

The beginnings

40,000 years ago Homo sapiens journeyed up the River Danube in small groups. On the southern edge of the Swabian Alb, in the tundra north of the glacial Alpine foothills, the families found good living conditions: a wide offering of edible berries, roots and herbs as well as herds of reindeer and wild horses. In the valleys along the rivers they found karst caves which offered protection in the long and bleak winters. Here they made figures of animals and humans, ornaments of pearls and musical instruments. The archaeological finds in some of these caves are so significant that the sites were declared by UNESCO in 2017 as 'World Heritage Sites of Earliest Ice-age Art'.

Since 1993 I have been performing concerts in such caves on archaic musical instruments. Since 2002 I have been joined by the percussion group 'Banda Maracatu'. Ever since prehistoric times flutes and drums have formed a perfect musical partnership. It was therefore natural to invite along Gabriele Dalferth who not only made all of the ice-age flutes used in this recording but also masters them.

The archaeology of music

When looking back on the history of mankind, the period over which music has been documented is a mere flash in time. Prior to that the nature of music was such that once it had faded away it had disappeared forever. That is the situation for music archaeologists: The music of ice-age hunters and gatherers has gone for all time and cannot be rediscovered. Some musical instruments however have survived for a long time. That applies particularly to instruments made from antlers, bones and tusks. On the other hand instruments made from wood and animal hide have not lasted the thousands of years. A carefully worked T-shaped Neolithic reindeer antler excavated from the cave 'Brillenhöhle' is similar to the sticks of Siberian shaman's drums. That could be evidence of an early form of drumming in our region.

The insatiable desire for music

In all indigenous cultures throughout the world people loved to and still love to dance, sing and make music. Evidently music was of great significance. How important music was to the families of the ice-age hunters and gatherers is best exemplified by a mammoth tusk flute which was excavated in the Geissenkloesterle cave: in order to make such flutes an ice-age man with his tools would have needed approximately 100 hours! As a first step the hard tusk of a mammoth would be split into two halves by a stone blade, then both halves would be hollowed out to form a smooth thin shape. The finger holes were painstakingly scraped out of the ivory and then finally both halves were glued then fastened together.

The diversity of archaic musical instruments reveals an insatiable need for rhythms, sounds and melodies. Flutes were also made from bird bones, antlers, wood and reeds. Early man used anything and everything which could produce sound: dry flower pods become rattles; stones, shells, bones and branches sound when beaten. The desire for musical expression was so great that also objects intended primarily for other purposes became musical instruments: the hunter's bow can be used as a musical bow, clay pots can be drummed on just as gourds which otherwise serve as bowls.

Neil MacGregor, founding director of the Humboldt Forum in Berlin is convinced: 'Sounds play a central role in each society as they form their identity'. The Bambara of southern Mali tell of the following myth: God has withdrawn from the world for ever. As consolation he gifted music to mankind – and thus also the ability to speak that language to God which each individual best understands and enjoys. The Tenharim Indians in the Brazilian rain forest say: "The elders know songs for each animal. We call the animals of the forest. They then come to us. He who kills an animal has the duty to sing for it. When we have killed them we also talk to their souls. It is a message to the animals, to their souls and to their relatives" (Thomas Fischermann: the Last Lord of the Forest).

For a shaman the drum and rattle symbolise the 'horse' on which one rides to other levels of consciousness, the musical bow serves as a bridge between the worlds. A song of the Ya-

kuts (North Siberia) to bring life to a newly made shaman frame drum: "Oh drum, like a round lake, my words transform you into a horse of heroic magnitude (...) Drum, created from a holy tree, always be cheerful and jubilant, even in illness, even in hardship! (...) You shall be my delicate ear, you shall be my sharp eye, you shall be my motion, you shall be my rest!" (Wolfgang Laade: Music of the gods, spirits and mankind). Could it be that music not only serves a practical purpose but embodies 'the fundamental yearning of mankind to return to a melodious paradise'? (Lucie Rault: Instruments de Musique du Monde, Paris 2000).

Symbolics

'Why is the drum so particularly venerable and important for us? It is because its round shape represents the entire universe. Its sound is the pulse, the heart that beats in the midst of the universe. It is the voice of the Great Spirit. Its tone gives us strength; it helps us to understand the secret and power of all things' (Black Elk, Oglala-Sioux). The drum symbolises the sun and the moon. Its sound represents the heart-beat of the earth; its rhythms reflect the rhythms of the universe and enable those we describe as seers or shamans to practice healing and make prophecies. 'The drum beat articulates the process of the creation which connects the individual with the rhythms of the community, of nature and of the cosmos.' (Joseph Campbell: The Mask of God, 1959).

On sound

The music of indigenous musical cultures makes one thing clear: as opposed to a 'clean' sound they prefer acoustically complex sounds rich in harmonics. Through humming, buzzing, droning and vibrating the members of ancient cultures heard the voices of nature, animals and forefathers. These are the kind of sounds that we are using in this recording.

Our instruments

The aerophones from the Geissenklösterle, Hohle Fels and Vogelherd caves are more than 40,000 years old and as such are the oldest known musical instruments of mankind. Apart from numerous fragments there are, up to now, only three known relatively intact instruments: one made from bone of a swan's wing, one from the bone of a griffin vulture and one from a mammoth's tusk. These original finds have become world-famous as flutes and can be seen in the Urgeschichtliches Museum in Blaubeuren. Whether these in fact were flutes or other forms of woodwind which generated sounds with reeds or similar cannot clearly be stated as no unequivocal evidence of a mouthpiece has survived. Just one flute which was found in Hohle Fels and which was made from griffin vulture bone has two v-shaped notches, one at least of which was intentionally grooved into the upper side. It is not clear whether the notch on the underside is man-made. Nor is the length of the instruments with up to five indented finger-holes absolutely certain since no instrument has remained intact. As a result the tone sequence cannot be verified with any certainty, as a change in the length or the use of another mouthpiece or different playing technique can cause a significant alteration of pitch as well as the colour of sound produced.

The flutes used in this recording are reconstructions of those found on the Swabian Alb made from wing bone of the griffin vulture and whooper swans as well as from mammoth tusk. Further instruments are used which are based on flutes approximately 19,000 years old which were made from reindeer shin found in Austria. One of these flutes was made like the original from reindeer bone whilst the other two were made from deer bone and bone from a swan's leg.

Conch horns, made from the shells of sea snails, are the oldest form of trumpet. They are used even today mostly in rituals - in Tibet, India, Thailand, Japan, Korea, Oceania and in many parts of the Americas. I play the horned helmet shell *Cassis cornuta*, the Tritons trumpet *Charonia tritonis* and the southern Indian conch shell *Turbinella pyrum*. In Hinduism the conch shell is the main symbol for Vishnu. In the temples of Kerala a priest blows a conch horn to awaken the deities.

Drums: Originating from African barrel-shaped drums, the Conga spread in the Caribbean, later in the U.S. and all over the world. The most popular drum worldwide nowadays is the Djembe, a West African Malinke goblet drum with a goat skin. The West African Talking drum has tension cords which run up the hourglass-shaped body. By applying pressure to the tension cords the pitch of the drum can be modulated: the drum 'talks'. The Brekete is a snared bass drum from Ghana with laced ropes stretched across the skin, similar to the Moroccan frame drum Bendir. The bass drum Surdo was introduced into Brazil following the Portuguese conquest and is based on the European tenor drum. Frame drums originated in the early civilisations of the Indus, Nile, Euphrates and Tigris rivers. A frame drum held horizontally filled with beads or seeds (mustard seeds in our case), moved gently when played, is known as an Ocean drum. Large frame drums like the East Asian Taiko or the Mother drum of the native Americans are beaten with sticks, just as the small Brazilian Tamborim.

Cajongas are a contemporary hybrid of Conga and the Peruvian Cajon, with a wooden surface to drum.

The Nigerian Udu and the Brazilian Moringa are oven-baked clay vases that provide excellent drumming. This instrument has recently established itself worldwide.

Water drums are produced from one large gourd filled with water on which a smaller gourd floats. Their sound has an astonishing depth. Such instruments can be found in the Sahel and with the Yaqui Indians of Mexico.

Slit drums are used in Africa and Central America as a ritual instrument. We use the Krin of the Malinke. Moktaks, used traditionally in Buddhist rituals of Eastern Asia, produce sound applying the same principle using a hollow piece of wood. Claves are rhythm sticks of solid wood which provide the penetrating sound serving as the guideline for Afro-Cuban rhythms.

Stones belong to the earliest form of sound generator produced by mankind. We use pebbles, stones from the Swabian Alb and a Chinese lithophone.

Musical bows are considered to be the earliest form of stringed instrument and were widespread in all hunting cultures. With the mouth bow the hollow of the mouth serves as a resonator just like a Jew's harp. Harmonics can be generated and partially accentuated. I play the Lolongo, a small musical bow made from the string of a liane plant, which I learnt to play when in Burkina Faso in West Africa. Bows made from yew were discovered in a moor in northern Swabia (found at Torwiesen), preserved there for over five thousand years. Probably the Neolithic hunters also used these to make music. My true to original reconstruction I owe to Friedrich Seeberger and Alfred Schöffend. The Berimbao, a musical bow with a gourd resonator, originates from South Africa. The instrument was introduced into Brazil by the enslaved Bantu. Alfred Schöffend is a master on this instrument.

Rattles exist around the world in numerous varieties. We use rattles made from pods of the West African flame tree, from nut shells and from lama hooves. The resonator of a netted rattle is a gourd (and in an Aurignacian tomb found in Liguria a human skull) over which are strung mussels, pearls or seeds in a net. Our netted rattles Shekere originate from West Africa. The casing of basket rattles is made from woven plant fibre and contains either small stones or seeds to generate the noise. We use the West African Caxixi.

Scrapers were developed from the Mousterian through to the late Palaeolithic periods. They are made from a vast variety of materials: bone, wood and gourd. In our recording we use a finely notched scraper made from bamboo.

Bullroarers are carved out of wood or bone and are swung in circular motion on a cord producing a unique humming noise. Evidence of these in our latitudes were found in sites from the upper Palaeolithic period in Saxony-Anhalt and Schleswig-Holstein.

In south eastern Asia, in the Philippines and Pacific areas, bamboo poles are split to produce a buzzing, humming sound. It is believed that the Devil Chaser casts out evil spirits. The Anklung was developed in Indonesia during the neolithic period. Bamboo poles are cut to various lengths, mounted onto a frame and are shaken to provide a sound.

Stomping posts, made from bamboo or other materials, belong to the most elementary of instruments. They are widely spread in the Pacific regions as well as with the indigenous tribes of the Amazon basin.

The lamellophone Kalimba is a specific Southern African contribution to the music instruments of mankind. To construct a Kalimba, tuned, vibrating tines made of bamboo or metal are combined and affixed, their sound amplified by a gourd or a hollow piece of wood.

The hand pan Caisa is a contemporary descendant of the steel drum. Recesses are worked into a thin metal plate. Played using hands and fingers, warm and very graceful sounds are produced.

Paths to music

As a small boy, I was allowed to sit amongst my uncle's orchestra directly next to the timpani during a performance of Bach's Christmas Oratorio. It was the most profound musical experience of my early childhood. Later, as a member of a renowned boys' choir, I sang key religious works from Schütz to Mozart and, over and over again, Bach. I fled from this musical world even before puberty as it felt to me like a tight corset. I turned to the world of drumming and played jazz, rock and experimental intensively over 15 years. In 1981 I entered my next musical crisis – this time a serious one. I had heard so much music and played so many rhythms – but I had no real idea what rhythms really are, what music really is about. I therefore set my drum kit aside and started searching. A time of extended travelling began. First I journeyed to West Africa where accompanied by an ethnologist I had the rare opportunity to reach the Lobi-country. There, on the borders between Burkina Faso and Ghana, I encountered an archaic culture which was completely strange to me - yet totally fascinating. For the first time I found myself amongst people who at that time still lived completely naked, who lived in dark clay huts and who played on drums, xylophones and musical bows with great virtuosity. Communication by language was not possible. But we could play music together. Fortunately I had my musical bow with me. We rather tentatively started a musical conversation. Later I studied the trance-inducing rhythms of the Candomble in Bahia (Brazil) and the trance rhythms of the temple festivals in Kerala (South India). New musical horizons opened up. The vision of a archaic yet contemporary music was taking shape: music which moves between present and ancient, musical phantasy and scientific expertise. Poor in material but rich in ideas, sounds and rhythms. (www.christoph-haas.eu)

Vision

What is old can become new. What appears to be superseded can provide important existential impulses – also to resolve the present problems of mankind. May our music move the listener to think about the past, present and future of mankind.

Acknowledgements

I am deeply thankful to all musical companions for this inspiring venture together in particular to the wonderful Banda Maracatu with whom I have shared concert experiences over a period of 25 years (www.bandamaracatu.de). Thanks to Eberhard Braun for the graphics, to Graham F. Balls for his translation into English and to Luis Schöffend for additional recordings. Thanks also to Gabriele Dalferth for her contributions on the subjects 'The archaeology of music' and 'Aerophones'. A big thank-you to the Museum of Schelklingen, particularly to Reiner Blumentritt, Joe Widmann and Rudi Walter.

Christoph Haas, April 2018