



Pre-Columbian musical instruments

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Pre-Columbian musical instruments



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were ordinarily accompanied by excessive use of alcoholic beverages.

The types of dance included all these: dance without musical accompaniment, dance with song, dance with recitations in prose, solo recitations by one actor, and complete dramas with music, ballet, dialogue and costume.

The different indigenous societies who lived in the Nicaraguan area showed a strong attraction to music, song and dance. Some societies developed a highly skilled labor force that made musical instruments.

You can find musical instruments in various Nicaraguan museums. They were used to create a joyful atmosphere at dances of the pre-Columbian people, both Nicaraos and Chorotegas. Dance and music were part of many religious activities and were also enjoyed for their own sake. Musical activities for pleasure

The musical compositions of pre-Columbian Mesoamerica have not been preserved, but their dances, rituals and musical instruments were described by the Spanish, and pictures and descriptions appear in books. Spanish manuscripts show scenes of dance accompanied by the sound of drums made from wood and tortoise shell, trumpets made from shell, and clay flutes.

There is also information on how the pre-Columbian Nicaraguans celebrated their music and dance festivals. Oviedo writes that they gathered in the plazas to dance

and sing in chorus. Eighty to a hundred or more of the common people would be participants; other indigenous people accompanied the cacique (leader) to enjoy the presentation. As part of the banquet, cups of fermented corn were provided in small escudillas (cups) which leads us to suppose this was one of their alcoholic drinks. Tobacco was also consumed at celebrations like this. Once the dancers were drunk, cooked cacao (chocolate) was served to them in large cups; this was a delicious drink.

There is little information about the musical instruments used in the past; only the use of trumpets, flutes and drums can be proved from the historical record. For example, Oviedo described a group of native people going out to the sound of trumpets and flutes, for the sole purpose of meeting the “conqueror” Gil Gonzales. We also know that drums were used in games of dance and military competitions.

Flutes, rattles, maracas and drums are among the musical instruments found in archaeological digs and private collections.

Flutes were made of animal bones and clay. For example, at El Rayo, Granada, a bird-shaped ocarina was found, and at the Santa Isabel site, Rivas, a flute with several openings

The noisemakers may be statues or clay pots; inside each is a small ball which makes a harmonious sound when the pot is shaken (figure 1).

The maracas were made of pottery; inside these hollow artifacts are small stones. When you shake them, you hear a musical note.

Drums made from turtle shell or clay were probably also used, and seashells of considerable size have also been found in archaeological and other contexts.

The theme of the new pottery exhibition in Mi Museo is “Pre-Columbian musical instruments”. In various rooms you can see some of the musical instruments, and containers used to serve alcoholic beverages at the celebrations.



Figure 1: Noisemakers Type Papagayo Polychrome (AD 800-1350) Mi Museo collection.

The Archaeology of Music in Greater Nicoya



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Pre-Columbian musical artifacts are not only beautiful but they convey messages and have symbolic meanings associated with them. What little we know about pre-Columbian instruments comes from experimental archaeology that aims to uncover how the instruments were used in the past, who played them, why they sounded and looked the way they do, and what impact music had on ancient societies. One of the difficulties in studying these instruments is that archaeologists often do not have enough information about the

artifacts and their provenience. Sound and the instruments that produce them, however, offer a wealth of information about human experience in the past and it will always be important in archaeology.

International Exposure for Musical Instruments from Greater Nicoya

We have been working with large collections of pre-Columbian ceramic instruments from the University of Calgary Archaeology Museum (Kosyk) and the Mayer Costa Rican collection from the

Denver Art Museum (Dennett), which include many ocarinas and whistles (Figure 1). The distinction between a flute, ocarina, and whistle depends on the length of the instrument, how many finger holes it has, and its shape. Flutes are tubular with finger holes progressing down the shaft of the instrument. Ocarinas can be shaped in any form but generally contain spherical or elliptical chambers that resonate sound. Whistles are typically smaller than ocarinas, have no fingering holes, and only have two openings: the mouth-piece and the air duct (Healy et al. 2010).



Figure 1: A late Tempisque/Bagaces period (100-500 A.D.) peccary-form ocarina from the Glenbow collection at the University of Calgary (Cat. # UCAD 2.24; photo by K. Kosyk).

The iconography of these aerophones is also extremely important as it reflects understandings that specific shapes or images may have held for a given culture group. For example, the majority of ocarinas from Greater Nicoya represent animals, including birds, crocodiles, monkeys, turtles, jaguars, frogs, armadillos, and bats. Abstract animal forms are also present that may symbolize mythical creatures from native folklore. The animals depicted on the ocarinas must have possessed symbolic importance to the player.

In April of this year we were invited to participate in the annual meeting of the International Council for Traditional Music (ICTM), held in Guatemala City. Titled

“Crossing Borders, Musical Change and Exchange through Time”, this conference brought together leading international music archaeologists who presented on a variety of musical topics. There were several scholars that presented on Mesoamerican and southern Central American musical instruments. One of the conference organizers, Adje Both, discussed whistling vessels from Mesoamerica (Classic Maya, central and northern Mexico). Whistling vessels are ceramic pots that act as musical instruments composed of two or more chambers connected by a thin strap-like tube(s). These

chambers produce sound either with air (by blowing through a thin spout on the vessel) or water (where air is displaced or pushed out of one chamber of the vessel into the other as it fills with water). To accompany this section of the conference on whistling vessels, Esteban Valdivia from the Universidad Nacional de Villa Maria, Argentina, gave an interactive presentation with his replicated versions of traditional whistle vessels.

Teresa Campos from the Museo de Antropología e Historia in Honduras gave an interesting presentation on the iconography and form of pre-Columbian whistles and ocarinas from that country. Here she discussed how different forms produce different sounds, including an overview of sample instruments. Some were abstractly shaped objects, while others displayed zoomorphic imagery such as fish, turtles, and birds—many of which, quite interestingly, share forms also known from Pacific Nicaragua. Another of her primary objectives was to raise awareness for Honduras' cultural patrimony before more archaeological evidence is lost.

Our own presentation, titled “Winds of Change: An Examination of Music and Migration in Pre-Columbian Greater Nicoya” (Kosyk and Dennett 2013), was one part in a series of ongoing conference lectures that examines musical instruments from parts of Nicaragua (the Pacific Coast), Costa Rica (Greater Nicoya, the central Highlands, the Atlantic

Watershed, and Diquis), and Panama (Chiriqui). Our discussion here, however, is limited to aspects of our research focused on Greater Nicoya.

Traditional interpretations view ancient Greater Nicoya as having undergone waves of in-migration by foreigners from central Mexico. While the ‘original’ inhabitants may have been Chibchan-speaking peoples, both ethnohistory and changes in ceramic typology provide support for the theory of replacement by Chorotega groups around A.D. 800. Traditional interpretations also suggest that this was followed by later migrations of Nahuaspeaking groups around A.D. 1250. Our conference presentation, however, offered a new assessment of this argument by drawing on aspects of both change and continuity in the musical past of Greater Nicoya.

After approximately A.D. 800 there is an obvious and significant change in all ceramic styles throughout the region. The appearance of polychrome pottery in this region has traditionally been associated with the in-migration of Chorotega-speaking groups from Mesoamerica, as discussed above. In terms of musical instruments, however, there does not appear to be significant change in the imagery portrayed in ocarinas beyond the shift to polychrome paints. By this we mean that there is no apparent ‘Mexican connection’ that we might argue for in examining these artifacts specifically. While keeping issues of collector bias in mind, we note

that the majority of examples from both collections suggest that zoomorphic imagery continues to dominate, especially birds, turtles, and crabs, in a style that has very deep roots in the region.

The second part of our research was presented this past May at the Canadian Archaeological Association’s conference in Whistler, BC (Dennett et al. 2013). This venue gave us a chance to further interpret these symbolically charged items from our Greater Nicoya collections. This is certainly exciting because we have an enormous amount of material, which provides visual imagery that can somewhat compensate for our lack of archaeological information.

A cognitive approach to the interpretation of ancient musical instruments suggests that music is fluid and symbolic. It plays different roles in different cultures and is related to our most fundamental cognitive process—speech. We focused on the possibility that these instruments served to draw attention and allow for participation in ritual acts. Greater Nicoya ocarinas, in particular, seem to represent a strong source of culture-based symbolism that is related to our cognitive understanding of, and relations with, both the natural and supernatural world. Within our collection, across time, there is no strong evidence for any significant change in the content of these musical instruments. There appears to be a focus on animistic cult principles rather than organized religious structures like those seen throughout Mesoamerica.

Musical Instruments from Greater Nicoya

Here we very briefly outline the chronology and typology of ocarinas—in relation to traditional ceramic types (Abel-Vidor et al. 1987)—as it is currently understood and based on the museum collections we are currently working with. The earliest known instruments from Greater Nicoya come from the local Tempisque period (500 AC. to 300 A.D.). These include tall cylinder drums (Bocana Incised type) and gourd-shaped rattles (Charco Black-on-Red type) from Pacific Nicaragua, as well as ocarinas of the Marbella Zoned Incised type from Guanacaste-Nicoya, Costa Rica (Figure 2). The majority of these ocarinas were likely produced in northwestern Costa Rica and are decorated with incised zones embellished with rocker-stamp impressions and circular reed patterns that are generally highlighted with a bright, white infill. Rosales Zoned Engraved likely represents the Nicaraguan counterpart of Marbella Zoned Incised, which portrays similar imagery during the same time period.

In later times (after 100 A.D.), examples of Marbella begin to merge in design with more contemporary monochrome Guinea Incised styles, which feature the use of incised linear and guilloche (Figure 3), as well as punctate decoration. At this time humans become a focus of representation, but zoomorphic imagery continues to dominate.



Figure 2: An early Marbella Zoned Incised armadillo-form ocarina from the Glenbow Museum collection at the University of Calgary (Cat. # UCAD 2.29; photo by K. Kosyk).



Figure 4: Bird-shaped ocarina excavated at the site of El Rayo, Granada (photo courtesy of Geoffrey McCafferty).



Figure 3: An example of linear and guilloche incision. Note the interwoven geometric (guilloche) shaped patterning on the back of this Guinea Incised crocodile ocarina (Cat. # UCAD 2.18; photo by K. Kosyk).

As discussed above, there is a move from monochrome incised ocarinas to polychrome painted examples beginning around 800 d.C. Unfortunately, neither museum collection has examples of musical instruments from Pacific Nicaragua from the local Sapoa period (800-1250 A.D.). But our knowledge is supplemented with actual archaeological examples recovered by University of Calgary excavations led by Dr. Geoffrey McCafferty that include a bird-shaped ocarina (Figure 4) from the site of El Rayo on the Asepe peninsula (McCafferty 2010), and a carved bone flute (Figure 5) recovered from the site of Santa Isabel in the Department of Rivas (McCafferty and McCafferty n.d.).

While Nicaraguan instruments are lacking from our working collections, there are a significant number of examples from northwest Costa Rica. The two main ceramic types associated with musical instruments from this archaeological subregion during the Sapoa period are Mora and Birmania polychromes. Interestingly, these types demonstrate subject continuity with focus on wildlife imagery. The use of important decorative features such as guilloche and 'punctate' also continues, but are painted rather than incised. Birmania polychrome tends to dominate for this time period in both museum collections, and birds are typical fare (Figures 6 and 7), although creatures that inhabit both the watery and terrestrial worlds, such as turtles and crabs, are also important images.



Figure 5: Bone flute fragment excavated at the site of Santa Isabel, Rivas (photo courtesy of Geoffrey McCafferty).

Conclusion

Preparation for the conferences we have attended this year directed us to develop and emphasize the chronology and

typology briefly discussed above. Actual participation in the conferences allowed us to bring the musical instruments of Greater Nicoya to broader audience. This project has also enabled us to begin meaningful investigations into the role



Figure 6 and 7: Birmania Polychrome bird-form ocarina from the Glenbow Museum Collection at the University of Calgary (Cat #UCAD 2.5; photo by K. Kosyk), (Cat #UCAD 2.6; photo by K. Kosyk).

these instruments may have played to the ancient people of the region. Currently we are preparing an academic article that will elaborate on and refine many of the ideas introduced here and will appear in a future issue of the new peer-reviewed bilingual journal titled *Mundo Florido: Arqueomusicología de las Américas*. We look forward to building and enriching our knowledge through future collaboration with local archaeologists working in Pacific Nicaragua and northwest Costa Rica, as well as international scholars who specialize in prehistoric musical instruments of the Americas.

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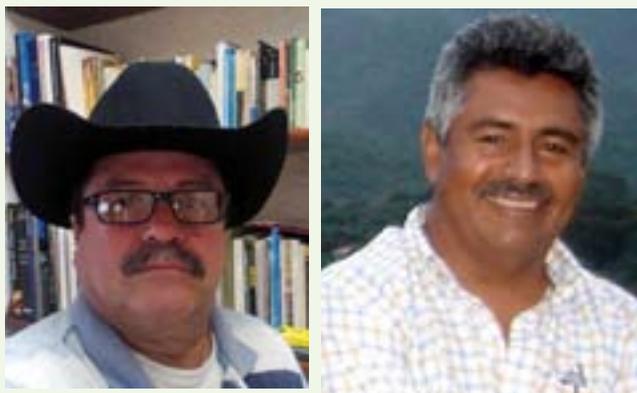
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The pre-Columbian road of Icalupe, Somoto



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One of the most impressive petroglyphs in northern Nicaragua can be found near the town of Icalupe in Somoto. The ground in the area is eroded, with huge rock foundations visible. The surrounding vegetation has been altered by cattle raising, but you can still see some pines, oaks and nancites. According to Jaime Incer, the toponymy of Icalupe in the Matagalpa language means "*Plain of Nambiras*" (Pumpkin Halves) but Carlos Mantica gives it a different interpretation, stating that the word derives from the Nahuatl Acalupo and could be translated as "*The Road of the Canoes*" or "*The Hill of Nancites*".

This definition is more suited to the surrounding reality.

The Icalupe petroglyph is located at the bottom of a ravine, on the sides of a rock about 20 feet tall. The native people left drawings of animals, abstract figures and human beings on the stone, using red, yellow, green and purple colorings to fill in the figures. This is a unique case of polychrome rock art in Nicaragua (Figure 1). Taking advantage of the shape of the rock, the indigenous people made petroglyphs on three levels, but we do not know if the petroglyphs have a meaning. One can see that several figures were



Figure 1: Overview of Icalupe site.

drawn over others, which suggests that there were various stages of development.

In this article, beyond the artistic appreciation of the work, we want to set forth the hypothesis that the site may have been a resting place for traders who were traveling on one of the many pre-Columbian roads of Nicaragua that we are just coming to know.

The age of the petroglyph:

Although there have not yet been systematic excavations to afford us a better understanding of the site, the presence of

pigment in the representations allow us to associate them with the ceramics that archaeologists call Ulua Polychrome ceramic, which developed between 600 and 800 AD (Figures 2 and 3). This pottery was widely used in Ulua Valley, Lake Yojoa and Comayagua in Honduras. Some examples of this pottery have been found at several sites in Somoto and may have been made locally. The decoration of the vessels shows human profiles and heads of snakes, fake glyphs, and animals including monkeys, birds and bats. It has been suggested that some of the decorations are similar to those found on vessels from the Mayan area of Yucatan. The presence

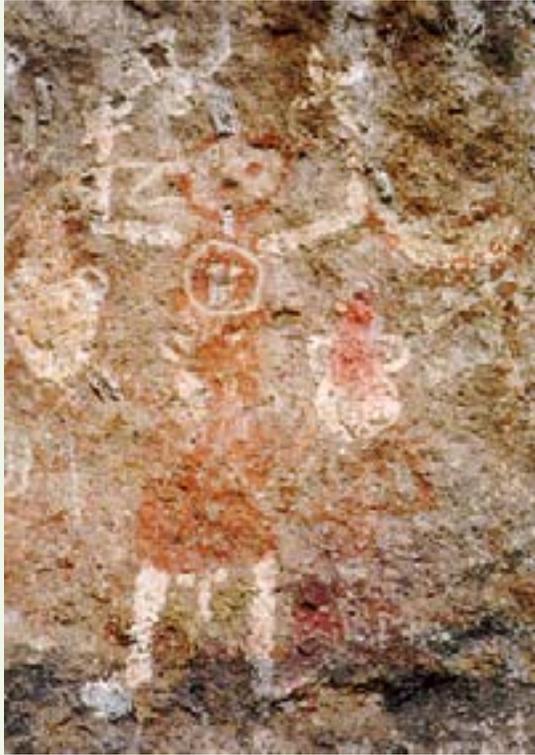


Figure 2: Male anthropomorphic figure, predominantly red and white colors.



Figure 3: Zoomorphic figure, possibly a bird with feathers of various colors.

of polychrome in the Icalupe petroglyph suggests a temporal parallelism.

The Icalupe road

Pre-Hispanic roads have been little studied by archaeologists in Nicaragua, but we know of their existence since they were used by the Spaniards in their early "excursions" into the territory, and later were used to expand the colony into northern Nicaragua and as mining roads. Later the monks used them to visit the churches and convents of Central America.

On the Pacific coast, the Nicaraos carried out certain ceremonies on the roads they used. This is suggested to us by Friar Francisco de Bobadilla's interview of a Nicarao cacique, as follows.

The friar asked him, *"Those stones that you have had placed on the roads and when you pass nearby, you place grass there, what is the reason for that?"* It's likely that the stones which the friar referred to were petroglyphs located on roads. The cacique replied: *"Because we believe that through doing this, we do not get tired or suffer from hunger, or that at least by doing so we can be less affected by weariness or hunger when travelling on the road."*

The older residents of Icalupe know this path that led to several communities to the north such as Macuelizo, and Maylote, and could easily reach Güinope in Honduras. Near this village, the native people had located a major source of obsidian, which was highly valued in pre-Columbian times for its sharpness. In the south, this old road leads to Somoto and three great archaeological sites, Las Tapias, Guiligüisca and El Fraile.

When walking down the road, we could see fragments of obsidian. In the Icalupe stone, one can see potsherds and colorings, which may have been goods exchanged with areas not yet identified. Northern Nicaragua produced a number of goods that were exchanged with peoples from the Pacific coast of Nicaragua, to cite one example: "Tile", coal dust, from pine trees, which was used to beautify the bodies of the native people. Gold from the rivers of Segovia was distributed among the elites in the northern as well as the southern part of Nicaragua.

While many precious items were certainly exchanged, ideas and people also moved along these pathways.

The study of pre-Columbian roads combining archaeological sites and the resources that can be used will allow us to develop a better understanding of the societies of Nicaraguan Segovia.

Visits of Students to Mi Museo

In early 2013, MINED-Granada and Mi Museo renewed their agreement, made so that students can become aware of the different archaeological artifacts on display in each of the rooms of the museum, appreciate the lengthy cultural heritage left by our ancestors and strengthen knowledge acquired in the classroom.

Under the agreement, the established practice is of visits by fifty students in the morning and another fifty in the afternoon. We have had good results from this, because principals, teachers and students have taken time to visit us, and we have enthusiastically welcomed them to tour the museum's facilities, showing them the displays and presenting an educational documentary in the conference room. The overall purpose is to teach students more about the importance of conserving and protecting the archaeological, cultural and historical resources of Nicaragua. Following the presentation, guests are invited to enjoy refreshments, and the children and young people are very happy with this surprise provided by the owner of Mi Museo, Mr. Peder Kolind.

In the last six months, we have had a large number of student visits, with the museum clearly playing an important educational role. It is striking how students gradually are becoming more interested in learning about our culture and traditions. For the exhibition "Indigenous Medicine" from April to June, 1056 students visited us; for the previous exhibition "The Religion of the Nicaraos" from July to September we had visits from 2,106 students from different parts of the country.

Mi Museo is pleased to continue working to strengthening our historical roots and cultural identity, both local and regional.



Students from Carlos A. Bravo School during their visit to Mi Museo.

Visits to Mi Museo

In this quarter from June 30 to September 30, 2013, Mi Museo received visits from 1328 foreigners, 610 nationals and 2106 students, for a total of 4044 visits. We are happy to welcome visitors from different countries and provide a tour of the museum's facilities without cost to them.

The following is detailed information about the countries whose citizens visited Mi Museo:

Nicaragua 610
E.E.U.U. 480
Costa Rica 132
Germany 78
Holland 76
United King 75
France 67
Canada 60
Spain 60
Italy 38
Belgium 34
Argentina 21
Mexico 21
Australia 21
Denmark 15
Guatemala 12
Switzerland 12
Honduras 12
Sweden 11
Venezuela 10
Chile 10

Uruguay 9
El Salvador 8
Portugal 8
New Zealand 8
Luxembourg 6
Israel 5
Ecuador 5
Colombia 5
Bolivia 4
Russia 4
Korea 4
Austria 4
Norway 3
Brazil 3
Ukraine 2
Panama 2
Japan 2
Belize 2
Slovakia 2

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