

PLAYED ON THE GLASS

...then it began to play in the most ghostly tones I have ever heard...

Gottfried Keller

When in the announcement of a concert the name 'glass harp' is mentioned, rarely anybody knows what instrument is meant, sometimes only the photo explains it. To surprise of many listeners it is not similar to the well-known string harp. The name is substantively deceiving. Its inventor, Bruno Hoffman, certainly never suspected what popularity this instrument could bring to him.

The concerts played by myself on the glass harp are the good opportunity to introduce the audience to this mysterious instrument. I usually talk about its important place in the music life of the past.

In the world of glass music, the two instruments are most known: the older one is a glass harp, called the angel organ in the past days. Another one, a glass armonica, was constructed by Benjamin Franklin. The glass harp was made of glass cups, and the glass armonica of the glass bowls fitted concentrically on a horizontal rod. After its popularity blossom in the 18th century, the armonica was nearly forgotten for about 100 years, while the glass harp (angel organ) was appearing in the time constantly in the concert halls. Although its construction was improved, its popularity descended also in the 19th century.



Benjamin Franklin playing the glass armonica

I would like to say about the harp and the armonica as well. The both instruments stories are interlaced, although the glass harp is considered today by many the instrument without the future, an invention of the "banquet and circus culture". The terminology of the sources seems to be confusing and the history was full of ups and downs, which make it not clear. I hope – however – my story could present the instrument from quite another side.

In the 18th century the glass music was omnipresent, today it seems to be rather exceptional. What is the reason of such a change?

Let's have a look at the both instruments...

Their magic tones are used in the music therapy. The audience of the music halls has usually various associations, many of them surely connected with the previous name of the glass armonica – the angel organ. The sound is generated by the vibration of the glass, touched with wet fingertips rubbing in a certain fashion the rims of glass cups or glass bowls. Not every cup is suitable for the glass harp; the dimension as well as thickness and shape of the bowl are of great importance.

The subtle sound of the glass instruments and their extraordinary atmosphere make the music seem to be quite unreal. After the performances many people used to approach the glass harp to examine whether the music they had heard before was not generated from any hidden loudspeaker. The movement of the hand skimming the surface of glasses is so subtle, that one could be convinced the glass has not been even touched. It is hard to believe that the principle of the glass harp activity is as simple as of another classical instruments.

A little bit about the history...

For those who for the first time see a set of playing cups it is an extremely avant-garde idea to consider it the music medium. To their surprise, they find out that the glass instruments were already known in the Far East in the Middle Ages, in China in the 12th century, and in Persia in 14th

century. The sounds were produced by the glass dishes struck with wooden sticks.

The first references to the glass music in Europe date from the year 1492. The glass cups tuned by the addition of water were played. The first mention about using a set of glass instrument in a concert appeared in 1743, when an Irishman Richard Pockridge (1690-1759) constructed a set of glasses called an angel organ. The sound was produced by rubbing the glass rims with the wet fingertips or by striking the sides of glasses with the stick. Pockridge became the first virtuoso of the instrument. His performances of the Watermusic by Handel covered the fragile instrument with glory, first in Dublin, and then in all Great Britain. Pockridge gave also lessons of the angel organ. His student was e.g. Ann Ford who published the Instructions for playing the Musical Glasses in 1761. It was the first known method for the glass instruments in the world.



Grand harmonicon patented by Francis Hopkinson Smith in 1825

Christoph Willibald Gluck (1714-1787) was also the one who contributed to create a new musical tradition. The audience was delighted by the magic sounds emitted by his verrillion made also of the glass cups tuned with water. Gluck composed a piece for 26 cups with the chamber orchestra accompaniment. The performance in the Little Haymarket Theatre in London in 1746 won over the audience. As well as Pockridge, Gluck used the both ways of generating sounds: by rubbing and by striking. Thanks to the Gluck's musical activity, the glass instruments could be considered a real music instruments and came into serious musical use. The Gluck's performance was reported in the Vicar of

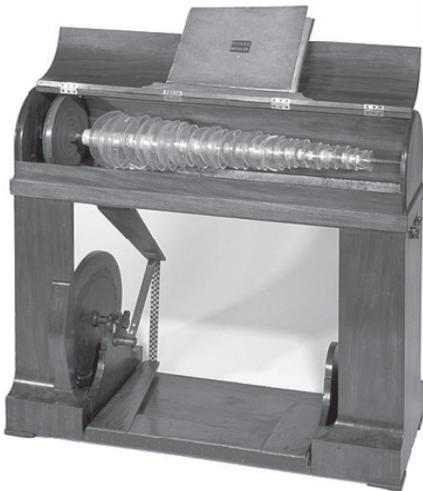
Wakefield by Oliver Goldsmith. The society, painting, taste, Shakespeare and glass playing were considered there in the one plane. That places the glass cups among the conversation topics in the fashionable world.

"Of all my inventions, the glass armonica has given me the greatest personal satisfaction."

-Benjamin Franklin

Playing sewing machine

Benjamin Franklin (1706-1790) was the one who brought the biggest popularity of the glass music. His glass armonica won hearts of the listeners and placed this American device in the European canon of music. In the spring of 1761, then on a visit to England, Franklin heard Edmund Deleval play the glass. It made such a big impression on him and awoke his creativity that he decided to improve the set of cups and minimize the technical difficulties (e.g. by resigning from the tuning with water). His work resulted with quite a new instrument where the glass bowls were graded by size on a horizontal rod, which



glass armonica

was actuated by a crank attached to a pedal (the same mechanism as in the sewing-machine). The performer's role was to touch the rotating rims of the glass. The new instrument was invented in 1761, and since then its popularity has been growing constantly. It was really the technical advancement which simplified the play. The virtuosos could play with all ten fingers simultaneously and perform more texturally complicated pieces on account of this improvement. Looking backwards, one could think however that the rotating mechanism has not contributed to enrich

the amount of the sound possibilities of the instrument. One can suspect that as for the expression and articulation the glass harp remained more refined. The cups are vibrated individually by the musician according to the character of the music piece. It is just on the glass harp that playing rippling staccato and the splendid romantic phrase to be heard. The instrument is not very loud, but its dynamics can fascinate with the expression. The harmonics sounds brilliantly in the pieces full of rich consonances. Among the famous composers of music for the original instrument, there were such splendid personalities as Mozart and Beethoven.

The virtuosos of this original instrument achieved with their performances certain popularity all over the world. The golden age for the glass music came. In America Stephen Forrage played the armonica, in Europe Marianne Davies, Franklin's relative and Marianne Kirchgessner won the fame; it was just she, the blind remarkable performer, who fascinated Mozart with her playing. Her concert, given in Vienna on 10th January 1791, inspired Mozart to write some pieces for the armonica; things maybe not of the great format, but of extraordinary beauty.

Ah quelle celeste voix! Cela est vraiment pour prier!

Niccolo Paganini

Many poets, writers and philosophers expressed their opinion about the special sound of the armonica, which caught their imagination.

It was Goethe, Schiller, Wieland, Hegel. Enchanted by the armonica were also: A. Pushkin, N. Paganini and A. Mickiewicz who mentioned the instrument in his famous drama "Dziady" / "The Forefathers".

The heyday of the armonica lasted until about 1835. The phenomenon occurred and disappeared suddenly. The armonica was forgotten for about 100 years. It was Richard Strauss who as the first contributed to the revival of the instrument in the 20th century.

The cursed harmonica

Let's have a look at the mysterious disappearing of the glass harmonica from the concert halls. Quite unexpectedly, the rumors appeared about glass music. As a result, the harmonica was cursed and eliminated outside the pale of the high society. The sound of glass music was suspected to make bad influence on both players and listeners. Why such a bad reputation? And so the Vienna doctor and scientist Franz Messmer was so enraptured

by the instrument that he started to use it in his medical practice healing the mentally diseased patients. Those who were the antagonist to the glass harmonica were at the same time adverse to the Messmer's method. The opponents to his "devils practice" contended that the sound generated by the vibration of the glass was apt to have a deranging effect on the nerves of the player. Lead contained in the glass caused also health disorders. The atmosphere was so strained that in some towns people were forbidden to play the glass harmonica under the pain of banishment. The controversies around the effect of the glass tone have endured until the present day.

Heaven – Hell

It seems in all probability that the mysterious glass instruments will for the listeners forever be connected with the two powers: the angel one and the evil one. Both cause the devoted admirers of glass music and fanatic foes as well. On the one hand, the positive effects of Messmer's therapy and the exultation of the listeners are pictured; on the other hand the premature childbirth, trance or even fits of madness which seized the virtuosos are mentioned. The traces of the duality can be found in the aforementioned drama "Dziady" by A. Mickiewicz. The main character Konrad played the stars like the glass of the armonica. The metaphor of the instrument could suggest that there are two powers in the glass music fighting against each other: the good and the evil one, just like in the soul of Konrad.

Recently, I came up in the Polish daily "Gazeta Wyborcza" an article on the last report concerning the uncommon influence of glass harmonica. It said Beethoven's death could have been caused by the playing on the glass, his beloved instrument. The lead poisoning was diagnosed and in the estimation of the American scientist it could have been caused by frequent contact of the composer's fingers with the glass bowls. The contemporary glass contained almost 45% of lead. And the contents in the master's body exceeded the today's norm 100 times! All it seems to be reliable considering that the fingers of the glass player were damped with the saliva. The same regards the angel organ. On the old photos we can see the painted glass rims. It is a well known fact that the paint contained also a big quantity of lead. Fortunately, nowadays glass is free of the poisonous substances and playing is no more dangerous.

The museum pieces

The decrease of the glass harmonica popularity was also influenced by the more general changes. The orchestra strains

became wider and the tendency to the expressive solo virtuosity forced out slowly the soft chamber music and thereby also the sound refined instruments. The popularity of fisharmonica (called also harmonium, nowadays fisharmonica) became to grow as well as of the hammer piano, which was not as expensive and fragile, but more comprehensive than the glass ones.

No wonder the glass harp and the glass harmonica, once so beloved, and giving listeners so many exultations and fascinations, became only museum pieces.

And yet it turns round...

The end of the glass music heyday was not however the end of the tradition, especially of the angel organ. Though the harmonica was forgotten, the angel organ became an inspiration for the inventor Hopkinson-Smith (1797-1872). Looking for the optimal form for his instrument he created a grand harmonicon made of 25 cups fitted in a square box. The instrument did not need to be tuned with water – the bowls were cut in a certain fashion to achieve a proper intonation. It was the next shape of the angel organ, close already to the present-day glass harp.

So our story reached 20th century and the meritorious propagator of the glass music – Bruno Hoffmann. The nowadays glass harp's revival is due to him. He attempted various improvements resulting in a new form of the angel organ. The most important was the use of properly moulded glass cups fitted in the body of the instrument.

Glass harp of Glass Duo



How to call it?

The instrument made of the glass cups is called today in many ways: glass harp, musical glasses, wine glasses, singing glasses, angelic organ, glass harfe, harpe de verre, verrillon, séraphin, arpa di vetro, arpa de cristal...

The English name 'glass harp' is the most popular, although controversial, too. It is used by many performers for various glass instruments but the opponents say it suits only the one constructed by Bruno Hoffmann.

The name 'angel organ' is now rare to be found. It seems to be too sentimental for the present-day people although it renders the character of music well.

The term 'musical glasses' is also in use. To all intents and purposes it means also many another instruments in the type of bells, with the glass harmonica above all.

The terminological questions connected with glass armonica are by far less complicated. Both names – harmonica and the Italian one – armonica – are in use.

The original literature

One could consider the amount of the music pieces written for the glass instruments relatively small, but we can find about 400 such a pieces, first of all for harmonica.

The most popular is Adagio for glass armonica K.356 (K.617a) by Mozart and his

Adagio and Rondo for armonica, flute, oboe, viola and cello K.617 as well. The pieces came into the music literature canon and became obligatory in the repertoire of the glass music performers.

From the performer

When the first amazement and surprise caused by the extraordinariness of the instrument is gone, the listener expects simply good music. Contrary to what one could think, playing the cups is quite difficult. One could joke, of course – "I can play them, yes, I do it now and again, washing up the dishes". But is it not the same with another instrument? Certainly everybody could generate a sound of the violin, maybe even play a simple melody. But is it music?



Glass Duo

To play the glass harp I usually use the whole hands. They are my bow and my sticks. Depending on the articulation, the hand can turn into an acrobat jumping over the rims of the cups, or into a ray-fish which waving up and down skims subtly the surface with its wide body. The result depends on my skills, my invention and my precision. Will it be only the circus performance and the proof for the "one can also do it in this way"? Or will it prove something more; will it let me take the audience to the land of non trivial sounds; to the music to be heard with real delight?

Let me hope the reader has been convinced that the glass harp could create the great possibilities that it has been a real music instrument with rich past and future as well. The rest depends on me the performer.

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