

and quadruple flutes, highlight the efforts of scholars like Caso, Thompson, Ekholm and others to delve into the order and chronology of those older cultures once dismissed with the conventional labels: Preclassic, Olmec, Occidental, Toltec, Maya, or Teotihuacán. Who these gifted people were, and when and where they first appeared, is a challenging question.

The musicians and artisans who created and played such remarkable instruments as the triple and quadruple flutes obviously had a profound knowledge of acoustics and of the harmonic series, and must have been acquainted with more than a primary five-tone scale. Not only did they know and practice this and other richer scales but they also practiced an embryonic harmony, as well as the traditional free heterophony that characterizes African and Asiatic ensembles. This becomes obvious when we study the giant rasping stick with four different series of notches found by Alfonso Caso in Monte Alban, Oaxaca; the use of trumpet ensembles; the multiple-toned wooden slit drums called *teponaztli* and *tecomopiloa*; the groups of flutes, ocarinas, and whistles of the same type but of different sizes; and the double, triple and quadruple flutes and whistles which produce two-, three- and four-part chords. It is also borne out by the historians who invariably describe the collective character of native musical practices and their ability to tune, modulate, and compose music in chosen "puntos" or keys. It is further confirmed by the indications of ensembles of flutes, drums, and singers found in the manuscript of the *Cantares Mexicanos*, now in the National Library of Mexico.

All the chroniclers speak of the musical and dancing ability as well as the great discipline of the natives, commenting upon the facility with which they learned the difficult polyphonic European religious music from the friars. Torquemada assures us (Vol. III, Bk. XVII, Ch. 3) that "there is no genre of Church Music which the Indians do not have and use. . . . Soon they were composing *villancicos* (Christmas songs), four-part organ chants, some masses and other works which, when shown to Spanish musicians, were judged of excellent quality and that they could not have been composed by Indians. . . . One thing I can affirm truthfully, that not in all the Kingdom of Christendom are there as many flutes, oboes (*chirimias*), sackbuts, trumpets, horns and drums as in this land."

Motolinia, in his often-quoted chapter on native music (1903, chapter 26), gives us a remarkably clear picture of the progress of indigenous music. His description implies the use of effects which are known today as

114. Double whistle when the swing is set in motion, the whistle attached to the backs of the flutes produce two different sounds. Totonac culture; height 6".

