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Jew's Harps of Bone, Wood and Metal

How to Understand Construction, Classification and Chronology

Gjermund Kolltveit

Zusammenfassung

In der Klassifikation der Musikinstrumente war die Maultrommel lange Zeit umstritten. Sie ist aus technologischer und kultureller Sicht ein komplexes, facettenreiches und ungewöhnliches Musikinstrument. Die Vielfalt der Formen und Materialien innerhalb ihres ursprünglichen Verbreitungsgebietes Eurasien wirft Fragen über die Bedeutung und frühe Geschichte der Maultrommel auf. Wie kann der Zusammenhang zwischen den verschiedenen Formen und ihrer chronologischen Bedeutung verstanden werden? Wie sind die früheren Theorien angesichts moderner archäologischer Forschung zu bewerten? Die aufgeworfenen Fragen betreffen sowohl Organologie als auch Archäologie.

Jew's harps of wood, bone and sheet metal from the eastern parts of Asia are technologically sophisticated musical instruments – made with amazing precision and attention to detail. Laurence Picken compared these instruments to the iron versions known from Europe, and wrote that "… in their neglect of this refinement, the iron and steel jew's harps of Central, South and West Asia, and of Europe as well, must be regarded as degenerate".[1]

This article[2] will address the relation between these two main branches of jew's harps, i.e. between idioglot instruments – where the tongue or lamella is cut from the frame itself, and heteroglot instruments – where the lamella is made separately from the frame, and then attached and adjusted to it. I will discuss some technological differences between them, in relation to classification and chronology. Classification is relevant because it illuminates and conceptualizes the nature of this instrument or group of instruments. I shall also evaluate some theories that suggest a historical and chronological development between the forms. In this case there is not much archaeology, but in combination with other sources, the sparse material might give some indications. The principal question is: What is the technological and chronological relationship between idioglot and heteroglot jew's harps?

When Laurence Picken wrote that the iron and steel jew's harps were degenerate, it was a way of expressing that he valued the technology of idioglot instruments. He also pointed to the similarity between the idioglot versions and free reed instruments. Furthermore, his statement might be seen as fresh and radical compared to a typical evolutionist approach, where primitive forms are developed into complex forms. The European heteroglot version – which is also found in Asia – has traditionally been regarded as the end of the development, whereas the organic, idioglot types have been considered the earliest, with a more simple technology. Curt Sachs, in his article on the development and typology of the jew's harp,[3] used this instrument as an example of evolution from simple to advanced forms, combined with distribution, where he argued that it travelled slowly from south-east to north-west. For Sachs, the end of the journey of the jew's harp – chronologically, technologically, and geographically, was Europe.

1 Morphology and Terminology

We know that the jew's harp is found in a remarkable variety of forms and shapes, accompanied by different playing techniques. The various forms share some common characteristics, corresponding to the definition of a jew's harp: It is a mouth-resonated musical instrument consisting of an elastic lamella (tongue, reed) which is either joined to, or part of, a surrounding frame. The sound is produced by the vibration of the lamella between the

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1 Picken 1975, 584.

2 The article presents some interim statements from a project based on a research grant from The Institute for Comparative Research in Human Culture (Norway).

3 Sachs 1917.

two parallel arms of the frame, and the vibration of the lamella is initiated by plucking, tapping or pulling on a string.[4] In Asia especially there is a diversity of instruments, particularly in the idioglot group, where the instruments are made of organic materials such as bamboo, palm wood, ivory and bone, but also metals.

There are no established names for the two main types of jew's harps, but the most common division, which I use here, is that between idioglot and heteroglot instruments (Fig. 1).

Sachs applied the main distinction between frame jew's harps (*Rahmenmaultrommeln*) and bow-shaped jew's harps (*Bügelmaultrommeln*).[5] He based this terminology on the instrument's type of frame. Jew's harps made of organic materials and sheet metal belong to the former group, while the iron and copper alloy instruments, like those found in Europe, belong to the latter. One problem with this categorization is that in both cases there is a frame, according to common language. Another problem is that some of the 'frame jew's harps' look like they are bow-shaped. This pertains to some examples from Melanesia with a rounded section at the base end of the frame. Consequently, this terminology is not always clear and intuitive.

Sachs' two main groups are related to, but do not correspond strictly to, the idioglot/heteroglot distinction: bow-shaped jew's harps are always heteroglot; frame jew's harps are usually idioglot, but not always. There are some heteroglot examples known from Taiwan and the Indonesian island Enggano. In the Taiwan case, the *lubu* jew's harp has one or multiple separate tongues, usually made of brass or copper, that are secured to a bamboo frame with a fine thread. In Enggano, both the frame and the lamella are made of metal. These instruments constitute two separate groups in Sachs' typology.[6]

Conclusively, neither the concepts idioglot/heteroglot nor frame/bow-shaped are ideal or entirely descriptive of the two main types of jew's harps. Another, more precise and appropriate terminology was developed by Genevieve Dournon-Taurelle and John Wright for their catalogue of jew's harp at the Musée de l'homme in Paris.[7] They distinguish between (1) *type à languette encadrée (LEC)*, where the lamella is shorter than the frame, and therefore considered to be part of it, and (2) *type à languette hors du cadre (LHC)*, where the lamella is longer than the frame, and additionally bent out from the plane of the frame.

Dournon-Taurelle and Wright's main types LEC and LHC are not easily translatable to English. Though this is by far the most well-defined typology, I will, for simplicity, retain the idioglot/heteroglot-distinction.

Unlike Sachs, Dournon-Taurelle and Wright did not aim for any evolutionary series, but were more concerned with playing technique, and integrated form, material and function in their typological work. Another criterion in their typology was the direction of the lamella in relation to the hand of the player, whether the lamella points away from the holding hand (outward-oriented instruments) or towards the holding hand (inward-oriented instruments).[8]

The works on jew's harps considered so far resulted in typologies. Typology could be characterized as a process where items are arranged according to similarities, without any predefined classes, with a 'bottom-up' approach. Classification could be characterized conversely, as a method of assigning items to pre-established categories, with a 'top-down' direction.[9] The established classification system of Hornbostel and Sachs, used in museums and collections of musical instruments, is a well-known example of this method.[10]

2 Classification

Sachs classified the jew's harp as a plucked idiophone (12, *Zupf-Idiophone*).[11] He followed his precursor Mahillon, who in his work from 1893 placed the jew's harp in his class 'authophones',[12] corresponding to idiophones in the Hornbostel and Sachs' system. Prior to Mahillon, the first to include the jew's harp in a systematic classification system covering all musical instruments was the 17th century scholar Mersenne. He apparently reasoned in a similar way, and grouped it among the percussion instruments.[13]

The motive behind Sachs' classification of the jew's harp as a plucked idiophone was the activation and subsequent movement of the lamella. He did not go into details about acoustics, but wrote:

> "Of the various names only one touches the core of the case. The oldest confirmable European word is *rebute* (French, 15th cen-

4 Based on Wright 1972 and Wright 1980.
5 Sachs 1917.
6 Sachs 1917, 195. 200; Sachs 1929, 213.
7 Dournon-Taurelle – Wright 1978.
8 Dournon-Taurelle – Wright 1978, 31. 43.
9 This way of separating classification from typology is suggested explicitly by Elschek – Stockmann 1969, who used their ideas for analysing folk-music instruments.
10 v. Hornbostel – Sachs 1914.
11 v. Hornbostel – Sachs 1914, 567; Sachs 1917, 186.
12 Mahillon 1893.
13 Mersenne 1957. In another work, however, Mersenne regarded the jew's harp as a 'pneumatic' instrument (Fox 1988, 15–16).

> tury), from *rebuter*, meaning swinging back. This indicates the essential sound-producing movement of the instrument, which was new in Europe at the time: the plucking away (*Fortzupfen*) and the swinging back (*Zurückschnellen*) of the elastic lamella. The jew's harp is therefore a plucked idiophone (v. Hornbostel – Sachs 1212)."[14]

Consequently, the basis of the classification as idiophone is the activation and subsequent movement of the lamella. There is no disagreement among authors that the lamella itself has its own fundamental, and that the partials of this fundamental are amplified and articulated by various playing techniques relating to mouth cavity, throat, breath, etc. However, it is not sufficient to describe the acoustical function of the jew's harp in this way. Scholars later in the 20th century argued that the turbulent air produced by the vibration of the lamella between the arms is central to the instrument's acoustical function and that the jew's harp should be reclassified as an aerophone.

Frederick Crane[15] claimed that the jew's harp functions only when a stream of air passes the embouchure portion of the instrument. He noted that the parallel ends of the frame should enclose the lamella tightly, and that the lamella alone cannot produce a harmonic series of partials. Crane's conclusion was that the jew's harp should be reclassified as a free aerophone, under the H/S-group idiophonic interruptive aerophones or reeds (412.1 *Selbstklingende Unterbrechungsaerophone oder Zungen*).[16]

Ola Kai Ledang[17] reached the same conclusion, independently of Crane. He noticed that makers and players of jew's harps know that the arms of the frame are as important as the lamella, and that the distance between the inner edges of the arms and the lamella should be as small as possible in order to make the instrument sound well. Through a series of experiments he demonstrated that this distance has to be very small, not exceeding 0.2 millimetres, to produce distinct partials.[18] He concluded that the turbulence in the air surrounding the lamella generates an essential harmonic spectrum required for playing, and that the jew's harp should belong to the group of free aerophones, rather than to the idiophones.

Apart from Crane and Ledang, some other organologists have reached the same conclusion, or argued that the jew's harp is more related to free reed instruments than to idiophones.[19] Others have followed Hornbostel and Sachs and classified it as an idiophone or similar instrument.[20]

The linchpin of the Hornbostel and Sachs classification, which is the context for the debate over whether the jew's harp should be regarded as an aerophone or an idiophone, is the sound-producing medium. This is the main discriminative criterion going through all their classes. The debate can therefore be expressed as 'what is the sound-producing medium of the jew's harp?' We can easily agree with Crane and Ledang that air is an important sound-producing medium. But a decisive difference between free reed instruments and the jew's harp is that the latter is activated in the first instance by direct manual action, either directly by plucking or tapping the lamella, or indirectly by pulling on a string connected to the frame. I believe the aerophone arguments fail by not acknowledging the acoustical importance of the lamella itself, its function as the primary generator of the fundamental, and its importance during playing in that its action maintains the stream of air.

Conversely, it is possible to follow Sachs and others in the importance they attach to the lamella itself, but they still fail by not acknowledging the turbulent air produced by the lamella, which should be regarded as an important sound-producing medium.

Although the jew's harp in some respects functions as a free aerophone, it is not obvious that it should be classified as such. There are also strong arguments in favour of the plucked idiophone classification. Consequently, the jew's harp can be regarded as both an idiophone and an aerophone.

Due to the difficulties with this type of classification, which does not cater for such acoustic devices as the jew's harp, it is, strictly speaking neither an idiophone nor an aerophone. In other words, it is at the same time either and neither. Hence, is should be considered to be an anomaly, because it does not fit into the established classification system.[21]

Borderline cases like this are, indeed, a problem occurring in traditional downward classification systems. In the words of Margaret Kartomi:

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14 Sachs 1917, 186. My translation. Original text: "Von allen Namen trifft nur ein einziger den Kern der Sache. Das älteste belegbare europäische Wort, frz. (15. Jahrh.) *rebute*, von *rebuter* 'zurückschnellen', sagt treffend aus, daß die wesentliche, tonbildende Bewegung des damals in Europa neuen Instrumentes das Fortzupfen und Zurückschnellen der elastischen Lamelle ist. Die Maultrommel ist demnach ein Zupf-Idiophon (v. Hornbostel – Sachs 1212)".

15 Crane 1968.

16 Hornbostel – Sachs 1914, 582.

17 Ledang 1972.

18 Ledang 1972, 97–101.

19 Adkins 1974; Picken 1957, 185–186; Picken 1975, 584; Sakurai 1980.

20 Schaeffner 1932; Norlind 1932; Dräger 1948; Galpin 1956; Montagu – Burton 1971.

21 A parallel is the Australian duck-billed platypus *(Ornithorhynchus anatinus)*, a well-known zoological anomaly.

> "It is true that ambiguous or borderline cases cannot be dealt with in a perfectly satisfactory way in Hornbostel and Sachs's system, but such cases must logically occur in all downward classifications whether they be Western 'scientific' or homegrown schemes."[22]

Other systems with specific purposes might avoid such ambiguous cases.[23] There is also a revision of the Hornbostel and Sachs classification by the MIMO Project Consortium,[24] with adjustments to some established categories and addition of new ones. However, the case of the jew's harp pertains to the top level of the hierarchy and is not affected by this revision.

The jew's harp has an unresolved and anomalous position not only in modern instrument classification. This is probably also relevant for a common view of the jew's harp held by makers and players as well as the general public. Some regard the jew's harp as a wind instrument, while others see it as more of a percussion, or even a stringed, instrument, according to what they deem more important, the vibration of the air or the striking of the lamella.

One interesting point in this classification issue is that the jew's harp is considered to be one single instrument, not a group of instruments. The variation and nuances of the different types are lost. When looking primarily at idioglot forms, different conclusions might be drawn than when looking at the iron, heteroglot instruments. In other words, the disagreements on classification might be symptomatic of the functional and acoustical variation within the jew's harp family.

3 Free Reed Connections

For some forms of idioglot jew's harps a comparison between jew's harps and free reed aerophones is relevant. This is not only a comparison of a theoretical and acoustical nature, but also something that might be connected to actual instruments and historical sources. Laurence Picken argues that the jew's harp "is only a step removed from the free reed of the mouth organ",[25] and that "there are strong physico-acoustic arguments for regarding the finely wrought bamboo jew's harps of East Asia as interruptive aerophones in a class of their own".[26]

Some jew's harps can be activated by the breath, even if they are made for plucking.[27] In such instruments, blowing might be used as a technical and musical element, along with conventional playing techniques like plucking. There are also jew's harp-like instruments that are meant to be activated and played solely through blowing and inhaling, such as the *ngung* or *enggung* from Bali (Fig. 2).[28] This bamboo-item is simply a separate free reed. Its frame is so stiff that it is not possible to initiate the lamella by plucking or pulling. The *ngung* is used in ensembles for imitating the croaking of frogs.[29]

The *karinding* is a real jew's harp from Java where the players sometimes use a tube resonator for extra resonance and amplification. When the resonator is used, the jew's harp is played in a squatting position, and the upper end of the tube – made of bamboo and open at both ends – is held close to the instrument, while the lower end is rested on the ground.[30] This special contrivance indicates a connection between jew's harps and mouth organs.

The reeds of mouth organs are often like miniature idioglot jew's harps, and – interestingly – the term used in ancient Chinese texts describing jew's harps, *huang* (簧), is the same word as the reed of mouth organs. Furthermore, *huang* was recognized as an instrument distinct from the mouth organ (*sheng* or *yu*) in which it is found.[31] This is indicated in some places in the poetic 'Book of Songs' (pre-Qin and Han). Passages mention, for example, "beating the *huang*", "a gentleman holding the *huang* with his left hand", and "blow the *sheng*, beat the *huang*".[32] This suggests that the *sheng* (mouth organ) and *huang* are two separate instruments.

According to other ancient texts, the *huang* was created by the female legendary goddess *Nü Wa*, while another mythological figure created the *sheng*.[33] This is another indication that these are two instruments, and also that the *huang* must be very old in China.

As for the relation between them, Li Hwei[34] and Laurence Picken[35] suggest that the jew's harp was the earliest, and that the mouth organs developed from single bamboo jew's harps. Picken's opinion is that such a continuous transition is possible only in bamboo, "in the same material,

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22 Kartomi 1990, 172.
23 Examples include the system of classifying playing technique developed by Tellef Kvifte (1989).
24 Birley 2011.
25 Picken 1957, 185.
26 Picken 1975, 584.
27 This quality is also found in some heteroglot jew's harps with particularly thin and flexible lamellae.
28 Morgan 2006, 33–35; Crane 2007, 92–95.
29 Crane 2007, 95.
30 Kunst 1973, 360–361, ill. 131, 443.
31 Li 1956, 139; Picken 1957, 185; Fang 2011.
32 Fang 2011, 60.
33 Li 1956, 139–140; Yuan 1986, 44; Fang 2011, 61.
34 Li 1956, 140.
35 Picken 1957, 186; Picken 1975, 585.

from struck or plucked macro-idiophone to a plucked micro-idiophone (a Jew's harp) and from this to a breath-activated micro-idiophone (a free reed)".[36]

Notice that Picken separates the jew's harp from the free reed, and proposes that the plucked version was the first. However, there are also arguments indicating the opposite. Deirdre Morgan suggests that the free reed Balinese *enggung* preceded the jew's harp *genggong*:

> "On the Sachsian principle that the simpler form of the instrument is the oldest, it is likely that the *enggung*, a single free reed enclosed in a frame and activated solely by the breath, came first. Since *enggung* is easier to engineer, *genggong* may very well be the result of a morphological elaboration on an *enggung*-like instrument."[37]

The case is not directly comparable to the Chinese material, but the point here is that we do not know whether jew's harps predated and then transitioned into free reeds, or *vice versa*.

4 Transition

The next potential transition is another challenge: In what way did the free reed-like idioglot jew's harp evolve into the heteroglot, bow-shaped version? One suggestion for this transition is made in the dissertation of Genevieve Dournon-Taurelle (Fig. 3).[38] She proposed a development in five stages, where the first two and the fifth consist of ethnographic instruments found in Vietnam and Laos. The first two stages are idioglot instruments, of which the first is bamboo, the second sheet metal. The fifth stage is a heteroglot type with a hairpin-shaped bow. During the hypothetic phases III and IV, the instrument gets a heteroglot lamella, and the playing position changes from inward to outward-oriented, i. e. to a playing position where the lamella points away from the holding hand and is plucked at the narrow tip end with the other hand.

This transition theory is fascinating, but it has some problems. It has almost no empirical basis and phases III and IV are purely hypothetical. Moreover, notice that the lamella extends behind the frame as a 'tailpiece' at stages III, IV and V. Dournon-Taurelle considered this to be a typical Asian feature of heteroglot jew's harps, and she also connected it to European forms. Like Sachs, she believed that the earliest heteroglot pieces in Europe exhibited this feature. With the inclusion of this feature, the evolutionary sequence implicitly assumes a dimension of mobility.

Sachs subdivided his class of bow-shaped, heteroglot jew's harps into two groups only, according to whether or not the lamella extended behind the frame as a tailpiece.[39] This was supposedly the only relevant chronological criteria, according to him. Based on the excavated jew's harps from Tannenberg Castle in Hessen, destroyed in 1399, he reported that the earliest European examples exhibited remnants of this feature and that they were the direct descendants of Asian instruments. However, there is no evidence or indication of this. The Tannenberg-specimens have no tailpieces, and they are not the oldest finds in Europe.[40] The earliest European instruments date from around 1200 AD,[41] and the tailpiece feature is not found clearly in the archaeological material at all.[42] Tailpieces are indeed a typical feature of some ethnographic instruments from India, Nepal and Afghanistan. However, we do not know anything about their possible relation either to European jew's harps or to idioglot instruments.

For the transition between idioglot and heteroglot instruments, Sachs pointed to a variety from the Indonesian island of Enggano (Fig. 4).[43] Both the frame and lamella are made of metal, and the shape looks like a tuning fork, according to Sachs. His opinion is that this type is only a small step away from the bow-form, and that it represents a link between the two main forms of jew's harps. However, I am not convinced. Could the Enggano-type be a modification of an already heteroglot bow-shaped instrument?

Another track would be to look at the mid-northern region of Asia. In the republic of Tuva there is an interesting version of *demir-khomus* (jew's harp made of iron) that is hammered flat like sheet metal. The lamella is formed and attached in such a way that it looks like it is cut directly out of the frame, as with idioglot instruments (Fig. 5).[44] It is heteroglot indeed, and the lamella is hammered or forged into the frame, but it appears to be an adaption of idioglot forms. In Tuva and surrounding areas both main types of jew's harps are used traditionally, and they have a deep cultural meaning as a shamanistic and ritual sound tool.[45] However, nothing is known about the age or the historical significance of this particular type, and we have to wait for more material and research from this area.

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36 Picken 1957, 186.
37 Morgan 2006, 33–34 (emphasis added).
38 Dournon-Taurelle 1975.
39 Sachs 1917, 196. 200.
40 Kolltveit 2006, 13. 143.
41 Kolltveit 2006.
42 Kolltveit 2006, 49–50.
43 Sachs 1917, 195; Sachs 1923, 53–54 Fig. 35.
44 Crane 2007, 77.
45 Emsheimer 1964.

5 Archaeological Materials

The work of Dournon-Taurelle, like that of Sachs, was based on ethnographic materials. None of them used any historical or archaeological sources. However, only a few sources about the early history and archaeology of idioglot jew's harps are known. Prior to the 1970s, there was almost nothing. Still, hardly anything is known from Southeast Asia, Melanesia or India.[46] There are a few finds from the northern part of Eastern Asia, especially from China and Russia.

One jew's harp was excavated from a cemetery near Chifeng in Inner Mongolia (Fig. 6).[47] This was an Upper Xiajiadian site, and this culture is dated to 1200–600 BC.[48] Its length is 9.8 cm, and the material is bone. A small hole in the base end of the lamella probably served for attaching a string, as we know from modern examples.

At least two pieces, made of bone, were excavated from Jianping Shuiquan in Liaoning province.[49] The City Museum in Chaoyang dates these pieces to the period from 2146–1029 BC, corresponding to the Xia and Shang Dynasties of the Central Plain areas. The site belonged to the Lower Xiajiadian culture, which is generally dated to 2000–1200 BC.[50] These are the oldest jew's harps ever found, in China and globally.

Four jew's harps made of bamboo were unearthed from a burial site in Jundushan, north of Beijing.[51] The dating is 700–500 BC, which is surprisingly early for such a perishable material as bamboo. The construction corresponds to the bone specimens. They all have the hole near the base of the lamella, and their length is around 10 centimetres.

From the Morin Tolgoi burial site in Mongolia comes another example. The artefact is made of bone, and the context dates it to a period from the third century BC to the first century AD.[52] Measuring 12.5 centimetres, it is somewhat longer than the Chinese finds. Its shape is slightly different, but the technology and the concept is the same.

Apart from these Chinese and Mongolian finds, there are some ongoing inventories in Russia made by the jew's harp player and researcher Aksenty Beskrovny. His unpublished research has revealed several idioglot jew's harps of bronze, copper, bone and horn from the Urals and the European part of Russia.[53] The oldest specimen seems to date from the second century BC to the third century AD (Perm Krai, from horn). His work clearly shows that the idioglot jew's harps are found remarkably far to the west, though we still lack finds from Western Europe.

If we then look at the heteroglot instruments, there is a lot of archaeological evidence, but very little comes from Asia. In Europe the oldest reliably dated finds are from around 1200 AD, and from this time the instrument seems to spread rather quickly all over the European continent.[54]

Among the very few finds from Eastern Asia are two specimens from Omiya in Japan (Fig. 7), dated to the first half of the 10th century, according to Leo Tadagawa.[55] The instruments, resembling traditional jew's harps from the island of Sakhalin north of Japan, are large and solid, with a length of 12.8 and 12.4 centimetres. If the early dating of these specimens prove to be correct, they are the oldest heteroglot jew's harps discovered so far.

Archaeology does not suggest anything about how or whether the jew's harp spread from Asia to Europe in the bow-shaped, heteroglot version, as Sachs proposed. Neither do we have any evidence of idioglot jew's harps from the European area, suggesting a transition into the bow-shaped version there.[56] Anyway, if the Japanese finds are authentic, they contradict this possibility, unless they travelled from west to east before the 10th century, which is rather unlikely. The most plausible assumption is that both forms of jew's harps developed in Asia and spread westwards, independently of each other. The idioglot version apparently followed a northern route, but we do not know how far it travelled and where it ended up.

6 Conclusion

Based on the present state of research, it cannot be determined how and where the idioglot forms of jew's harps developed into the heteroglot forms – which Laurence Picken termed degenerate, and Curt Sachs regarded as the most developed forms. Furthermore, we cannot confirm that a transition from one form to another actually took place at all. We simply do not understand the relation between

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46 If anyone has information on such materials, I would be grateful to be informed about it.

47 Inner Mongolia Archaeology Unit 1974, 140 No. 8 (drawing). No. 17 (photo); Tadagawa 2007, 5 Fig. 1; Honeychurch 2015, 19. 20 Fig. 2.1 (c).

48 Honeychurch 2015, 20.

49 Fang 2011, 61; Fang – Kolltveit (forthcoming).

50 Honeychurch 2015, 189.

51 Beijing Municipal Institute of Cultural Heritage 2009, 1362 figs. 3–6. 1374; Honeychurch 2015, 20.

52 Tseveendorj 1990; Tadagawa 2007, 6; Honeychurch 2015, 20.

53 Beskrovny 2015.

54 Kolltveit 2006; Kolltveit 2009.

55 Tadagawa 1996; Tadagawa 2007, 9–11.

56 Although there is nothing that indicates such instruments in the archaeological records, there are some interesting ethnographical sources on wooden artifacts. Belá Bartok wrote that the jew's harp in old Hungary was made of wood (Repiszky 1999). John Wright (1972) mentions indications of wooden jew's harps from Ireland, Flanders and Hungary.

the two main types of jew's harps, apart from the fact that their acoustical functions have much in common. In this situation, we have to await future archaeological finds, and more development of theories and models based on iconography, ethnography, and a combination of various kinds of sources.

I would like to emphasize that progress in this field of research always is about interpretation. Theories, developmental sequences and even finds are human constructions. With some new, exceptional and elucidating archaeological discoveries, the situation would be different, but we would still be left with interpretations and new research questions. We should not exclude the possibility that the universal concept 'jew's harp' – as we understand it today, originally represented two different musical instruments (or groups of musical instruments), with separate roots. At least, this is something that could be discussed. Anyway, music archaeology and organology do not always need an evolutionary narrative, and in modern scholarship we should avoid the propensity to invent lines of descent and classifications at the outset, and then try to fit reality into these theories.

Bibliography

Adkins, C. J.
1974 Investigation of the Sound-Producing Mechanism of the Jew's Harp, Journal of the Acoustical Society of America 55(3), 667–670.

Beijing Municipal Institute of Cultural Heritage
2009 Jundu Shan Mu Di: Yu Huang Miao [Cemeteries at Jundushan: Yu Huang Miao] (Beijing: Wen wu chu ban she).

Beskrovny, A.
2015 Jew's Harps in Russian Archaeology (unpubl.).

Birley, M. (ed.)
2011 Revision of the Hornbostel-Sachs Classification of Musical Instruments by the MIMO Consortium, <http://www.mimo-international.com/documents/Hornbostel%20Sachs.pdf> (August 28, 2016).

Crane, F.
1968 The Jew's Harp as Aerophone, Galpin Society Journal 21, 66–69.
2007 Catalog of the F. Crane Trump Collection. Part 2: Asia and Nearby Islands, Journal of the International Jew's Harp Society 4, 70–105.

Dournon-Taurelle, G.
1975 La guimbarde (Ph.D. diss, University of Paris).

Dournon-Taurelle, G. – Wright, J.
1978 Les guimbardes du Musée de l'Homme, Institut d'Ethnologie (Paris: Musée de l'Homme).

Dräger, H. H.
1948 Prinzip einer Systematik der Musikinstrumente (Kassel: Bärenreiter).

Elschek, O. – Stockmann, E.
1969 Zur Typologie der Volksmusikinstrumente, in: E. Stockmann (ed.), Studia Instrumentorum Musicae Popularis 1 (Stockholm: Musikmuseet), 11–22.

Emsheimer, E.
1964 Maultrommeln in Sibirien und Zentralasien, Studia ethnomusicologica eurasiatica I, (Stockholm: Musikmuseet), 13–27.

Fang, J. J.
2011 Qín Mò Shū Zhú Tǒng Yú Yuè Qì 'Huáng' [A Qin Bamboo Tube with Ink Inscriptions and the Musical Instrument 'Huang' (Jew's Harp)], in: J. J. Fang, Yinyue Kaogu Yu Yinyueshi [Music Archaeology and Music History] (Beijing: Ren Min Yin Yue Chu Ban She), 59–61.

Fang, J. J. – Kolltveit, G.
(forthcoming) The Jew's Harp in Ancient China and its Connection to Mouth Organs.

Fox, L.
1988 The Jew's Harp. A Comprehensive Anthology (London: Bucknell University Press).

Galpin, F. W.
1956 A Textbook of European Musical Instruments (London: Williams and Nowgate).

Honeychurch, W.
2015 Inner Asia and the Spatial Politics of Empire. Archaeology, Mobility, and Culture Contact (New York: Springer).

v. Hornbostel, E. M. – Sachs, C.
1914 Systematik der Musikinstrumente. Ein Versuch, Zeitschrift für Ethnologie 45, 553–590.

Kartomi, M. J.
1990 On Concepts and Classifications of Musical Instruments (Chicago: Chicago University Press).

Inner Mongolia Archaeology Unit
1974 Chifeng yaowangmiao, Xiajiadian yizhi shijue baogao [Excavation Report of the Xiajiadian Site in Chifeng yaowangmiao in 1974], Kaogu Xuebao [Journal of Archaeology] 1, 111–144.

Kolltveit, G.
2006 Jew's Harps in European Archaeology, BAR International Series 1500 (Oxford: Archaeopress).
2009 The Jew's Harp in Western Europe: Trade, Communication, and Innovation, 1150–1500, Yearbook for Traditional Music 41, 42–61.

Kvifte, T.
1989 Instruments and the Electronic Age. Toward a Terminology for a Unified Description of Playing Technique (Oslo: Solum).

KUNST, J.
1973 Music in Java. Its History, Its Theory and Its Technique (3rd ed.) (The Hague: Martinus Nijhoff).

LEDANG, O. K.
1972 On the Acoustics and Systematic Classification of the Jew's Harp, Yearbook of the International Folk Music Council 6, 95–103.

LI, H.
1956 A Comparative Study of the Jew's Harps among the Aborigines of Formosa and East Asia (Summary), Bulletin of the Institute of Ethnology, Academia Sinica 1, 137–140).

MAHILLON, V.
1893 Catalogue descriptif & analytique du Musée instrumental du Conservatoire royal de musique de Bruxelles (Paris: Gand).

MERSENNE, M.
1957 Harmonie Universelle: The Book on Instruments (1st ed. 1635) (The Hague: Martinus Nijhoff).

MONTAGU, J. – BURTON, J.
1971 A Proposed New Classification System for Musical Instruments, Ethnomusicology 15(1), 49–70.

MORGAN, D. A. E.
2006 Organs and Bodies. The Jew's Harp and the Anthropology of Musical Instruments (MA thesis, University of British Columbia, Vancouver).

NORLIND, T.
1932 Musikinstrumentsystematik, Svensk Tidskrift for Musikforskning 14, 95–123.

PICKEN, L.
1957 The Music of Far Eastern Asia, in: E. Welles (ed.), Ancient and Oriental Music, The New Oxford History of Music I (London: Oxford University Press), 83–194.
1975 Folk Musical Instruments of Turkey (London: Oxford University Press).

PLATE, R.
1992 Kulturgeschichte der Maultrommel (Bonn: Verlag für systematische Musikwissenschaft).

REPISZKY, T.
1999 Kurze Geschichte der ungarischen Maultrommel, ÖVW, Bécs, 21–29.

SACHS, C.
1917 Die Maultrommel. Eine typologische Vorstudie, Zeitschrift für Ethnologie 49, 185–200.
1923 Die Musikinstrumente Indiens und Indonesiens (Berlin: Walter de Gruyter).
1929 Geist und Werden der Musikinstrumente (Berlin: Reimer).

SAKURAI, T.
1980 An Outline of a New Systematic Classification of Musical Instruments, Journal of the Japanese Musicological Society 25(1), 11–21.

SCHAEFFNER, A.
1932 D'une nouvelle classification methodique des instruments de musique, Revue Musicale 13, 215–231.

TADAGAWA, L.
1996 One Thousand-Year Old Excavated Japanese Jew's Harps, Khomus 11, 37–47.
2007 Asian Excavated Jew's Harps: A Checklist, Journal of the International Jew's Harp Society 4, 5–11.

TSEVEENDORJ, D.
1990 Morin tolgoin bulshnaas oldson khunnu khel khuur, Shinjlekh ukhaany Akademyn medee *3*, 72–81.

WRIGHT, J.
1972 Another Look into the Organology of the Jew's Harp, Brussels Museum of Musical Instruments Bulletin 2, 51–59.
1980 *s. v.* Jew's harp, in: The New Grove Dictionary of Musical Instruments 2, 326–328.

YUAN, B.
1986 The Smallest 'Harp', China Pictorial 5, 44–45.

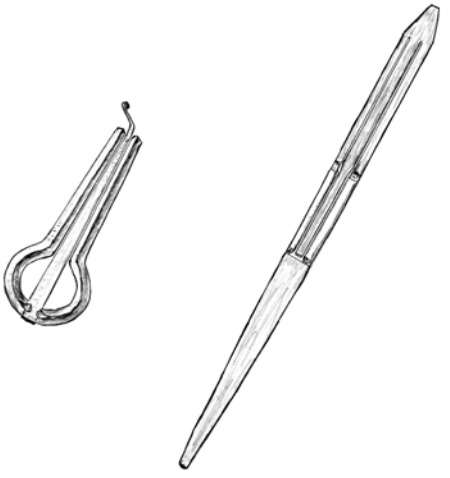

Fig. 1 Heteroglot (left) and idioglot (right) jew's harps (drawing by the author).

Fig. 2 *Ngung* from Bali. Modern instrument (photo by Dan Moi).

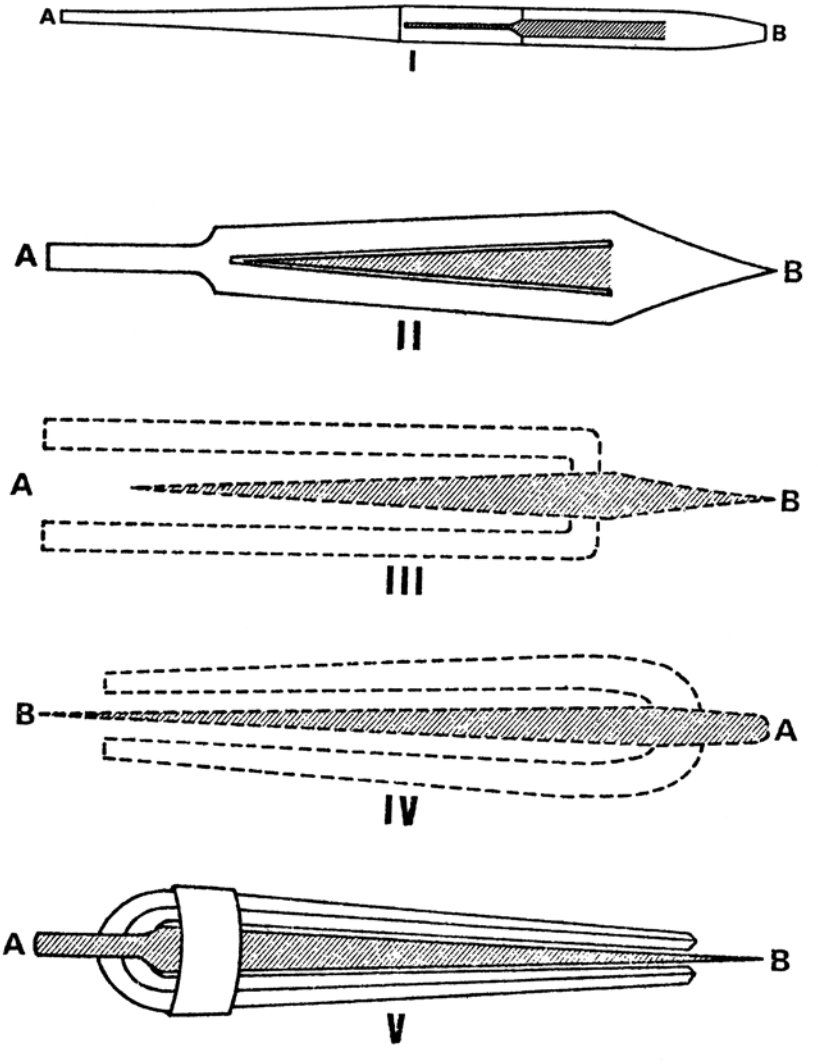

Fig. 3 Model of the transition in five stages from idioglot to heteroglot jew's harps, from the dissertation of Dournon-Taurelle (1975). The letter A is the end where the instrument is held; B is the end where the instrument is plucked, tapped or pulled (Plate 1992, 78).

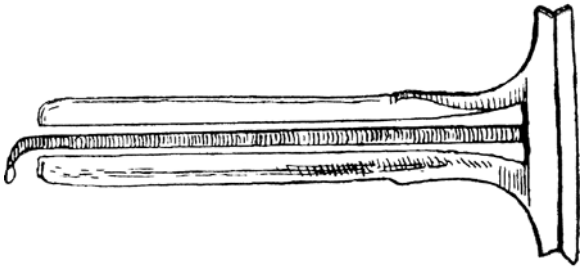

Fig. 4 Jew's harp from Enggano, Indonesia. According to Sachs, this type represented a transitional form between the two main versions of jew's harps (Sachs 1923, Fig. 35).

Fig. 5 *Demir-khomus* from Tuva. Modern instrument (photo by Dan Moi).

Fig. 6 Jew's harp from the Xiajiadian cemetery, near Chifeng, Inner Mongolia. Dating from the context 1200–600 BC; material: bone; length: 9.8 cm (Inner Mongolia Archaeology Unit 1974, No. 17).

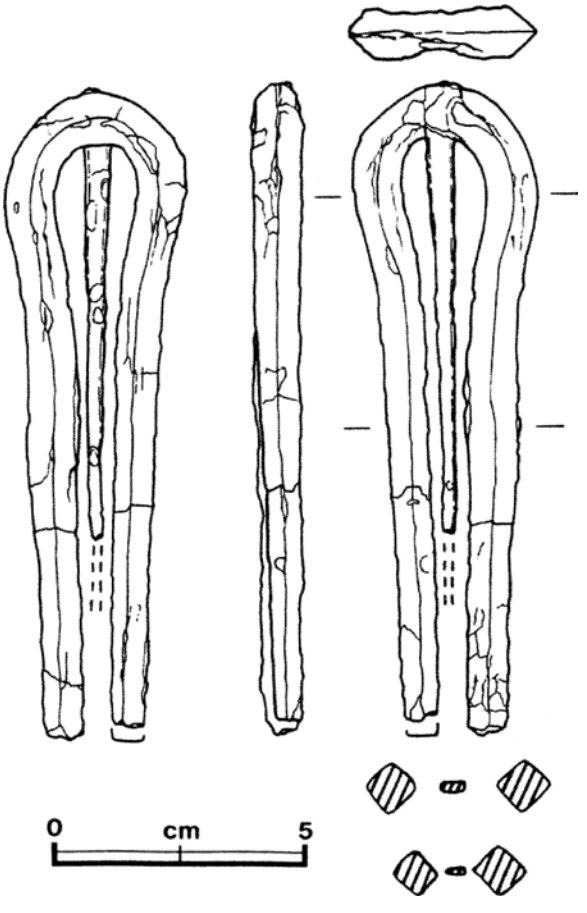

Fig. 7 Two Japanese iron jew's harps from Omiya (Saitama prefecture), outside Tokyo. Excavated from the Eastern Relics of the Hikawa Shrine and dated to the first half of the 10th century. Length 12.8 and 12.4 cm (Tadagawa 2007, Fig. 9).