

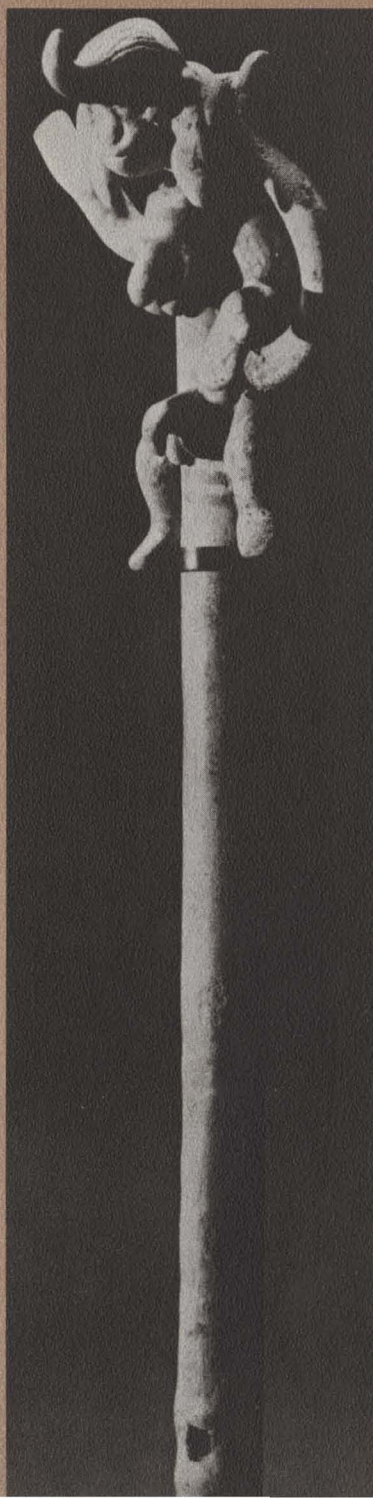
PRE-  
COLUMBIAN  
INSTRUMENTS

Ethnic Folkways FE 4177

Aerophone



Produced by Lilian Mendelssohn  
with Pablo Castellanos  
Played by Jorje Daher





Ethnic Folkways FE 4177

**SIDE 1**

Bands: 1,2 Air Drum; 3 Mirliton; 4,5 Transverse;  
6 Mir. & Trans.; 7,8,9,10,11,12,13 Peak Whistle;  
14 Large whistle; 15 Water whistle; 16,17, 18,  
19, 20, 21 Whistle; 22 Great whistle; 23,24,25,  
26,27 Double whistle; 28 Triple whistle;  
29 Triple channel whistle; 30 Double whistle

**SIDE 2**

Bands: 1,2,3 Ocarine; 4,5 Peak; 6 Transverse;  
7,8 Peak; 9 Four Orifices; 10,11 Free Intonation  
12,13,14,15 Peak; 16 Small, Pentaphonic Scale;  
17,18,19 Pentaphonic Scale  
20,21,22,23 Double Ocarine

**SIDE 3**

Bands 1,2 Flute, pentaphonic scale; 3 3 orifices;  
4 eolian sound; 5 double orifices; 6 5 orifices;  
7,8 pentaphonical scale; 9 heptaphonic scale;  
10, 11 one orifice; 12 with piston; 13 of bone;  
14 octaphonical scale; 15,16 chromatic scale;  
17,18 compression; 19 free intonation;  
20 pentaphonic; 21 tetraphonic.

**SIDE 4**

Bands: 1,2,3,4 Double Flute; 5,6,7 Triple Flute;  
8,9 Trumpet, clay; 10 Trumpet, vessel  
11 Sea-Shell, 12, 13, 14 Shell, clay;  
15 Sea-Shell

DESCRIPTIVE NOTES ARE INSIDE POCKET

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701 SEVENTH AVE., N.Y.C., U.S.A.

PRE-  
COLUMBIAN  
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Produced by Lilian Mendelssohn

COVER DESIGN BY RONALD CLYNE

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Figure from Nayart: Man playing the Huehuetei and the Rattle

## Pre-Columbian Instruments

### notes

Scientific research into the use of musical instruments in Pre-Columbian Mexico is only 30 years old. "Pre-Columbian" referred, originally, to artifacts made by the Indians of the Western Hemisphere prior to the discovery of America by Columbus i.e., pre-Columbus. Now the word refers to such artifacts made before the time that Western culture influenced Indian culture in any specific areas. Thus, Mexico, Pre-Columbian refers to any-time prior to 1521, the approximate year when Cortez conquered the Aztecs.

It is now known that Pre-Columbian musical instruments included percussion instruments (e.g. idiophones, such as flutes). All such discoveries about Pre-Columbian instruments must be made solely on a basis of the instruments themselves. No written record of Pre-Columbian instruments or music exists. Thus, except for information that can be gleaned from the wide variety of the instruments found and from the sounds we can now make on these old instruments, no one can know the content of Pre-Columbian music. Solely on the basis of those two methods of discovery, however, it is almost certain that Pre-Columbian music was very complex and diversified. It is quite possible that it was very sophisticated, both as to harmonics and meter. It is now believed that Pre-Columbian music in Mexico was not only pentatonic but, especially during the classic era (approximately 400-1000 A.D.), the scales used were chromatic.

With respect to Pre-Columbian flutes (to illustrate the variety of instruments found) straight, single bore flutes have been found with up to seven stops in them. Multiple bore flutes are found commonly with one mouth piece (mouth organs). One of the most sophisticated

types of flutes found contains a ceramic ball in the bore which changes the tone depending on how far along the bore the ball remains. By changing the level of the flute during playing, the ball moves along the bore and thereby changes the length of the air column within the bore. The player can thereby achieve micro-tones much as in the case of the modern trombone.

The timbres produced by the Pre-Columbian flutes are also varied. For example, simple flutes from the Gulf region tend to have a pasty sound (like a clarinet) whereas myan flutes tend to have a nasal quality (like an oboe).

This diversity which existed in the case of flutes existed also in the cases of whistle jars, trumpets of clay, sea shell instruments, gongs, drums, rasps, rattles etc., etc.

Mention should also be made of the fact that Pre-Columbian musical instruments often were elaborately decorated and unquestionably were prized in many cases as objects of beauty in themselves without reference to their quality as instruments.

Please refer to labeled photographs depicting aerophones.

Notes by Lilian Mendelssohn, with Pablo Castellanos and Miles Lourie

1 Instruments played by Jorje Daher



Pre-Colombian Instruments of Mexico: (Aerophones)  
Whistles, (simple)

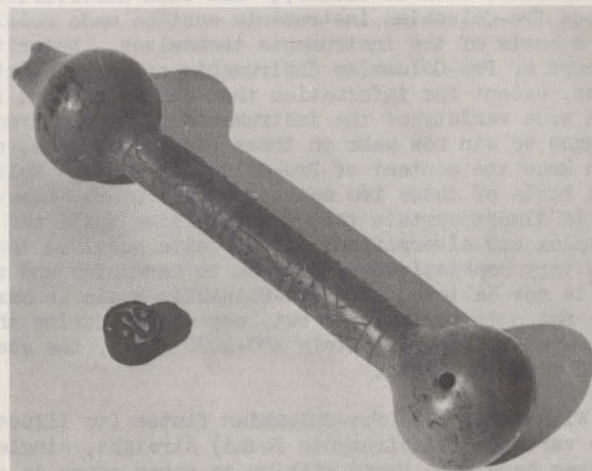
Part 1

Side 1

Time

Band 1.	Air Drum, pre-classic (Colima)	.30
Band 2.	Air Drum, (Gulf culture)	.30
Band 3.	Mirliton, (Aztec)	.30
Band 4.	Transverse, (Olmecan culture) two orifices	.30
Band 5.	With grain and oral centralization, two orifices	.30
Band 6.	Mirliton, transverse, (Zapotecan)	.30
Band 7.	Peak, no orifices, one sound (Gulf culture)	.30
Band 8.	Peak, two orifices, three sounds, (Nayarit)	.30
Band 9.	Peak, two orifices, four sounds, (Maya)	.30
Band 10.	Peak, no orifices, two sounds double chamber, (Olmeca)	.30
Band 11.	Peak, no orifices, large airduct, one sound (Gulf)	.30
Band 12.	Peak, one orifice, large airduct, two sounds (Gulf)	.30
Band 13.	Peak, Mirliton, (Aztec)	.30
Band 14.	Large whistle, "voice of Owl" (Zapotecan)	.30
Band 15.	Water whistle, "voice of a bird" (Zapotecan)	.30
Band 16.	Whistle, to call a young deer, (Gulf culture)	.30
Band 17.	Whistle of compression, "sound of the wind" (Gulf culture)	.30
Band 18.	Whistle of compression, "sound of storm" (Gulf culture)	.50
Band 19.	Whistle with built-in chickpea, "sound of flying bird"	.30

Triple flute from the Gulf, classical period



Flute closed, Quena type, three openings  
and two chambers from Cholula/Puebla Col-  
lection, F. Field.



Band 20. Whistling vessel with water, "voice of a chicken" Nayarit	.50
Band 21. Whistle with built-in rattle, (Gulf culture)	.30
Band 22. Great whistle, two orifices, chinesco, Nayarit	.50
Band 23. Double whistle, no orifices, pre-classic	.30
Band 24. Double whistle, two orifices (one in each chamber) "voice of macaw" pre-classic	.30
Band 25. Double whistle, four orifices (two in each chamber) "voice of lizard" pre-classic	.30
Band 26. Double whistle, built-in chickpea, pre-classic	.30
Band 27. Double whistle, built-in grain, pre-classic	.30
Band 28. Triple whistle (3 channels) "form of bird" Gulf culture	.19
Band 29. Triple channel whistle, "form of gander" Gulf culture	.30
Band 30. Double whistle, Tlatilco culture	.50

Pre-Colombian Instruments of Mexico: (Aerophones)  
Ocarines, (simple)

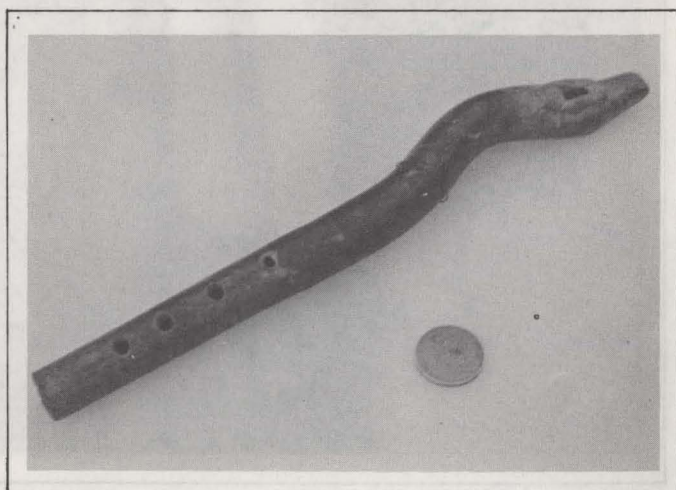
Part 1

Side 2

Time

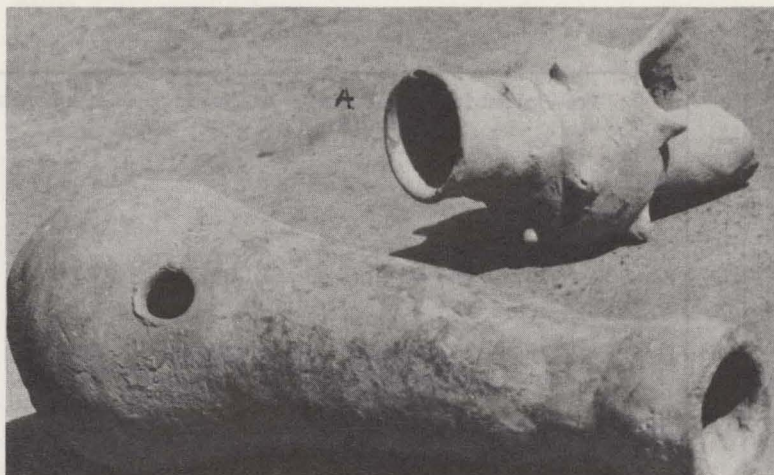
Band 1. Ocarine, transverse, three orifices, tetraphonic scale, Maya	1.15
Band 2. Ocarine, transverse, three orifices, hexaphonic scale, Gulf (deep sound)	1.15
Band 3. Ocarine, transverse, three orifices, hexaphonic scale, Gulf culture (medium sound)	1.15
Band 4. Peak, three orifices, tetra- phonic scale, medium sound, Michoacan	1.05

Whistle, double chamber, from the Gulf  
classical period.



Flute, snakelike, from Colima, classical period.





Tune-Drums; a) open, Veracruz  
b) Closed, Colima, with orifices  
working, Classical period

Flute of compression, Maya post classical, Jaina.

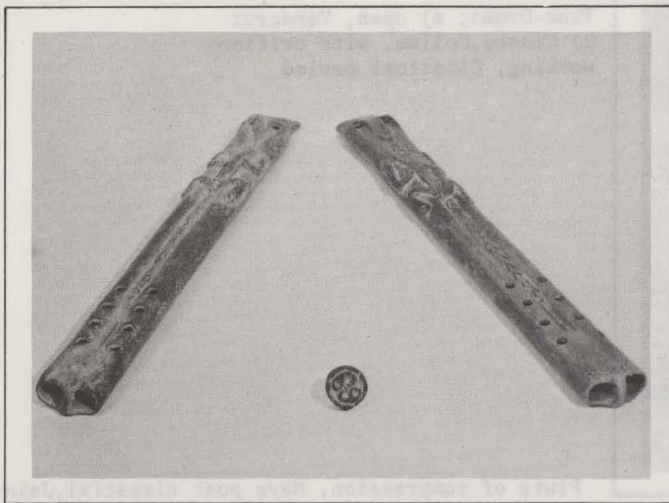


Band 5.	Peak, three orifices, tetraphonic scale, shrill sound, Michoacan	1.08
Band 6.	Transverse, four orifices, pentaphonic scale, pre-classic	1.15
Band 7.	Peak, two orifices, built on wheels, five sounds, (Gulf culture)	1.30
Band 8.	Peak, six orifices, turtle form heptaphonic scale Michoacan	.50
Band 9.	Four orifices, crossed fingering, (Huastecan culture)	.48
Band 10.	Free intonation in the manual control, (Gulf culture)	.50
Band 11.	Free intonation in the oral control, (Gulf culture)	.43
Band 12.	Peak, three orifices, double chamber, (Olmecan)	.57
Band 13.	Peak, four orifices, pentaphonic scale, (Micheacan)	.40

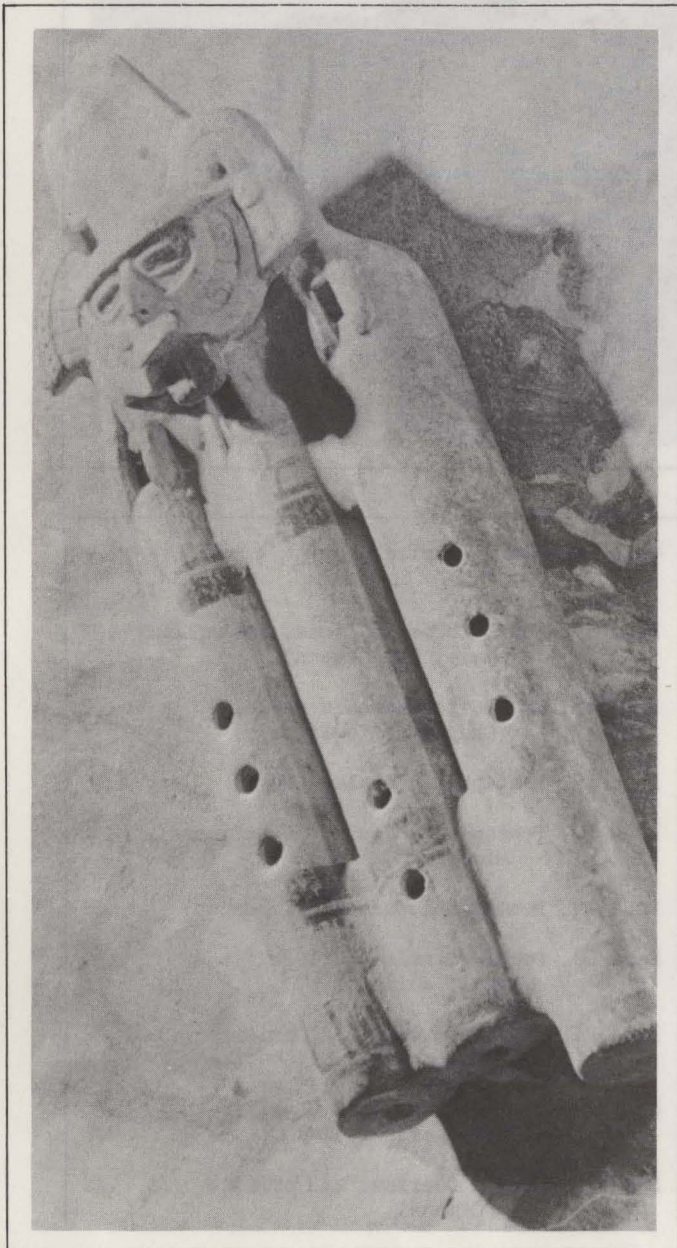
Band 14.	Peak, four orifices, pentaphonic scale, (Colima)	.41
Band 15.	Peak, three orifices, pentaphonic scale, (Micheacan)	.33
Band 16.	Small, pentaphonic scale, (Chupicuare culture)	.30
Band 17.	Pentaphonic scale, (Maya)	.40
Band 18.	Pentaphonic scale, (Chupicuare, Micheacan)	.52
Band 19.	Pentaphonic scale, (Micheacan)	.38
Band 20.	Double Ocarine, 2x1 orifice (Gulf culture)	.30
Band 21.	Double Ocarine, 2x2 orifice (Chupicuare, Micheacan)	.32
Band 22.	Double Ocarine, 2x3 orifice (Pre-classic)	.36
Band 23.	Double Ocarine, 2x3 orifice (Olmeca)	.42



Double flutes from Colima, late classical period



Triple flute, from the Gulf classic period.

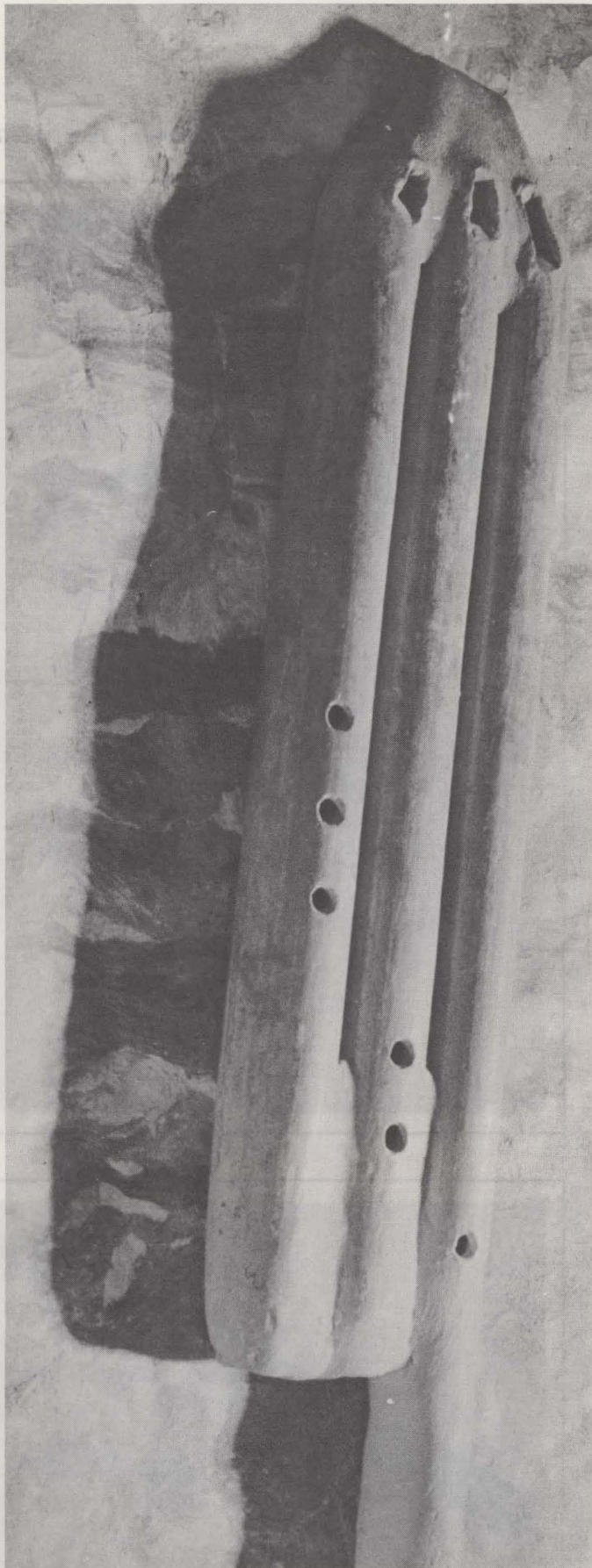


Pre-Colombian Instruments of Mexico: (Aerophones)  
Flutes (Simple)

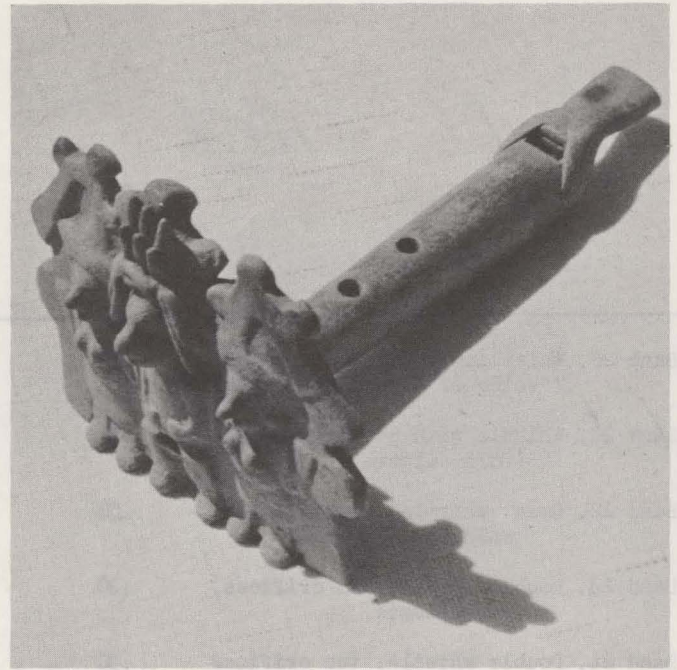
Part II	Side I	
	Time	
Band 1.	Flute, pentaphonic scale with harmonics (Colima)	.50
Band 2.	Flute, pentaphonic scale narrow outlet, Teothiucan	.43
Band 3.	Flute, three orifices, material, Jade, type: Quena, Olmeca	.44
Band 4.	Flute, eolian sound, Aztec	.30
Band 5.	Flute, double orifices, heptaphonical scale, Jalisco	1.04
Band 6.	Flute, five orifices, black clay, Tarascan	.48
Band 7.	Flute, pentaphonical scale, Mixquic (Aztec)	.39
Band 8.	Flute, pentaphonical scale, Mirliton (Aztec)	.46
Band 9.	Flute, heptaphonic scale, no harmonics, (Gulf culture)	.59
Band 10.	Flute, one orifice, transverse, pentaphonic, (Gulf culture)	.36
Band 11.	Flute, one orifice, straight, pentaphonic, (Gulf culture)	.37
Band 12.	Flute, with piston, (Gulf culture)	.27
Band 13.	Flute of bone, pentaphonic, lingual mouthpiece, Jaina	.34
Band 14.	Flute, octaphonical scale, Jaina	1.07
Band 15.	Flute, chromatic scale, Jaina	1.00
Band 16.	Flute, chromatic scale, Tolteca	.47
Band 17.	Flute, compression, Maya	.33
Band 18.	Flute, compression, shrill sound, Maya	.22
Band 19.	Flute, free intonation, hand movement, Nayarit	.45
Band 20.	Flute, pentaphonic scale, no harmonics, harsh, Colima	.29
Band 21.	Flute, tetraphonic, small, Nayarit	.36



Flute, pentaphonic, toltec, from the State of Morelos  
early classical period.



Triple flute, from the Gulf classical period



Pre-Colombian Instruments of Mexico: (Aerophones)  
Flutes, Trumpets, Shells

Part II

Side 2

Time

Band 1.	Double flute, 2x2 orifices, Colima	1.15
Band 2.	Double flute, 3x3 orifices, Colima	1.00
Band 3.	Double flute, 4x4 orifices, Colima	.48
Band 4.	Double flute, piston, Gulf culture	1.20
Band 5.	Triple flute, Maya	1.58
Band 6.	Triple flute, Gulf culture	.53
Band 7.	Triple flute, Gulf culture	2.00
Band 8.	Trumpet, clay, Teotihuacan	1.04
Band 9.	Trumpet, clay, Guerrero	.52
Band 10.	Trumpet, vessel, Maya	.56
Band 11.	Sea-Shell, Colima	.56
Band 12.	Shell, clay, Colima	.54
Band 13.	Shell, clay, variable sound, Veracruz	.58
Band 14.	Shell, clay, Veracruz	.57
Band 15.	Sea-Shell, Colima	.54