



Simple water drums can be made using only gourds and water.

Water Drums from the Americas

The second category of water drums—those with membranes across their tops—resemble many conventional drums at first glance: they are shaped like cylinders or pots, with a skin head stretched over the upper end. Most are made of [hollowed-out wood](#), but some are crafted from clay or metal. The cavity inside the drum holds water, and the amount of liquid can be adjusted to modify the tuning. The drums are usually struck with a stick, but the hands are occasionally used instead.¹⁴ The resonance of the drum is affected not only by the shape of the container and the amount of water, but also by the drumhead. Some Native Americans dampen the drumhead and then use fire to dry it partially until the desired sound is achieved.¹⁵

A wide range of North American tribes use water drums. In the eastern United States, they are employed by the Creek, Delaware, Cherokee, Iroquois, Seminole, and Yuchi peoples. The Shawnee took water drums with them as they were pushed westward to Oklahoma, and the instruments are used by both the Omaha tribe in the Plains region and by the Ojibwa in the Great Lakes. In the Southwest, water drums are found among the Apache and Navajo. Water drums are less common in South America but are played by the Chaco in Argentina and Paraguay.¹⁶ The role of the water drum in tribal life is not always clear. Ethnomusicologist Thomas Vennum, Jr., reports that among the Ojibwa, the instrument is used “exclusively by members of the medicine lodge,” so the purpose of the water drum is kept private.¹⁷

“Water Waves” and Glass Harps

The simplicity of musical bowls—another water-based percussion instrument—may tempt you to experiment at home. Actually, the tradition of this instrument



Water drums are used by members of the medicine lodge of the Ojibwa people.

goes back for centuries in several cultures. In India, the bell-like instrument is called *jal-tarang*, meaning “water waves.” A *jal-tarang* requires bronze or porcelain bowls of graduated sizes, each holding water to allow it to be tuned to the precise pitch desired. Ancient treatises described a set of twenty-two bowls as “complete,” but acknowledged that fifteen bowls would suffice as “standard.”¹⁸ Contemporary players—who are regrettably few in number—prefer porcelain, and Milind Tulankar used a set of bowls that were eighty years old during a [2017 TEDx Talk](#).

As with the *Etétung* among Vanuatu women, various types of sounds can be produced by the *jal-tarang*. Customarily, the performer taps the rims or sides of the bowls with a pair of lightweight wooden sticks. Occasionally, though, small ornaments (*gamaks*) are added by touching the surface of the water with the sticks.¹⁹ The instrument is generally used to perform fast music, and it can be accompanied by other instruments.²⁰

Similar sets of tuned water bowls are found in other regions as well. As early as the fourteenth century, Chinese musicians played a set of nine clay bowls called *Shui Chan*, and Japan had an ancient equivalent called the *hi*.²¹ In ancient Azerbaijan, the fifteenth-century entrepreneur Abdulgadir Maraghayi is



A set of porcelain bowls comprising the “standard” version of the jal-tarang.

credited with inventing the *Chini sazi kazat*, a set of some seventy-six water-filled bowls of varying sizes.²² (The standard modern piano, with its eighty-eight keys, offers only a few more pitches.)

As part of the celebration during a wedding reception—or perhaps at the dinner table to annoy a relative—many of us have rubbed a moistened finger around the edge of a wine goblet to create a ringing tone. When a set of goblets of various sizes is played in this fashion, the resulting instrument is known as the “**musical glasses**” or “**glass harp.**” (Other languages use terms such as *Glasspiel*, *harpe de verre*, *arpa di vetro*, *arpa de cristal*, and so forth.)²³ This playing technique differs from the hammering or tapping used with the musical bowls discussed previously. However, while the traditional method of playing the *jal-tarang* creates no “continuity,” [Milind Tulankar demonstrates a stick](#) that he has developed that *can* produce a continuous sound. He slides the stick across the edge of the rim in the same manner that a violin bow rubs against a string. The ringing tone he creates is the same eerie tone color that musical glasses generate.

If a glass harp’s individual glasses are selected (or crafted) carefully enough, they do not actually have to be filled with water to produce the desired pitches. Nevertheless, water is still needed on the fingertips to create the necessary friction that generates the tones. At the beginning of their glass harp performance of the “[Sugar Plum Fairy](#)” by Tchaikovsky, the two members of GlassDuo can be seen moistening their hands on some small damp towels.

Musical Glasses from Europe

In Europe, the earliest known reference to musical glasses is found in a 1492 treatise called *Theorica*



In the upper right portion of this illustration, the musician on the left, facing the table, is playing six glasses with water at different levels.

musicae, written by Franchinus Gaffurius (1451–1522). However, the glasses did not gain widespread attention until two and a half centuries later, when the Irishman Richard Pockrich (c. 1695–1759) excited audiences in 1744 with his performances on a water-tuned glass harp that he called the “Angelic organ.”²⁴ Two years later, London newspapers reported about a performance by Christoph Willibald Gluck (1714–87) that required twenty-six glasses.²⁵

Early observers tell us that Pockrich started his performance career by striking the glasses with sticks, similar to *jal-tarang*.²⁶ However, by the time he demonstrated the Angelic organ to Londoners, he had changed his technique to rubbing the rims.²⁷ A surge of interest followed. One early practitioner, Ann Ford (1737–1824), not only gave numerous performances, but in 1761 also published the first known method book for water-tuned glasses, called *Instructions for Playing on the Musical Glasses, so that Any Person Who has the Least Knowledge of Music, or a Good Ear, May Be Able to Perform in a Few Days if not in a Few*