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Musical Instruments of the Classic Maya and Teotihuacan



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**Project Proposal to document Maya Musical Instruments
and Lecture Abstract for PowerPoint Presentation,
in-person, or via ZOOM**

Project Proposal to Build (recreate) all ancient Maya musical instruments to form a complete “Classic Maya Orchestra” to play each traditional Classic Maya musical instrument today

Wind Instruments and Percussion Instruments, 4th-9th centuries, Early Classic and Late Classic were a major aspect of Classic Maya culture. Trumpets were featured in warfare and for the deer hunting and for ballgames (some regional ballgames were re-enactments of deer hunts, with each team “hunting” the other (Hellmuth has researched and written over 2,000 pages of books on deer hunting and the ballgames of the Maya, Teotihuacan, Mixtec and Aztec)).

There are also lots of musical instruments shown being played in the Post Classic Maya Codices (Codex Dresden, Codex Madrid and Codex Paris). Since Teotihuacan imperial influence was felt throughout the Early Classic Maya, it also helps to look at the 4th-6th century murals and cylindrical tripods of the imperial capital and musical presentations of trade route areas of Guatemala (Teotihuacan had trade routes through Oaxaca down coastal Soconusco Chiapas cacao area through Guatemala’s Costa Sur to northwestern Costa Rica). In earlier millennia this was the Olmec trade route to get the “blue jade” of Costa Rica. The other Teotihuacan trade route was via Veracruz then Tabasco to Peten (I estimate that Tikal, Uaxactun and Yaxha had the Teotihuacan-inspired military “entrada” via that Tabasco route).

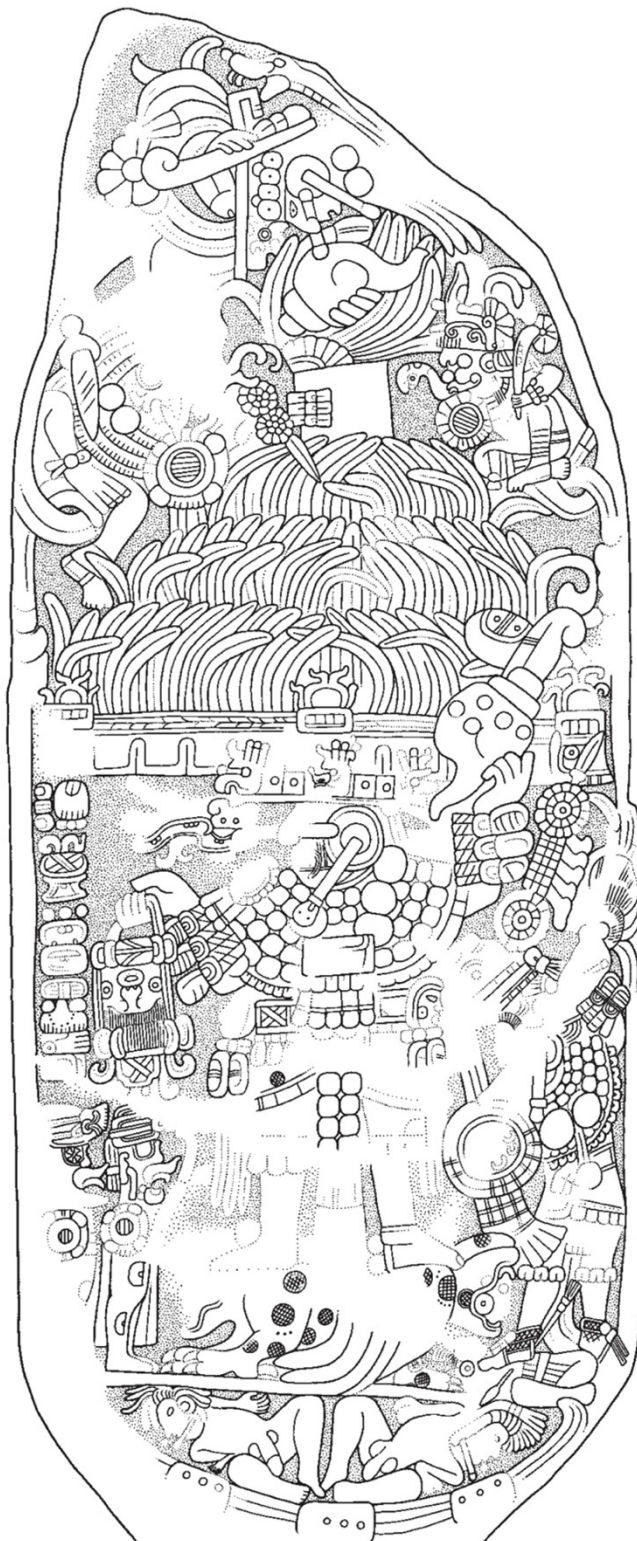


Giant conch shells were popular at Teotihuacan (Central Mexico) and in Peten and adjacent Maya Lowlands (Copan, etc.). This is also the easiest instrument to make (with permit). You cannot use the shells that they sell in Livingston or other coastal areas for a musical instrument since they have machete holes from killing the shellfish inside. The shell must have no broken areas, and only have the musician drill the appropriate holes to facilitate playing the conch. The sound can be a blast, or it can be more musical but most conch shells are for blasting your presence that you and your military power are coming.

TWO giant conch shells; one held raised up by the king; the other held above up in the sky. The king himself did not need to blow the conch trumpet; merely flashing one this size sent the message.

The largest sculptures of conch shell musical instruments are a set of three in a row on the Reviewing Stand of Copan, Honduras. We show these in our bibliography of Maya musical instruments.

Uxmal Stela 14, PMAE, CMHI Volume 4, Part 2, page 108, frequently published elsewhere such as by Looper 2009: page 164, Figure 5,18.



References to start your research on Maya music

Very nice exhibit, SONIDOS ANCESTRALES, March 15, 2023, Fundacion La Ruta Maya with outstanding video with Erik Bladimir Vásquez (Director del Museo K'inich) and voice over by Sofía Paredes Maury (Fundación La Ruta Maya); www.larutamaya.com.gt.

There are many excellent scholarly discussions of Maya music; the musicians of the murals of Bonampak are the most common source of inspiration:

- Mary Miller
1988, The Boys in The Bonampak Band, pages 318-330 in Maya Iconography (Editors. Elizabeth P. Benson and Gillett G. Griffin), Princeton University Press.
- Norman Hammond
1972a Classic Maya Music: Part 1, Maya Drums. In *Archaeology* 25/1, 125-131.

1972b Classic Maya Music: Part 2, Rattles, Shakers, Wind and String Instruments. In *Archaeology* 25/2, 222-228.

Although Bonampak's murals fuel most general discussion of music in the Maya world, there are lots of procession scenes (often of Wayob, animal spirit companions) that show 6th-9th century musicians with traditional Late Classic instruments:

- Processions on Chama style vases; often deer hunters
- Processions with Chama related style vases; ruler carried in palanquin (a litter for one person) by porters with musicians front and back
- Dance after Decapitation Death, often on Red Background Tepeu 1 vases (Wayob processions).
- Hunting scenes, especially deer hunting (conch shell and often longer wooden trumpets)

Hellmuth has written several books on deer hunting that show vases, bowls, and plates with deer, peccary, hunting dogs and the musical instruments that were often played. Plus the same deer hunting headdresses and outfits were worn in some ballgame ceremonies. Much of the ballgame was theatrical, more a theater than athletics (but obviously the ballgame is also athletic when not a hunting re-enactment). These Hellmuth publications are listed in the bibliography on Maya music which is an upcoming January/February 2024 FLAAR Reports.

In addition to doing reading on Maya Music, visit Casa K'ojom Musica Maya

Even though I was a student intern with the INAH archaeological team at Bonampak, Chiapas, Mexico, already in 1962 (a while ago), and even though I have been at Bonampak many times since then, it still helps to visit a museum with the actual Maya musical instruments.

We at FLAAR recommend you visit Casa K'OJOM, a museum of Maya music a few minutes outside Antigua. I have been there twice and we appreciate the hospitality of the manager and staff there. www.Kojom.org is their web site.

You can also see ceramic musical instruments at the National Museum of Archaeology and Ethnology (MUNAE), near the Guatemala City airport. And you can see other ceramic musical instruments such as ocarinas, and flutes at the Museo Popol Vuh, Universidad Francisco Marroquin and at the Fundacion La Ruta Maya (see their video that we mentioned earlier in the present lecture abstract).

Annotated Bibliography of Prehispanic Mesoamerican Music Especially Musical Instruments of the Classic Maya

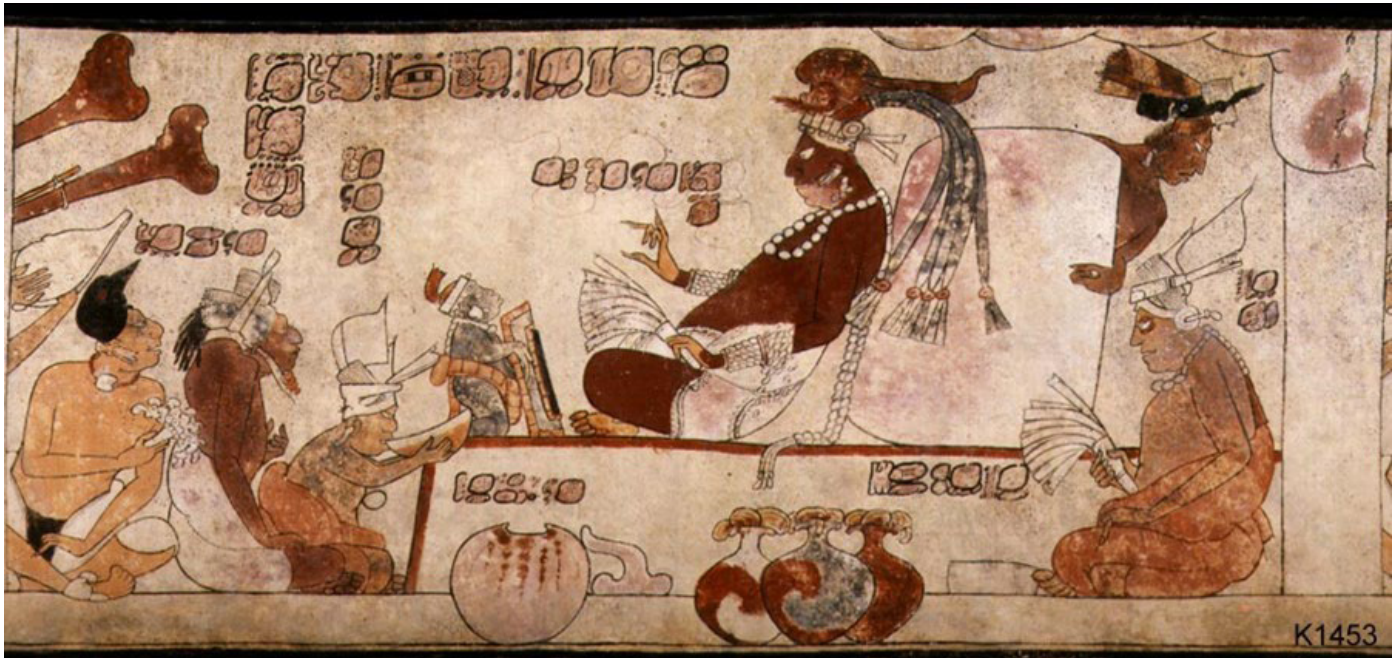
"Precolumbian music" would include the musical instruments of the Aztecs, Zapotecs, Mixtecs, Teotihuacanos, etc. That would be a separate bibliography for prehispanic music in general. The list of books, articles, theses, and dissertations in the FLAAR bibliography is primarily on music of the Mayan people, especially the Classic period. Music played today is usually with different instruments (guitar, marimba, etc.) but when conch shells, trumpets, and traditional drums are included, the musical documentation of today can still help understand aspects of the past.

Since the present FLAAR Reports is an abstract for lecture on Maya music, we feature the several most recommended suggested reading (Mary Miller, Norman Hammond, and recent video by Fundacion la Ruta Maya). In the actual PowerPoint presentation we will provide an extensive bibliography and references cited on Maya music and musical instruments that is longer than most other bibliographies. This is the focus of FLAAR Reports: to assist readers to have all the necessary material to get deeper into the subject of interest.

Introductory Glossary of Anthropological Academic Jargon

It is essential to list and describe and picture each individual instrument. So we are making an illustrated glossary of anthropological archaeo-music academic jargon. The one I single out for the present proposal is WIND INSTRUMENTS: Long Trumpets. Most discussions of Maya music picture the ceramic figurines that are ocarinas and flutes so let's jump to the unexpected diversity of

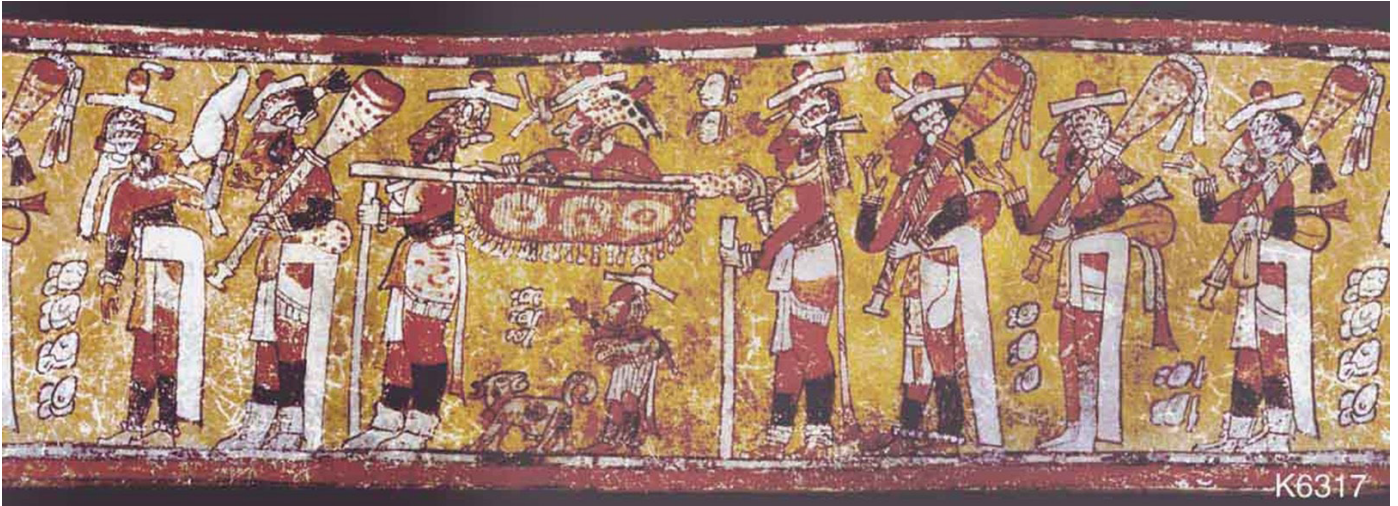
size and shape (especially of the far end) of the long trumpets that are making music (or noise!) in palace ceremonies across the Maya cities (so at home in addition to being used in war as shown in the Bonampak murals).



Conch shell trumpets and long trumpets from hollow plants are the two most “noisy” wind instruments. The long trumpets come in many sizes and shapes (very wide at one end; or same width entire length). Kerr rollout K1453. The complete trumpet is shown much better in the rollout below (K5937).



Here the complete trumpet is pictured (in a ballgame scene). Conch trumpets are the most common in ballgame scenes. Kerr rollout, K5937. It would help if the degree of repainting was honestly admitted by the photographer; and if no repainting that also should be stated. As typical of ballgame scenes, the ballcourt steps (NOT the playing alley) are featured behind the players and musicians (since the ritual performance and theatre was in front of the steps, as you can see in the recent FLAAR Reports presentation of the Copan ballcourt: *Copan Maya Ballcourt Architecture & Scarlet Macaw Logo Goalstones, Stepped Areas were as important as Playing Field down the Center. Parque Arqueológico Copán, Honduras.*



One large conch shell then four trumpets that are half the giant size but larger than the narrow ones in the scene below. All these palanquin parade scenes are from Chama area of Highland Guatemala (even without the typical Chama row of chevrons across top and bottom). Kerr rollout, K6317, old FAMSI database.



One very wide trumpet; one giant conch shell, then three long but narrow trumpets.

My dream, a long-range dream project, would be to make every single size and shape of Maya trumpets so that an entire Classic Maya Orchestra could be created (with musical historian Igor Sarmientos as conductor and lots of skilled musicians who already have experience with thousand-year old Maya instruments (such as you see with Erik Bladimir Vásquez in the Fundacion La Ruta Maya video). Conductor and musical ethnohistorian Igor Sarmientos visited the FLAAR office to see the authentic 4th century turtle shell marimba that I constructed based on the remains of this marimba

found in Tikal Burial 10 (yes, a complete Maya marimba existed over a thousand years before the African marimba arrived after the Spanish conquest). We have this 4th century marimba in our home-office if you wish to see it and learn to play it. In Tikal Burial 10 all the wood was still preserved so it was easy for me to find comparable wood and align turtle shells (which are sold in Livingston, in El Golfete and in Sayaxche; but best obtain a permit or permission).

Conch shells are also readily available but these need a permit to harvest because if you kill the conch with a machete then the shell has a hole that makes it impossible to use as a musical instrument.

Building the drums is the easiest since many Maya drums are still made today for parades in the Maya Highlands.

The trumpets are the challenge since the agave plants that produce them are primarily in Mexico and very rarely in Guatemala. But with funding we could recreate every size trumpet: the giant thick ones; the thin ones with the natural plant base at their end, and every other size and shape. Imagine having this orchestra in the presidential palace of each country where the Maya had their musicians over a thousand years ago. Igor Sarmientos knows every instrument and as a composer and conductor around the world would be perfect, plus there are other knowledgeable musical historians in Guatemala and surrounding countries; Erik Bladimir Vásquez is the one who is obviously capable which is why we mention him. What is needed is realistic significant funding plus a staff, a team to carry this through to its conclusion (having all the instruments constructed). Keep in mind that each Maya musical team had many trumpets so to make the total orchestra it's more than just one-of-each-instrument.

This would be a great project of a museum or university music project, or a foundation in USA or EU or Latin America to coordinate and cooperate with FLAAR to accomplish this project during 2024.

1st step: tabulated listing of every musical instrument, and whether made of clay (orarinas, some whistles); which musical instruments are from calabash from *Crescentia cujete* or *Crescentia alata* calabash gourd trees (both tree are very common and we know the Achi Mayan-speaking families who raise these trees around their homes and make the rattles that are very common.

Drums are still made in many areas, both the Maya Highlands and the Garifuna area of Livingston. Drums come in many sizes and shapes but should be relatively easy to make. Some are ceramic (as exhibited at MUNAE and shown in the Fundation La Ruta Maya video). Both wooden and ceramic drums obviously use deer hide. These are the identical white-tailed "Virginia deer" of the USA that also are native to the rain forests and grassland savannas of Peten, Guatemala.

All the ceramic instruments (of over a hundred sizes and shapes) are often mold-made and the molds still exist plus any ceramicist today can recreate each and every size and shape of ocarina, flute, whistle. Reeds are often used and these grow wild in marshes of Izabal, Peten, Monterrico wetlands area, etc



1.3MB if you download from top available option; but same rollout can be downloaded at 6.6MB if you have a 32" monitor to enlarge the image from option OPEN IMAGE IN NEW TAB. Kerr rollout K5233 from temporary Dumbarton Oaks improved file size (better than the obsolete FAMSI database of the previous century). But when D.O. has the original 70mm, 120 or 220 medium format rollout film scanned, then the quality should be (could be) a hundred times better, so hopefully later in 2024 we can see these musical instruments in better detail. In the meantime, here is the only view of a Classic Maya "stringed instrument". To have both these bizarre musical instruments in the hands of Mayan-speaking musicians in an orchestra would break viewing records for Classic Maya music. Videos would be viewed MILLIONS of times, not just thousands, and would introduce Mayan cultural heritage to the entire world.

Only one stringed instrument is known from Late Classic vase paintings of musical scenes; has various names such as slit drum, friction drum. So that would not be difficult to reproduce. The main challenge and cost will be to tabulate each and every different long trumpet and find the maguey, agave or other plant segment that has this shape (plus obviously additional aspects were added to each end; for resonance and for your lips/mouth to blow on the narrow end). What is important is that we already have a good portfolio of scenes: dozens from the Kerr rollout archive of the previous two

decades and now several previously unpublished digital rollouts by Nicholas Hellmuth from 1998-2005 plus new scenes that we can find once this project has realistic funding up-front.



Two long narrow trumpets but with very wide ends (held by two standing musicians to left of scene). Digital rollout by Nicholas Hellmuth with computerized Dicomed / Better Light digital rollout system.

All the rollout cameras of the 1990's-2005 are so old that their cables and software can't connect to hardware and firmware of computers today (yes, obviously we have worked to rebuild an old system but it is more realistic to design a rollout based on today's cable types and today's OS systems for Mac and PC). Several prototypes are available and if you could donate so we would re-establish our digital rollout capability for year 2004 onwards that would be a great help. If your donation covers the entire

digital camera rollout camera system cost we would name the camera after you or whatever name you wish to assign it. So your camera's results should be heralding your selected name for decades (we used our Dicomed / Better Light for about two decades until the owner of the company passed away and no updates were available).



Helps to have your own digital rollout camera so you can document scenes such as here, with two trumpets that are the narrow maguey stem from the bottom but then have the thicker end for creating additional sound. Also need to check the "trumpet tree".

Guaromo trees are called trumpet tree in Belize. The designation trumpet tree is used for species of the genus *Cecropia* and also for the significantly larger but poorly documented guarumo de montaña. Guarumo de montaña is a species of the genus *Pourouma* of the family Urticaceae (Magnoliophyta). Older botanists call it *Pourouma bicolor*.

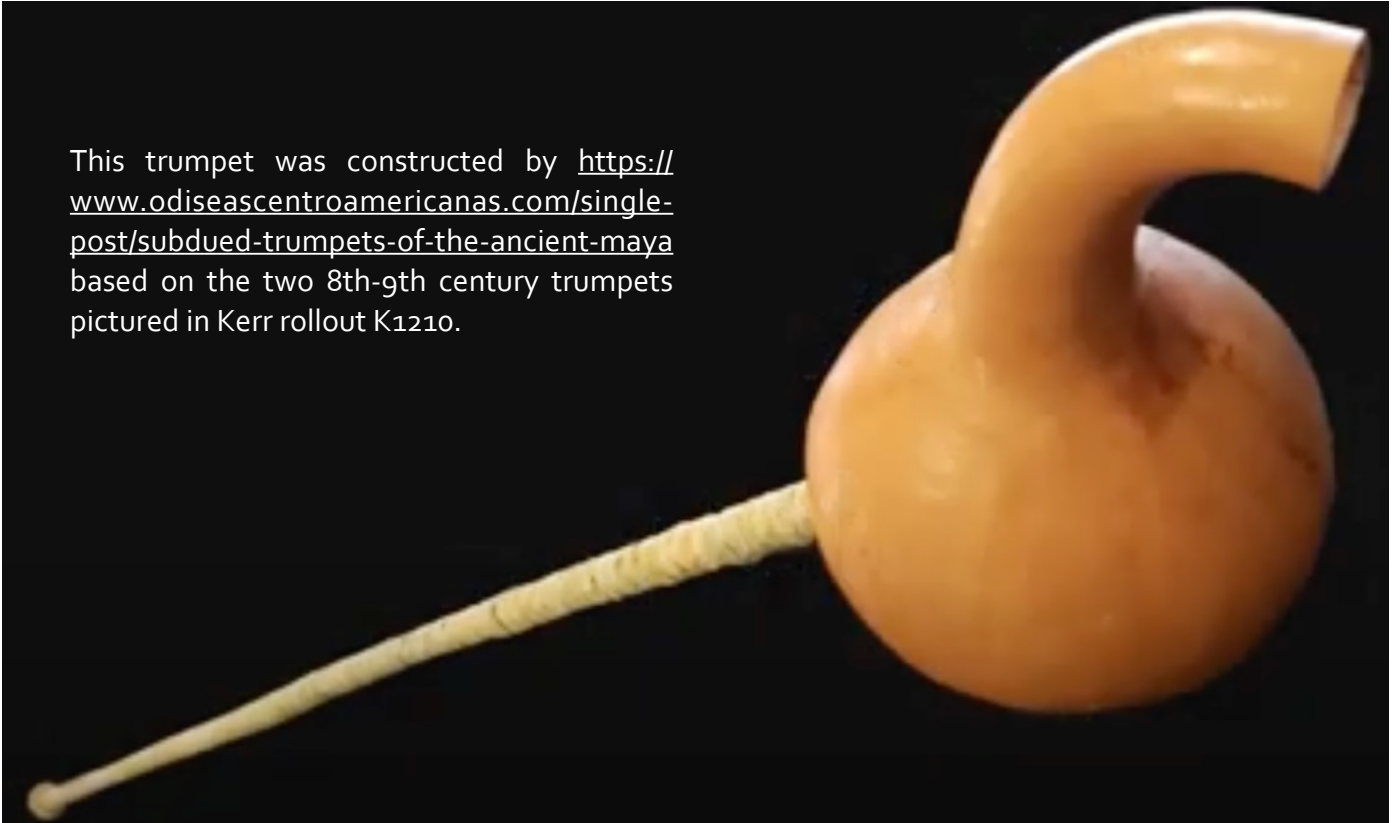
The NYBG calls it *Pourouma bicolor* subsp. *scobina* (Benoist) C.C.Berg & Heusden. This tree occurs in Belize and adjacent Izabal and Alta Verapaz.

Since we are doing field work in Izabal, we look forward to being the first archaeologist to find *Pourouma bicolor* and the first ethnobotanist in half a century to "rescue" this tree from oblivion. So a lot to come on "how to make Maya musical instruments" from biodegradable and renewable resources.

Agave is the other option for a Classic Maya Hom Tah trumpet; many species of agave are common in Mexico; present in Guatemala but rare but with funding we can find them.

<https://www.youtube.com/watch?v=w1tAfKYJ52E>

This trumpet was constructed by <https://www.odiseascentroamericanas.com/single-post/subdued-trumpets-of-the-ancient-maya> based on the two 8th-9th century trumpets pictured in Kerr rollout K1210.



Flowers are associated with music of Maya music, as you can see at the end of these trumpets. Just realize that this is one size-and-shape of many. Our goal is to reconstruct every single size-and-shape, including this, but also the ones with really wide broom-shaped end (featured in the two digital rollouts by Nicholas Hellmuth, FLAAR Photo Archive). Kerr rollout photo, K1210 from D.O. database.

1st; initial funding, realistic serious amount, tax deductible, donated up front

2nd; FLAAR will solicit permit for harvesting each plant used for making trumpets, drums, rattles.

3rd; get permit for conch shells since these are the most common and most popular Maya musical instruments for thousands of years and still today.

4th; get permit for deer hide (essential for each drum top) and deer antlers (for rasping the turtle instruments); we do not wish to use jaguar hide unless hides are already available from past decades; we can repaint other hides or materials to "show" a jaguar hide for jaguar drums.

5th; get permit so one set of the musical instruments can be sent to museum or university or foundation or family in USA who provides the funding. Our goal is to have one orchestra at FLAAR in Guatemala City; one for the funding source (USA, EU, etc.); one for the cultural institute of Guatemala.

Collaborate with musical historians and musicians who already play these traditional instruments since we need partner to make the new orchestra and capable musicians to play the band for a great cultural event in Guatemala City. This orchestra could then go on tour to the capital of each departamento of Guatemala (and make musical history).

Update and expand our bibliography to create THE most complete list of suggested reading; with different segments for each individual musical instrument:

- flutes (many sizes, many chambers, produce varied sound depending on size, shape, etc.),
- whistles
- ocarinas
- trumpets

- turtle shell marimba (Early Classic Maya, not from Africa)
- turtle carapace to be rasped
- rasps other than turtles
- rattles,
- bells, tinklers
- drums (ceramic hand-held and larger wooden drums; drums come in many sizes, shapes, materials, and resulting different sounds).
- stringed instrument is pictured only once, a musical bow. Would be awesome to reconstruct this.

Your tax-deductible donation and that of your friends can make all this happen. FLAAR-Mesoamerica symbol FLAAR.org will provide access (put the actual symbol and close the space). Then Dr Nicholas Hellmuth and his team can provide phone contact, WhatsApp, Skype or your other preferred method of communication.

Donations can be sent by wire transfer, by check, or you can transfer stock (you get higher tax deduction if you donate the stock rather than you selling it). We can provide you the stock broker exchange info (FLAAR will then sell the stock to cover the costs of the Maya music project and provide you with tax deductible receipt).

Wire transfer to savings account in Guatemala
Account name: Asociación FLAAR Mesoamérica
Banco Industrial - 0649966

Wire transfer to FLAAR Account in Missouri, USA
Account name: Foundation for Latin American Anthropological Research, FLAAR or F.L.A.A.R.
Commerce Bank - 316913240

You can also transfer via PayPal to FLAAR <https://flaar-mesoamerica.org/campaigns/> We will send tax deduction receipt for your donation.



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2

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Persis Clarkson

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FIG. 19

Armadillo actor in the middle plays a wooden drum. Animal actor in front shakes common rattles. These rattles come in many different sizes and shapes. The rabbit actor at the right is rasping with a deer antler on large turtle shell. These turtle shells are readily available but we prefer to have a permit; the drums are easy to construct (if funding is available). Mayan-speaking people still make the rattles: so a lot is available once a project is formalized with funding.

Drawing by Persis Clarkson, FLAAR Photo Archive, published in Hellmuth 1976: Figure 19.