



Archaeology of Death

12:2 Archaeology of violence, warfare, disease, magic & sacrifice

Jan Turek

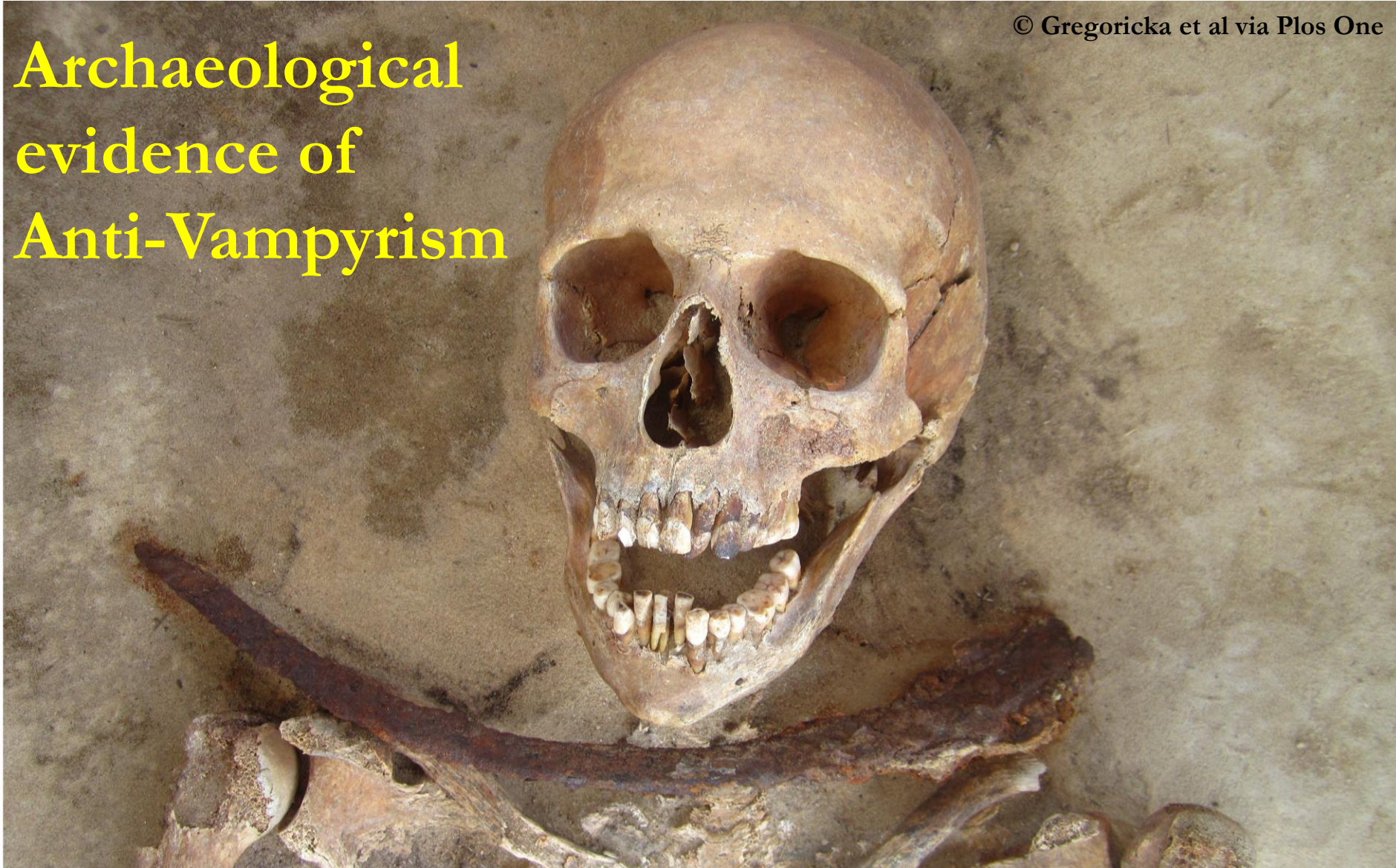
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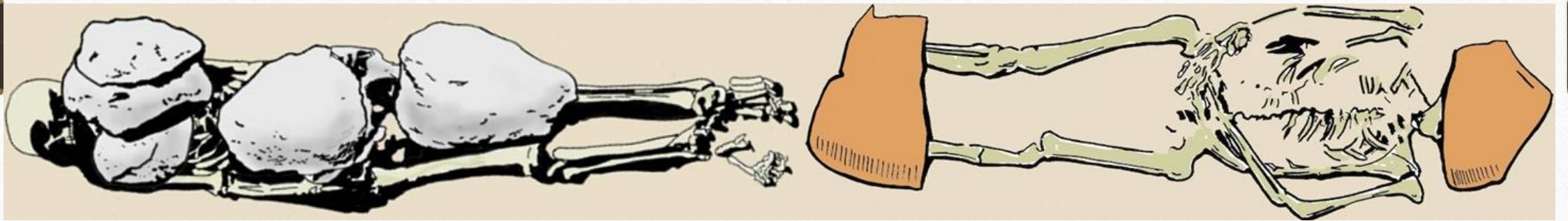
Archaeological evidence of Anti-Vampirism

© Gregoricka et al via Plos One



Necrophobia in Ancient Greek Society

Ancient Greeks on the island of Sicily had a fear of revenants so dire they weighed bodies down with rocks and amphora pieces to keep them from rising from their graves to haunt the living, says a researcher. On the other hand and paradoxically, writes Carrie L. Sulosky Weaver in *Popular Archaeology*, the Greeks also tried to contact the dead for divination through a practice called necromancy. Earlier this year, archaeologists working in a large cemetery near Kamarina, an ancient coastal town in southeast Sicily, exhumed 2,905 bodies and excavated burials goods. In the necropolis (“city of the dead”) called Passo Marinaro, in use from the 5th through 3rd centuries BC, researchers found grave goods including coins, figurines and terracotta vases. They also found two bodies weighed down at the head, feet and torso with large stones and amphorae, apparently to keep them in their place—the land of the dead, or Hades.



“For the ancient Greeks, the dead were subjects of both fear and supplication. Necrophobia, or the fear of the dead, is a concept that has been present in Greek culture since the Neolithic period. At the heart of this phobia is the belief that corpses are able to reanimate and exist in a state that is neither living nor dead, but rather ‘undead’”. Weaver writes in her paper published in *Popular Archaeology Magazine*. “These liminal figures are deemed to be dangerous because it is understood that they leave their graves at night for the explicit purpose of harming the living. As a means of protection, the alleged undead were pinned in their graves or ritually ‘killed’.”

Andrej Kapcár 2015: The Origins of Necromancy or How We Learned to Speak to the Dead, *Sacra* 13 (2), 30-58

As far as human history goes, death and dying has always been an important, though in many occasions tragic, event that influences the everyday life of the community. With the development of more complex and elaborate ideas about the afterlife and the underworld, humans have started to think through methods for contacting the dead. The reasons may vary, ranging from the emotional to the purely pragmatic, but the effort remains the same. A multitude of rituals have been developed over time aimed at reaching the deceased and summoning them to the land of the living. And thus the function of the necromancer was born – and the person who is able, or knows of ways, to speak to the lifeless. But are we able to determine where this practice originated? When the moment that man was thought to himself that he might be able to overstep the thin line between life and death?

What is Necromancy?

“**Necromancy**” comes from the Greek words “nekrós” meaning “corpse” and “manteiā” meaning “divination”

- Put together, this became “Necromantia” meaning “telling the future by talking to the dead”
- This definition has somewhat fallen by the wayside in the modern age, and ironically even in Classical Greece it had less to do with the future than simply talking to the dead.

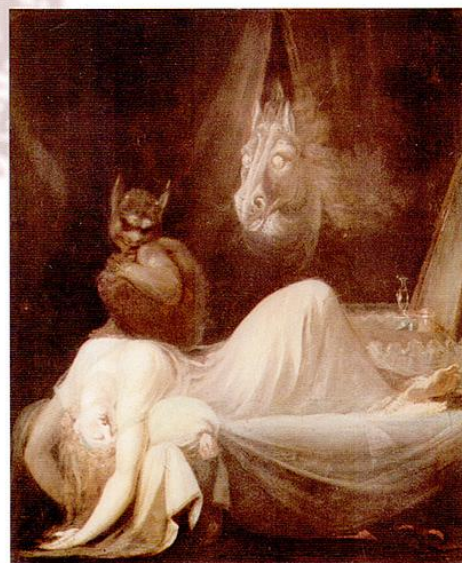
Origins in Shamanism

- Necromantic practices are believed to have evolved out of shamanism and their rituals to contact the spirit world
- Necromancy is prevalent in almost all world cultures, though the information the dead may divulge can vary greatly, as well as how one might obtain that information
- In the *Odyssey* and the *Epic of Gilgamesh*, the heroes must travel bodily into the underworld to obtain the knowledge they seek
- Other traditions hold that souls can be conjured up and then communicated through trance
- Still others believe that souls can be conjured to appear before people, or even made to re-inhabit their remains

GIUSEPPE
MAIELLO

Vampirismus

V KULTURNÍCH
DĚJINÁCH EVROPY



ISBN: 80-7106-724-5

NAKLADATELSTVÍ LIDOVÉ NOVINY

2005

MYTHOLOGIE



Iberian warrior skull pierced by an iron nail [Credit: MAN]

Iron Age (3rd Century BC) skull of a male aged 40-50 which is pierced obliquely by an iron nail which was used to hold the head and attach it to a wall or another structure. This ritual was a relatively common practice among the Gallic peoples of the Mediterranean and the Iberian tribes in the northern part of what is today Catalonia. After combat, they would cut off their vanquished enemies' heads and carry them back to their homes, where they displayed the skulls along with their weapons on the facades, porches or courtyards as war trophies.

Anti-vampyric behaviour at the Early Medieval cemetery at Čelákovice (Prague-east District)

Within the Early Medieval (end of 10th-1st half of the 11th Century) cemetery at Čelákovice 11 grave pits were excavated with skeletal remains of fourteen adult individuals. Different orientation of the grave pits, placing individuals on their back, side or abdomen was recorded. Clogging of the mouth, binding of hands whose position undoubtedly indicates the binding, and unusual placement of the legs. In one case, a wooden stake was pierced into the grave bottom near the left arm. These are all measures of the first stage of anti-vampyric interventions. Conversely, the separation of the head from the body and sometimes the limbs is evidence of a second anti-vampyric degree that was recognizable on at least four individuals.

Anti-vampyric measures are known both from ethnographic and archaeological research, are represented in the Early Medieval cemetery at Čelákovice in several ways. The anti-vampyric protective means occurred in two stages. The first stage of prevention was performed shortly after the individual's death in the form of non-ritual method of body deposition, either on the left or right side, or deposition on the abdomen. Furthermore, anti-vampirism manifests itself in the irregularity of the upper and lower limbs positioning, sometimes accompanied by binding, with clogging of the mouth, burden with stones, piercing a stake or a stake stuck next to the body, nailing nails to a wooden board and partial burning. In the second stage, that sometimes occurred after the burial, the grave was reopened with the aim of more effective intervention against the dead. This manifests itself in: removing or relocating of head or parts of the lower and upper limbs, possibly also other parts of the body. This includes stabbing if it was not done at the time of burial.

Reference: Špaček, J. 2009: Poznámky k nové interpretaci pohřebiště s projevy vampyrismu a několik poznámek k otázce soudnictví městečka Čelákovic. *Středočeský sborník historický* 35, str. 185-208.



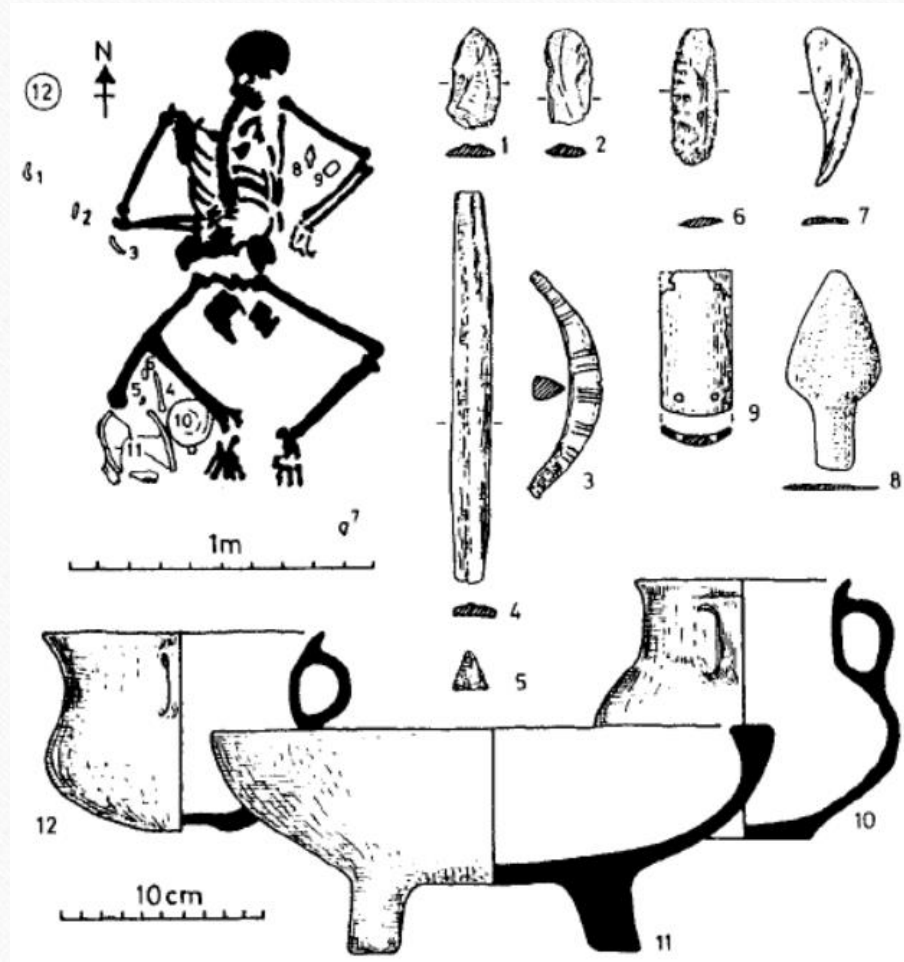
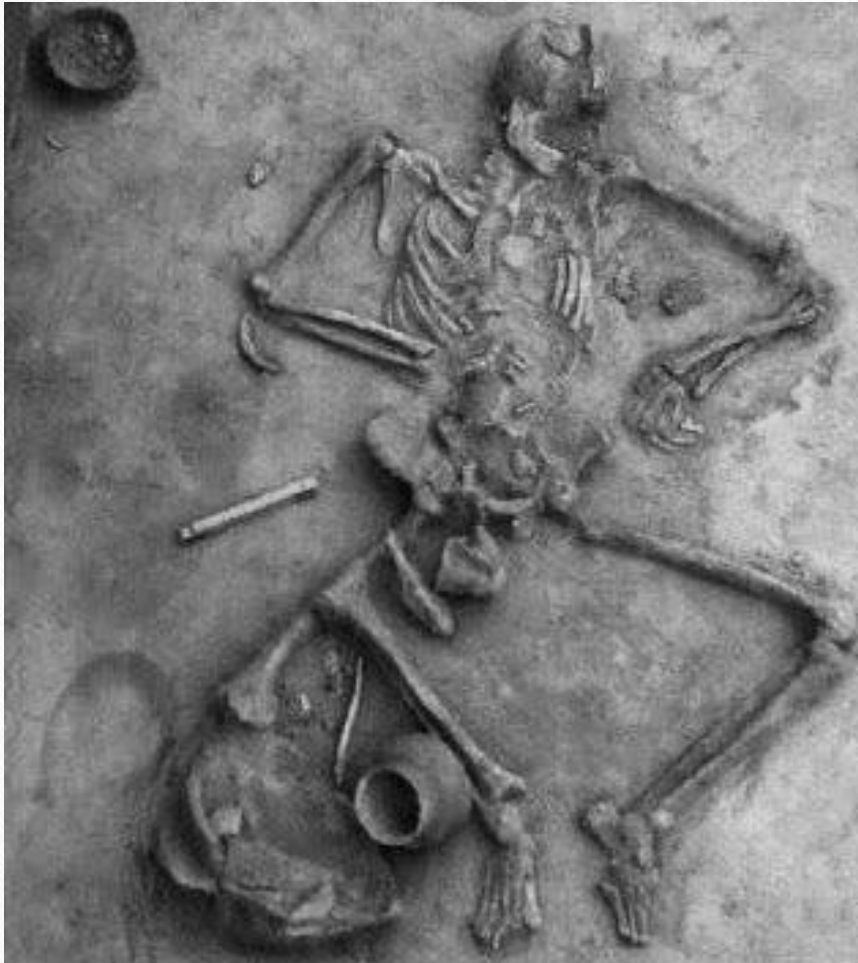
Lorkiewicz, R. 2011: Unusual burial from an early Neolithic site of the Lengyel culture in central Poland: Punishment, violence or mortuary behaviour? *International Journal of Osteoarchaeology*, <https://doi.org/10.1002/oa.114>

During excavations at the Early Neolithic site of the Brześć Kujawski Group of the Lengyel Culture in Osłonki (central Poland), an atypical burial of an adult male was discovered. The individual's skeleton revealed traces of several perimortem injuries: both broken shins (the right shin with two fractures), a large fracture to the frontal bone and about 25 cut marks made with a flint blade in the parietal-occipital region of the cranium on the left side. The arrangement of the fractured parts of the lower limbs might suggest that the injuries were intentionally exposed. Due to the relatively rich grave goods, it seems unlikely that the buried person was rejected by the community and thus killed or stigmatized by mutilation of the cadaver. The way the cuts were made is different from the cases of scalping or severing muscles in cannibalistic or mortuary practices known from the literature. This burial probably reflects some special funerary rite, which is now difficult to reconstruct or interpret. It is both possible that the observed injuries resulted from wounds that led to the individual's death (perhaps in circumstances that motivated the other special features of the burial) or that they were inflicted on the dead body. Taking into account the probable practices of dismembering of the dead body or human sacrifice found in the later Neolithic period in Poland, all of these possibilities may be considered with respect to this burial.



Archaeology of magic

Bell Beaker Shaman (?) "frog-like" burial from Samborzec, Little Poland



UNIQUE BURIAL OF THE BELL BEAKER CULTURE FROM THE CEMETERY IN SAMBORZEC (SOUTHERN POLAND)

*Piotr Włodarczak** pp. 393-396

BELL BEAKER IN EVERYDAY LIFE

editors

Marco Baioni, Valentina Leonini, Domenico Lo Vetro
Fabio Martini, Raffaella Poggiani Keller, Lucia Sarti

Proceedings of the 10th Meeting "Archéologie et Gobelets"
(Florence – Siena – Villanuova sul Clisi, May 12-15, 2006)

MUSEO FIORENTINO DI PREISTORIA «PAOLO GRAZIOSI»
FIRENZE 2008

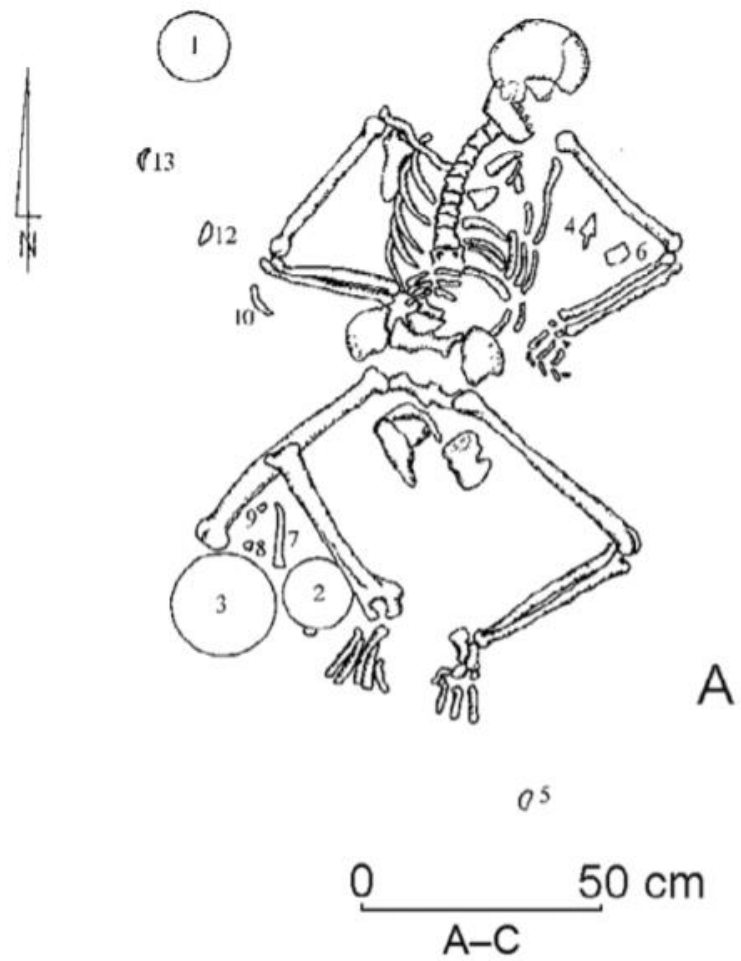
This Beaker *frogman* from the Samborzec cemetery (grave 3) in the Malopolska (Little Poland) region might have been buried in "Indian-style" or "Lotus Position". If so, after being dead for a few days the arms and legs might have extended out of position in the casket or wooden enclosure. While the pose of this man may not be very convincing, in several other frog-like burials, the pose is more strict.

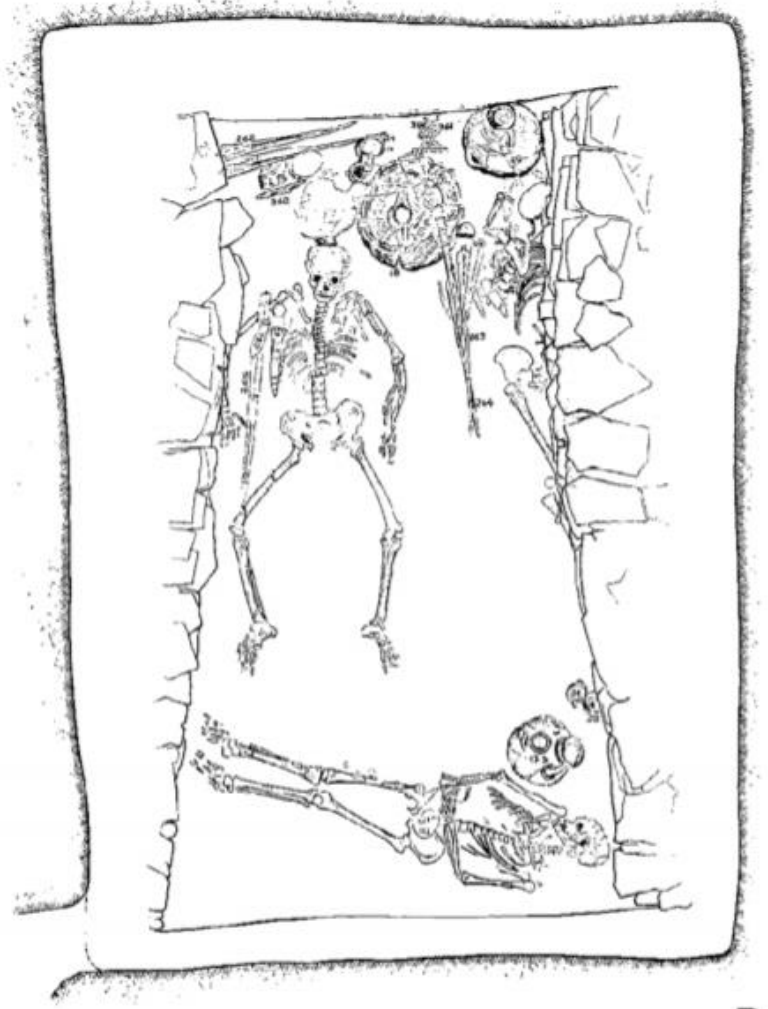
This unusual "frog-like" position as Makarowicz (2003) called it, is distinguished from the extended supine position thought to derive from the Volgan and Pontic Steppes. The frog pose is found a number of times in the Corded Ware Culture and subsequent Central and East European Bronze Age cultures and it is only found with males. It is possible that these men were 'posed' without ties during the rigor mortis phase of death, in which the stiff limbs were positioned more tightly contracted. After this lactic phase subsided the limbs started to relax a bit within a box.

The Corded Ware male from Kietrz, Poland (C) whose legs were tightly contracted, very intentionally, much like the so-called 'proto-Shiva' seal below. Also, notice the Ketegyhaza individual (B) has his legs crossed at the ankles (see below the figs. from Włodarczak 2006).

It seems that in the Late Copper/Early Bronze Age some men reached a special position that was also reflected in the special "frog-like" position during their funeral. There is no clear evidence to prove if these men were shaman or medicinman, but their burial assemblages usually reflect certain higher, elite social status.

Figure 1 — Examples of graves. A: Samborzec, grave III (Poland, Bell Beaker culture). B: Kétegyháza (Ungarn, Pit Grave culture). C: Kietrz, grave 2711 (Poland, Corded Ware culture). D: Mycenae (Greece).





Such burial symbolism had perhaps much earlier pedigree

Adina Boroneant & Clive Bonsall 2012: Burial practices in the Iron Gates Mesolithic

In: R. Kogălniceanu, R. Curcă, M. Gligor, S. Stratton (eds.): HOMINES, FUNERA, ASTRA. Proceedings of the International Symposium on Funerary Anthropology 5-8 June 2011 '1 Decembrie 1918' University (Alba Iulia, Romania) BAR (IS) 2410, Archaeopress, Oxford, pp. 45-56

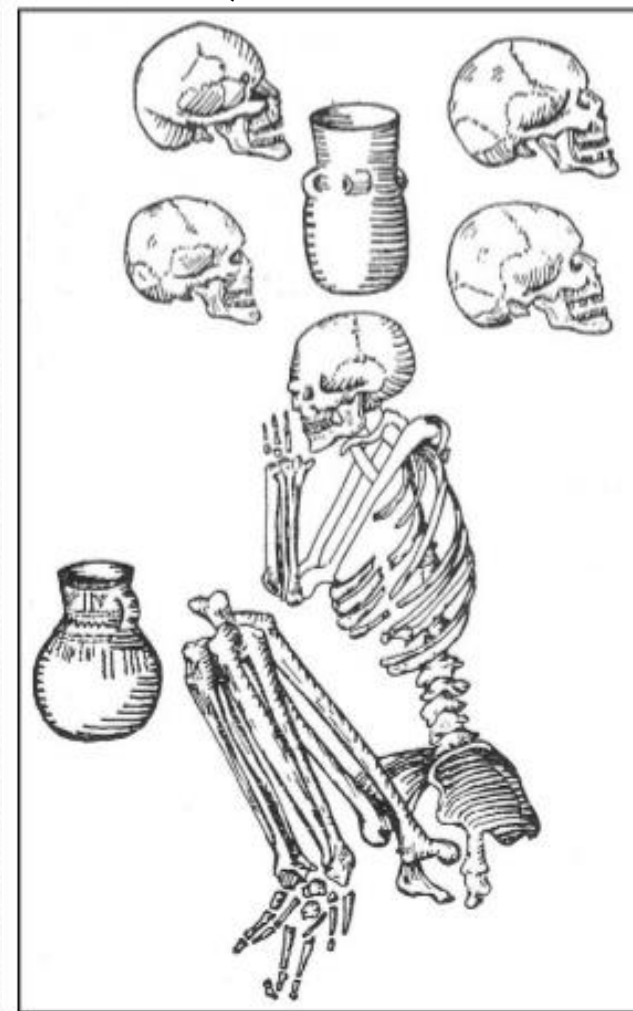
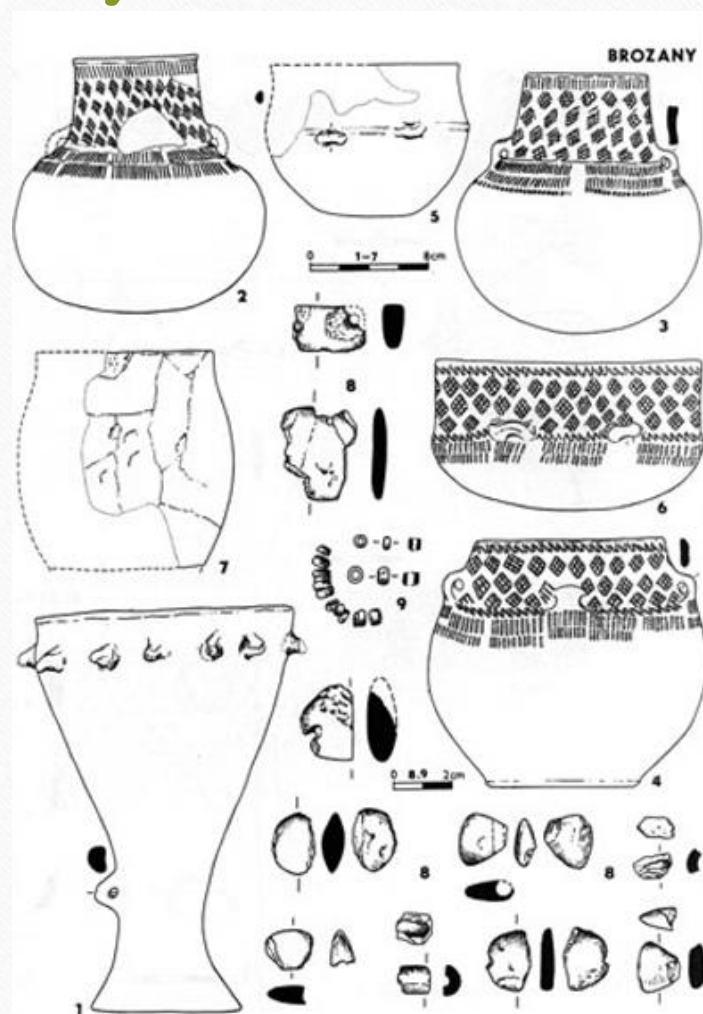
Some of the best evidence in Europe for Mesolithic burial practices is found at sites in the Iron Gates section of the Lower Danube Valley. Burials dating to the Mesolithic and Early Neolithic (c. 12,500-5500 cal BC) have been recorded from at least 15 sites, four of which – Lepenski Vir, Padina, Schela Cladovei and Vlasac – each contained large numbers of graves, with evidence for the existence of formal disposal areas or 'cemeteries'. The burials encompass a range of mortuary practices, including single inhumation in various body positions, multiple inhumation, cremation and excarnation. Our paper re-examines this evidence and considers the question of temporal and spatial patterning in Mesolithic mortuary practices in the Iron Gates, in the light of new research since the 1990s.












Lepenski Vir: burial 69 – dorsal decubitus inhumation in the 'butterfly' posture (photos: Institute of Archaeology, Belgrade).







Globular Amphora Culture male (shaman?) burials with clay drums and human skulls in Bohemia

Předměřice (Hradec Králové District)











	Source / Drum	Location	Culture	Date	Notes
1	Koch 433 	Lille Knabstrup Mose II	Ertebolle /Early Neolithic	3600 BC	Found in Danish bog fancy handle detail, has a base, no evidence of use
2	Midgley 135 	Klintebakke Vedsted Langeland	MNI6 Klintebakke	3400 - 3100 BC	Fragment associated with pedestal bowl
3	Midgley 97 	Forst Eversdorf Mecklenburg NE Germany	Early TRB	3600 BC	
4	Midgley 130 	Garup Denmark	Troldebjerg	MNIA 3400-3200 BC	This vessel is hollow
5	Lindahl 38 	Vastra Holby Sjane Sweden		3400 BC	Replicated by Lindahl, hollow, has holes around the funnel part and the body. Lindahl used these for fixing the skin
6	Heege and Heege 64 	Odagsen Landkreis Northeim			h. 17 cm, internal decoration inside base no skin fixing feature, has similarities with the pedestal bowl group
7	Midgley 75 	Pietrowice Silesia	Pietrowice	Pietrowice late phase 3400-3000 BC	
8	Masek 650 	Lilec Vylkova Bohemia			
9	Behrens 153 	Hlinsko			height 12.5 cm


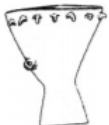



Eneolithic clay drums

10	Behrens 154 	Opatowice			height 18.5 cm
11	Midgley 189 	Hornsommern	Walternien-burg	3200 BC	
12	National Museum Prague* 		Walternien-burg	3200 BC	this is the drum used as the basis for the replications resulting in drums A and B, this study
13	MUFT ** 	Wandersleben Landkreis Gotha	Walternien-burg		
14	Midgley 57 	Mrowino Poland	Eastern TRB	3200 - 3000 BC	
15	Schloss-museum Quedlinberg 	Gatersleben LK Quedlinberg	Walternien-burg		

■ **Table 1A** Details of a representative sample of the drums and pedestal bowls in the study group (Aiano, 2006). Based on sources acknowledged in the table, images not to scale (*photo: Aiano, **Museum fur Ur- und Fruhgeschichte Thuringens).

After Lynda Aiano 2006: Pots and drums, an acoustic study of Neolithic pottery, euroRea 3/2006, 31-42

	Source / Drum	Location	Culture	Date	Notes
16	Korner and Laux 129 	Barskamp, Landkreis Lüneburg	Tiefstich		height 28 cm
17	Masek 651 	Holasovice Opavy Bohemia			
18	Midgley 186 	Gerstewitz	Southern TRB Salzmunde style	Late Baalburg 3200 BC	clay drum is new form here
19	National Museum Prague* 	Kralupy Bohemia			
20	LASA** 	Wallendorf Landkreis Meresburg-Querfurt	Salzmunde	3600 -3200 BC	height 17.3 cm
21	Portratz 184 	Wennekath, LK Lüneburg	Tiefstich	3400 -3200 BC	
22	LASA** 	Zorbau, Landkreis Weissenfels	Salzmunde	3600 -3200 BC	height 27 cm has internal decoration inside the base
23-26	Midgley 190 	Dolauer Heide	Bernburg	3000 BC	

27	Städtischen Museum Halberstadt 	Aspendedt, Landkreis Halberstadt		Late Neolithic -last phase of pottery drums known	height 33.5 cm
28	Dobes 158 	NW Bohemia Hrdlovka	Kugel-amphoren kultur		
29	Schutz 105 	Pevenstorf, west of Wittenberge		Bernburg 3000 BC	found in association with bulbous amphorae in an inhumation grave
30	Grimm 1936 	Klein Quenstedt Landkreis Halberstadt			height 18 cm
31	LASA** 	Derenburg Landkreis Wernigerode	Bernburge		height 46 cm, represents the group of largest drums, about 180 altogether
32	National Museum Prague 	Brozny Bohemia	Kugel-amphoren kultur	2800 BC	specimen, replicated in 2004

■ **Table 1B** Details of a representative sample of the drums and pedestal bowls in the study group (Aiano, 2006). Based on sources acknowledged in the table, images not to scale (*photo: Aiano, **Landesamt für Archäologie Sachsen-Anhalt).



Koszyce-Globular Amphora Culture mass grave of 15 people, DNA genetic relation reconstruction see lesson 5

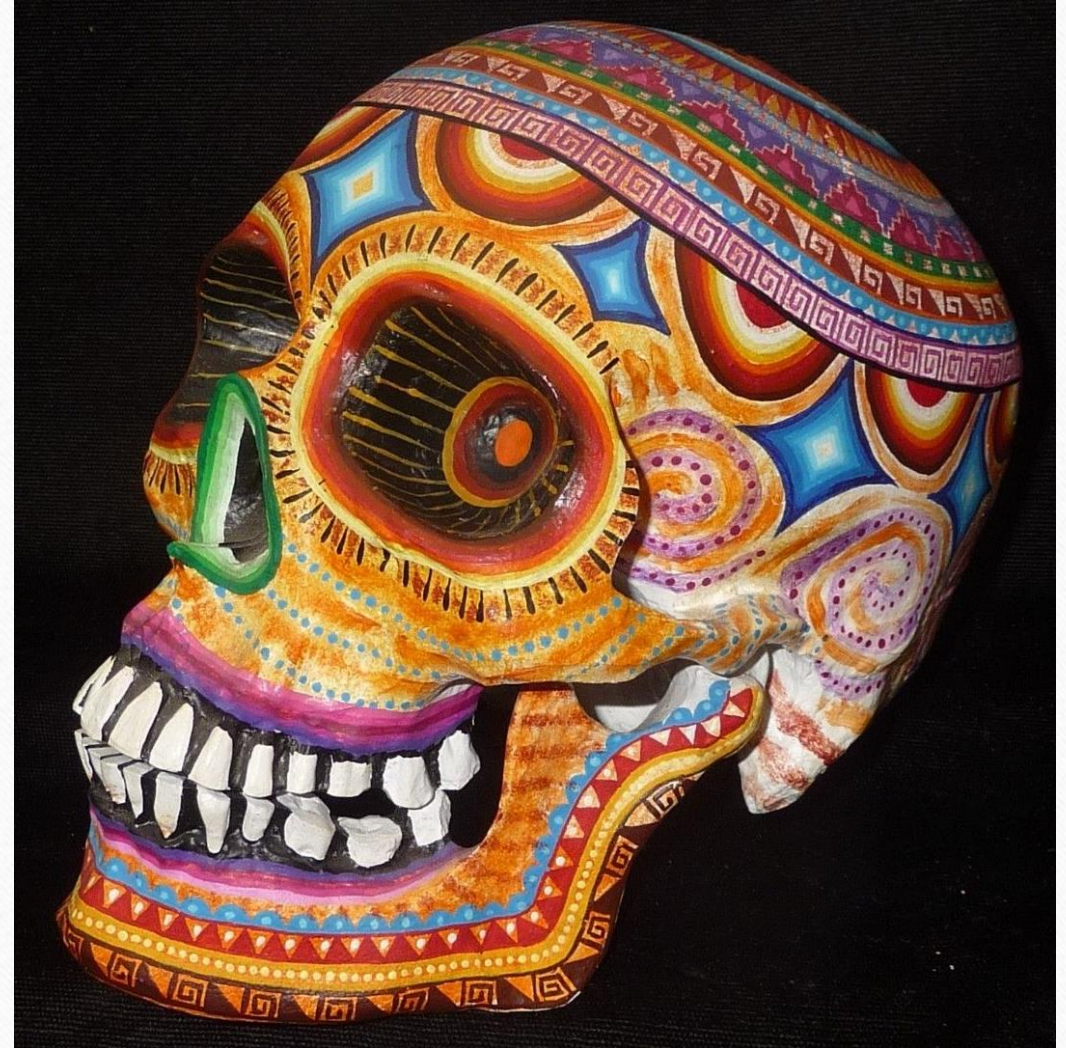


Human Sacrifices and remains as magic objects



Votive deposit
at *Templo Mayor*
Mexico City

Mexico: Death Cult – past and present





Maya Human Sacrifices

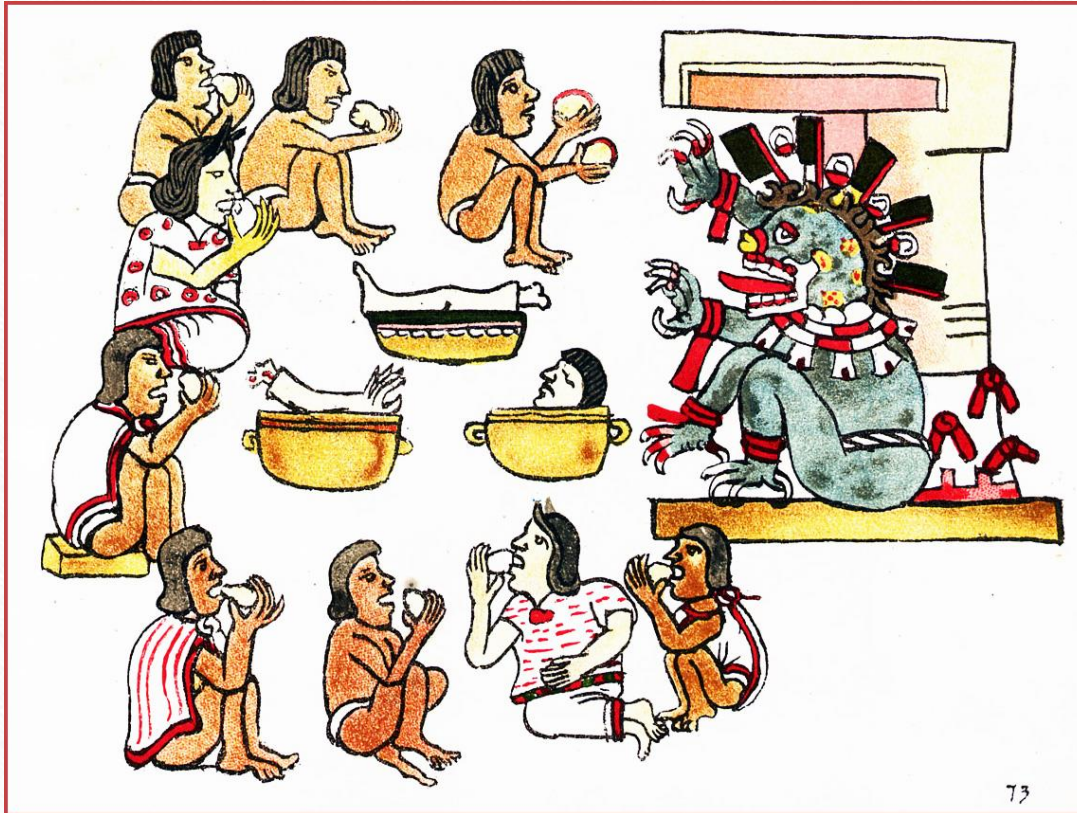
Human sacrifice was common in many parts of Mesoamerica, so the rite was nothing new to the Aztecs when they arrived at the Valley of Mexico, nor was it something unique to pre-Columbian Mexico. Other Mesoamerican cultures, such as the Purépechas and Toltecs, performed sacrifices as well and from archaeological evidence, it probably existed since the time of the Olmecs (1200–400 BC), and perhaps even throughout the early farming cultures of the region.

During the pre-Columbian era, human sacrifice in Maya culture was the ritual offering of nourishment to the gods. Blood was viewed as a potent source of nourishment for the Maya deities, and the sacrifice of a living creature was a powerful blood offering. By extension, the sacrifice of a human life was the ultimate offering of blood to the gods, and the most important Maya rituals culminated in human sacrifice. Generally only high status prisoners of war were sacrificed, with lower status captives being used for labour.

Human sacrifice among the Maya is evident from at least the Classic period (c. AD 250–900) right through to the final stages of the Spanish conquest in the 17th century. Human sacrifice is depicted in Classic Maya art, is mentioned in Classic period hieroglyphic texts and has been verified archaeologically by analysis of skeletal remains from the Classic and Post-classic (c. AD 900–1524) periods. Additionally, human sacrifice is described in a number of late Maya and early Spanish colonial texts, including the Madrid Codex, the K'iche' epic Popol Vuh, the K'iche' Título de Totonicapán, the K'iche' language Rabinal Achi, the Annals of the Kaqchikels, the Yucatec Songs of Dzitbalche and Diego de Landa's *Relación de las cosas de Yucatán*.

A number of methods were employed by the Maya, the most common being decapitation and heart extraction. Additional forms of sacrifice included ritually shooting the victim with arrows, hurling sacrifices into a deep sinkhole, entombing alive to accompany a noble burial, tying the sacrifice into a ball for a ritual re-enactment of the Mesoamerican ballgame and disembowelment.

Aztec Human Sacrifices



A scene depicting ritualistic Aztec cannibalism being practiced in the Codex Magliabechiano



Human sacrifice as shown in the Codex Magliabechiano, Folio 70. Heart-extraction was viewed as a means of liberating the Istli and reuniting it with the Sun: the victim's transformed heart flies Sun-ward on a trail of blood.

What distinguished Maya and Aztec human sacrifice was the way in which it was embedded in everyday life and believed to be a necessity. These cultures also notably sacrificed elements of their own population to the gods.

What the Aztec priests were referring to was a central Mesoamerican belief: that a great, continuing sacrifice of the gods sustains the Universe. A strong sense of indebtedness was connected with this worldview. Indeed, *nextlahualli* (debt-payment) was a commonly used metaphor for human sacrifice, and, as Bernardino de Sahagún reported, it was said that the victim was someone who "gave his service".

Human sacrifice was in this sense the highest level of an entire panoply of offerings through which the Aztecs sought to repay their debt to the gods. Both Sahagún and Toribio de Benavente (also called "Motolinía") observed that the Aztecs gladly parted with everything. Even the "stage" for human sacrifice, the massive temple-pyramids, was an offering mound: crammed with the land's finest art, treasure and victims, then buried underneath for the deities.

Additionally, the sacrifice of animals was a common practice, for which the Aztecs bred dogs, eagles, jaguars and deer. The cult of Quetzalcoatl required the sacrifice of butterflies and hummingbirds.

Self-sacrifice was also quite common; people would offer maguey thorns, tainted with their own blood and would offer blood from their tongues, ear lobes, or genitals. Blood held a central place in Mesoamerican cultures. The 16th-century Florentine Codex by Franciscan friar Bernardino de Sahagún reports that in one of the creation myths, Quetzalcóatl offered blood extracted from a wound in his own genitals to give life to humanity. There are several other myths in which Nahua gods offer their blood to help humanity.

It is debated whether these rites functioned as a type of atonement for Aztec believers. Some scholars argue that the role of sacrifice was to assist the gods in maintaining the cosmos, and not as an act of propitiation. Aztec society viewed even the slightest *tlatlacolli* ('sin' or 'insult') as an extremely malevolent supernatural force. To avoid such calamities befalling their community, those who had erred punished themselves by extreme measures such as slitting their tongues for vices of speech or their ears for vices of listening. Other methods of atoning wrongdoings included hanging themselves, or throwing themselves down precipices.

What has been gleaned from all of this is that the sacrificial role entailed a great deal of social expectation and a certain degree of acquiescence.

Mictlantecuhtli - Aztec God of Death



Mictlantecuhtli, God of Death, conceived by the Aztecs as half-gaunt being in position of atac, with claws and curly hair, probably placed using the holes he has in his head. The liver hangs under his thorax, because according to Aztec beliefs, this internal organ was closely related with Mictlan or the Underworld, place where this deity resided.

It was found together with another figurine of same characteristics, in the building known as the *Casa de las Aguilas*, towards the north side of the *Templo Mayor* (date: reign of *Motecuhzoma* I 1440-1469 A.D.). The excavated data suggest Aztecs used to offer blood to these statues (*Templo Mayor* Museum & Mexican National Museum).

Decorated human femures and ceramic human spine shaped ceremonial beaker



Monte Albán, Plataforma este, Late
Proto-classic period, 200 BC – 200 AD

Skull mask sacrificial compositions from ritual deposit at Tlatelolco, Museo Nacional de Mexico



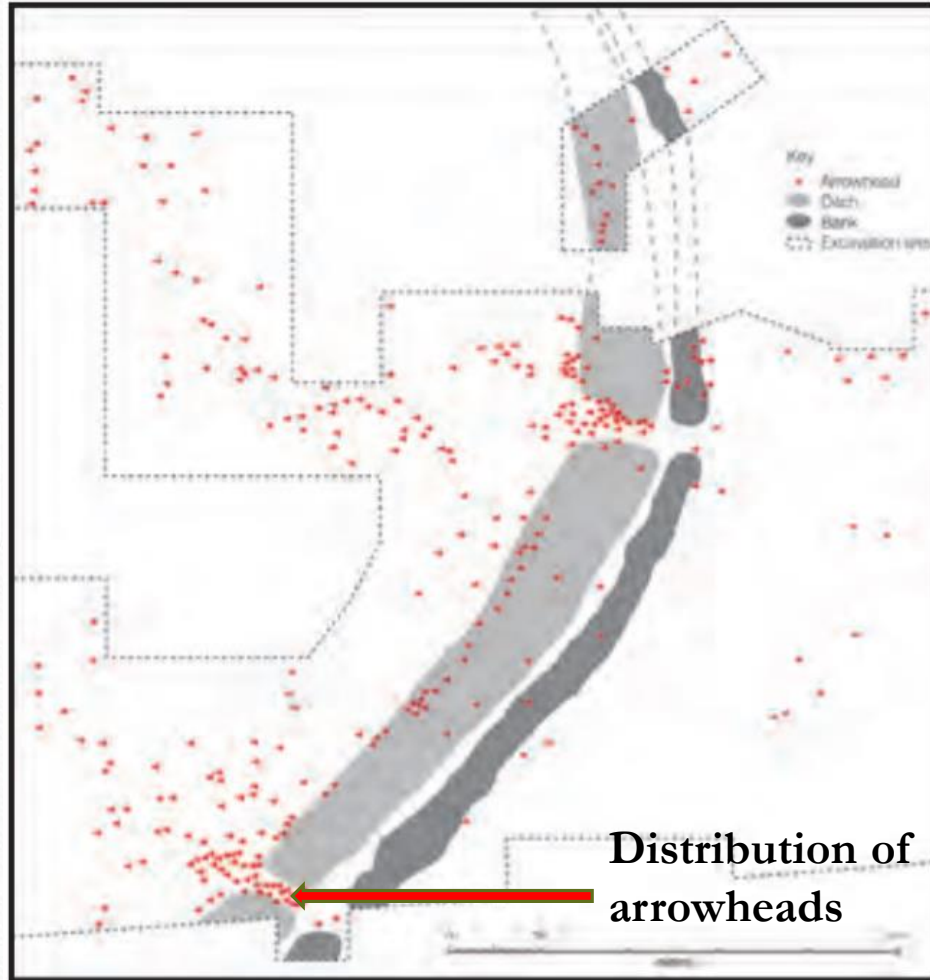


Burials at the Pyramid of the Plumed Serpent, Mexico National Museum



Reproduction of Burial No. 5. Located to the rear (the eastern side) of the Temple of the Plumed Serpent. Nine individuals were found in this pit. They were victims of sacrifice and had their hands tied to their backs. An important aspect of the dress of those sacrificed were the necklaces made of human jawbones, real or imitations made of shell, and the slate disks placed at the height of the coccyx.

War or sacrifice at Crickley Hill Causewayed Enclosure 3500 BC



<https://www.smithsonianmag.com/videos/category/history/stonehenge-scientists-find-evidence-of-brita/>

Human Sacrifice at Stonehenge

We have records of four bodies having been found within the area enclosed by the henge bank and ditch earthwork.

Of these burials, two are missing entirely: the one found in the centre of the stone circle is long lost and the whereabouts of the partial burial from the henge ditch on the eastern side is also unknown (the excavator believed it not to be ancient).

The other two are more interesting – one was found close by the southeastern side of the monument just outside the stone circle in 1923 and the other was found in the ditch to the west of the main entrance in 1978.

The southeasterly burial was that of a man who had been decapitated from behind with a sharp bladed instrument, probably a sword – the evidence is in the cut marks through his 4th cervical vertebra and below his jaw – and then unceremoniously stuffed into a grave hole not quite big enough for the body. This is certainly an execution but it dates to between 600AD and 690AD, the Anglo-Saxon period.

The final burial is very interesting. When discovered, the body was in a neatly prepared grave (rather than a hurriedly scraped hole) and accompanied by what appeared to be grave goods – a stone “bracer” or wrist guard to prevent his bow-string hitting his wrist, and several flint arrowheads. The young man buried in the grave was dubbed “The Stonehenge Archer”.

On closer inspection it became clear that the tips of these arrowheads were embedded in the bones of the body, so he was the Stonehenge ArchEE, not the ArchER. He had been shot in the back, at least three times from different directions, and the coup de grace had been delivered when he was face down on the ground – the final arrow pierced his body and ended up in the back of his breastbone. The victim was killed between 2400BC – 2140BC.



Smithsonian
CHANNEL 

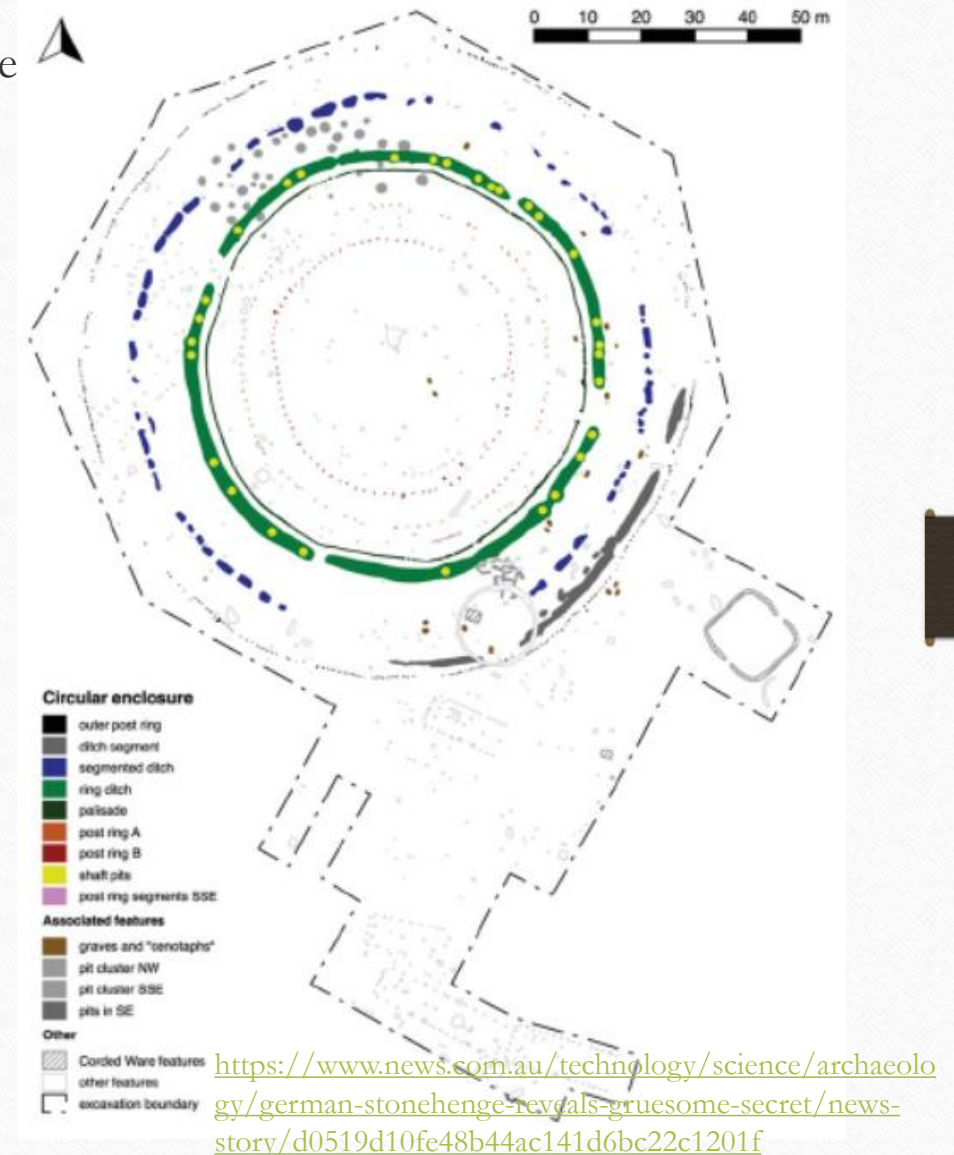


The Stonehenge Archer's remains are now on display at Salisbury Museum.

André Spatzier & François Bertemes 2018: The ring sanctuary of Pömmelte, Germany: a monumental, multi-layered metaphor of the late third millennium BC, *Antiquity* Volume 92, Issue 363, pp. 655-673
DOI: <https://doi.org/10.15184/aqy.2018.92>

Religion, social identity and social formation processes are topics of great interest to the archaeological community. Regarding the Neolithic and Early Bronze Age monuments of Central Europe, evidence from recent excavations at the Pömmelte enclosure in Central Germany suggests that circular or henge-like enclosures were monumental sanctuaries that served as venues for communal gatherings, ritual activities and performance. We suggest that such enclosures represent complex metaphors, possibly representing cosmological geographies, and that they also played important roles as communal structures in local identity formation and social regulation.

The dismembered bodies of 10 children, juveniles and women were found in positions that suggested they were tossed into the shafts. Four of the women exhibited skull and rib fractures suffered before death. One of the skeletons, a teenager, had their hands bound before being tossed in the pit. “It remains unclear whether these individuals were ritually killed or if their death resulted from intergroup conflict, such as raiding,” the team writes in the study. That find stands in contrast to the discovery of the graves of 13 men found in the east side of the rings, which were buried in a dignified manner with no signs of trauma, according to the Bell Beaker burial rites.





Prague Nebušice

A skeleton of individual with arms bound behind the back and thrown into a settlement pit of the Proto-Eneolithic Jordanów Culture 4300-4000 cal. BC.

Photo: Michal Kostka

Kostka, M. - Šmolíková, M. 1997: Časně eneolitické sídliště s pohřby v Praze Nebušicích, *Archaeologica Pragensia* 13, pp. 3-27.

Canibalism - superstition and reality

Although some kind of cannibalism occurred almost in prehistory of each continent, it was very rarely matter of nutrition and the reasons for eating human flesh and organs was mostly ritual. Many traces on bones such as cooking, smoking or crushing bones etc. were not always connected to consumption but often to de-fleshing bones and other ritual treatments.

Most of European colonists believed that the indigenous people were cannibals and such prejudice was often used as the prove of primitivism or inhumanity. For example when the medieval Czech army of Vladislavs II besieged Milan together with Emperor Fridrich I Barbarossa in 1158, they were purposefully roasting bread pastry in shape of baby bodies and pretended to be cannibals to scare the enemy.

The most abundant evidence of cannibalism in Prehistoric Central Europe appears during the Bronze Age (especially in the later phase Urnfield/Knovíz Culture 1300-900 BC). The remains of more than 200 individuals, bones, partial or incomplete skeletons, often with characteristic traces (pinching, breaking, cutting, exceptionally cooking and burning), are known from the sacrificial enclosure site at Blučina-Cezavy (South Moravia) or Velim-Skalka (Central Bohemia) . Bones were found in ditches, pits and fireplaces. Many of the bones with presumed anthropophagy traces were of children.

There were traces of stinging, cutting, breaking, shattering and sunbathing on the bones, as well as evidence evidence of cutting tendons from bones, hammering for marrow, scoring and gnawing. A frequent feature was the shattering of the skull, lower jaw, or possibly the entire facial part.

A sacred place with evidence of Bronze Age human sacrifices and traces of anthropophagy was discovered in the Kyffhäuser cave near Frankenhausen (Germany), to which the legend of the dragon who had devoured people sustained until the Modern era.

Chrudim (Bohemia) Bronze Age settlement pit with remains of lower part of human skeleton





Late Bronze Age settlement burial (Knovíz Culture) Hostivice-Palouky, excavation by I. Pleinerová 2002

Archaeological evidence of cannibalism

It's no secret that prehistoric Indians in the Southwest killed, butchered, and cooked their enemies. But now a team has evidence for what many have suspected. A dried hunk of human excrement, or coprolite, proves that the Anasazi ate human bodies as well, although a handful of critics are unswayed.

The 850-year-old coprolite comes from a site in southwestern Colorado. The Four Corners area (where Colorado, New Mexico, Arizona, and Utah meet) contains a number of sites offering strong evidence of cannibalism: human bones disarticulated, cut, burned, and cast about in exactly the same fashion as the bones of animals known to have been used for food. Investigating this small settlement of three half-buried "pit houses," scientists found two that contained mutilated remains of seven men, women, and adolescents--apparently massacre victims whose bodies were butchered. The coprolite was found in a fire pit in the third pit house.

To uncover whether the butchered humans made it into someone's dinner, a team led by biochemist Richard Marlar of the University of Colorado Health Sciences Center in Denver looked for traces of myoglobin, an oxygen-transporting molecule that occurs in skeletal and heart muscles but not in the gut. They developed an assay that distinguishes between human myoglobin and that of nine food animals such as bison and rabbits. The assay found human myoglobin in the coprolite, but no traces of it in any of 25 control human fecal samples.

By Constance Holden <https://www.sciencemag.org/news/2000/09/anasazi-ate-their-enemies>

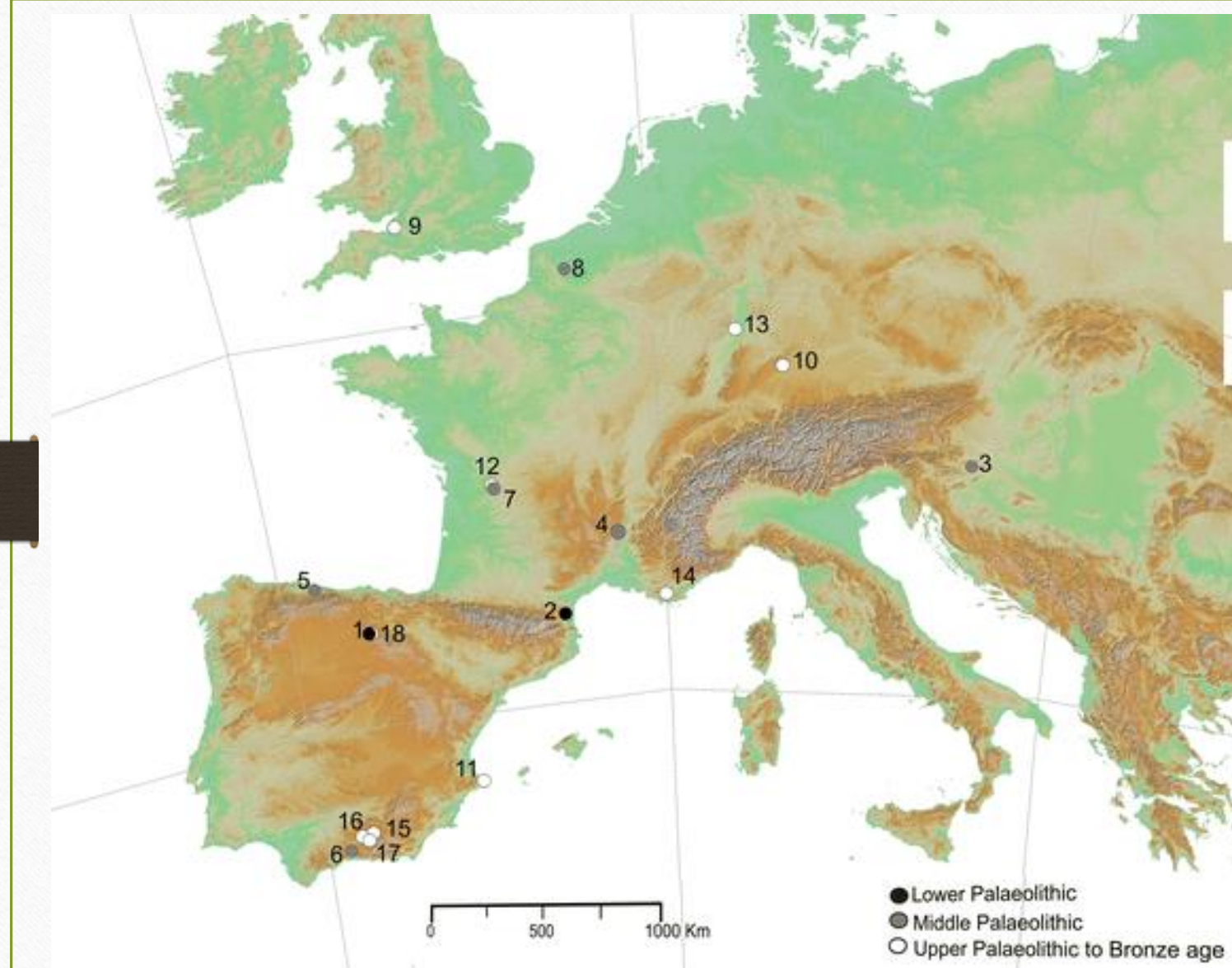
Palmira Saladié & Antonio Rodríguez-Hidalgo 2017: Archaeological Evidence for Cannibalism in Prehistoric Western Europe: from *Homo antecessor* to the Bronze Age, *Journal of Archaeological Method and Theory* volume 24, pages1034–1071(2017)

Abstract:

Archaeological studies of human cannibalism and its causes have never lacked controversy. The reasons for this are both the difficulties in identifying cannibalism and the inherent complexity, by the many nuances that can have the behaviour of eating other humans. After Turner's detailed studies in the Southwestern USA, reports were published in the 1990s of cannibalism during European prehistory. Archaeological sites identified with cannibalism have been found that date from the early Pleistocene to the Iron Age. In this study, we review data from Western Europe's prehistoric sites, which allow us to discuss the various labels that accompany interpretations of cannibalism. The most common interpretation is not ritual but is rather gastronomic, nutritional or dietary. However, there is no agreement on this interpretation. Following the data review, we propose dividing cannibalism into the following broad, objective and useful categories: exocannibalism, endocannibalism and survival cannibalism, although it is not always easy to choose one option. We also review the taphonomic characteristics of these assemblages, which enable us to establish the most common taphonomic markers of prehistoric cannibalism. These features include abundant anthropogenic modifications (on more than of 20 % of human remains), the intensive processing of bodies, greater abundance of cut marks related to defleshing and filleting that dismembering and the presence of human tooth marks or chewing marks.

Location map of the sites with cannibalism evidence.

1 Gran Dolina; 2 Caune de l'Aragó; 3 Krapina; 4 Moula Guercy; 5 Cueva del Sidrón; 6 Cueva del Boquete de Zafarraya; 7 Pradelles; 8 Troisième Cave of Goyet; 9 Gough's Cave; 10 Brillenhöhle; 11 Santa Maira; 12 Grotte Perrats; 13 Herxheim; 14 Fontbrégoua; 15 Cueva de Carigüela; 16 Cueva de Malalmuerzo; 17 Las Majólicas; 18 Mirador Cave



Site chronology	NMI	Interpretation
Gran Dolina TD6 level (Spain) c. 800,000 BP	2 adults 3 adolescents 6 children Total, 11 ^a	Gastronomic cannibalism (Fernández-Jalvo <i>et al.</i> 1999) Cultural cannibalism (Carbonell <i>et al.</i> 2010) Intergroup violence and cannibalism and exocannibalism (Saladié <i>et al.</i> 2012)
Caune de l'Arago (France) c. 680,000 BP	18 adults 12 infants Total, 30	Ritual cannibalism (de Lumley 2015)
Krapina (Croatia) c. 130,000 BP	Approx. 23? ^a	Preparation for burial of cleaned bones (Russell 1987) No cannibalism (Trinkaus 1985) Cannibalism (Patou-Mathis 1997 ; White and Toth 2007)
Moula Guercy XV level (France) 100,000–120,000 BP	2 adults 2 adolescents 2 infants Total, 6	Cannibalism (Defleur <i>et al.</i> 1999)
El Sidrón (Spain) 43,000 BP	7 adults 3 adolescents 2 juveniles 1 infants Total, 13 ^a	Cannibalism, perhaps survival cannibalism (Rosas <i>et al.</i> 2006)
Cueva del Boquete de Zafarraya 42,000 BP	7 adults 2 infants Total, 9	Cannibalism (Barroso and de Lumley 2006)
Padrelles (France) 45,000 BP	3 adults 1 adolescent 1 infant Total, 5	Cannibalism (Maureille <i>et al.</i> 2007)
Troisième caverne of Goyet (Belgium) 40,500–45,500 cal BP	4 adolescents/adults 1 infant Total, 5	Cannibalism (Rougeir <i>et al.</i> 2016)

Gough's Cave (England) 14,700 cal BP	2 adults 2 adolescents 1 infant Total, 5	Gastronomic cannibalism with ritual treatment of the skulls (Andrews and Fernández-Jalvo 2003) Ritual cannibalism (Bello <i>et al.</i> 2011 , 2015)
The Brillenhöhle (Germany) 12,000 BP	2 adults 1 infant Total, 3	Cannibalism (Rick 1973 ; Gieseler and Czarnetzki 1973 ; Sala and Conard 2016) Secondary burial practices (Orschiedt 2002)
Santa Maira (Spain) 9000–8000 BP	2 adults Total, 2	Cannibalism (Aura Tortosa <i>et al.</i> 2010)
Grotte Perrats (France) 9000 BP	5 adults 3 immature Total, 8	Cannibalism (Boulestin 1999)
Herxheim,(Germany) 5000–4900 BP	61 adults 43 infants Total, 104	Ritual treatment of corpses and interpersonal violence (Orschiedt and Haidle 2006) War cannibalism or cannibalism in a sacrificial context (Boulestin <i>et al.</i> 2009)
Fontbrégoua (France) 4700–3100 BP	3 adults 2 adolescents 1 infant of unknown age Total, 6	Cannibalism with ritual treatment of the skulls (Villa <i>et al.</i> 1986b) Exocannibalism (Courtin 2000) Ritual mortuary treatment (Marfat <i>et al.</i> , 2004)
Cueva de la Carigüela (Spain) Neolithic	?	Cannibalism (Jiménez Brobeil 1990 ; Botella <i>et al.</i> 2000a , 2000b)
Malalmuerzo (Spain) Neolithic	12 adults 6 juvenile 12 infants Total, 30	Endocannibalism (Jiménez Brobeil 1990 ; Botella <i>et al.</i> 2000a , 2000b ; Solari <i>et al.</i> 2012)
Las Majolicas (Spain) Neolithic	Total, 42	Endocannibalism (Jiménez Brobeil 1990 ; Botella <i>et al.</i> 2000a , b)
Mirador Cave (Spain), 4400–4100 cal BP	6 adults, 1 infant, Total, 7	Gastronomic cannibalism (Cáceres <i>et al.</i> 2007)

Neolithic – Bronze Age evidence of cannibalism in Europe

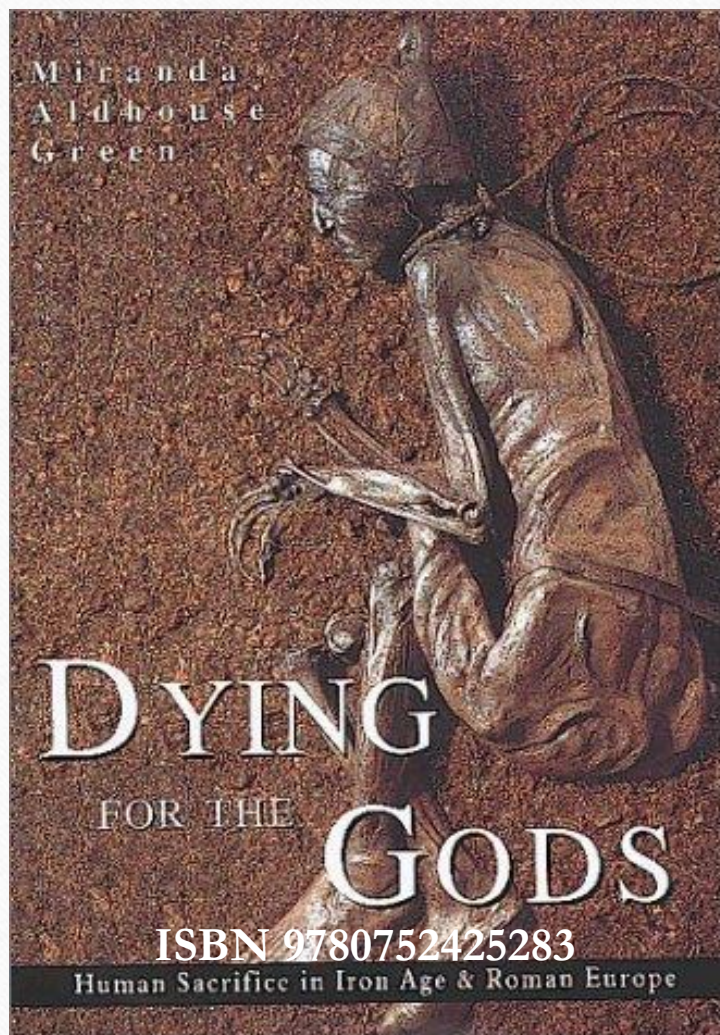
During the Neolithic Period, Fontbrégoua (France) was one of the best-known assemblages at which cannibalism occurred. That assemblage contains the specimens of 13 individuals that show the same butchering process as that of faunal remains. The specimens were found deposited in accumulations of butchered bones. In one of these little piles, however, no skulls, hands or feet were located (Villa 1992; Villa et al. 1986b). Courtin (2000) concludes that this absence might be related to war cannibalism between neighbouring groups and, perhaps, that these body parts were war trophies. This interpretation supplements those of Villa et al. (1986b), who conclude that Fontbrégoua was the result of cannibalism event with the possible ritual treatment of skulls. Subsequently, Mafart et al. (2004) studied the scarce remains (five fragments of mandible, five fragments of maxillary and one phalanx) of five individuals in the Grotte de l'Adaouste (France), which is both geographically close and chronologically similar to Fontbrégoua. The mandibles show marks, and all of the cranial remains are fractured. Mafart et al. (2004) propose the alternative hypothesis that this assemblage and that of Fontbrégoua are the products of a regional funeral ritual rather than cannibalism based on the temporal and spatial coincidence of the two events. Another assemblage for which the interpretation is conflictual is the human skeletal remains at the Early Neolithic Linear Pottery Culture enclosure of Herxheim (Germany), near Landau, Rhineland-Palatinate (Boulestin&Coupey 2015; Boulestin et al. 2009; Haidle&Orschiedt 2001; Orschiedt and Haidle 2006, 2007, 2012). At this site, the possible remains of more than 1000 individuals were found. Their bodies had been manipulated based on the abundance of cut marks, fractures and skull cups, which were placed in trenches. Some of the skulls located in the assemblage show injuries caused by interpersonal violence (Boulestin and Coupey 2015; Haidle&Orschiedt 2001). According to Orschiedt et al. (2003), individuals whose skulls show lesions survived. According to Haidle&Orschiedt (2001), the absence of any signs of violent death or access by animals to the corpses adds to the abundant evidence of systematic manipulation, thus leading to the hypothesis that the bones were intentionally arranged and buried in funeral rituals, not after war confrontations. This interpretation obviates the possibility that cannibalism was involved in the creation of the assemblage. However, Boulestin&Coupey (2015) indicate that perimortem traumatic lesions have been identified on the heads found during the more recent digs, although they are scarce. These lesions in some cases at least could be the cause of death. Other injuries could be masked during the making of the skull cups.

From a taphonomic perspective, Boulestin et al. (2009) examine (partially) the remains of deposit 9 (deposit F in the posterior revision) at Herxheim (Germany). For these authors, the presence and distribution of slicing and scrape marks, percussion marks and peeling are linked to cannibalism. In their discussion of the assemblage, Boulestin et al. (2009) reject funerary cannibalism because the number of individuals does not seem compatible with the short period of time when the inhumations took place; moreover, the funerary cannibalism hypothesis does not consider the various and sometimes distant origins of the ceramic styles found at the site (Boulestin et al. 2009, p. 979). These features, however, suggest an episode or episodes of war cannibalism with incursions covering several kilometres (thus explaining the different pottery styles) or the performance of ceremonies involving people from various regions in which cannibalism played an important role. Orschiedt&Haidle (2012) openly discuss these interpretations because, according to their approaches, the deposit of human remains from Herxheim is the result of multistage funerary rituals. Orschiedt&Haidle (2012) accuse Boulestin's work of a lack of information, a lack of photographic documentation, the absence of numerous burned bones and a lack of data on faunal remains. Recently, Boulestin&Coupey (2015) reviewed a larger number of remains, approximately 15,000 specimens belonging to 104 individuals: 61 adults and 43 immature persons. The details of the taphonomic information, however, substantially contradict Orschiedt&Haidle (2012) with the support of images of the remains, leaving no doubt that the individuals from Herxheim were victims of cannibalism. In Herxheim, various pits have been excavated to show specific deposition events, although some pits show remains of various events and other pits show the distribution of remains from a single event among various pits. According to Boulestin and Coupey (2015), modifications of the Herxheim bones are related to the exploitation of bodies for nutritional use. The distribution of the traces of fire indicates that the bones were roasted when the meat was preserved. Subsequently, the meat was extracted. After this process, the bones were prepared for their fracture and marrow extraction. The skulls were fractured mostly for the production of skull cups. In addition, human chewing marks located on foot and hand bones and ulnae 'can be regarded as a direct proof of consumption' (Boulestin&Coupey 2015, p. 116). Once completed, the treatment and consumption bones were deposited into pits.

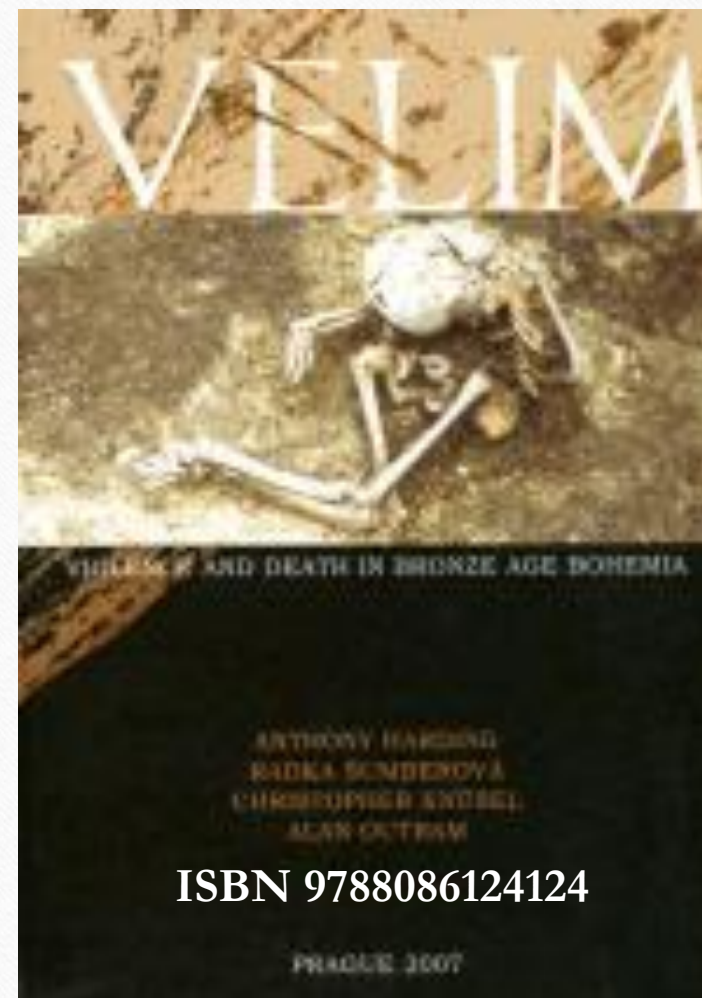
Boulestin&Coupey (2015) interpret this as exocannibalism based on the analysis of isotopes of strontium ($^{87}\text{Sr}/^{86}\text{Sr}$), thus indicating a distant origin of at least some of the individuals. Indeed, it seems that various origins (Turck et al. 2012) are supported by the various ceramic styles that are exogenous to the local area of the site (Boulestin et al. 2009). Furthermore, these researchers argue that all episodes in which the skulls were turned into containers (skull cups) involved heads that belonged to an enemy (Boulestin&Coupey 2015, p. 124; but see Boulestin 2012). Given all of the above characteristics, Boulestin&Coupey (2015) conclude that Herxheim reflects an armed conflict with ritualized practices in which the enemies were consumed and the skulls were manufactured (and perhaps used) as skull cups. Other Neolithic assemblages where cannibalism has been accepted with little discussion are the Cueva de Malalmuerzo and the Cueva de Carigüela (Spain). The first set has been interpreted as exocannibalism. The Cueva de Carigüela is interpreted as the result of human cannibalism without an in-depth discussion (Botella et al. 2000a; Botella et al. 2000b; Solari et al. 2012) despite the presence of skull cups (Jiménez Brobeil 1990) and the set's clear parallels with those of Gough's Cave, Fontbrégoua, Herxheim and Cueva del Mirador. At both Malalmuerzo and Carigüela, human remains were found mixed with fauna, and both the cut marks and the intentional breakage of long bones and skulls have been linked to the complete butchering of the bodies.

Bronze Age evidence of cannibalism has been recorded in La Cueva del Mirador (there are six skull cups). It has been concluded that this cannibalism was gastronomic cannibalism and that the fracturing of the calottes was done only to remove the brains (Cáceres et al. 2007). However, the comparison with the skulls from other assemblages where skull cups appear and have been interpreted as the product of a possible ceremonial practice also points to the need to review this interpretation. Other taphonomic features of this assemblage are consistent with consumption of the bodies because in most of the specimens, there are abundant cut marks, anthropogenic bone breakage, potentially boiled remains and human tooth marks. Although the identification of cannibalism in other assemblages of the Bronze Age has been proposed, these propositions have not been carefully studied (i.e. Jelinek 1957). The possibility of cannibalism in various contexts of the Bronze Age in the Czech Republic and Slovakia has also been considered, but it seems that these areas show rather unusual burial deposits without specific evidence of the butchering of human bodies (Dočkalová 1988). However, it is difficult to draw conclusions about these sets because of the lack of data.

During later parts of Europe's prehistory, cannibalism does not appear to have been a habitual practice. A few Iron Age sites in the UK (Aldhouse-Green 2001) show long limb bones and skulls with evidence of human manipulation (cut marks), and green breakage has been recorded. These sets have been interpreted as ritual cannibalism; however, no exhaustive taphonomic studies have been conducted. Indeed, no type of analysis has been conducted. Some later historical texts refer to cannibalism as late as the Roman Republic. The idea of human cannibalism, embodied by the current concept linking it to barbarism, has made it taboo in most societies. Thus, few known incidents in modern Europe except for those involving medical cannibalism (Conklin 2001) and more recent cases have been attributable to necessity either during war or famine or to episodes that are considered pathological in nature.

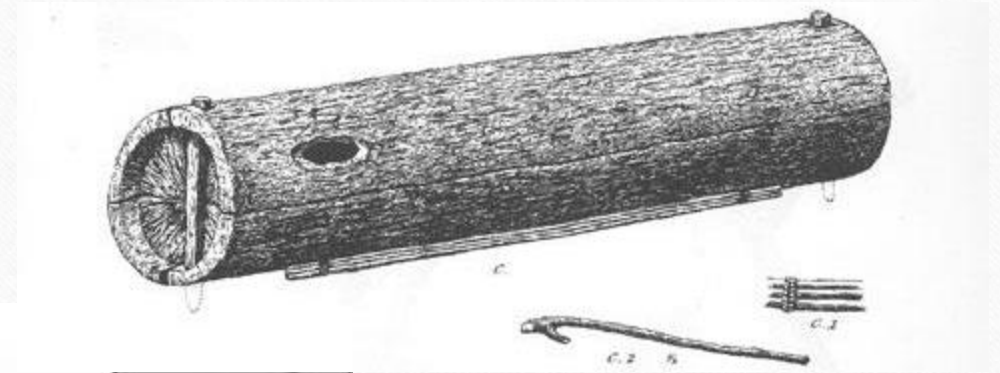
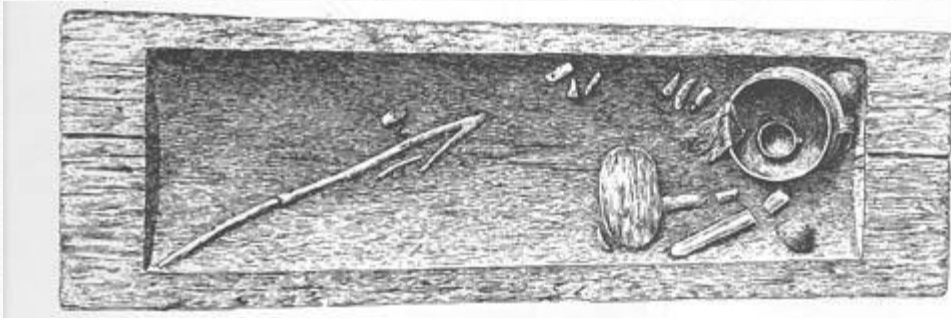


Aldhouse-Green, M. J. (2001). *Dying for the gods; human sacrifice in Iron Age and Roman Europe*. Stroud, UK: Tempus.



Harding Anthony - Šumberová Radka - Knüsel Christopher (2007): *Velim. Violence and Death in Bronze Age Bohemia*. Archeologický ústav AV ČR, Prague

Secondary opening of graves. Magic and Spiritual reasons or robbery?



There is an ongoing discussion about the motives of secondary opening of burial contexts. The traditional interpretation was the robbery, however in many cases, such as the Near Eastern modelled skulls (see lesson 9) we can see other reasons for re-opening of graves. In some periods the secondary opening and exhumation of remains and shifting of artefacts back to the world of living was the ritual norm of common funerary practices



Reconstruction of the reopening of a grave where the coffin is still intact (after Thrane 1978, 16, fig. 2). Based on finds in the Bronze Age mounds of Jutland, where hooked sticks of 65-110 cm length and wooden coffins with small openings (up to 24 × 13 cm) were found.

Edeltraud Aspöck 2011: Past 'disturbances' of graves as a source: Taphonomy and interpretation of reopened early medieval inhumation graves at Brunn Am Gebirge (Austria) and Winnall II (England), *Oxford Journal of Archaeology* 30(3), pp. 299 – 324, DOI: 10.1111/j.1468-0092.2011.00370.x

Abstract:

Early medieval graves that were reopened in the past are usually considered 'disturbed' and hence an unreliable source for traditional cemetery analysis. This paper aims to highlight how the analysis of these 'disturbances' can contribute to our understanding of early medieval mortuary rites and attitudes towards the buried human body. Two case studies of cemeteries with high proportions of reopened graves are presented. Thorough archaeological analysis, with careful consideration of the taphonomy of reopened graves, is the key to an understanding of the reopening practices. At Brunn am Gebirge (Austria) most graves were reopened for 'grave-robbery' – to remove grave goods – at a time when the bodies were already fully disarticulated. The graves at Winnall II (England) were reopened very soon after burial to manipulate the still largely intact corpses.



Reopened early Bronze Age
inhumation grave in Weiden am
See, Burgenland
(© E. Aspöck 2013)

The traditional view of early medieval graves is that a grave's story ends with the burial of the corpse and the grave furnishings. Graves may be reopened for a range of different reasons, and the removal of grave goods and the manipulation of corpses, possibly because of revenants, are only two examples. Early medieval archaeology has, however, so far paid little attention to post-burial practices. This is primarily because research was focused on the way the body and grave furnishings were deposited, from which inferences were drawn about, for example, social organization and hierarchy, ethnic identity, and gender roles and religious beliefs of the burying communities (for a recent overview see Effros 2003). In reopened graves, information about the original burial will be limited and therefore not conducive to traditional cemetery analyses. The reopening of graves tends, furthermore, to be seen as inappropriate behaviour – a disturbance of the dead – and not something associated with the same early medieval people who 'cared' about their dead and buried them with often lavish grave goods. These two case studies show that past 'disturbances' of graves can be valuable sources of information, and can add greatly to what we learn from the original burial evidence. Thorough analysis of the archaeological record left by the reopening of graves allows for a reconstruction of post-burial practices and a valuable discussion of the nature and motivation behind these practices. It is suggested that burial practices and post-burial practices need to be looked at in combination in order to view the full picture. The analysis of the archaeological evidence of the post-burial practices at Brunn am Gebirge led to a characterization of the practice of removing grave goods from graves which is different from the traditional perception of Merovingian-period grave-robbery. The occurrence of the systematic reopening of graves to take out grave goods influences the meaning of the original burial practices and gives them a slightly more transient character. The case study Winnall II, however, naturally raises the question of whether there could be many more Anglo-Saxon 'deviant burials' that were actually the result of post-burial manipulation of the corpse. As in the case of Winnall II, study of the original documentation and excavation records will be necessary in order to judge. It is possible that this will result in the identification of similar graves and sites. It may, however, be difficult to identify secondary manipulations of graves at many sites because of a lack of documentation of the evidence during excavation.

Careful observation during excavation is usually necessary in order to determine whether graves were reopened. Many sites lack sufficiently detailed records. Older excavations in particular tended to focus on the 'contents' of graves, and neglected to document archaeological evidence such as that found in the grave pit. The two case studies above reveal the following archaeological signposts, which may indicate that a grave was reopened:

- (a) different types of grave fills resulting from pits that were dug into graves;
- (b) specific types of finds in the grave fill, such as parts of grave furnishings, re-deposited finds, human remains and snail shells;
- (c) the disturbance of structures inside graves;
- (d) non-anatomical positioning of human remains;
- (e) unusual positioning of grave goods;
- (f) fragmented and missing grave furniture.

Generally, the identification of reopened graves is more difficult if the reopening took place soon after burial, when the corpse was still largely intact and could be moved without disintegrating. The human remains will be found in anatomical position and the evidence may remain ambivalent – as was the case with many graves at Winnall II. By way of contrast, at Brunn am Gebirge most graves were reopened when the corpses were already disarticulated. This led to significant disturbance of the human remains, and made the reopening more obvious. Unlike 'normal' graves, reopened graves do not represent 'closed finds' – i.e. sets of artefacts buried together (Chapman and Randsborg 1981, 3). Instead, different phases of activity have to be distinguished in the analysis of reopened inhumation graves. These consist of the following: the initial deposition of the corpse and grave furnishings; the refilling of the grave (assumed to have taken place soon after the deposition); the reopening of the grave and the practices performed inside the grave; and the refilling of the grave, which may take place immediately, in different stages and/or naturally, over a long period of time (Neugebauer 1991, 124, 489–90). Graves may also have been reopened more than once. The time that passed between these events can vary considerably. The separation of the various phases of refilling proved crucial in the study of Brunn am Gebirge for the dating, the identification of patterns, and the interpretation of post-burial practices.

See also: <https://www.orea.oeaw.ac.at/en/research/stand-alone/microtaphonomy-and-interpretation-of-reopened-graves/>

Prague Zličín

The Migration Period Cemetery with evidence of regular secondary grave opening





Jiří Vávra et al. 2008: Migration Period cemetery in Prague-Zličín, excavated in 2005–08), *Archaeologica Pragensia* 19, pp. 211-232

The cemetery is dated back to the earlier stage of the Migration Period (5th century A.D.) and it revealed 177 inhumation burials in 174 graves. It is the largest burial site of that period in the Czech Republic. The robbing shafts regularly went to the western half of the grave pits, i.e. to the area of the head and chest of buried individuals, where it was possible to expect the most valuable objects. As a result of the theft, the skeletal remains of the artefacts were moved to secondary positions, i.e. higher levels above the grave bottom and in some cases probably also to other graves (e.g. we found two human skulls in one grave at one funeral). Movable finds related to burials or human bones were often captured at the interface of the robbing shafts and grave backfills. Due to the theft, a large part of the artefacts and possibly some of the skeletal remains of the tombs have disappeared. The robbers were well acquainted with their position in the second, they were heading for their goal with certainty, and almost all the graves within the cemetery disappeared. Therefore, we can assume that the graves were marked on the surface in some way. They were equally thoroughly familiar with the internal arrangement of the graves, as they repeatedly targeted their interventions in the area where they expected the presence of valuables, that is, in the area of the chest and head, where jewellery and parts of precious metal garments were found. To do this, they must have known the funerary customs and how the grave pits and burials are oriented in them. Another evidence suggesting the short time interval between the time of burial and the intervention is the existence of cavities inside wooden coffins still in the time of theft. The wood was not yet completely disintegrated, and the cavity was then filled with the same layers as the robbing pit. These layers kept the coffin lid partially at the original level, while in the more distant parts from the robbing shaft the lid dropped to a lower level of the cavity after the wood decomposed and collapsed. This phenomenon was repeatedly documented in a number of graves. Based on anthropological observations, we can also state that the joints of some secondarily displaced parts of the skeleton have so far corresponded to the anatomical position. It follows that the joint ligament was not completely disintegrated at the time of the robbery, and these bones were relocated shortly after the burial.

Funerary food offerings and animal symbolism

Meat as reflection of identity.

Bell Beaker grave Prague Kobylisy
Meat offering

Meat as an important part of human diet became not only more or less common source of subsistence but also a commodity of certain value and as such indicating certain social status. Meat and its accessibility was reflecting social differentiation and maintained social communication including gender relations within families and whole community. The social value of meat was also presented in feasts and used in the gift and debt system of communication between individuals and communities. Animals for slaughter and meat dishes played an important role in presentation and ceremonial exchange between communities and individuals. Different meat dishes were also signifying certain ceremonial events. Some populations also valued and worshiped different animal species and parts of their anatomy.

Choice of animal species, method of butcher's work, choice of cut, mode of cooking and serving was also significant signs of ethnic, religious or gender identity. European Copper Age burial practices used meat offerings as identity statements approaching the living community as well as the ancestors. The preference of various cuts of meat were possibly also a reflection of cultural identity.

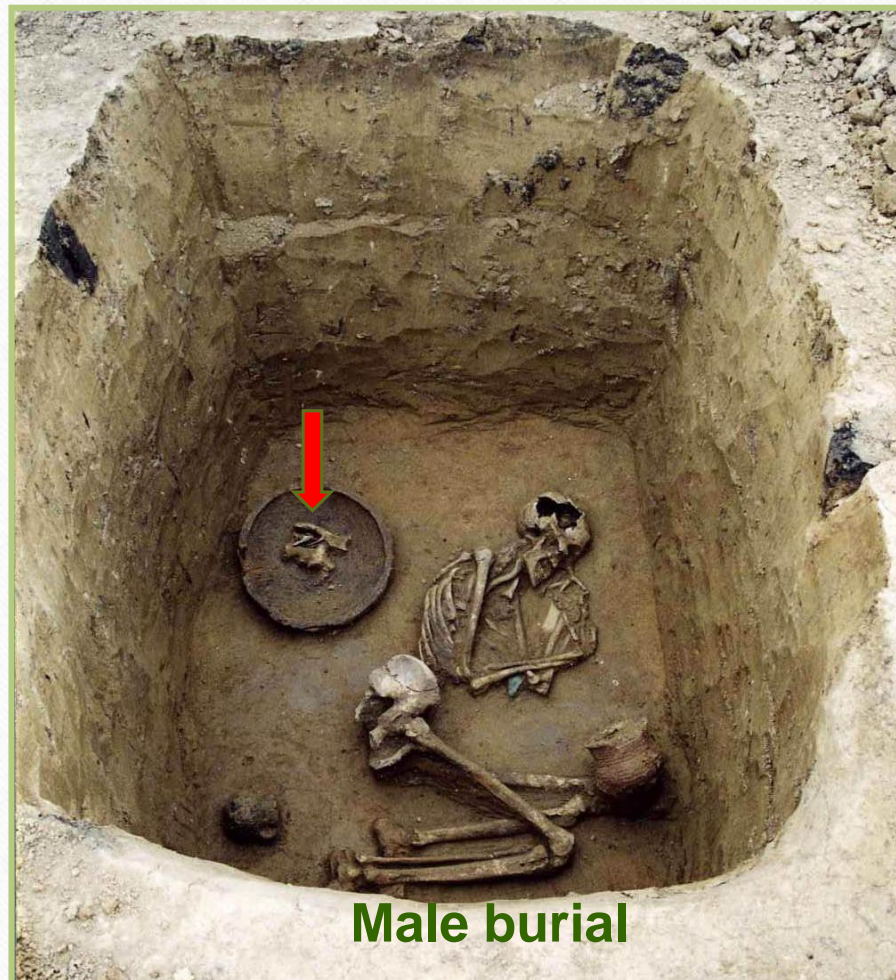


Bell Beaker Cemetery at Hoštice Meet dishes

Animal bones as meat offering were found in 39 graves, usually placed on bowls (Excavation A.Matějčková 2002)



**Female
burial**



Male burial

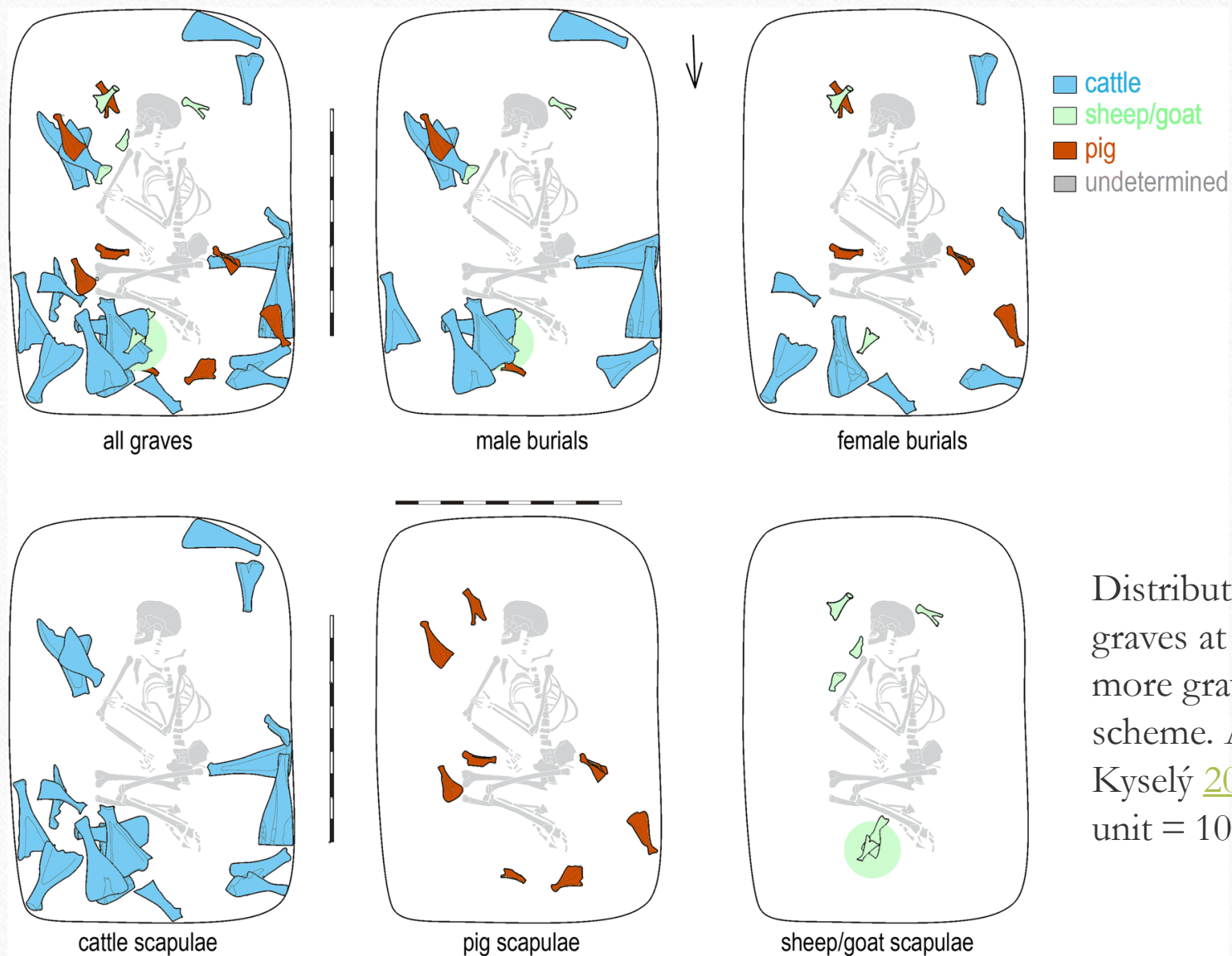


Male burial

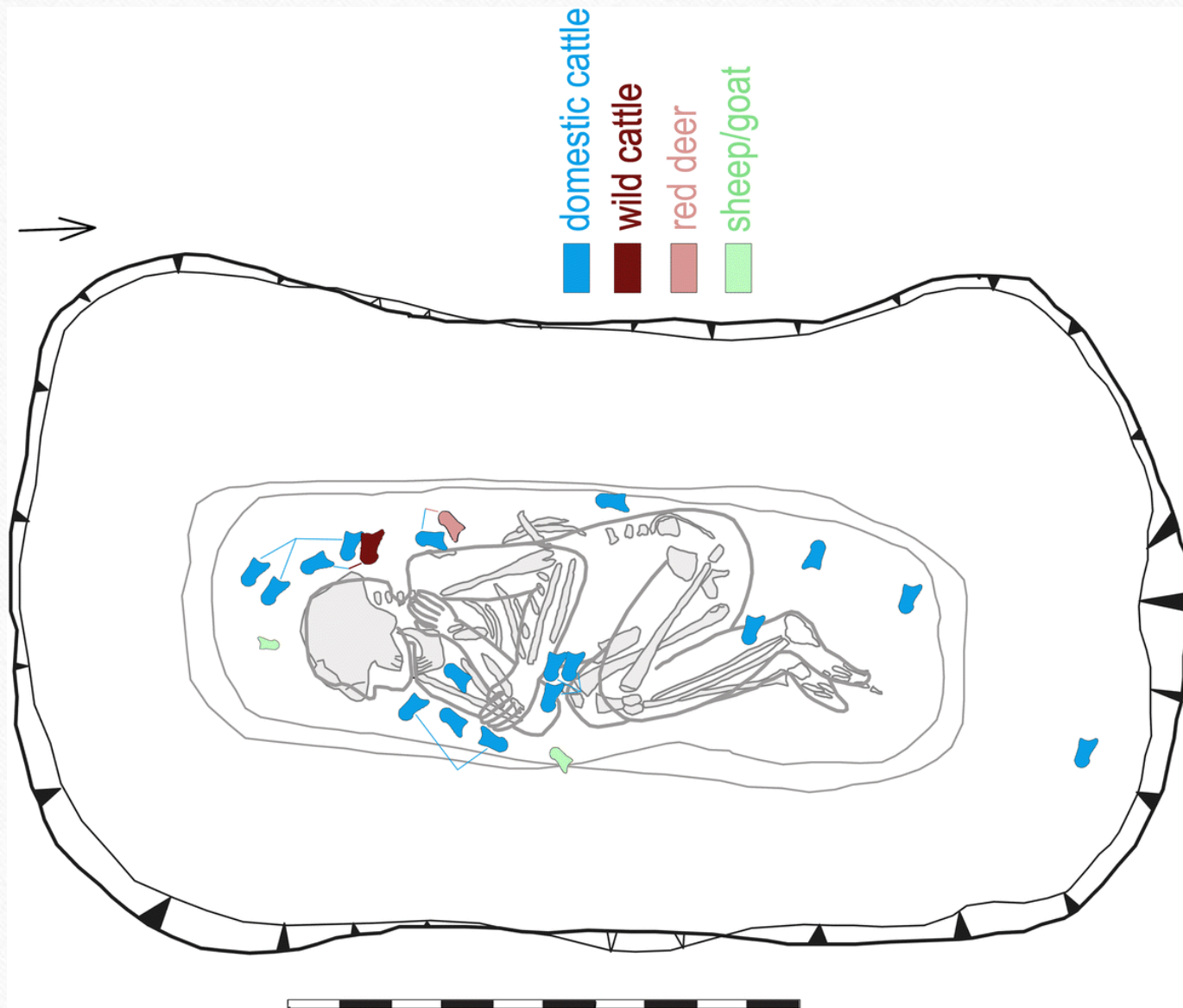
Kyselý, R., Limburský, P., Šumberová, R. *et al.* 2020: Scapulae and phalanges as grave goods: a mystery from the Early Bronze Age. *Archaeol Anthropol Sci* **12**, 72 (2020). <https://doi.org/10.1007/s12520-019-01004-1>

Based on a study of animal bone finds from the Únětice Culture cemeteries (2200–1700 BC) in Bohemia, Czech Republic, the study analyses selected aspects of the funeral rite in the Early Bronze Age in Central Europe. The focus is on unworked and unburned cattle, pig, sheep/goat and red deer scapulae, phalanges (+ some astragali) and ribs—significant burial phenomena in the Únětice Culture—determined as undoubtedly intentional components of funerals, that is, as grave goods. Radiocarbon and other evidence show that the phenomena existed for the whole of the Únětice Culture and perhaps longer. The presence of scapulae in 41% of the graves in the cemetery at Mikulovice and tens of other cemeteries in Bohemia and Moravia, and the complete domination of phalanges among the animal bones in graves in the funerary area at Vliněves provide evidence of the importance of these customs in the funerary rite. Rib cuts certainly represent meat offerings but the meaning of isolated (unarticulated) scapulae and phalanges/astragali is difficult to determine. The hypothesis that scapulae found always singly could also be real meat offerings is difficult to accept, so further roles, whether practical or symbolic, should be considered. An earlier suggestion that scapulae were used as a trowel for digging grave pits is highly improbable, as follows from our analysis, and we were unable to confirm the use of the flat scapula as a plate for other offerings or a base for paintings. The choice of the (near-triangular) scapula to symbolise the triangle must be left in the realm of speculation. Unworked and variably positioned phalanges and astragali are unlikely to have been used for clothing or hair decoration but, based on analogies, might have been used in magic or games (amulets, tokens, dice, game pieces). The possible use of scapulae and phalanges + astragali in divination is considered in the light of ethnographic and historical records of scapulimancy and astragalomancy on four continents. As scapulae and phalanges do not usually appear together in a single grave, they could represent attributes of different social groups or statuses.





Distribution of scapulae in graves at Mikulovice. Always more graves projected in one scheme. According to Kyselý [2020](#), adapted. Scale 1 unit = 10 cm



Distribution of phalanges in graves at Vliněves. More graves projected in one scheme. Phalanges connected by lines originate from the same grave. According to Kyselý [2018a](#), adapted. Scale 1 unit = 10 cm

Conclusion

A number of Early Bronze Age Únětice Culture cemeteries provided unworked and unburned animal bones lying close to the deceased and these undoubtedly represent intentional components of the funeral rite. Animal ribs found as meaty sections are easy to interpret as food offerings. Similar meat offerings are known from various cultures. Other significant customs are expressed by finds of animal scapulae and phalanges, which have the appearance of objects or tools rather than body parts, but strangely, unlike most grave goods, are unmanufactured and unworn. The importance of these customs is reflected in the presence of scapulae in 41% of the graves at Mikulovice and in a large number of other Czech Únětice cemeteries, and by the 28 phalanges in 16 graves in the cemetery at Vliněves. Furthermore, they appear for the whole duration of the Únětice C.

The scapula phenomenon in Únětice C. graves has been known about for a relatively long time. The previous dominant hypothesis considering scapulae as meat offerings is reviewed in light of the recent discovery of the phalanx phenomenon, also represented by whole and isolated (unarticulated) unburned bones but representing an un-meaty part of the body that is not normally involved in the human diet. As the two kinds of offering are not normally combined in a grave, they could represent two different social groups or statuses, but do not reflect different sex or age groups; we can cautiously speculate about scapula (+ ribs, often co-found) and phalanx as attributes of two different clan or kinship groups or other kind of identity. They, however, could be simply expressions of two different customs. Nonetheless, relatively great inter-site differences were found in the frequency of graves with scapulae and in the ratio of the number of scapulae vs phalanges. For example, the high frequency of scapulae at Mikulovice in contrast to the dominance of phalanges at Vliněves is interesting.

The possible practical or symbolic uses are endlessly debatable. In the paper, various equally probable (or improbable) interpretations are considered in detail, although only one can of course be true. The use of phalanges as decoration or parts of clothing is improbable because of their unmanufactured state and highly variable position in the graves. Nonetheless, phalanges and especially astragali were and are used as game dice, tokens, prophetic tools, amulets, talismans, toys or musical instruments, as we know from various historical and ethnographic studies and observations. The phalanges and astragali, mainly of large ungulates, cattle and red deer, from Únětice C. burials could play such a role.

Scapulae are also found in graves in a disarticulated position and not closely correlated with any detectable funeral phenomena such as bronze artefacts, ornaments, human sex and age—perhaps excepting human age at Mikulovice—but they are often found in a spatial relation to ceramic vessels. The meaning here is even more difficult to determine. The interpretation of the scapulae as meat offerings (real portion of meat) is unreliable as in all cases, without exception, only a single element (not a continual articulated part of the body) was observed. Furthermore, a young piglet scapula 6.5 cm long found in one grave could hardly carry a significant portion of meat. However, we do not exclude a symbolic use for the element: perhaps as a result of an evolutionary development from a real meat offering in the previous BBC to the placing of a single cleaned bone in the Únětice C. Although the focus on a specific bone element—the scapula—is apparent, the reason for the focus is unclear. The choice of the scapula could be linked to the quality of the meat connected to it or to some symbolic significance of this part of the body. If we exclude the idea of a meat offering, whether real or symbolic, we should consider that they were used for some other practical or symbolic purpose, and the possibility that they were chosen for their triangular and/or flat shape. The early interpretation as tools for digging—either during the normal preparation of the grave pit or in secondary interventions such as grave robbing—was rejected because of the absence of corresponding traceological evidence on the scapulae, the absence of other digging tools in the grave, and for other reasons. On the symbolic level, the choice could hypothetically be linked to the importance of the ancient triangle symbol in European prehistory. The random orientation of the *spina scapulae*—sometimes up and sometimes down—suggests they were not used as a platform for other (degradable and therefore unfound) offerings. Similarly, the fact that no remains of pigment were detected suggests they did not bear dye or painted pictures or symbols. The choice of scapulae of certain animal species—only typical husbandry animals, cattle, sheep/goat or pig in our cases—could also have some meaning; nevertheless, the occurrence of more species than one reduces the likelihood of some totemic, cultic or similar use. In the Únětice C., the roles of scapulae and phalanges, which almost never co-occur in a grave, could be in some way substitutional. The scapula and astragalus are known to have been used in the divination practices of scapulimancy and astragalomancy. These two elements are probably the only parts of mammalian anatomy used widely and systematically as oracle bones across America, Europe, Africa and Asia. The presence of either a single scapula or a single phalanx (similar in shape and size to astragalus), and to a lesser degree astragali, in the Early Bronze Age graves is striking. Is this co-incidence only random?

Thank you for your
attention!

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