

Towards an archaeological appraisal of specimen N° 652 from Middle-Palaeolithic level D / (layer 8) of the Divje babe I

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Izveček

V članku so obravnavani vsi primerki kosti z luknjami iz obdobja srednjega paleolitika in zgodnjega mlajšega paleolitika, ki so bili opredeljeni kot flavte. Podani so dokazi, da to niso. Obravnavana je tudi domnevna piščal iz Divjih bab I, ki naj bi sodila v isto skupino pseudoartefaktov. Zato verjetno ne gre za piščal ampak za kost, ki jo je naluknjala neka zver.

Abstract

All examples of bones with holes from the period of the Middle Paleolithic and Early Upper Paleolithic that have been classified as flutes are discussed in this article. Evidence is offered suggesting that in fact they are not flutes. The suggested pipe from Divje babe I is also discussed, which would belong to the same group of pseudo-artifacts. It is probably not a flute but rather a bone that was pierced by some animal.

INTRODUCTION

It is indisputable, that Neanderthal Man deliberately produced sounds and tones. Dependant on the analysts' parameters this could be defined as a form of "music".

Whether this be so or not, is not a question within the realm of Archaeology.

Neither it is relevant to Archaeology, whether a bone with a hole, natural or artificial, could have been played to produce sounds and tones.

More to the question is: Was the specimen from Divje babe I conceived and constructed by Man as a musical instrument? Should that be the case, it would be the earliest known evidence of the musicality of mankind to date.

EVIDENCE

One femur of a juvenile cave bear, 12,5 cm long, with two intact holes posterior, was found in the Divje babe I cave, near Cerknò, district Idrija, Slovenia. This find was unearthed during the 1995 excavation campaign, directed by I. Turk, in the Middle Palaeolithic level 8.

We had the fortune in October 1995 to view this auspicious object during an excursion shortly after its discovery and again observed the specimen during the "Flute" of the Divje babe I - Conference in Spodnja Idrija from 3 to 7 May 1998.

The specimen is stored in the National Museum of Slovenia, Ljubljana.

The accompanying fauna consists mainly of bear („more than 99% of all finds“: Turk et al. 1995, 292), and wolf, besides others (I. Turk, ed. 1997).

Additional to Turk, Dirjec and Kavur (1997, 157pp), we were able to observe in May 1998 an imprint, opposite to the upper hole (Turk, Dirjec, Kavur 1997, fig. 11.1: 2), which could be interpreted as a contrabite.

Experimental reconstructions by the excavator (Turk et al. 2001) as well as our own experiments could neither prove nor disprove for certain a natural origin or an artificial character for the holes.

Besides that there are numerous instances of naturally created holes, particularly animal bites (Albrecht et al. 1998, 8p; D'Errico in paper presented at the conference).

Round holes can be produced by animals (carnivores), or by corrosion. They usually occur at the thinnest parts of the bone. These thin areas are often



Fig 1: Map of the sites with cave bear bone „flutes“ and of the Ramesch cave.

located along the long axis of the bone, therefore it is not surprising that, should there be more than one hole, they are positioned linearly (e.g. the fragment of a cave bear rib from the Ramesch cave: Albrecht et al. 1998, fig. 5). Additionally, the dental formation of the jawbone could produce holes in a row (D’Errico in paper presented at the conference).

Turk and Kavur (1997, 179-184) cite several comparable objects from various locations, from different times and of different materials. So-called “flutes” from the Middle Palaeolithic to the Magdalénian from France to Russia and North Africa, were presented; definite

worked artefacts (e.g. Geissenklösterle, Abri Blanchard) were mixed with questionable objects and even with specimens, never defined as flutes (e.g. Haa Fteah, Ilnshöhle). Directly comparable objects made from cave bear bones (Istállóskő, Potočka zijalka and Liegloch) do not withstand critical appraisal (Albrecht et al. 1998; Holdermann, Serangeli 1998a; Holdermann, Serangeli 1988b) and cannot be judged as artefacts.

The following is a list of all available specimens from Middle Palaeolithic and Early Upper Palaeolithic levels, that have been defined at some time as “flutes” (after Holdermann, Serangeli 1988b).

With the exception of the specimen from Divje babe I, our opinion, that none of these objects is an artefact, was not contradicted at the conference in Spodnja Idrija. Resultantly, there is no verified cave bear bone flute, which could serve as an authentication of the object from Divje babe I. Furthermore, at the moment there is not even another known flute from the Middle Palaeolithic made of other materials.

In reference to the table, we cite and augment the comments of Holdermann and Serangeli (1988b):

- From Austria and neighbouring countries, 10 cave bear bone objects have been published as being examples of possible flutes (fig. 1 and fig. 2). Of these, a rib from the *Bukovác cave* and an ulna from the *Drachenhöhle* do not contain a cavity, as might also be the case with a long bone with four holes from

Table: Assumed possibility of cave bear bones being flutes

Sites and number of holes	Year of Find	BA	SEE	MO	HO	ME	BR	COL	F/M	PR	H/M	ROT	TU	A&a	H/S
		1929	1934	1950	1955	1960	1975	1986	1983	1991	1995	1996	1997	1998	1998
Bukovác (1)	1911	N	-	-	FL?	-	N	-	-	-	-	-	-	N	N
Bukovác (3)	1911	N	-	-	-	FL	N	FL	FL	-	-	FL	-	N	N
Drachenhöhle (3)	1919/23	-	N	-	-	FL?	N	-	-	-	-	FL?	-	-	N
Potočka zijalka (3)	1928	FL?	FL?	-	N	-	N	-	FL?	-	FL?	-	FL	N	N
Liegloch (4)	1930*			N	FL?	-	N	-	-	-	-	-	FL	N	N
Liegloch (1)	1930*			N	FL?	-	N	-	-	-	-	-	-	N	N
Salzofenhöhle (1)	1925*			N	FL?	FL	N	FL	FL	-	-	FL	-	N	N
Istállóskő (3)	1951				FL	FL	N	FL	FL	-	FL?	FL	FL	N	N
Große Badlhöhle (1)	1968						-	-	-	FL	-	-	-	N	N
Divje Babe I (2)	1995												FL?	N	N

- = not mentioned; N = not accepted as a flute; FL? = possible flute; FL = flute; * = published later

BA = Bayer; SEE = Seewald; MO = Mottl; HO = Horusitzky; ME = Megaw; BR = Brade; COL = Collins; F/M = Fages and Mourer-Chauviré; PR = Probst; H/M = Hahn and Münzel; ROT = Rottländer; TU = Turk; A/a = Albrecht, Holdermann, Kerig, Lechterbeck, Serangeli; H/S = Holdermann and Serangeli

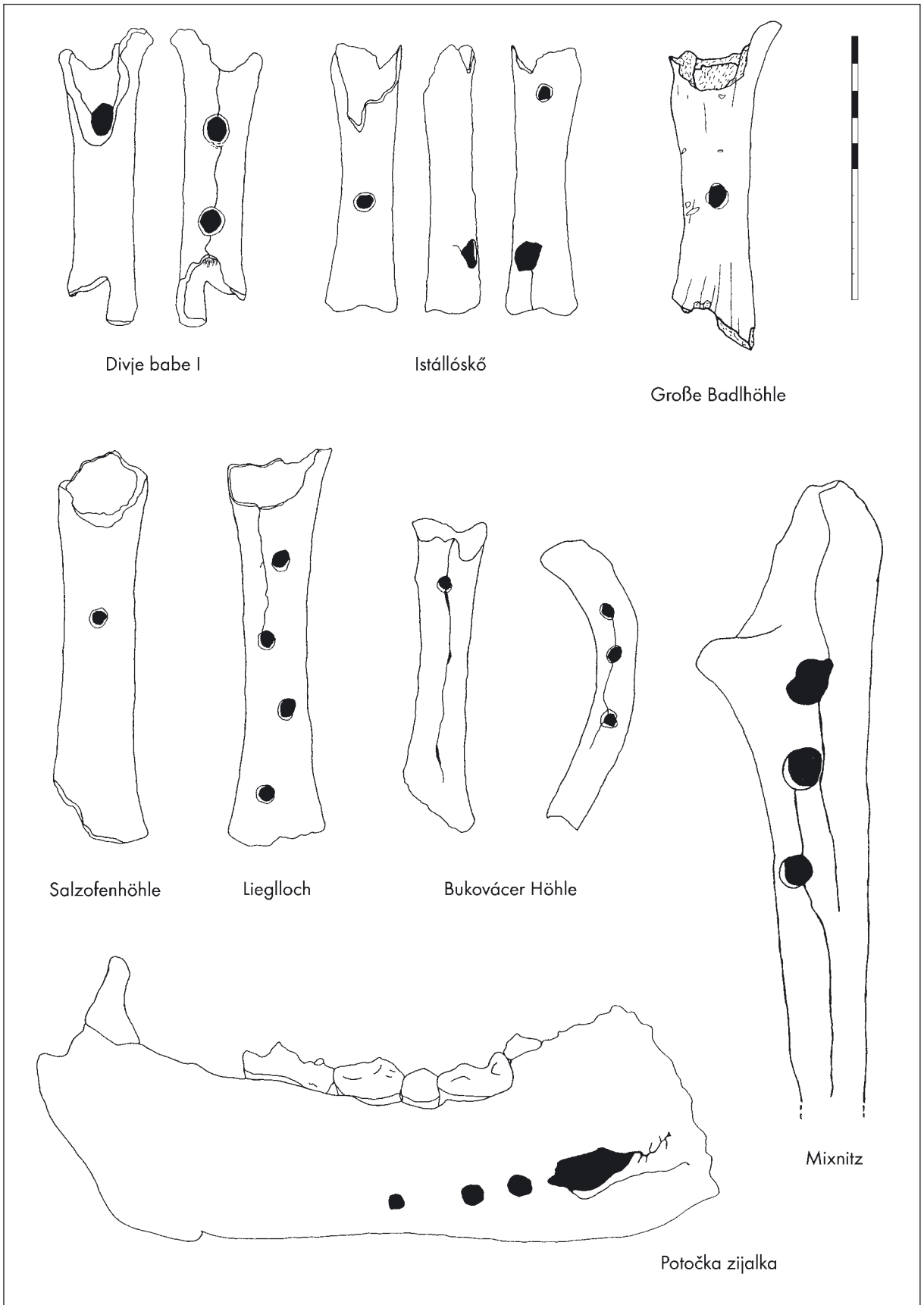


Fig. 2: Schematic representation of cave bear bone „flutes“.

the *Liegloch*. Of the other seven objects, four appear to have only one hole (*Bukovác cave*, *Liegloch*, *Salzofenhöhle*, *Große Badlhöhle*), so to describe them as „flutes“ would be a priori inappropriate.

Of the final three „flutes“, the lower jaw from the *Potočka zijalka* is only considered a wind instrument because of the number of holes in evidence. A minimum of eight other lower jaws and an uncertain number of other bones from the same cave also have similar holes (S. Brodar, M. Brodar 1983, 156, fig. 57).

As for the „flute“ of *Istállóskő*, animals contributed to making at least two of the three holes.

In consideration of the newly observed impression of a contrabite on the *Divje babe I* object, it would appear that this object is also the product of animal activity.

- For none of the 10 postulated „flutes“ have definite arguments for the manufacture of „flute holes“ or for the artificial removal of the bone sponge been given. No traces of drilling at the inner sectors of the holes, nor other evidence of artificial drilling, nor scratches at the inner part of the bones as an indication of the removal of bone sponge, could be observed on the objects we examined from *Istállóskő*, *Große Badlhöhle*, *Salzofenhöhle* and *Divje babe I*.

The other objects from *Bukovác cave* and *Liegloch* are lost (S. Brodar, M. Brodar 1983, 201; Mottl 1950; 18; Brade 1975, 15).

Furthermore, the holes are positioned mainly at the thinnest parts of the bones (see above).

- The fact, that it is possible to play music on these „flutes“ (*Istállóskő*, *Potočka zijalka*, *Divje babe I*) - impressively demonstrated by the musicologist Drago Kunej at the conference in Spodnja Idrija - is no proof of artificiality of the specimens.

- All cave bear bone „flutes“ come from localities with cave bear bones as the largest part of the taphocenosis (Turk, Dirjec, Kavur 1995, 291; S. Brodar, M. Brodar 1983, 185; Jánossy 1955, 157; Kormos 1912; after Bayer 1929, 92; Mottl 1950a, 20). It is hardly surprising that if among thousands of bear bones with frequent gnaw or bite marks, some have holes. In the *Divje babe I*, besides the „flute“, at least two more femurs of juvenile cave bears have similar holes (Turk, Dirjec, Kavur 1997, fig 11.9; 11.15). It was not only Palaeolithic Man but also, and to a greater extent, Upper Pleistocene hyenas, cave bears, wolves, cave

lions and wolverines which were the beneficiaries of the remains of bears, perished in caves.

- Even when there have been articles critical of the phenomena of so-called cave bear bone „flutes“ (e.g. Brade 1975 and 1982), these have rarely been cited or followed up in later scientific literature. In most cases, the supporters of the interpretation of the holed bones as flutes have not even studied the original pieces.

This resulted in misinformation in the articles, reinforced by misunderstandings and wrong translations of prior papers. Obviously, the authors did not feel it necessary to check their sources, as they unquestioningly believed in the existence of these Palaeolithic „flutes“.

- The unquestionably artificially perforated bones from Isturitz (Passemar 1923), often cited for comparison, and the specimen from Geissenklösterle near Blaubeuren (Hahn, Münzel 1995) demonstrate clearly, what genuine artefacts look like. The holes in these bones were made by scraping or carving (Buisson 1990; Hahn, Münzel 1995). In both cases the objects are of bird bone.

CONCLUSION

Considering the arguments we have put together, it must be concluded that the specimen from *Divje babe I* is most probably not an artefact. Should a Neanderthal (or a cave bear whilst biting) have ever elicited a sound from this object, is beyond proof.

Public debate on the „flute“ from *Divje babe I* has shown clearly, how dangerous and hinderous it's quick acceptance as a musical instrument in the media, including Internet, has been for necessary unreserved and critical scientific analysis: Even before the conference in Spodnja Idrija, where a discussion should have taken place on the - natural or artificial - origin of the object, all over the world the „flute“ had already been established as the oldest musical instrument. This situation will continue to be difficult to change, despite the conference and this and other scientific papers. Manuscript presented October 1998.

(translated by Michael Clifford and Gerd Albrecht)

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