

# Shaman Lady

## Mesolithic Discovery



It was another sensational discovery in Germany when, by chance, a richly equipped Mesolithic grave was unearthed in the park of Bad Dürrenberg in 1934 during the laying of a water pipeline for a well.

#### *Hastily removal*

The significance was recognized, but unfortunately, everything had to be hastily excavated in a single day as the completion of the well was pressing. Archaeology did not yet have the priority it has today, resulting in minimal documentation, and the findings ended up in the archives of the local museum.

#### *Long dormant period*

Due to wartime events, this discovery was forgotten and was not extensively researched during the time of the German Democratic Republic GDR. It was only found out that it was a female skeleton. Additionally, three important long bones from the upper arm, upper leg, and lower leg were lost when sent to Berlin for further examination. Unfortunately, despite intensive searches in various Berlin archives, they have not been found to this day.

#### *New research effort & high interest*

More detailed investigations took place in stages after reunification of the two Germany's. However, it wasn't until 2019 that a new effort with renewed excavations was undertaken. The park in Bad Dürrenberg was earmarked for redesign for a regional garden show. The original excavation site was located based on an old rudimentary drawing, but unfortunately the water pipeline had been laid right through the ancient grave.

#### *En bloc recovery*

The new excavations suggested recovering the remains of the skeletons and grave goods hastily salvaged in 1934 as a single block. This new method allows for better retrieval and examination of overlooked remains under undisturbed conditions in the archaeological laboratories. A smaller secondary burial pit with grave goods was also discovered in close proximity. The soil blocks were now carefully removed in layers, examined, and evaluated.

#### *Unique discovery*

What makes this discovery so unique? With an age of 9,000 years, this burial, with its ex-

tremely rich grave goods for such an early time, is unparalleled and sensational. The diverse grave goods present an impressive microcosm of the Mesolithic period. Alongside numerous tools, including animal bone artifacts as well as many plants and medicinal herbs. Unfortunately, apart from some flax pollen, none could be identified.

#### *Unusual double burial*

It is interesting that both the human skeletons and animal bone fragments were dated to the same Mesolithic period. Moreover, this burial is a double interment including a child. This practise was found in half of all Mesolithic graves. The distribution of graves with children alongside a woman or a man is evenly divided in these egalitarian societies.

#### *Human sacrifice ritual?*

But why was the female person buried here with a six-month-old infant? Was it a human sacrifice ritual, or did both die together as family members due to a tragic incident or illness? The latest results on this matter are surprising, but one thing can be stated upfront: no evidence of child sacrifice has been found in any of the Mesolithic graves.

#### *Egalitarian community & paternity*

In evaluating this grave, it must be considered that in egalitarian communities, paternity played no role and it was not always certain who the father was. The question also arises whether there was a pronounced awareness of kinship relations, as it became crucial in the first farming communities 5,000 years ago with property and inheritance considerations.

#### *Many misconceptions*

Initially, it was assumed that the skeleton was male. Perhaps, in 1934, this was mistakenly assumed due to the extensive grave goods. The suspicion that it could be a shaman's grave arose early on, and we will further assess this fact. However, in the 1930s, it was believed that shamans existed only in Siberia and the Middle East. Therefore, it was thought that a rich tribal leader had been buried here.

#### *Mesolithic transition period*

Let's take a step back. The Mesolithic period in Central Europe spanned from 9,600

to 5,500 years ago. It was a time of highly mobile hunter-gatherer nomads who roamed huge areas in small egalitarian clans, constantly following the migration paths of their prey.

#### *Warmer climate than today*

At that time, it was about three degrees centigrade warmer than today, but moister, and the landscape was steppe-like and open without extensive forests. It was also a period of climatic change. Initial rows of trees emerged along river floodplains. It was the era of red deer, aurochs, wild boars, beavers, badgers, foxes, wolves, and lynxes.

#### *Vast hunting grounds*

In the Palaeolithic era, a hunter-gatherer clan with fifteen to twenty-five members covered an area as large as the present-day state of Hesse in a season. In the Mesolithic era, it was only about a thousand square kilometre, roughly a radius of thirty to forty kilometre.

The changing landscape and growing herds provided more resources, and hunters had also learned to regularly fish in lakes and rivers. The food supply expanded to over a hundred animal and plant ingredients. Nevertheless, groups still frequently changed their camp locations as they were very sustainable in their use of the available natural resources.

#### *Stone Age burial practices*

During this time, deceased clan members were buried in various ways. These burial practices suggest that our ancestors were closely connected to nature and believed in an afterlife. Normally, the dead were not buried in the ground but placed on platforms for a so-called sky burial. Other groups submerged bodies in water, left them in the wilderness, or hung them in trees to facilitate rebirth. These burial forms were deeply intertwined with nature.

#### *Unearthed burial*

Nevertheless, burials in a crouched position in dug out pits were a common form for special individuals at that time. What was unusual was the six-month-old boy in the arms of the approximately thirty-five-year-old deceased. Recent investigations confirmed that it was a woman.



### *Possible family relationship?*

And the new DNA analysis confirmed that it was not her own baby, but she was related to it in the third or fourth degree. Today, these new analyses not only determine relationships up to the sixth degree but also provide insights into the population sizes of that time.

Sixty percent of the woman's endogenous DNA was present, compared to only twenty-four percent from the infant. The last analysis was only possible because, in the subsequent excavation, the hard bone chip from the toddler's ear was found, providing enough material for examination.

### *DNA analysis*

In the last ten years, ancient DNA called aDNA analysis techniques have greatly improved. Bones up to a million years old can now be examined, requiring only thirty milligrams of bone powder. Usually, only a minimal hole remains, which can be invisibly sealed. It was also observed that the little boy was very ill. Was this the grave of a shaman, and was the baby entrusted to her for treatment?

### *Healer? Medicine Woman? Shaman?*

Let's move on to the most suitable definition. The discovery, with its rich offerings and identified physical abnormalities, allows for all three terms: healer, medicine woman, and shaman. The author prefers the definition of healer as he first encountered "curanderos" in South America in the 1980s and finds this term most fitting for this case. See the article Iskanwaya & Kallawayas on this website.

In Africa, she would be called a medicine woman. In Asia and, more recently, in Europe as well, she would be termed a shaman. Our archaeologists now also use this term but entirely detached from any esoteric beliefs. Therefore, we align with this determination.

### *Emerging shamanism?*

In Europe and perhaps in other parts of the world, ritual practices and clan members specialized in them existed much earlier than we thought so far. They are documented almost 50,000 years ago through rock paintings and carved figures. Think of the famous thirty-centimetre-tall lion-human figurine made of mammoth ivory discovered in the Hohle Fels cave near Blaubeuren in Germany, dated to over 35,000 years old.

Additionally, numerous engravings and paintings of anthropomorphic and zoomorphic representations, i.e., half-human and animal images, exist in many caves and on rock walls in Europe.

### *Early religion? Or animism?*

Our ancestors early on learned that their deep connection to nature ensured survival. Religion is not the most suitable word for the Mesolithic era; belief or even better, animism fits better. For them, animals had souls and were companions and helpers on the journey to the so-called Other World. It was not spirits or gods that, in their natural belief, triggered lightning, thunder, fire, floods, or diseases.

### *Soul migration?*

Soul and body were not one but separable, and death was not the end. The soul could travel to the spiritual world, and some animals, let's call them totem animals, were mediators for spiritual trips. Without deeper medical knowledge, birth, illness, death, and danger were explainable and healable. Thus, shamans had a comprehensive range of tasks. Anthropologists today see it this way for the Mesolithic era. The belief in gods only emerged much later with structured communities.

### *Who was the deceased?*

With a height of 1.55 meters, she was of average size for that time. Dying at the age of thirty-five was a moderate life expectancy for the Mesolithic era. However, for her extremely good health condition, it was somewhat early. The skeleton of the deceased was surprisingly well-preserved for 9,000 years. Examinations revealed that she was well-nourished, consumed a lot of meat, and was generally in good health.

### *Indepth skeleton research*

But her skeleton also showed that she did not engage in hard work and long journeys on foot. Because her bones only showed weak and no strong muscle attachments, as was usual at that time for a member of a highly mobile hunter-gatherer clan covering huge distances. These findings were very unusual.

### *Unusually early sedentism?*

She likely lived near her burial site, located on a plateau spur twenty meters above the Saale River, offering a clear view of up to twenty kilometre over the prevailing treeless steppe



landscape. Her permanent residence near the local healing thermal springs was well chosen. These facts provide perfect conditions for a shaman. However, the proof of a specific ability to successfully perform this function is still missing.

#### *Remarkable anomalies*

It is astonishing what the latest examination techniques allow scientists to discover today. The healer had a congenital malformation of the atlas vertebra. Under certain conditions, this could reduce or completely block blood flow to the brain, causing various symptoms such as a tingling sensation on the skin, perceptual disorders, paralysis, and hallucinations.

#### *Rare nystagmus*

In addition, there were diplopia, seeing things double, and even more impressively, nystagmus, causing uncontrollable jerky quick eye movements. With a lateral head movement, the healer could consciously induce fainting. Alongside the extraordinary grave goods, these were perfect indicators or even the best evidence for the shaman theory.

#### *Critical discovery*

Fortunately, in the latest excavations, the previously missing axis vertebra with the same anomaly was also found. It fit perfectly with the atlas vertebra. It was clear that the effects of this anomaly only led to nystagmus. Therefore, she did not experience visions or hallucinations and did not faint. This also ex-

plains the absence of head injuries that would otherwise have been present due to regular falling by fainting.

#### *Manipulated incisor teeth?*

A second anomaly was two upper incisors with openings on the inside. There has been much debate about whether these painful pulp exposures occurred naturally through wear or were intentionally created. However, recent research suggests that they were intentionally drilled or filed. It was done so evenly and finely, without leaving any notches.

#### *Painful procedure*

Why this painful procedure was undertaken or if it was part of a special ritual is not known. The two relatively large openings went into the tooth roots and must have been very painful. She must have lived with these two openings for at least ten, if not twenty, years. Perhaps she sealed them with beeswax?

#### *Perfect dental hygiene*

Even small abscesses were detected, but they had healed long before and did not lead to her death. She likely treated her teeth well with water with healing properties from the local salt springs or medicinal herbs. Still, the question arises: why did her teeth not darken? This would have been a normal consequence of exposed pulp. It is also noteworthy that she did not suffer from tartar. She must have practiced perfect dental hygiene. Otherwise, she was very healthy for her time and life expectancy.

### *Sitting occupation*

From her muscle attachments, it was established that she did not move far with her clan in hunter-gatherer activities, bringing back prey to the camp. She was indeed a stationary practicing shaman, visited by seekers of healing from far away. Scientists have deduced this from the unusual condition of her spine, which differed from all other hunter-gatherer tribal members.

### *Possible cause of death?*

The cause of her death could not be conclusively determined from the bone findings. Initially, due to the deformation of her atlas vertebra, it was assumed she might have been decapitated a not uncommon practice in the Stone Age. However, this did not apply here, as later investigations revealed.

### *Death a ritual accident?*

She must have been a very competent healer, visited by people from far and wide. The assumption arises that she died during the healing of the little boy. That is why they were buried together. Perhaps a blood vessel got trapped for too long during the healing ritual between her deformed upper cervical vertebra, causing her to faint without finding her way back? This, as of now, seems to be the most likely explanation. However, we do not know for sure and hope that one day this puzzle can be scientifically solved.

### *Significant burial site*

Upon re-examination of the grave, further surprising details came to light. The pit, slightly more than a meter deep, was small and octagonal, lined with white chalk. The white chalk in the grave favoured the good preservation of the bones. A rectangular willow basket with the healer and the baby was then placed in the octagonal pit. The basket walls were lined with red ochre. Archaeologists believe that the octagonal shape had significant symbolic astronomical meaning, emphasizing the status of the deceased healer.

### *Typical ochre application*

A thick ochre coating was a common ritual in the Stone Age for burials, but here, it was a particularly lavish packing. The upper half of the skull protruded from the ochre layer. The reason for this is unclear, but it could

be that the ochre layer sagged over time. It is assumed that the grave was covered with logs and piled with a small mound of earth. Signs of a posthole have also been discovered, a typical marker for graves at that time.

### *Significance of ochre*

Ochre consists of clay and hematite. It is an iron oxide mineral, also known as red ochre, and has been used by our ancestors for over 200,000 years as a mineral colour for body paintings and later for the first cave paintings. A direct connection to the red colour of blood cannot be conclusively established. Still, some experts believe that ochre served as a blood symbol for an afterlife.

### *Countless new discoveries*

During the re-examination of the grave and the water pipe trench, over 2,000 new artifacts were discovered. These included some missing bones, such as the axis vertebra and smaller ones from the healer's hand, as well as the infant's petrous bone. Fifty animal teeth from deer, aurochs, and bison were found, fifteen of which were perforated, likely part of a necklace or fitted to her clothing. Another fifty flint pieces or flakes, along with twenty snail shells, complete the new complex of finds. This was, therefore, a very successful re-excavation with astonishing results.

### *Enormous number of grave goods*

The list of extremely diverse grave goods is long and very informative. It gives us a good insight into the prevailing beliefs, animistic rituals, and deep-rooted spirituality of our ancestors. The grave goods included everything a shaman needed for her healing rituals. Of particular interest is the thirty-gram hematite nodule with a rubbed surface, along with a grinding and another milling stone, both made of slate. She needed these to produce the red ochre powder. With the red pigment, she painted her face and body for special rituals.

### *Other ritual tools*

A deer skull broken into two pieces with a shortened antler and three mandible fragments might have been part of the destroyed headgear or the latter could have been decorative elements of her clothing. Deer antlers were a typical head ornament for healers and shamans at that time. Perhaps they were only worn for specific rituals.

### *Unused grave gifts*

Interestingly, some grave goods show no signs of use, so they were likely not used by the healer as ritual objects. Perhaps they were crafted by the mourning community and given to her as gifts on her journey to the Other World?

### *Large mourning community*

There are interesting considerations regarding this, which we do not want to withhold. Some archaeologists analysed the number of over fifty newly discovered microliths from the re-excavations. They are small, finely sharp flint blades. Compared to several Mesolithic graves, they calculated a possible mourning community of up to two hundred people for this important shaman grave. Alternatively, six to eight clans may have gathered here for the important burial ceremony and celebration.

### *Eight silex varieties*

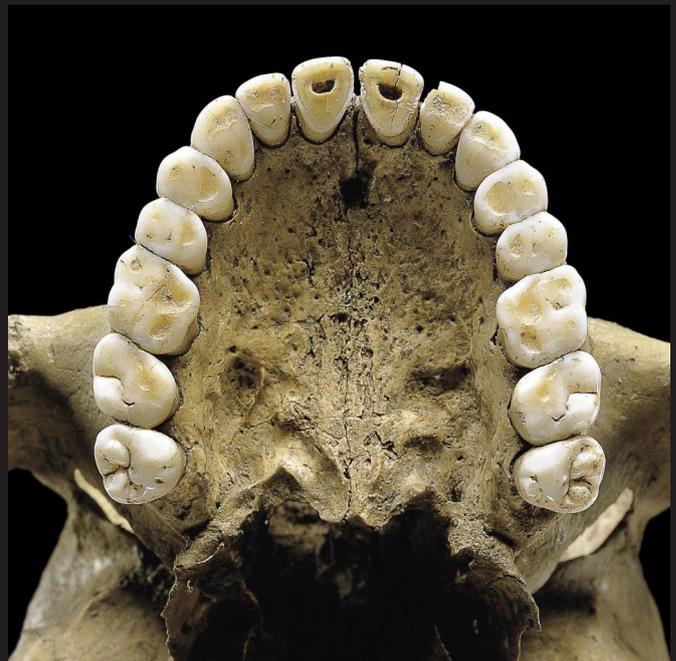
This assumption is also supported by the examination of the flint blades. Eight different Baltic varieties were identified including various translucent brown-grey silex types. Some still showed traces of birch tar and might have been previously attached as arrowheads. These considerations once again underscore the importance and reach of the shaman lady from Bad Dürrenberg.

### *Many ritual animal bones*

In addition, over a hundred bone fragments from deer, roe deer, wild boar, aurochs, bison, beaver, hedgehog, and crane were found in the grave. Most of these belonged to her ritual tools. Furthermore, parts of the shells of three marsh turtles were discovered, which were attached to wood, bone, or antler pieces as tools or cult objects. However, they might have also served as ritual rattles?

### *Flint microliths*

Over a hundred shells, such as river, painter, and river pearl mussels, and pieces of them were also found in her grave. Thirty worked flint blades and flakes were counted. These were tiny and are called microliths by archaeologists. These small, razor-sharp blades were attached to notches in antler or wooden handles with resin. These tiny microliths were stored in a hollow crane bone, a storage item unique for the Mesolithic period. Hollow crane



bones might have also been used as drumsticks. Unfortunately, remains of a drum were not found, as the leather and wooden frame certainly dissolved over time.

#### *Neolithic flint axe?*

Archaeologists found a polished flint axe made of black hornblende schist during the initial excavation. The stone axe under her arm raises questions because it seems to be of a more recent origin from the Neolithic period. Stone axes like these were present in the Near East 3,000 years earlier and in Europe only 1,500 years after the time of our shaman lady. Was this a newly discovered Mesolithic innovation, or a special trade item that made its long way to the renowned shaman on the Saale?

#### *Other interesting discoveries*

For us, the long spatula with red ochre residues is a special tool. It was also made from the bone of an important totem animal, a deer. This holds special significance, as do the five twenty-centimetre-long bone points, one from a deer and the others from a roe deer. They certainly served as needles for clothing or their production.

#### *Left-handed shaman lady?*

Let's take a look at the typical Stone Age flint-sharpening tool, a so-called retouch instrument. Anyone at that time could use it to create blades or, through pressure, split off splinters to sharpen flint blades. If it was her own tool, the usage marks indicate that she was left-handed.

#### *Abundant jewellery*

Approximately fifty cutting teeth from bison, aurochs, deer, and wild boar were perforated and served as a necklace or clothing ornaments. Additionally, there were forty non-perforated teeth from bison, deer, and roe deer, as well as four impressively large wild boar tusks. Bone fragments from these animals, as well as beaver, hedgehog, and birds, were also found.

#### *Richest Mesolithic burial*

This makes it the richest Mesolithic grave discovered worldwide to date. Based on this, it can be assumed that the shaman lady was an outstanding healer in her time and attracted a large influx of healing seekers from afar.

#### *Clothing & ritual tools*

For healers, their clothing served a significant function. It was a combination of protection against evil spirits and a symbol to be able to come into contact with them. Many parts of her special totem animals were attached to her clothing and particularly to her headdress.

#### *Amazing headgear*

Rows of animal teeth on strings, arranged like a curtain covering the face and eyes, were definitely a protection against direct eye contact with all things evil. Perhaps she also wanted to avoid startling her patients too much when her nystagmus with wildly flickering eyes occurred. In total, archaeologists counted over seventy pieces of jewellery and fifty ritual tools.

#### *Great surprises*

The latest findings from DNA analysis have surprised experts. Initially, based on her place of residence, it was assumed that the shaman lady had a light skin tone, blond curly hair, and dark eyes. However, the results show that she had a slightly dark skin tone with dark brown or black straight hair and blue to greenish eyes.

#### *Lactose intolerance*

Additionally, lactose intolerance, which was common at the time, has now been proven. This was also the case for the iceman Ötzi, the 5,300-year-old individual, even though he descended from Anatolian farmers. According to the latest findings, he also had a darker skin tone and black hair.

#### *Pure Western European lady*

Now we know that the shaman lady from Bad Dürrenberg belonged to a pure Western European hunter-gatherer tribe. There are no traces of Eastern European tribes or Anatolian farming communities in her DNA. The latter only arrived in Central Europe 1,500 years later, introducing organized agriculture and domesticated animal species.

#### *Last mystery*

Scientists must explore all possibilities. Thus, they also tried to find out if the infant might have been used as a ritual mummy by the shaman lady due to the poor preservation condition of its skeleton. While not unusual,

evidence from other graves in this time period is still lacking. The latest investigations leave no room for this assumption. Both likely died together or shortly after each other and were buried together.

#### *Her grave became a pilgrimage site*

Recent excavations suggest that her grave served as a pilgrimage site for hundreds of years. Imagine that time span involves thirty generations. The latest finds in a pit near her grave can be explained by this.

#### *Typical shaman headdress*

Two masks with deer antlers were discovered, ritually buried approximately 600 years after her death. The antlers were drastically shortened, as is customary for ritual headgear, with one set coming from a monumental sixteen-pointer. Perhaps other shamans paid homage to her by burying their headgear facing her grave. This ritual grave with artifacts only did not contain any red ochre.

#### *Neanderthal settlement*

Archaeologists were also surprised to find, in the layers beneath the grave, 130,000-year-old Neanderthal stone tools and evidence of a 15,000-year-old Homo sapiens hunter camp from the Magdalenian period. The area was seemingly a repeatedly used settlement site. Neanderthals became extinct in Europe around 30,000 years ago.

#### *Genetic exchange?*

And a final important question about evolution is answered. Yes, our ancestors interbred. No wonder, as they lived together in Europe for over 20,000 years. Natural mixing of the two homo species occurred, and that's why we still today carry about two percent neanderthal genes in us.

#### *Different in Asia*

In Asia, it's an average of four percent, and a small population in Romania, studied in recent years, surprised with a result of almost ten percent. The results also show that homo sapiens males mixed with neanderthal females, not the other way around.

#### *Summary*

In Europe, the shaman lady from Bad Dürrenberg and the iceman from the Ötztal Alps, also known as Ötzi, are probably the two most



intensively researched human finds. The ice mummy died in battle high in the mountains, fully clothed and well equipped for hunting.

This discovery provides deep insights into the life of neolithic mountain farmers. Even after over twenty years since its discovery, the iceman continues to reveal secrets through regular scientific studies. You can see him at the museum in Bolzano Italy. See also our article on this website.

However, the discovery of the shaman lady with a child was a burial almost twice as old, with rich offerings from the beginning of the Mesolithic. With all the new research, we are repeatedly surprised to find that our ancestors were much more advanced than previously assumed. They likely had better knowledge of herbal medicine than we do today. In South America, the use of over nine hundred herbs, roots, and minerals has been documented.

Today, we know almost everything about the shaman lady, except why and exactly how she died. For example, we know that she was very healthy, did not wander around or engage in heavy labour. Instead, she had a mostly sitting occupation, and she was left-handed. All this, along with the rich grave goods, attests that she was undoubtedly a shaman.

We also know that the child in her arms was very ill, she was related to him, but the little boy was not her own. Both likely died together during a healing ritual or shortly afterward. The even older cave paintings testify that shamanism probably existed in Europe around 40,000 years ago.

*Translation Note*

*The translation from the german original text into english was done with the help of OpenAI.*

*Picture Credits*

*We thank the authors, the Halle museum and archaeological institutions in Sachsen-Anhalt and photographers for the use of some of their pictures*

