

The World Family of Stringed Instruments by Tom Vennum

Students of music as well as Festival visitors have the opportunity to hear a number of the world's musical instruments performed here, many of which will be new to them. Of particular interest is the wide variety of stringed instruments. As a group they are called chordophones (from the Greek words for string and sound) to distinguish them from other principal divisions of musical instruments: membranophones (drums with skin heads), idiophones (most other percussion), aerophones (winds and reeds), and electrophones (electronic instruments).

By definition, a chordophone has at least one and usually several strings stretched parallel to each other between two points on the body of the instrument. Often, one or two bridges are used to raise the strings from the instrument, allowing them to vibrate freely. These bridges may be fixed near the ends of the strings, as on the guitar, or are occasionally moveable for tuning purposes, as on the Japanese *koto*.

The tonal range of a chordophone, how high or low it can play, depends on the number of strings and their various lengths, thicknesses, and degrees of tension. So that each string may be adjusted to the proper tension, it is attached to some sort of tuning peg, or pin, which is turned until the string sounds the correct pitch. Performers of chordophones may be seen adjusting these pegs and testing the strings' pitches before playing. If the instrument has only a few strings, as does a violin or guitar, the tuning pegs are usually of wood and can be turned easily by hand, but instruments which have a large number of strings under greater



Lebanese instrument-maker plucks an 'ud in a workshop filled with stringed instruments: 'ud (lute family), guitar, ganun (zither family), kemange (violin family). For listing of instruments found in Old Ways area see page 44.

Photo courtesy National Geographic Society. tension may require a metal key, like a clock or rollerskate key, to turn the tuning pins, or even a special wrench in the case of the piano.

The body of a chordophone serves to amplify the sound of the strings when they are made to vibrate. The shape of this resonating body, which is often determined by the number and length of the strings, further decides the classification of a chordophone, as does the location of the strings in relation to the instrument.

When the strings stretch fully across a surface, called a soundboard, the chordophone belongs to the family of zithers. If the soundboard surface is flat, such as on the German *Zither* and *Hackbrett*, the instrument is a Board Zither; if long and slightly curved, such as on the Japanese *koto*, the chordophone is a Long Zither.

Stringed instruments with necks projecting from their bodies belong to the Lute family. Among the lutes in this year's Festival are the Panamanian *mejorana*, the Japanese *samisen*, the Lebanese *rebab* and *'ud*, the large number of guitar types performed by the Mexican *mariachi* band, and violins and fiddles of several sizes, including the double bass of the German bands, and the Huichol Indian fiddle.

Chordophones whose strings are perpendicular to the soundboard are classified as Harps. The Mexican arpa, as featured in the *jarocho* ensemble from Vera Cruz, is the Festival's only representative from the harp family.

Because strings may be made to sound in one of three principal ways, the manner in which they are set into vibration is yet another means of determining a chordophone's classification. The strings may be bowed (the Huichol fiddle, the Lebanese rebab), hammered (the German *Hackbrett* and the piano), or plucked. (Strings can be plucked individually or strummed as a group, using either the fingers, as with harps, or some sort of pick. The Japanese *samisen* player uses a large triangular pick, the German *Zither* and Japanese *koto* players wear picks formed into rings on one hand, etc.) Thus among the Board Zithers one distinguishes between those which are plucked, called psalteries (the Lebanese *qanun*, the German *Zither*) and those which are hammered, called Dulcimers (the German *Hackbrett*). Interestingly enough, popular names for string instruments sometimes ignore such distinctions in manner of performance. Because the American Appalachian "dulcimer" is usually plucked, not hammered, it is not really a dulcimer, but rather a psaltery, just as an English horn is not really a horn but a double-reed instrument belonging to the oboe family.

The world family of chordophones, unified by a common means of sound production—the vibrating string—is nevertheless capable of many different sounds, from the robust strumming of the rhythm guitars in the Mexican *mariachi* sound to the quieter sounds of the plucked zither. The Festival is a good time to compare these.

Mr. Vennum is an ethnomusicologist who wrote his dissertation on American Indian music at Harvard University. He is a consultant on musical presentations in the Old Ways in the New World area of the Festival.