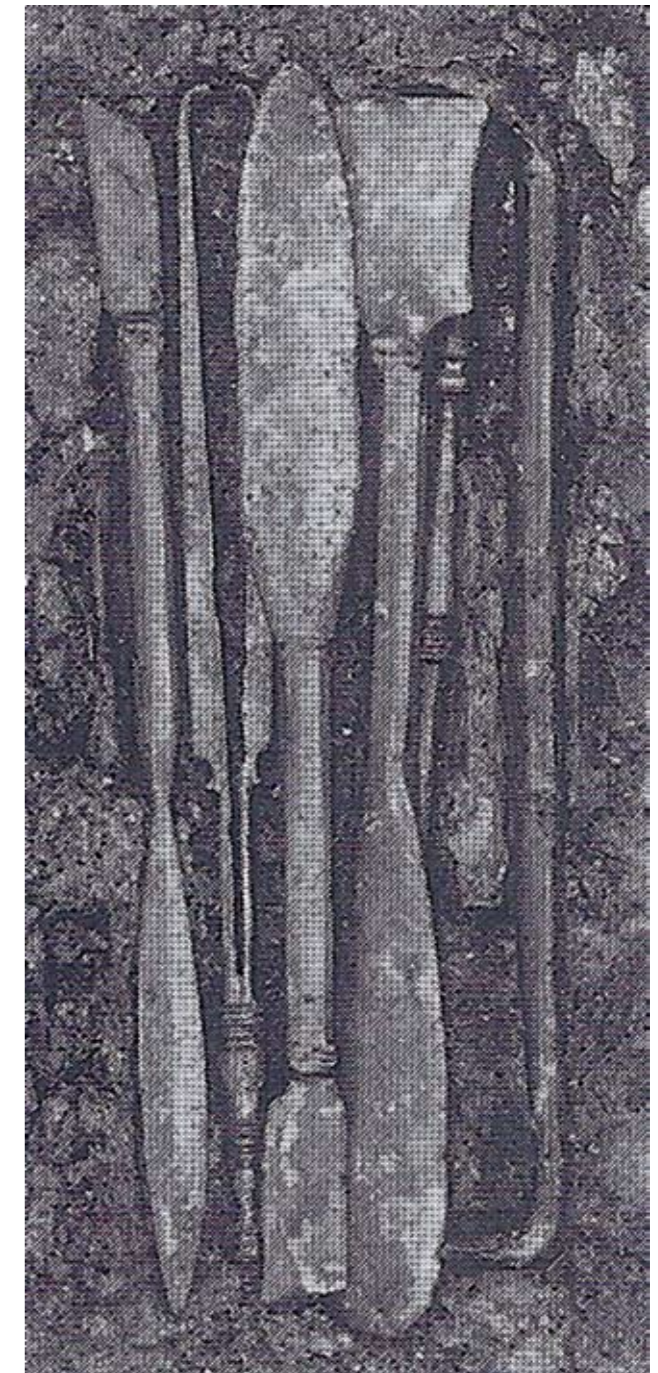


Fig. 8. Instrument case from a female grave dated to 238 AD (Künzl 2002 page 35, Fig. 38.).

REINTERPRETATION OF ARTEFACTS FROM A FEMALE GRAVE AT BORNHOLM

Bornholm is an island in the Baltic Sea, the location of which is shown in Fig. 2. In the late part of the 19th Century one of the county officials at the island, E. Vedel, had a deep interest in archaeology. Caused by this interest he performed archaeological excavations at the island and published his results in a bulky work printed in 1886¹⁰. Among the excavated locations is St. Kannikegaard where he unearthed a female grave, grave 187, dated to C3 (310 - 375)¹¹. The documentation drawn from this excavation is shown at Fig. 9. In the grave was found a bronze cylinder holding small wood-pins or rather thorns, located at the bottom of the grave together with the deceased woman's tools. There may have been a rather serious reason for giving the woman such tools with her to the other world. The thorns inside the cylinder may not have been ordinary thorns, but tools for a special purpose, and such a purpose could most possibly have been wound healing by the method described at Fig. 5. This allows us to re-interpret this grave, as the grave of a female healer. It is most plausible; that some women at Iron Age farms knew how to treat diseases and how to heal wounds, inclusive battlefield-wounds and so to treat wounded warriors. And why not bring the best healer in the society with the warriors when they went into a battle?

Healing the wounded men may have had a great meaning for the fighting warriors, knowing that they were not left dying at the battlefield as food for ravens and foxes. The double cylinder, made of silver and the pair of tweezers with the hastily produced band around the branches, mentioned earlier, may have belonged to a healer, whether it was a man or a woman, who had followed the warriors into battle. This also explains why these tools ended in a war booty offering bog together with weapons and other kind of war material as we now excavate, nearly 2000 years later.

The wound closing equipment presented here, have been personal belongings easy to carry by its owner as visualised at Fig 10.

The conclusion may be that these reinterpreted artefacts shows:

That the Iron Age warriors expected wounds,
That they knew how to treat the wounds,
That they brought their equipment/instruments for wound-healing,
That they produced instruments if they did not have any, and
That the double cylinder and the pair of tweezers together make an instrument-set for wound closing.

¹⁰ VEDEL 1886.

¹¹ Personal information from curator dr. Lars Jørgensen the Danish National Museum, Copenhagen. HANSEN 1993, 169.

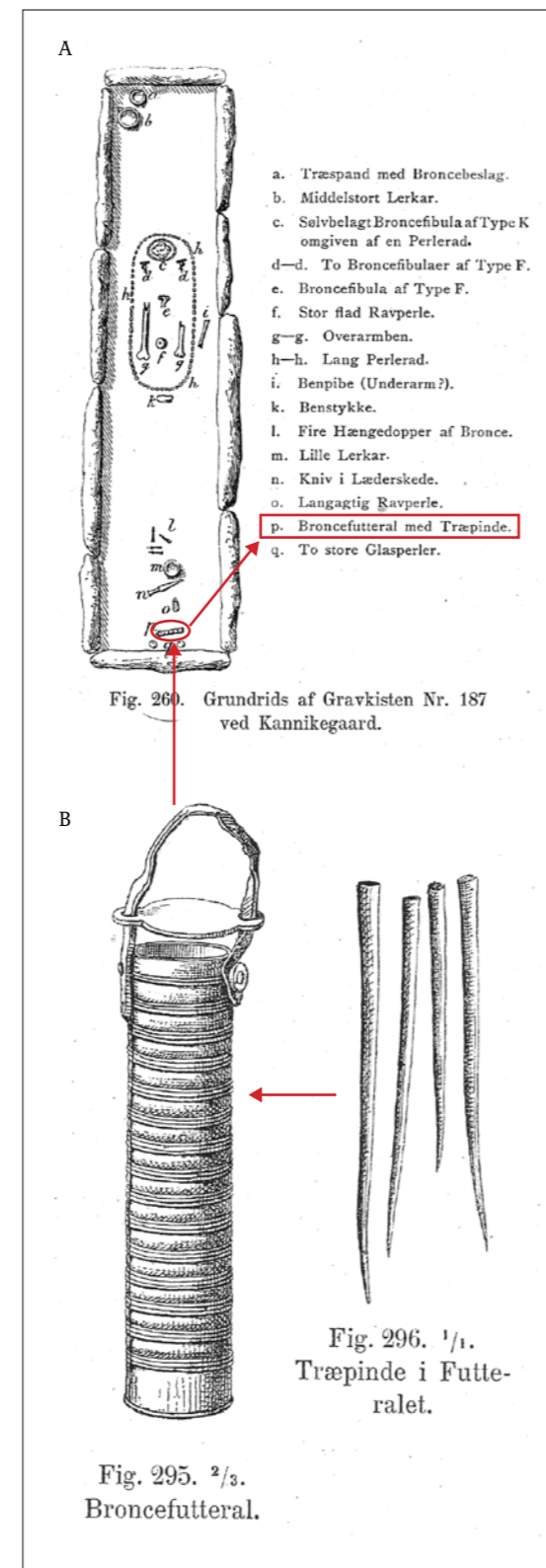


Fig. 9. (A: Vedel 1886 page 120 Fig. 260 and B is from Vedel 1886 page 133 Fig 295 & 296.)

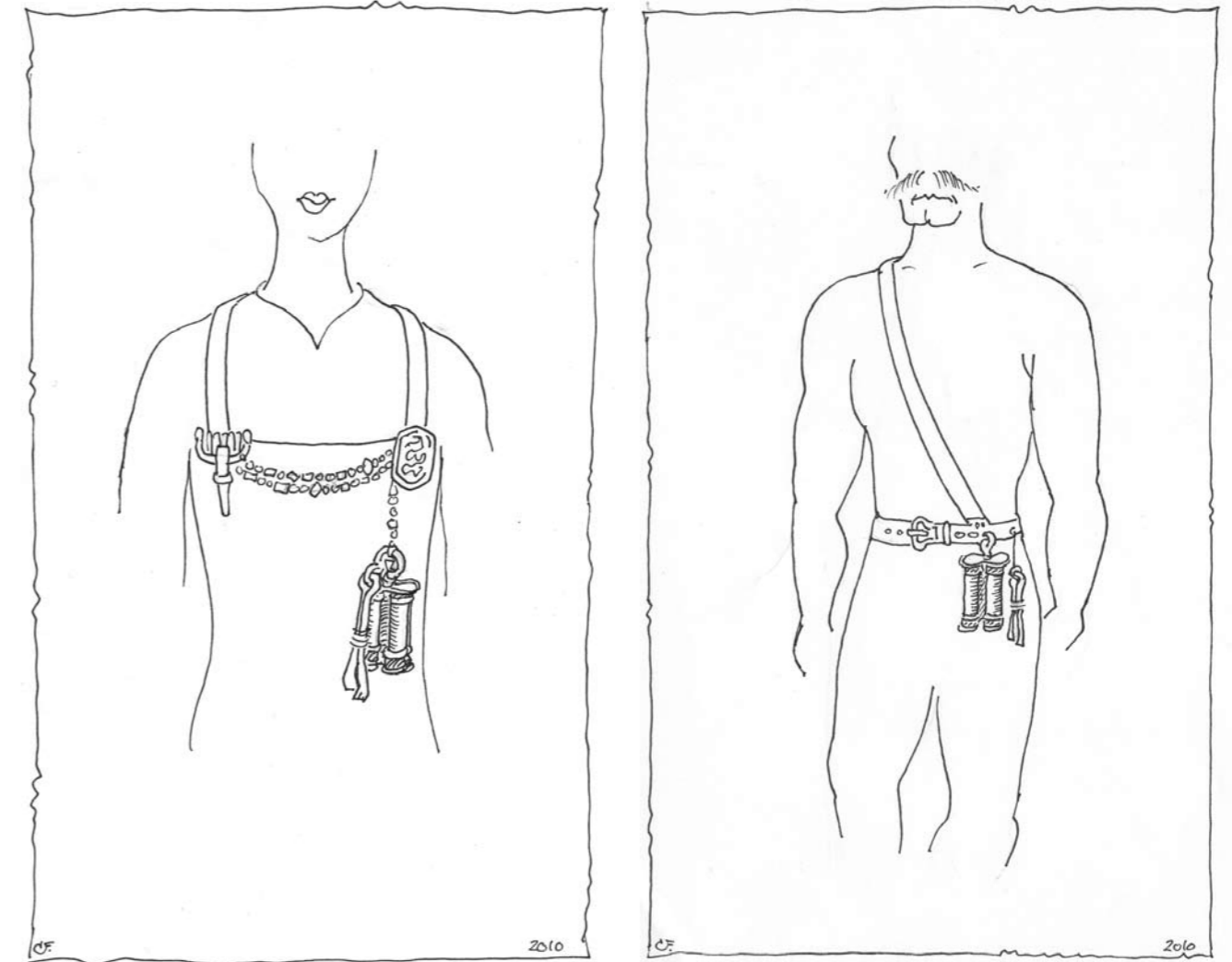


Fig. 10. The drawings is made by Carsten Frölich.

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Boštjan Laharnar

EARLY ROMAN MILITARY EQUIPMENT FROM THE FORTIFIED SETTLEMENTS IN THE NOTRANJSKA REGION (SW SLOVENIA)

Boštjan Laharnar
Narodni muzej Slovenije
Prešernova 20
SI-1000 Ljubljana
SLOVENIA
bostjan.laharnar@nms.si

1. INTRODUCTION

The region of Notranjska (Karst landscape in south-western Slovenia) was traversed by important routes that led from the Italic Peninsula towards the northern Balkans and the central Danube region. The Amber Route, one of the major prehistoric trans-European communication corridors, led across the *Ocra* pass, which, according to Strabo, is where the Alps are at their lowest.¹ The routes leading along the valleys of the River Reka, Pivka and past the Cerknica Lake (*Lugeon palus*) diverged from the Amber Route towards the Kvarner bay, the Kolpa (*Colapis*) Valley and the Krka (*Corcoras*) Valley.²

The Roman establishment of a colony in Aquileia (181 BC) and the conquest of Istria (178/177 BC) was followed by military interventions in the direction of Karst passes.

One of the main results, reflected in the Roman weapons assemblage from Grad near Šmihel,³ was to establish control over the Amber Route in the area of *Ocra* pass and to secure the colony in Aquileia.⁴

¹ ŠAŠEL 1977; SLAPŠAK 2001, 12, fig. 3 and 4; HORVAT 2009, 356; HORVAT - BAVDEK 2009.

² Šašel 1977; HORVAT - BAVDEK 2009, 144-146, fig. 112; LAHARNAR 2009, 97-99.

³ J. Horvat (2002, 135) dated the assemblage of Roman Republican weapons from Grad near Šmihel to the end of the 3rd and the first half of the 2nd century BC (considering the pila with flat haft, everted edges and triangular point with two barbs); while historical situation would certainly indicate the deposition after the foundation of Aquileia (181 BC).

⁴ HORVAT - BAVDEK 2009, 137.

In the Late Iron Age the Notranjska region was the territory of the so-called Notranjska-Kras group; its typical attire suggests that the group belonged to the North Adriatic indigenous cultures.⁵ Ancient literary and epigraphic sources indicate that since the 2nd century BC the neighbouring Friulian Plain, the area of the Carnian Alps and the area of Tergeste were settled by the Celtic Carni;⁶ perhaps their territories were extended to the east as far as the Notranjska region.⁷

Archaeological information comes from several excavations carried out between the second half of the 19th century and the beginning of the Second World War and from trial trenches and rescue excavations in the past decades. With the advent of metal detectors most hilltop settlements in the region became the targets of illegal treasure hunters. The National Museum of Slovenia acquired at least some of these, mostly metal, items. The present paper deals with several early Roman military objects recognised among the finds.

⁵ GUŠTIN 1979; BOŽIČ 1999, 202-203; HORVAT - BAVDEK 2009, 132.

⁶ VEDALDI-IASBEZ 1994, 229-239; BANDELLI 2001; SLAPŠAK 2003, 245-246; ŠAŠEL KOS 2005, 413-414; MAINARDIS 2008, 30-32.

⁷ BOŽIČ 1999, 203