Bones and Concertina: The Sailors’ Instruments that Have Survived Over the Centuries

Abstract

The history of the sailors’ instruments is currently a barely investigated area. In the past, bones were used frequently in a variety of music genres, whereas today they seem to be forgotten in certain countries. The simplicity of playing that once was their advantage has also resulted in the small number of written sources concerning the technique of playing as well as the way of producing of this instrument. Despite this fact, bones were the ground for what is called the “musical recycling”. Concertina, in spite of its much more complicated structure and technique of playing, is more popular and has been described in several secondary sources. There are even schools of playing on this instrument available. Unfortunately, concertina is rarely used in concert halls too. Both instruments, thanks to their simplicity and small size, visited almost every part of the world in the era of great sailing ships, but today they remain known and used only in specialised environments.
Keywords

bones, concertina, sailors’ instruments, Ten-a-penny Band

Bones and their history

The bones are one of the simplest and oldest instruments, dating back to prehistoric times. Sue Barber and Percy Danforth in the book *How to play nearly everything* by Dallas Cline prove that the history of this instrument goes back almost as far as the history of the human. Its exact origins are unknown, but the first bones found have been excavated from graves dating back to the second millennium BC in Moldavia. Barber and Danforth describe depictions of bones players (i.e. musicians playing the bones) in the mosaic found in the ruins of the ancient city of Ur in Mesopotamia, on Egyptian vases dating to 3000 BC, and on Greek black-figure pottery. It is assumed that the bones were associated with the cult of the Egyptian goddess of beauty and love, Hathor. In the Middle Ages, jugglers travelling across Europe sang, danced and played various instruments, including bones. There is a legend that apart from their obvious percussion form, the bones were also used as a signaling instrument. Lepers used them to warn villagers of their arrival. The instrument, known as ‘bones’ or ‘rhythm bones’, is used today mainly in America and Ireland. In Poland it is a barely used instrument. It belongs to the group of instruments called clappers (according to Hornbostel-Sachs classification). It gained the greatest popularity in the era of large sailing vessels, that is in the eighteenth and nineteenth centuries. Those days, sailors were not educated and did not have money for expensive instruments that could easily get damaged during sea voyages. However, seafarers loved to

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make music. When they had a break from work they liked to gather to sing about their lives and their longing for land and family. Sailors making music together in this way were called the Ten-a-penny Band. The instruments that were used there were sometimes not worth a penny. Nails, violins, and guitars made from cigar boxes were simple to use and, when damaged, easy to repair. Therefore, the bones—made originally from seal and whale bones and later also from wood—fulfilled their role perfectly. The simple playing technique that could be mastered during a single voyage also contributed significantly to the popularity of this instrument.5

‘Musical Recycling’, or how the bones are made

The Ten-a-penny Band has been introduced to our culture, even though we often do not notice it. One of the main pillars of Carl Orff’s system of musical education is playing simple percussion instruments: drums, tambourines, knockers, rattles, triangles, bells, xylophones, metalophones, acoustic boxes and claves (this is the so-called Orff’s instruments). In the conception of this pedagogue, simple instruments constructed by students with their own hands are also used. In the twenty-first century, we increasingly encounter recycling in all areas of our lives. Recycled or musycle instruments enable us to have instruments that are simple to repair and easy to use—that is, with the properties that the instruments used in the Ten-a-penny Bands of the eighteenth and nineteenth centuries had.

Today, the bones made not only of wood can be found. There are instruments made of bones, usually beef bones, but also of metal, plastic, or even stone (i.e. slate bones). Their sound is different, not only because of the material used, but also the shape, length and weight. From my own experience as a bones player, I can say that the sound closest to the ‘original’ sound are those bones that were made from

6 Cline, How to play nearly everything, 7.
high-density materials. These are, for example, beef bones or wooden bones, made of mahogany.

Illus. 1: Hand-made bones from beef bones. Source: the private archive of the author.

Because of a small interest in this instrument in our country, it is impossible to buy it in a store. The largest suppliers of bones are the United States and Ireland. However, Internet tutorials provide a myriad of ‘recipes’ for making the bones at home.9 Separating the bones from the meat and boiling them long enough strips them of their characteristic smell and cartilages. The bones are then ready for further steps. Next, excess marrow should be removed. Bones prepared in this way should be preserved. After the whole process they should be left to dry: they can be baked or left in the sun. The longer they dry, the more durable they will be and the better they will sound. They can also be decorated, which will affect their sound as well. However, not every bone is the right material for an instrument. It must be reasonably thick, slightly curved with a reasonably smooth surface.10 The standard instrument is eighteen centimeters long, two and a half centimeters

10 Due to this, beef ribs are often used. Some of internet stores for the bones players sell the bones that are ready to be cut (e.g. www.bonedrymusic.com).
wide and three to five millimeters thick. The author of this article has also encountered varieties of the bones that were shorter and were made specifically for children, and varieties of the bones for people with larger hands. In fact it is an individual thing and there is no universal bone size. You can play on any type of the bones, and they will simply differ in sound.

Illus. 2: The basic grip. Source: the private archive of the author.

Illus. 3: The English grip. Source: the private archive of the author.
Bones playing technique

The technique of playing the bones is simple and can be learned in two weeks. Over the years, two grip holds have developed: the basic grip and the English grip. The basic grip allows you to hold two or three bones in one hand, while the English grip allows you to play up to four bones in one hand.\(^\text{11}\)

Both grips are based on the same principle, but in the basic one the static bone is between the second and third fingers, while in the English grip it is between the thumb and index finger. It is rested on the palm of the hand along the line on the palm toward the wrist. In the basic grip, the bone is pressed against the inside of the palm along its monger edge with the middle finger, while in the English grip it is pressed with the index finger. This bone will remain still while playing. Movable bones are gripped between the other fingers. In the basic grip, it is held between the third and fourth fingers. When playing with more than two bones, the next moveable bone is additionally grasped between the fourth and fifth fingers. In English grip, four bones can be played simultaneously: one static and three movable ones, which are placed between the second and third, third and fourth, fourth and fifth fingers respectively. The movable bones are not rested against the inside of the hand. They are to be loose, but they must not fall out of the hand. Thus, they can only be held by squeezing the proximal phalanges.\(^\text{12}\)

The sound of the bones depends on the way they clack against each other, that is, on the movement one makes with the wrist. Five basic movements of the wrist can be distinguished, and thus five types of tap. The first and basic one is the single tap. It involves making gesture of ‘untwisting’ with the wrist in the frontal plane. This causes the moving bone to strike the static bone, producing a characteristic single sound. The double tap is similar to the single tap, but ‘untwisting’ is followed by opposite ‘twisting’. The moving bone strikes the static bone and produces two sounds that differ in timbre. Next one is continuous series of rapid taps called the extended roll. It involves making a semi-circular motion with the wrist. The moving bone strikes the static bone repeatedly, producing sounds similar to the sound of a snare drum. A more difficult tap is the triplet roll. It involves making a waving gesture

\(^{11}\) Cline, *How to play nearly everything*, 10.

\(^{12}\) Cline, *How to play nearly everything*, 10.
with the wrist. At the beginning, it may be helpful to move the whole arm, and then gradually reduce its participation in this. The last type is the four-beat roll. It is performed by drawing an infinity sign in the air with the wrist.\textsuperscript{13}

The author knows from her own experience as a performer that, by playing the bones, one can discover many types of sound over time. They can be modified by rearranging the bones in relation to each other and crossing them. The bones are handmade, therefore each has a different density and shape. This affects the sound significantly, as does even a slight change in the placement of the bones relative to each other. Usually, both bones are held at about 2/3 of their length. However, to change their sound, they may be held lower or irregularly: one bone higher and the other lower. An interesting sound effect is also obtained by changing the static bone with a movable one. During playing, the sound is modified by crossing a movable bone with a static one, so that the edges of the bones are the striking surface. It is also possible to obtain a melodic sound by playing the bones, although this type of striking is not very popular. In this stroke, the bones should be pressed against the player’s cheeks. By producing strokes correlated with a change in the arrangement of the mouth, any melody can be played.

**Bones in culture**

The bones as an instrument have survived in culture to a very negligible degree, but they have not disappeared completely. Their traces can be found in works of art. An example of this is William Sidney Mount’s painting *The Bone Player* (1856).\textsuperscript{14} In poetic works, bones appeared in the original version of William Shakespeare’s play *A Midsummer Night’s Dream*: I have a reasonable good ear in music. Let’s have the tongs and the bones.\textsuperscript{15} The protagonist here speaks of the duo of bones

\textsuperscript{13} Cline, *How to play nearly everything*, 11–15.

\textsuperscript{14} The painting is kept at the Museum of Fine Arts in Boston. It was painted in oil on canvas.

and tongs, which is perhaps the chimta, an instrument from South Asia. The bones also appear in Lewis Carroll’s poem *The Viper’s Expedition: an ordeal in eight convulsions: Words whose utter inanity proved his insanity, / While he rattled a couple of bones.* The phrase ‘rattle bones’ refers to the characteristic sound of this instrument. In Polish, we can find the terms ‘klekotanie’, ‘klikanie’. The English equivalent,


‘to rattle’, is used less frequently. The word was most probably introduced to the English language by Washington Irving, who in his stories wrote about an instrument called the rattle-bones, meaning the bones.\textsuperscript{17}

In Poland, the bones in a live form are still present in the consciousness of musicians passionate about Irish music. As a basic instrument of traditional Irish bands, they were mentioned in John B. Keane’s book \textit{The Bodhrán Makers}.\textsuperscript{18} Today, the bones players are frequent visitors to Irish jam sessions. Many Irish bands have percussionists who play the instrument or simply specialised bones players. In the United States, an organisation called the Rhythm Bones Society was formed to carry on the tradition and educate in the art of bones playing. Unfortunately, their activities concern only the New Continent. In Poland, many years ago, the mission of popularisation of maritime traditions was undertaken by a mariner and shantymen (that is a man whose task on a ship was to sing shanties while sailors worked to give it an even rhythm) Marek Szurawski, whose performance skills can be admired at contemporary shanty festivals. His artistic and workshop activity helped to increase the knowledge of the bone as an instrument in the contemporary sailing community. The author’s cooperation with Marek Szurawski and their duo appearing at the International Festival of Sailing Songs ‘Shanties’ initiated her efforts to popularise the bones as a percussion instrument. The author also conducts music classes on maritime themes in various educational institutions in Kraków, Lublin, Opole and Łódź.

\textbf{Concertina and its use}

Unlike the bones, the concertina is a far more complicated instrument in both construction and playing technique. However, it is the one that enjoys much greater popularity today. It is hard to imagine sea shanty music without a concertina. In the times of sailing ships, it served not only for pleasure and making the time after work pleasant, but also helped in it. A shantyman played the concertina and sang to

\textsuperscript{17} The Complete Works of Washington Irving (Hastings: Delphi Classic, 2014).
make long hours filled with monotonous work bearable for sailors. At the same time, he made their effort common at a certain moment and distracted their attention from hard work. There were specific musical treatments used for specific jobs at sea. Different songs were sung when working on the rigging or sails and others when working on various mechanisms. Shanties were an integral part of the work, as Herman Melville confirms in his fictionalised memoirs of service on an American frigate:

‘All hands up anchor!’ When that order was given, how we sprang to the bars, and heaved round that capstan; every man a Goliath, every tendon a hawser!—round and round—round, round it spun like a sphere, keeping time with our feet to the time of the fifer, till the cable was straight up and down, and the ship with her nose in the water.

I could not help murmuring against that immemorial rule of men-of-war, which forbids the sailors to sing out, as in merchant-vessels, when pulling ropes, or occupied at any other ship’s duty. Your only music, at such times, is the shrill pipe of the boatswain’s mate, which is almost worse than no music at all. And if the boatswain’s mate is not by, you must pull the ropes, like convicts, in profound silence; or else endeavour to impart unity to the exertions of all hands, by singing out mechanically, one, two, three, and then pulling all together.

The English Concertina was invented by Charles Wheatstone in the 1820s. A later one, the so-called German Concertina, was constructed

19 You can find more informations on the topic of shanties in the book of Annika Mikołajko Szanty i ich muzyczno-edukacyjny charakter w środowisku marynarzy w erze wielkich żaglowców (Kraków: Księgarnia Akademicka, 2017) and in the book by Marek Szurawski Szanty i szantymeni – Ludzie i pieśni dawnego pokładu (Kraków: Fundacja Hals, 1999). The real treasury of the knowledge on the topic of songs on vessels are in fact the English-language books of Stan Hugill. The author is called ‘last working shantyman’, because he spent nearly entire life sailing, collecting shanties from all over the world and using them in his job of a shantyman. As a lecturer at the Sea School, he tried to restore the tradition of shanties on vessels.

20 Mikołajko, Szanty i ich muzyczno-edukacyjny charakter.


22 Melville, White Jacket, 81–82.
by Carl Friedrich Uhlig. The instrument became the hexagonal proto-
type of the bandoneon and later the accordion.23

The most common and accessible type of this instrument is the
Anglo-German concertina. Playing it can be somewhat difficult. As
the concertina has free reeds, it is an double-action instrument. This
means that two tones can be assigned to one button (one playing out-
wards and the other inwards). Because the concertina comes in two
tunings: C–G or D–A, it has some obvious sound limitations.24 Howev-
er, there are also more expensive instruments that have sounds outside
their main keys. These are equipped with an additional chromatic row.

Illus. 5: English-German concertina C-G without the additional chromatic row.
Source: the private archive of the author.

The concertina, unlike the bones, has been much better preserved in
culture. Its similarity in sound to the accordion, as well as its handier
form of carriage, have caused many shanty bands not to part with
this instrument on their concert tours. However, the concertina has
such a loud sound that it blends in easily with other instruments and
does not need a special sound system in good acoustic conditions. This
has made it a good companion not only on concert stages, but also in

23 D.M. Worrall, The Anglo-German Concertina. A Social History (3rd edn, Fulshear:
Concertina Press, 2010).
everyday music making. The concertina is also used in sacred music in evangelical churches of Scotland.\textsuperscript{25}

**Reception of the bones and concertina over the time**

Both instruments: the bones, which originated at sea, and the concertina, which for years was associated with maritime work, have survived to the present day, although they have been somewhat forgotten. While a number of books have been published on the concertina in order to explain its history and playing techniques, information on the bones is not easy to find today. However, with the development of the Internet, it is easier and easier to listen to virtuosos of this unique instrument. Vinyl records of shantymen who played these instruments are an exceptional source of knowledge today. Stan Hugill left behind not only recordings, but also books in which he described his knowledge in detail. These include a collection of work songs from around the world *Shanties from the Seven Seas*,\textsuperscript{26} a collection of articles from 1962–1973 on various shanties sung in the era of great sailing ships *The Bosun’s Locker*,\textsuperscript{27} and a book devoted to work songs sung originally in Germanic languages *Songs of the Sea*.\textsuperscript{28} Erik Ilott, also a shantyman, left behind an extremely valuable recording *Shipshape & Bristol Fashion Sea Songs*.\textsuperscript{29} On this recording he not only sings but also plays the concertina and the bones. Thanks to digitisation, the remarkable concerts of Freeman Davis, known as ‘Brother Bones’, the whistling and bone virtuoso, or Francis Craig’s bone-playing song *Play them Bones*\textsuperscript{30} will also not be forgotten. Interesting are the various recordings in which the bones appear as one of the percussion instruments in instrumental ensembles.


\textsuperscript{29} The recording on the vinyl album, released by Folks’le Records in 1973 in Great Britain, consisting of seventeen shanties performed by Erik Ilott and his ensemble.

\textsuperscript{30} They can be found in the popular musical services, such as YouTube and Spotify, titled ‘Brother Bones’ or ‘Francis Craig’.
Such a surprise, for example, is the song *Supercalifragilisticexpialidocious* from the musical *Mary Poppins*. In the ensemble, among other percussion instruments, you can spot a bones player who plays four bones. The bones can also be heard on the soundtrack of the movie *Titanic* in the backing dance scene, *Third Class Dance*. Unfortunately, they are not shown there, but they are clearly audible. They were played by drummer Aaron Plunkett.

Another cultural phenomenon connected with the use of the bones was the American minstrel shows described by e.g. Mark Twain, i.e. performances featuring sketches, dances and songs with their own instrumental accompaniment. According to the writer, the bones player not only played, but also told a kind of story. He sat at one end of the stage and the musician playing the banjo sat at the other. Between them sat a gentleman, extremely elegant, in neat clothes, behaving courtly and with good manners. He contrasted with the rest of the acting troupe, and above all with the churchman and the musician playing the banjo. They were the main jokers.31

Bones are mentioned in English literature as the primary instrument in minstrels shows. Their single strokes and dynamically varying trills of shorter and longer tones provided the rhythm for the entire band. Additional accents beyond the main bar measures and the main rhythm made the pieces sound more interesting.32

The activity of most bones players have been immortalised only in memoirs in newspapers or books. Such figures included Frank Brower, mentioned by Carl Wittke in his book describing the minstrel activities of *Tambo and Bones. A History of the American Minstrel Stage*,33 and Joe Murphy, mentioned in *From San Francisco Eastward. Victorian Theater in the American West* by Carolyn Grattan Eichin.34 Their activity in circus troupes and solo performances as bones players contributed to

the popularisation of the bones on the New Continent. This provided the opportunity to create the Rhythm Bones Society mentioned above.

It is a good thing that old-marine instruments have not been lost in the darkness of history and that the people who still allow these instruments to live have survived. It is, after all, our common heritage because, as John F. Kennedy said:

> It is an interesting biological fact that all of us have in our veins the exact same percentage of salt in our blood that exists in the ocean, and, therefore, we have salt in our blood, in our sweat, in our tears. We are tied to the ocean. And when we go back to the sea - whether it is to sail or to watch it - we are going back from whence we came.35

### Bibliography

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