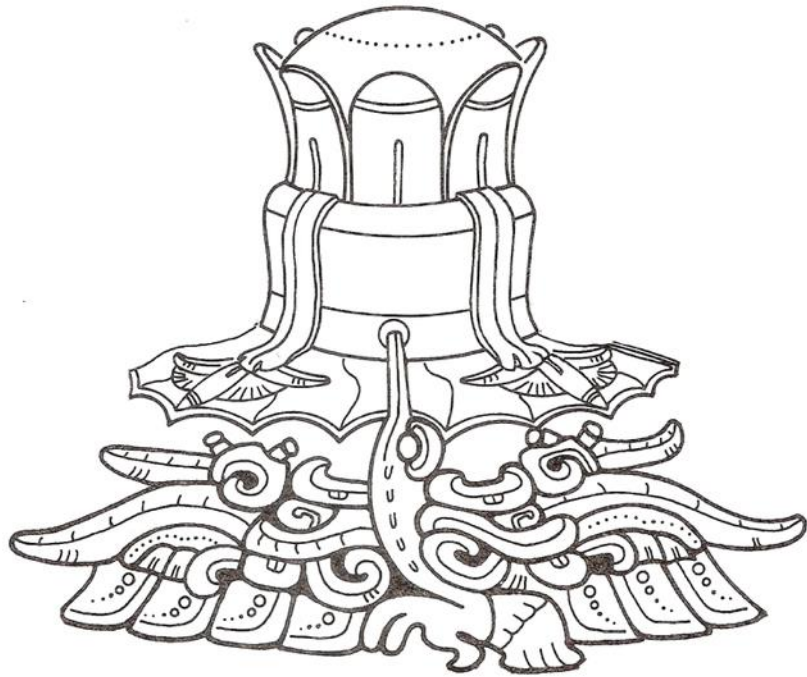


*After many weeks of around the clock research, we found so many Maya scenes of hummingbirds
(and “Hummingbirds” as MONSTERS), that the new title is now:*

Hummingbirds as Friendly Pollinators—in Classic Maya Art & Cosmology
and Composite Hummingbird-Insects as Blood-Sucking Monsters
and, why are the Monsters sticking their sharp beak into the throat of Armadillos?

Dr. Nicholas Hellmuth



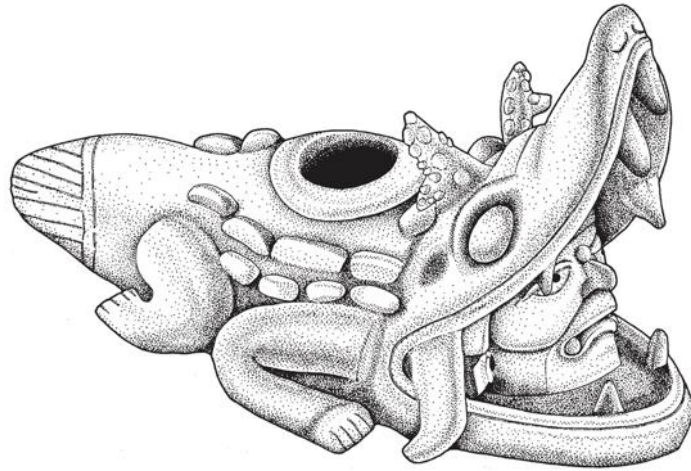
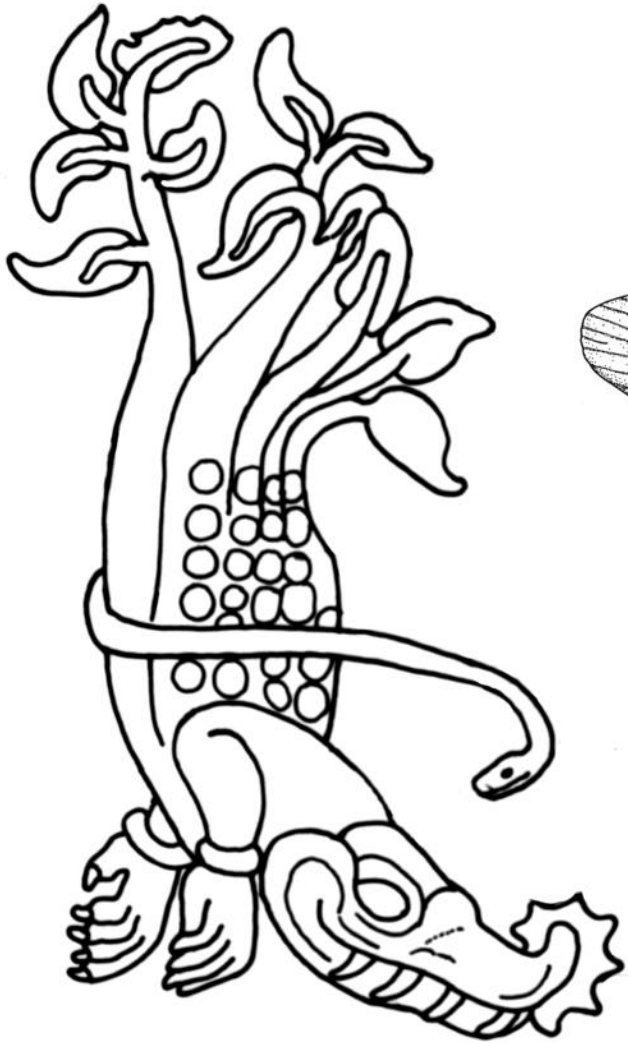
La Ruta Maya Fundación, 6 de Agosto de 2026, 18:00 horas

Segundo Círculo Literario, FAUNA SAGRADA:
Aves, Serpientes y otros Animales en el Art Maya

Introducción Arqueológica y Moderación, Lic. Jorge Mario Rodríguez Barrios, *La fauna en el registro arqueológico maya*

Crocodiles as Bicephalic Cosmic Monster and **Hummingbirds** as Friendly Pollinators—in Classic Maya Art & Cosmology

Dr. Nicholas Hellmuth



La Ruta Maya Fundación

6 de Agosto de 2026, 18:00 horas

Segundo Círculo Literario, FAUNA SAGRADA:
Aves, Serpientes y otros Animales en el Art Maya

Introducción Arqueológica y Moderación, Lic. Jorge Mario Rodríguez Barrios, *La fauna en el registro arqueológico maya*

Hummingbirds as Friendly Pollinators

and Composite Hummingbird-Insects as Blood-Sucking Monsters



Introduction to Fauna in Classic Maya Art

Chapter 1 **My First Experience with a Hummingbird in Maya Art**

Chapter 2
Stylized but not exaggerated Maya Portraits of Hummingbirds

Chapter 3
It helps if you study actual Hummingbirds up-close in-person

Chapter 4
Hummingbirds in Maya art already known and published

Chapter 5
Many Maya Hummingbirds have Snake-Face Wings

Chapter 6
Small Nectar-Sucking Birds are common in Classic Maya art

Chapter 7
Hummingbirds and Composite Hummingbird-Insect-Sucking-Monsters that suck on Breasts of Females or Mouths of Men

Chapter 8
4-Legged “Insect Monsters” with “Hummingbird Beak” that suck from Armadillos

Chapter 9
Miscellaneous examples of Hummingbirds and Composite

Chapter 10
Skeletal-Headed “Pseudo-Hummingbird/Insect Composites associated with Maya Enema Rituals

Chapter 11
Skeletal-Headed “Pseudo-Hummingbird/Insect Composites associated with Maya Enema Rituals

Chapter 11
Nectar loving birds with VERY long tail features

Chapter 12
Hummingbirds as Full Figure, Personified Hieroglyphs in Maya Inscriptions

Chapter 13
Hummingbirds in the Maya Codices

Chapter 14
More Examples of Men or Supernaturals or Composites with giant Hummingbird Beak sticking out from their face

Chapter 15
More Hummingbirds in Maya Art not previously available for study

Chapter 16
Not all long-beaked birds are Hummingbirds

Chapter 17
More Research Topics to focus on in future thesis or PhD dissertation

Chapter
Moving from the Mythical Hummingbirds in Maya Beliefs to the Giant Crocodiles, especially the Bicephalic Cosmic Monster

Summary and Conclusions on Hummingbirds in Maya Art

Appendix A **Altun Ha Style Vase with Lots of Stylized Maya Bird and Bird-Insects**

References Cited and additional Suggested Reading

Introduction to Fauna in Classic Maya Art

The animals most frequently pictured in Classic Maya art are:

Deer, spider monkeys, snakes, crocodiles, waterbirds, fish, toads, jaguars, and snake-eating hawk (Principal Bird Deity).

Other animals depicted in Classic Maya art include:

Armadillos, foxes, rabbits, bats, peccary, hummingbirds, macaws, parrots, vultures, quetzals, turkeys, sharks, turtles, conch shells, insects, scorpions, centipedes and more.

Lots more fauna are depicted in Classic Maya art but are rare:

Crabs, pumas, ocelots, squirrels, boat-billed heron, toucans, iguanas, tapir, hairless dogs, and other mammals.

On jaguars alone we (Hellmuth) already have over 3-hours of lectures. Deer and monkeys would take almost two hours. Waterbirds and fish are so common they would take 2-hours.

So with one hour available on the evening of 6th of August, 2026, at the Museo Fundacion La Ruta Maya, I decided to focus on hummingbirds (because in 1965 I discovered a vase with two hummingbirds in the Tomb of the Jade Jaguar) on crocodiles (because I have been researching the iconography and zoology of all three species of crocodilians for years).

But if you attend the event in-person or via Zoom, I will be glad to answer questions about other animals.

I also study all the flowers, fruits, leaves, trees that are featured in Maya art—and the Crocodile Tree is one that is in the August presentation in Guatemala City.



This hummingbird vase was broken by stones and rubble falling from the wall of the tomb chamber over a thousand years ago.

I was able to rescue every fragment of every vase, plate and bowl and take them to the Proyecto Tikal facility to be restored. Photo by Nicholas Hellmuth in the previous century.

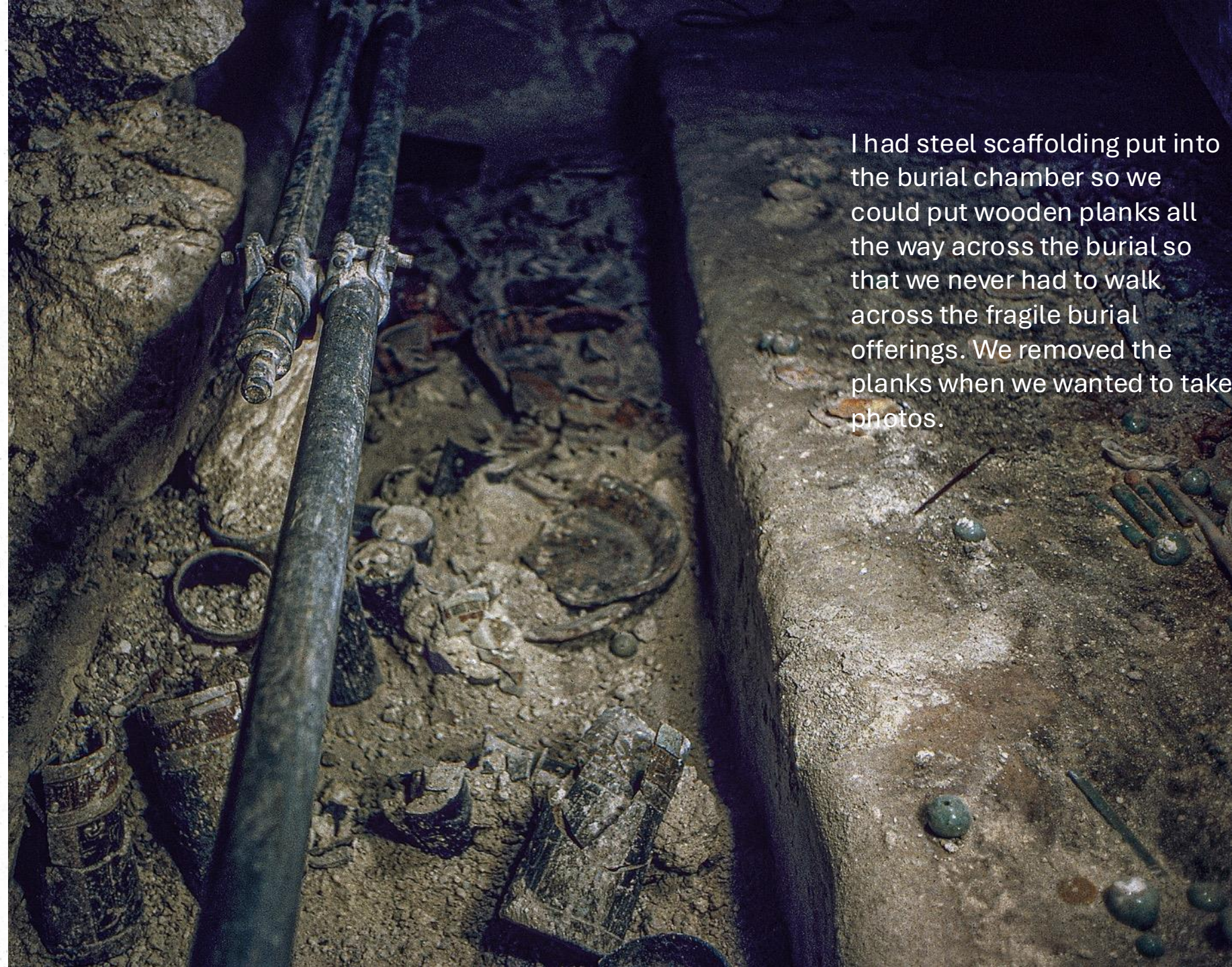
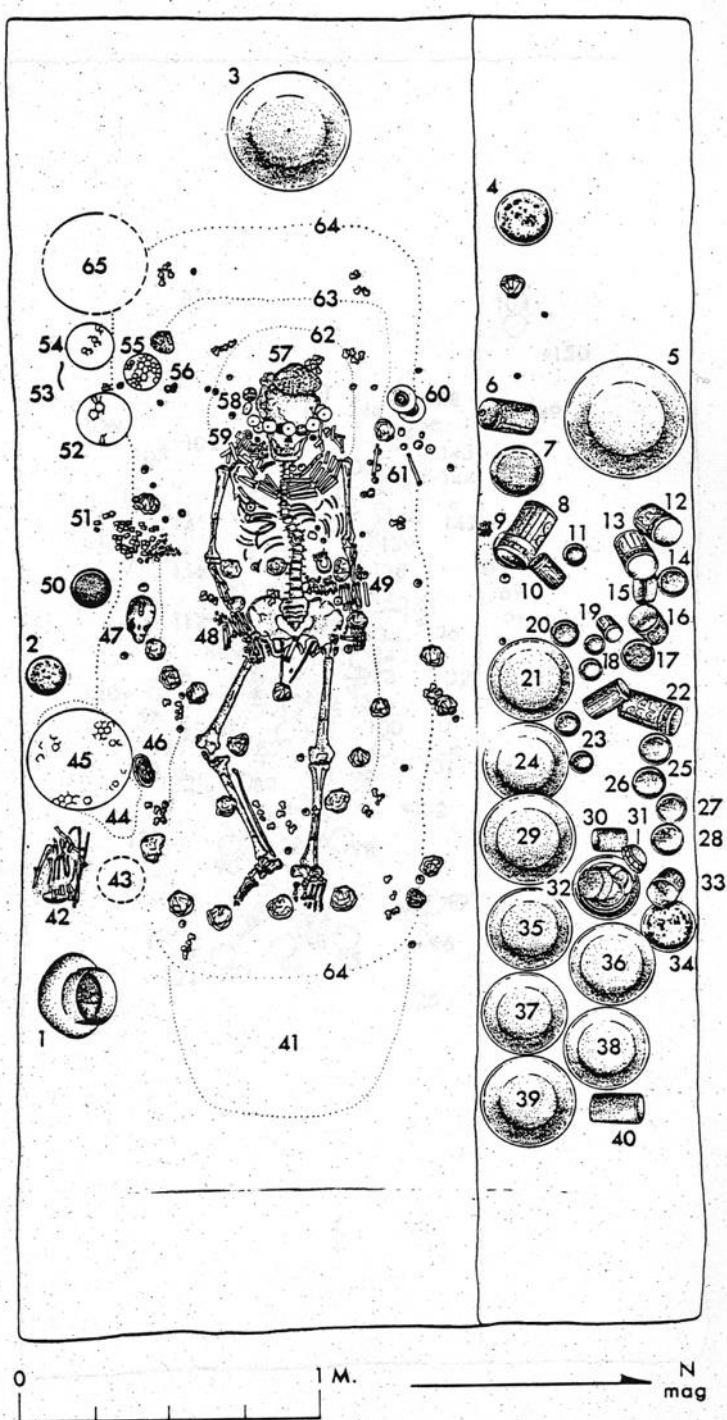


I excavated” the contents of the tomb with this brush, literally, brushing dust into a spoon.

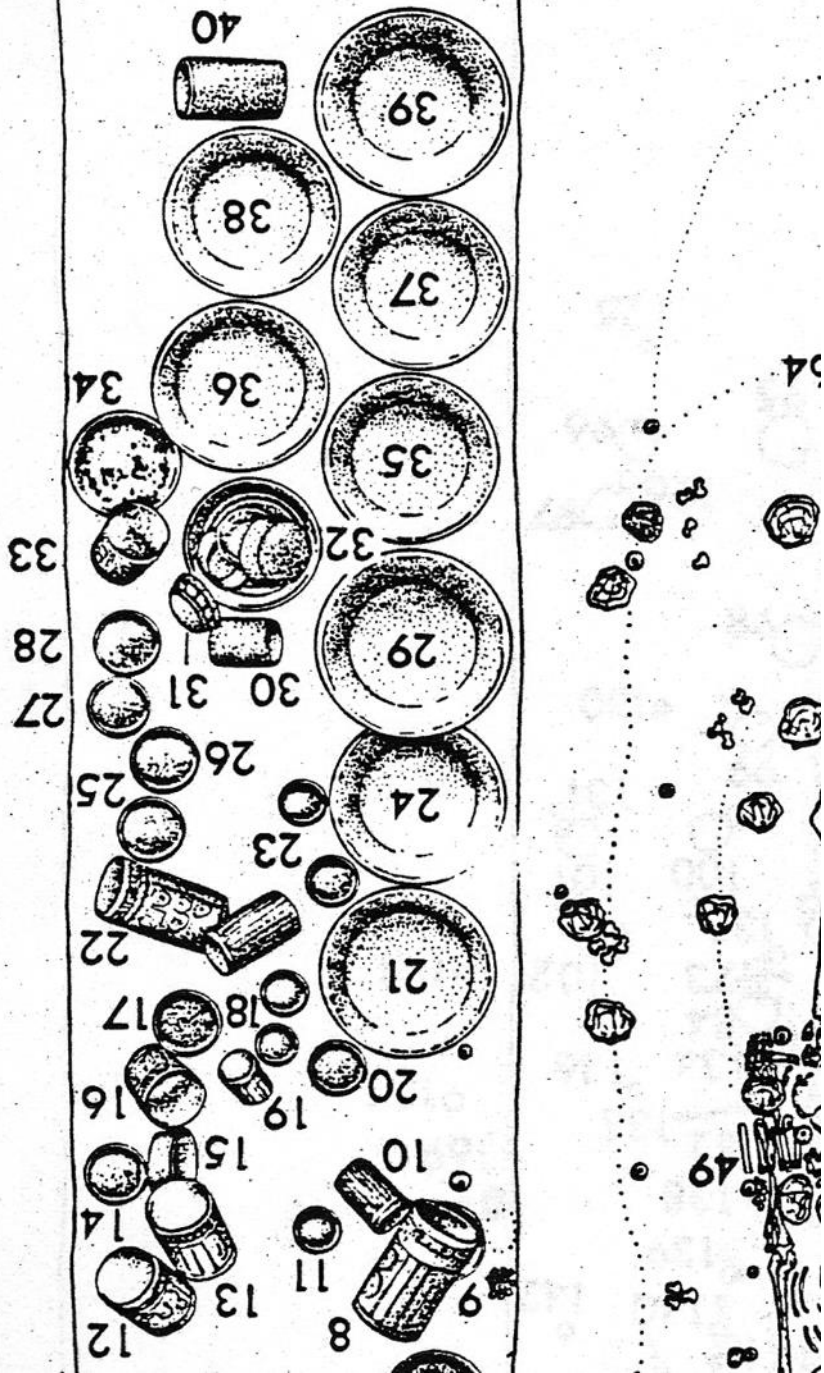
It took many weeks to remove the tons of stone, construction fill, and plaster that fell onto the tomb chamber—pushed down by the weight of the pyramid built above the tomb chamber.

After weeks of removing the fallen stone and fill material of the pyramid, this is what the royal burial looked like before we removed everything to the laboratory for further study by specialists. All the documentation on how the tomb chamber and pyramid were constructed is in Hellmuth's 1967 Harvard honor's thesis.





I had steel scaffolding put into the burial chamber so we could put wooden planks all the way across the burial so that we never had to walk across the fragile burial offerings. We removed the planks when we wanted to take photos.



#20 is the hummingbird vase

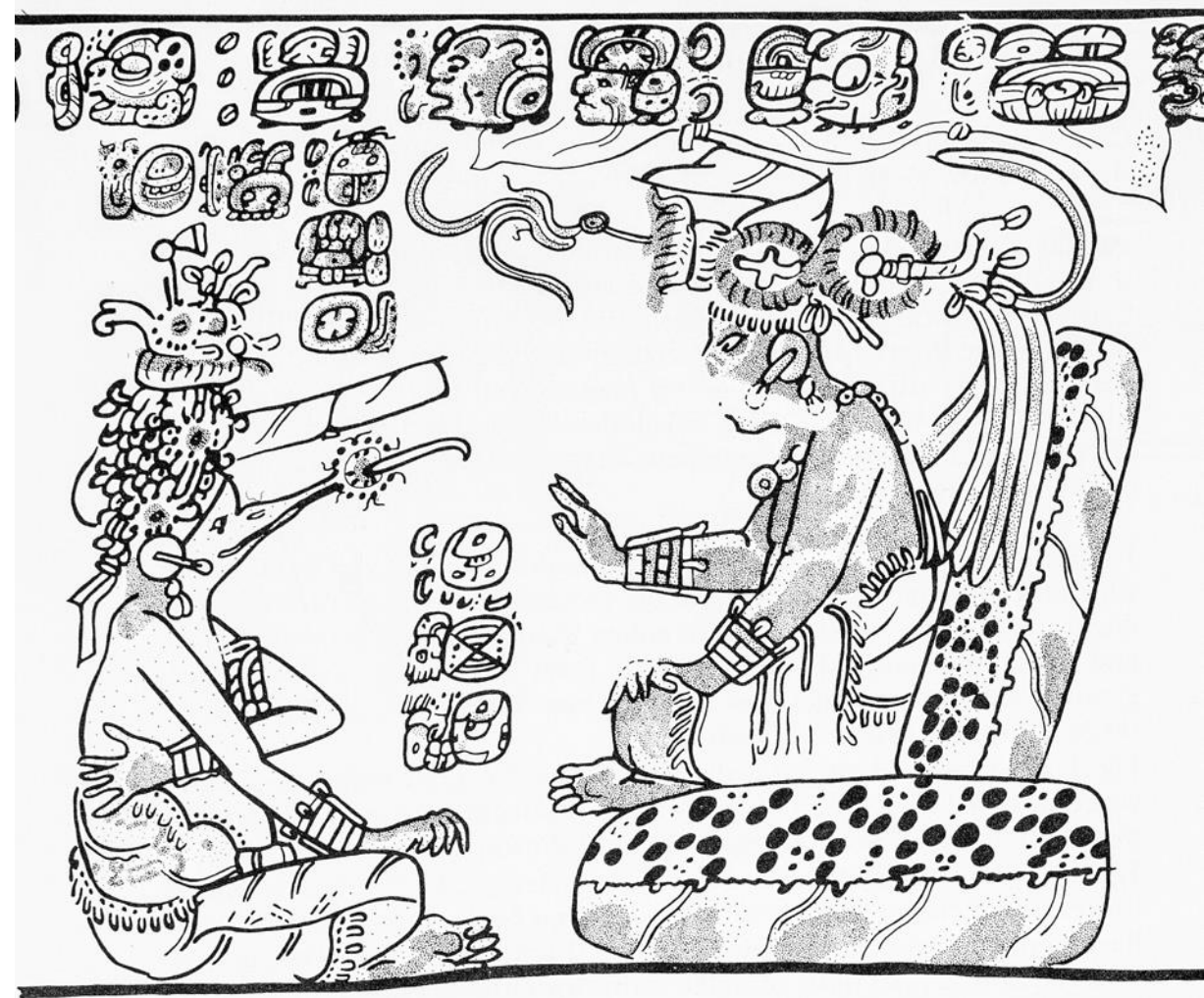


Stylized humming bird



Anthropomorphic hummingbird.

The Maya symbol of a hummingbird was the beak piercing a stylized “glyph-like” motif for a flower.





Same hieroglyphic text as in front of the other hummingbird.

But...this hummingbird has the profile snake head wings—the other hummingbird has no wings.

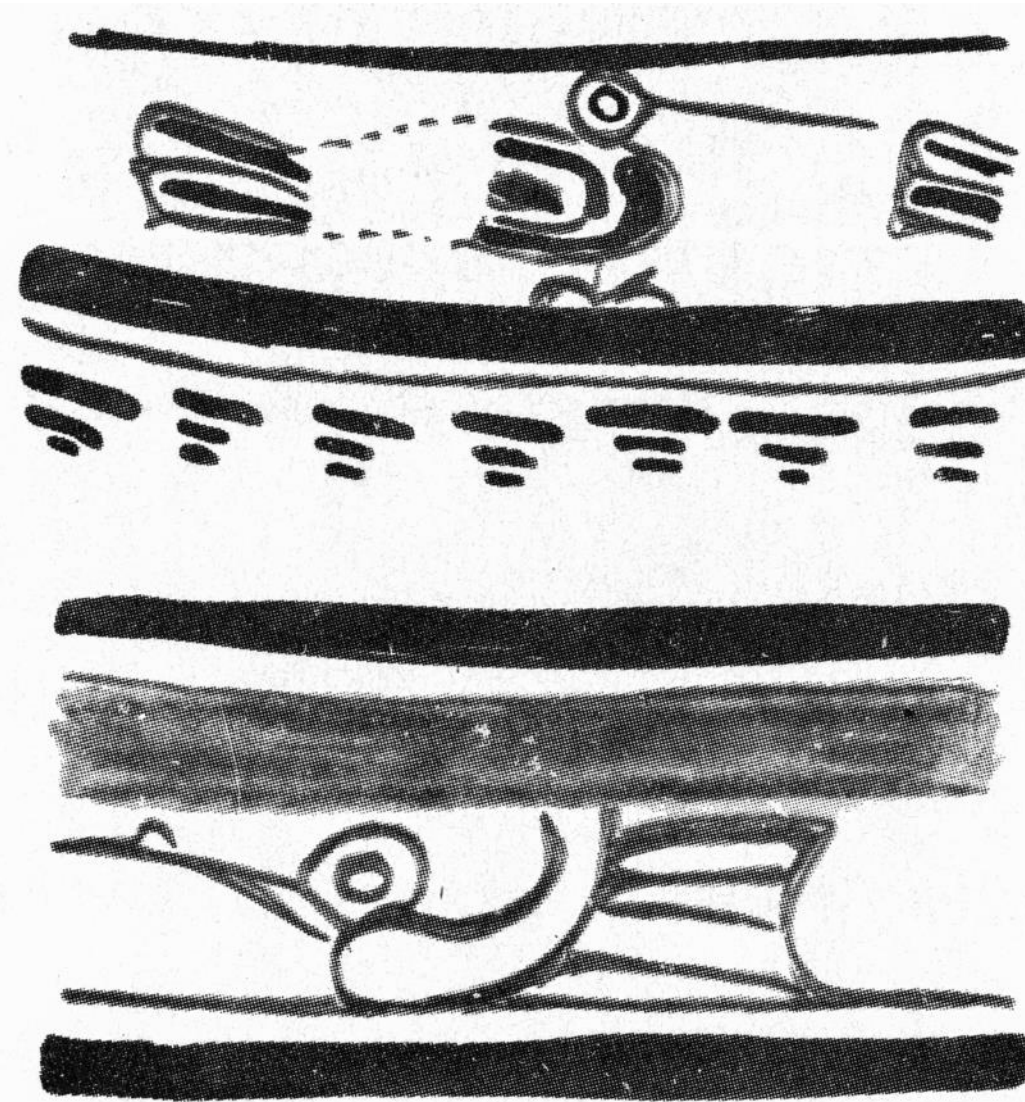
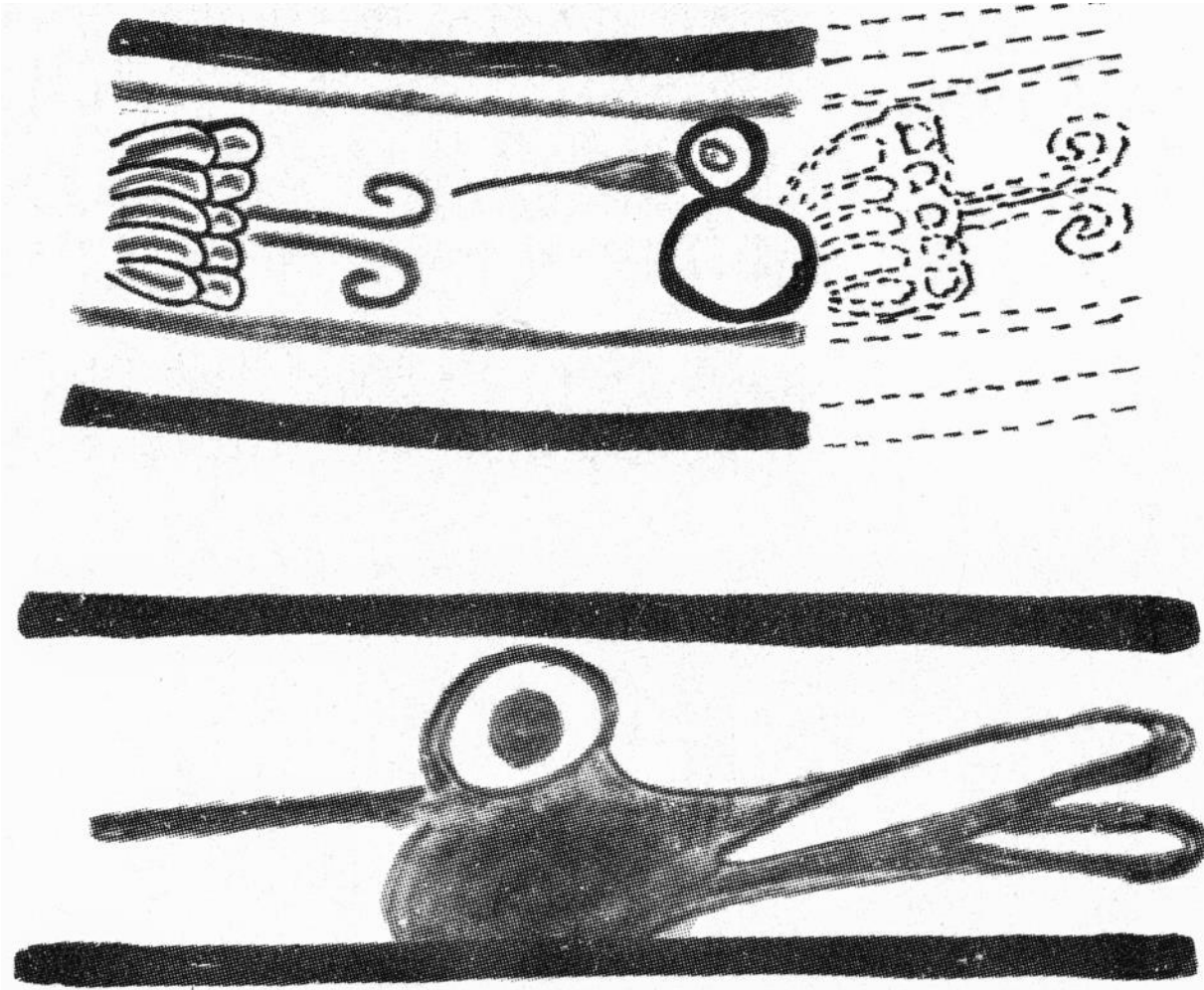
Nicely painted and well preserved Primary Standard Sequence dedicatory formula, with Tikal emblem glyph. Kerr rollout K8008.



Would be helpful to have epigrapher suggest whether the hieroglyph on the jug tells us its contents. The “bouquets” of flowers are common in enema rituals, but no enema syringe in this scene.

This profile lord has a stylized hummingbird on this headdress. Definitely need to compare and contrast with profile-and-frontal flower headdress of several Yaxchilan lintels.

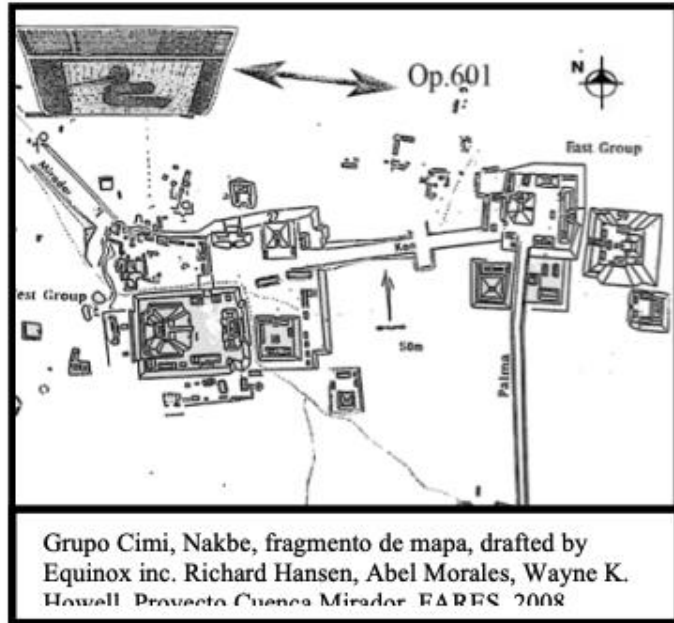
Stylized but not exaggerated Maya Portraits of Hummingbirds



Simplified hummingbirds are very common.

Belize, Late Classic (Foncerrada and Lombardo 1979: Page 52).

Dibujó vasija, Eric Bustamante



Nacbe, Entierro16, Museo Carlos F. Novella; Sala Arqueológica Cuenca Mirador (drawing by Eric Bustamante in Ordoñez 2012: 24).

I have not yet found the actual publication, so this illustration is a copy of a copy of a copy and hence not adequately focused.



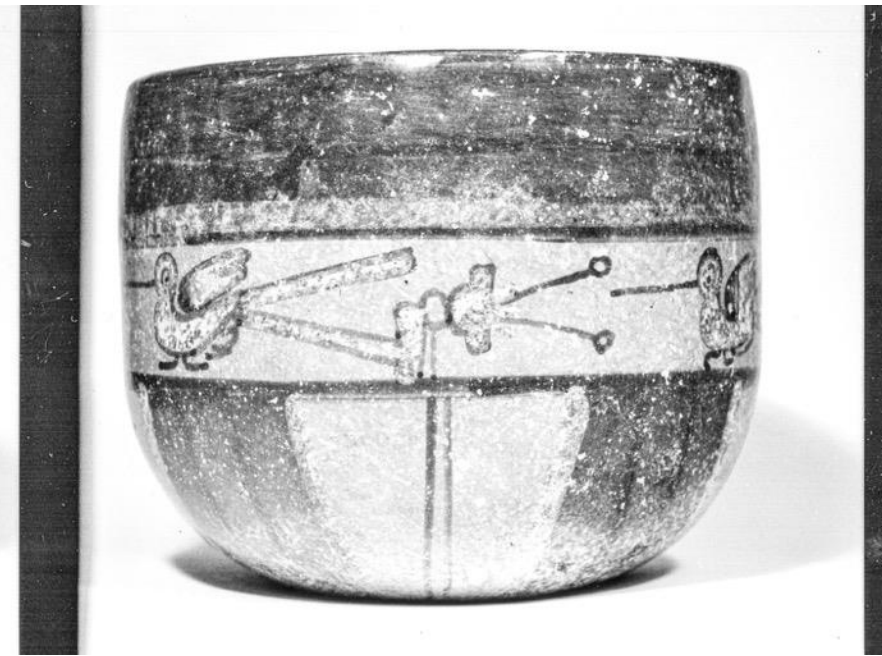
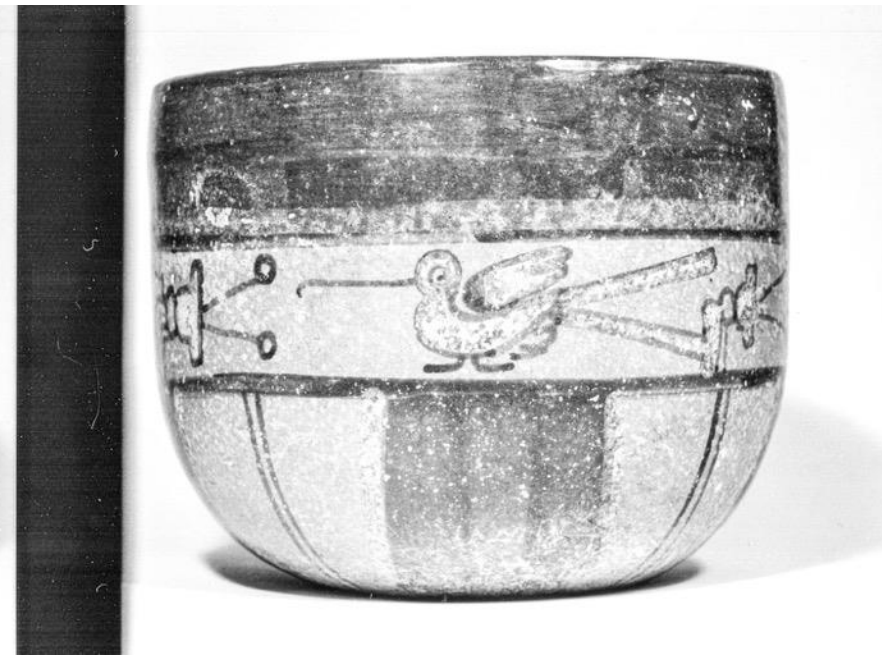
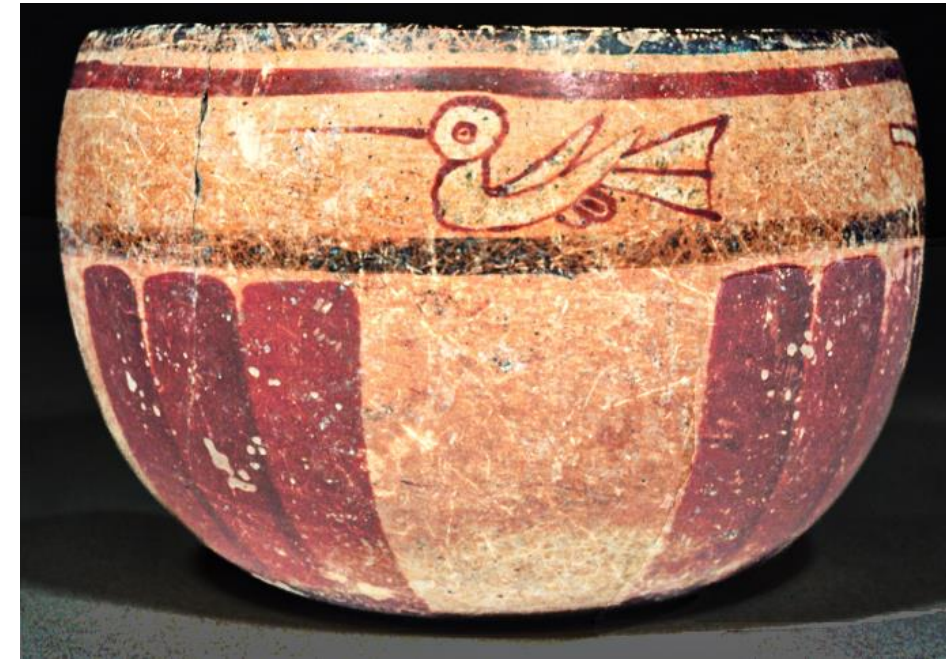
This hummingbird has a very long, very thin beak with no curve at the end whatsoever. And, no flower motif being pierced. The probably stylized flower needs to be studied when all the other sides of this bowl are found at Dumbarton Oaks, scanned, and available on-line from the Hellmuth photos donated in 2024.

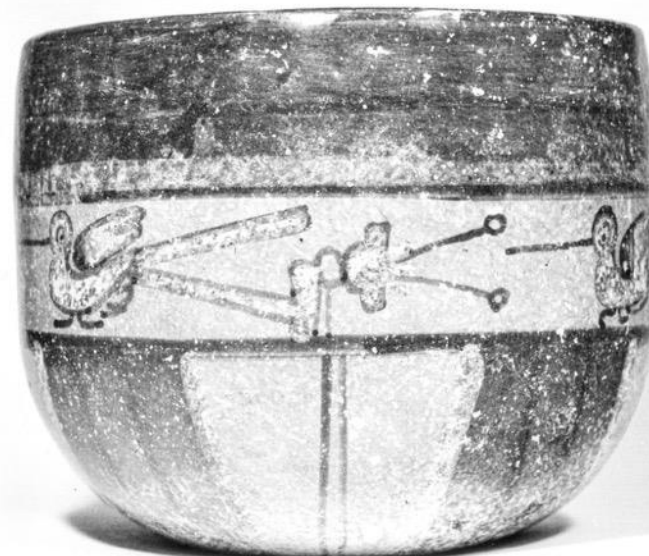
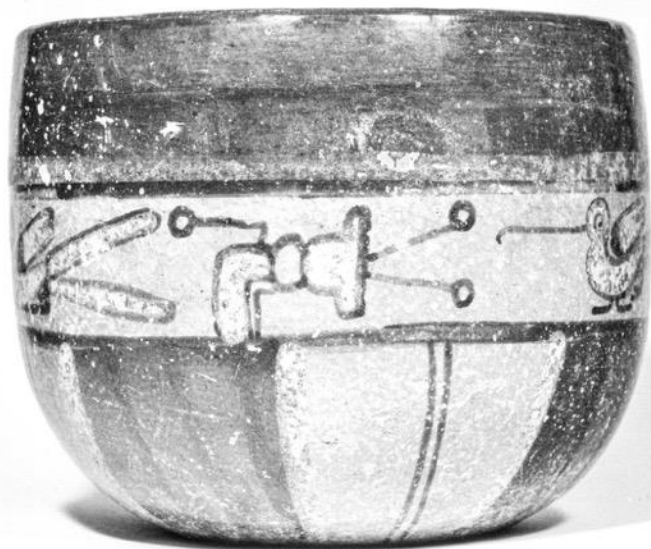
I estimate that 90% of the polychrome painted bowls of this size and shape are ceramic copies of the *Crescentia cujete* seed pods that were the original “bowls” used by hard-working Maya who did not have money to pay for ceramic bowls. Whenever we visit a Maya house in a really remote area the family invites us into their home and serves us chocolate in a dried *Crescentia cujete* seed pod (which is close to the size and shape of these ceramic replicas). I also estimate that 90% of these are Tepeu 1, not Tepeu 2, but a ceramicist may have more accurate statistics (meaning, that this shape continued into Tepeu 2 times).

Almost identical flower on both these bowls.

Both bowls have three vertical bands of red paint.

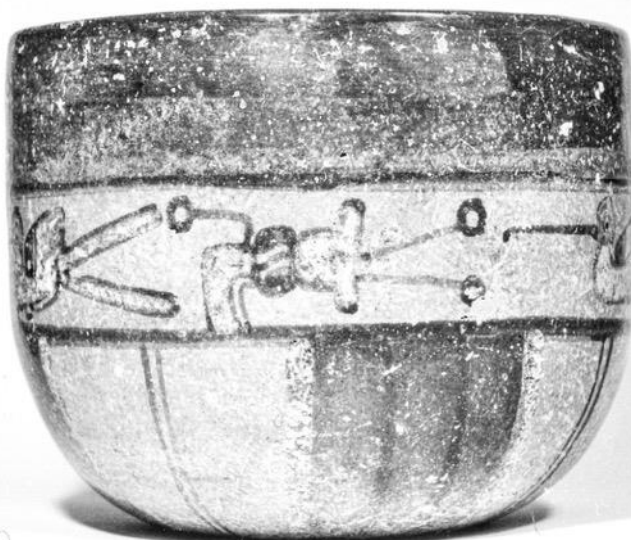
But, bird wings and tail are different, so perhaps same atelier but not necessarily the same painter.



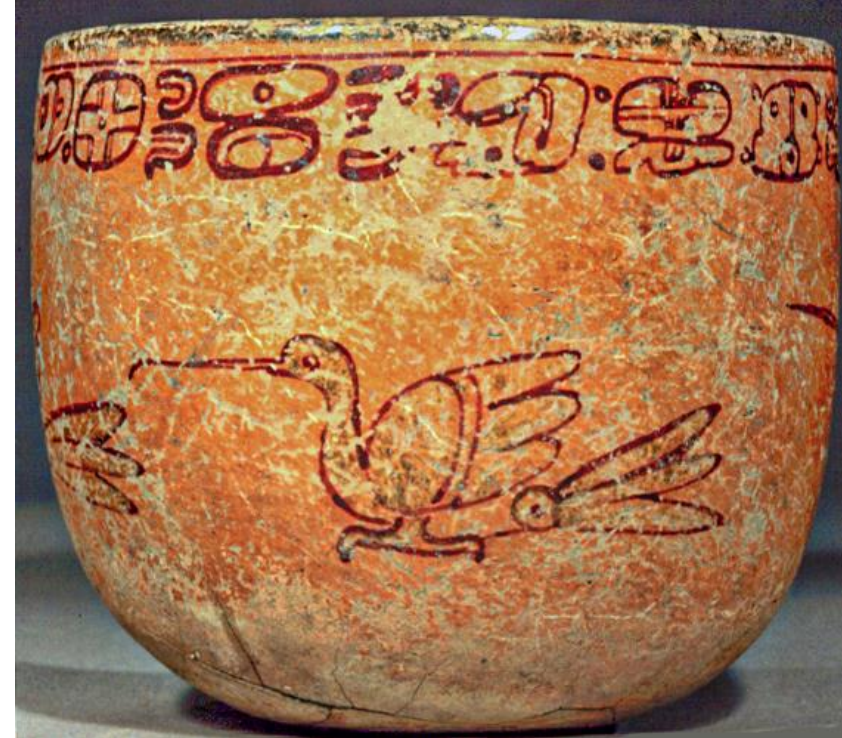
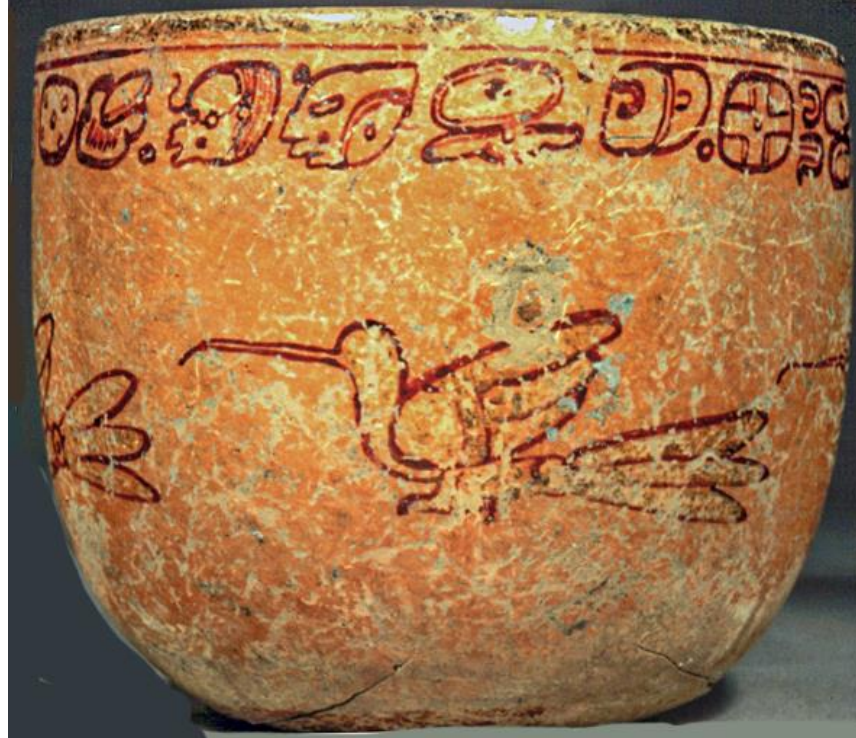
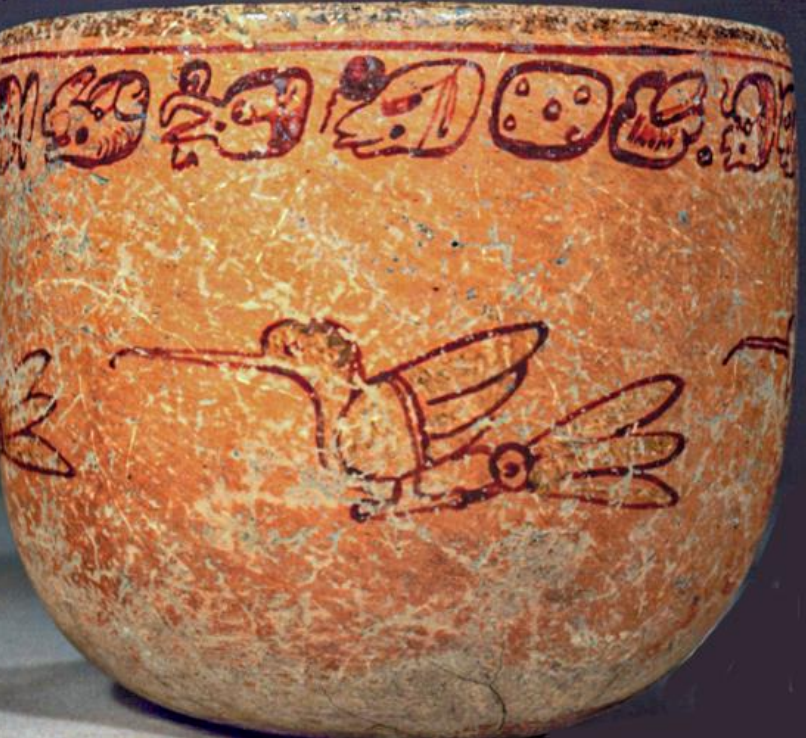


Curved end of the beak

No curve at end of the beak.



Curved end of the beak

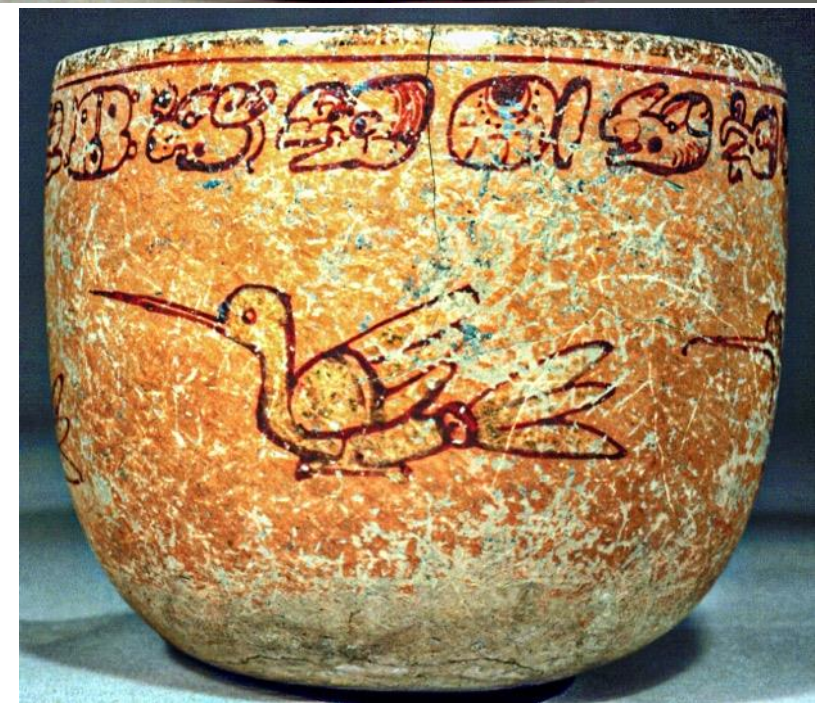


The heads of all these birds are slightly more naturalistic than stylized. But the wings and especially the tail feathers are stylized. I have always been curious whether the width of the feet is naturalistic or more likely exaggerated? Since there are dozens of hummingbirds native to Guatemala this is a topic needing further research.

Three of these birds have a noticeable curve at the end of their beak. No curve noticeable on the other but maybe eroded or need have a closer view.

This is a very high “*Crescentia kujete*” style bowl.

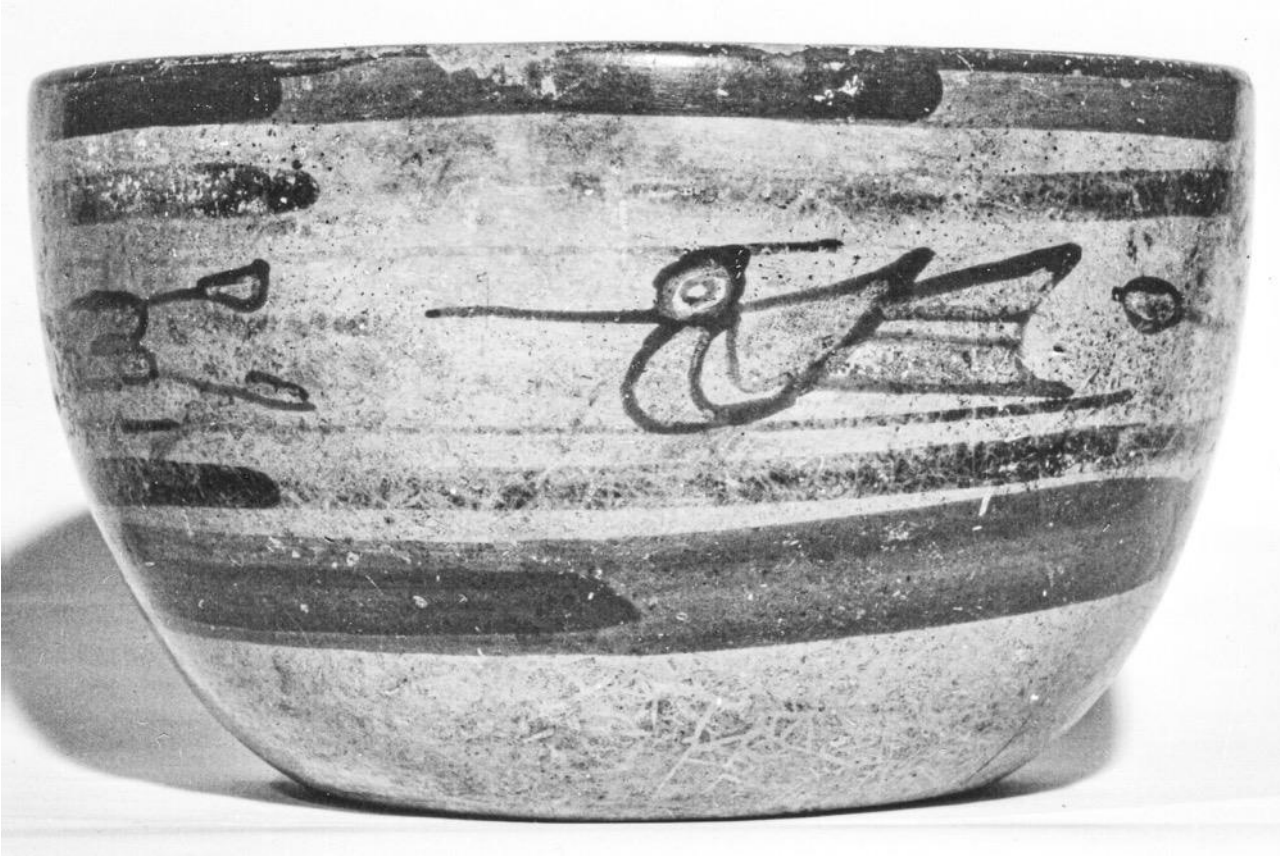
The Primary Standard Sequence dedicatory formula has lots of the traditional PSS glyphs but also a few variants—so definitely worth studying by epigraphers.



For iconographers and epigraphers, a straight-on view is best. But for archaeologists it also helps them to see the full size and shape—so this view is a good choice.



Now you can see that this hummingbird has no curve whatsoever at the end of its beak.



No curve at the end of this hummingbird's beak.



Curved end of the hummingbird beak.

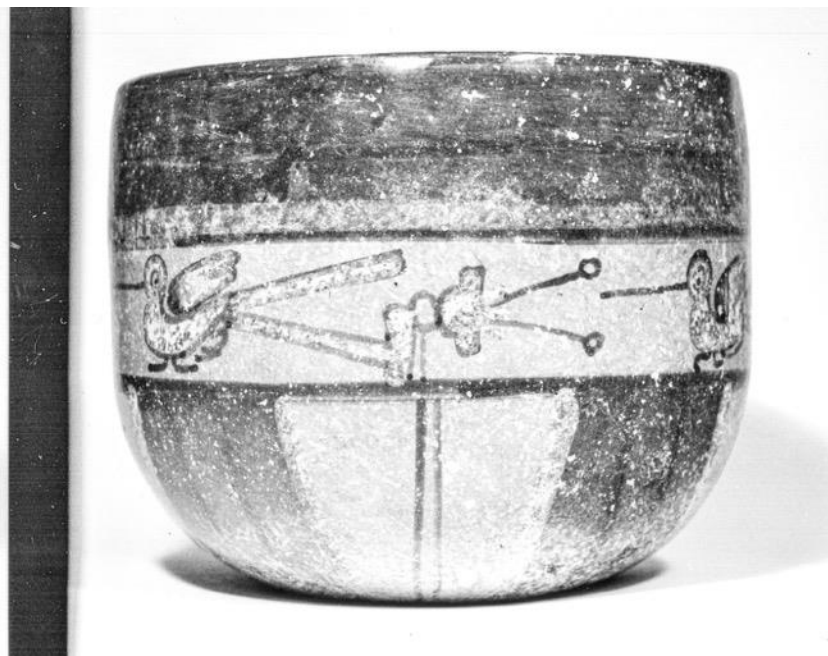
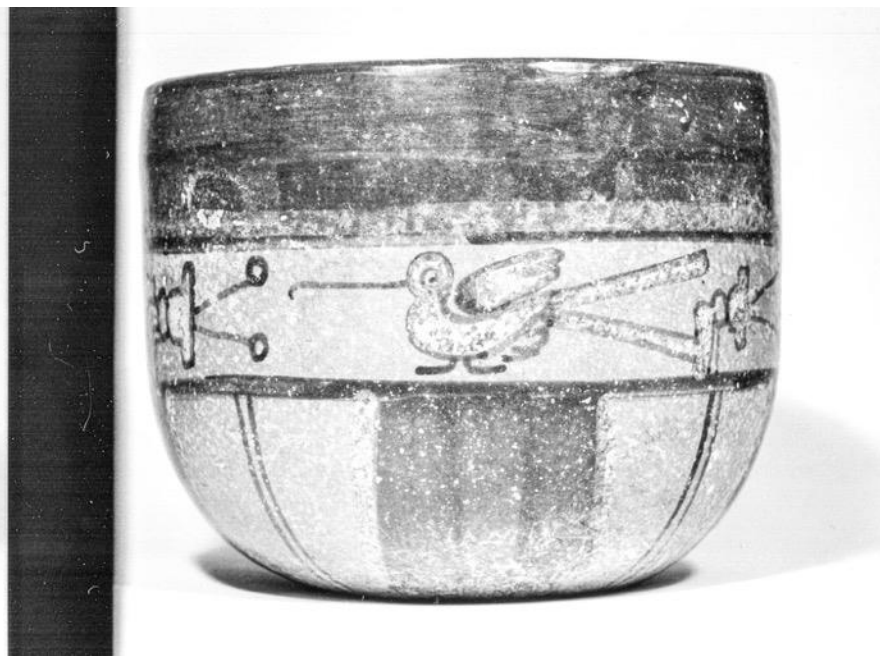
The painting is politely described as rather meandering, and the overlay rather sloppy.



Contact Sheet
A-237-Neg-10



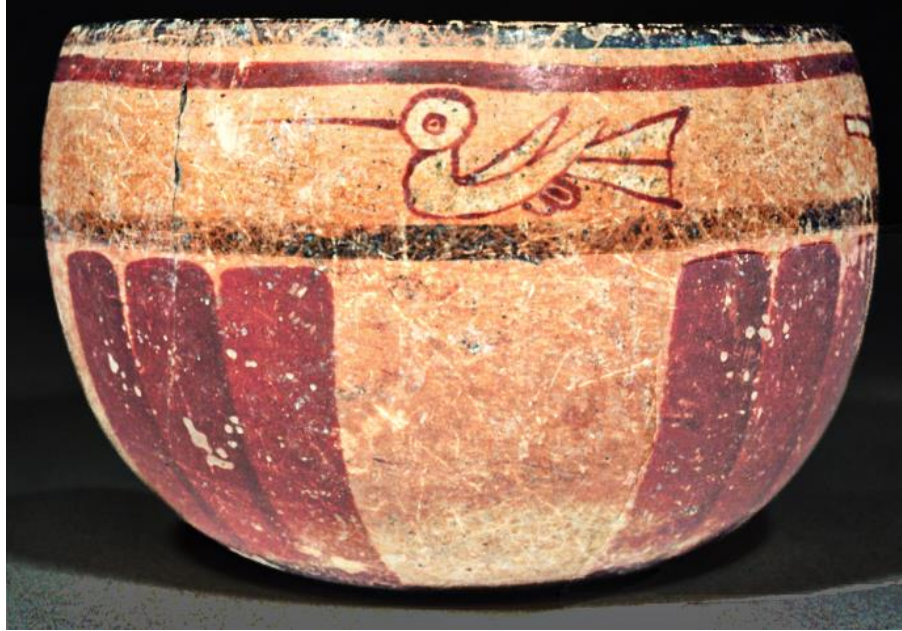
Contact sheet **A-237-Neg-10**



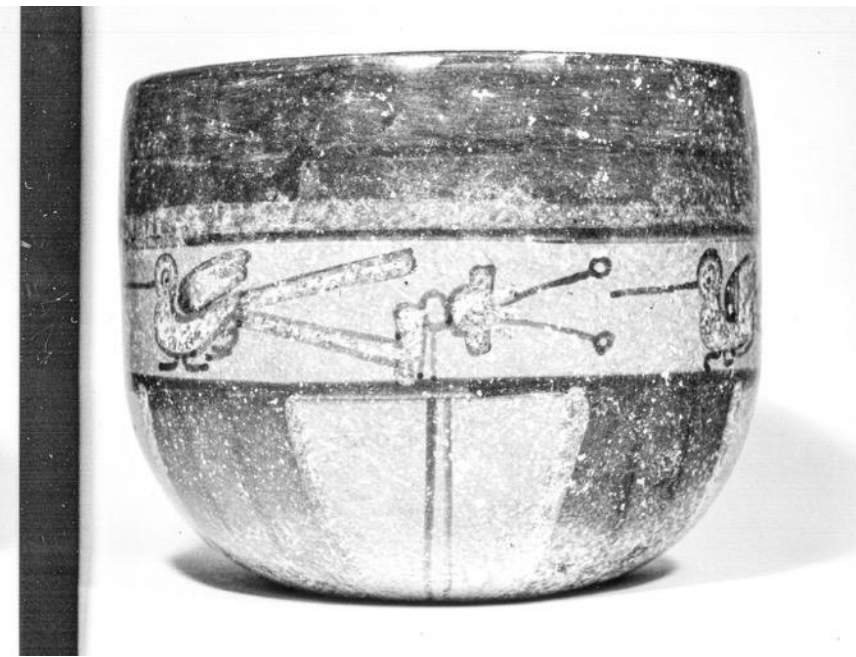
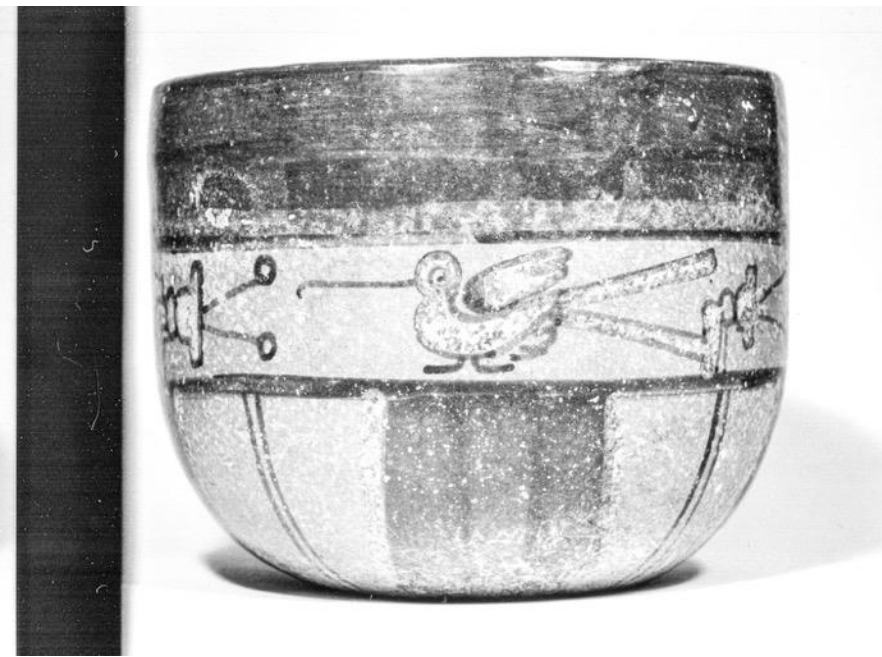
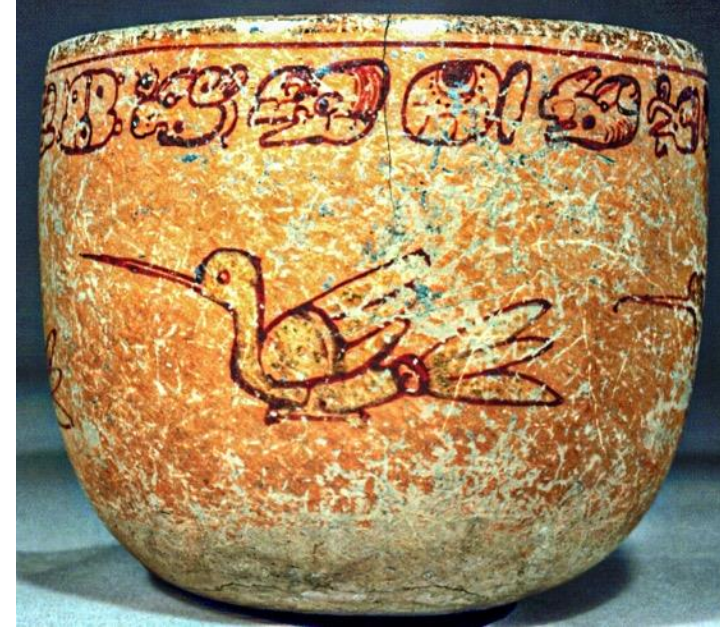
Contact sheet **A-442**



Contact sheet **A-237-Neg-12**



Color slides do not yet have catalog numbers.



Contact sheet **A-442**



Bird with a short but VERY CURVED end of its beak. The stylized round head suggests this is a stylized hummingbird, even though there is no flower on its beak. [Would help if an ornithologist could find a bird that's a pollinator that has this shape of the end of it's beak. This is clearly a beak, not the proboscis of a hummingbird moth \(unless it's a composite creature\).](#)

The “Ahau-like variant” seems to be what this bird wants to taste-test.

471242-09, scanned by Senaida Ba Mucu with an Epson EV39 flatbed scanner. We have never had a scanner or software focused on scanning black-and-white negatives so we have scanned only the 3,000+ contact sheets—not the actual negatives.

I am curious whether this is a “cylindrical tripod” and thus Tzakol, or whether it's a Tepeu-dated cylindrical tripod—because not many bird scenes like this are known for the Early Classic.

Potential hummingbirds.

Contact sheet **A-212-Neg-12**

We need to find the other photos of the other parts of this polychrome painted Maya plate.



It helps if you study actual Hummingbirds up-close in-person



Chapter 3

This hummingbird was out in the tropical sun.

To learn more about birds in Classic maya art it is helpful to study birds out in the wild.

So the teams of FLAAR (USA) and FLAAR Mesoamerica (Guatemala) have been studying hummingbirds for many recent years as part of our 5-year project of cooperation and coordination with CONAP for the Reserva de la Biosfera Maya, RBM, Peten.

This hummingbird was under layers of leafy trees, so the background was dark.

Both photos are several years ago, Sept. 5, 2018, with Nikon 600mm prime telephoto Nikkor lens on Nikon D810 camera.

Today, in 2026, Sony Alpha mirrorless cameras are better than Nikon or Canon.

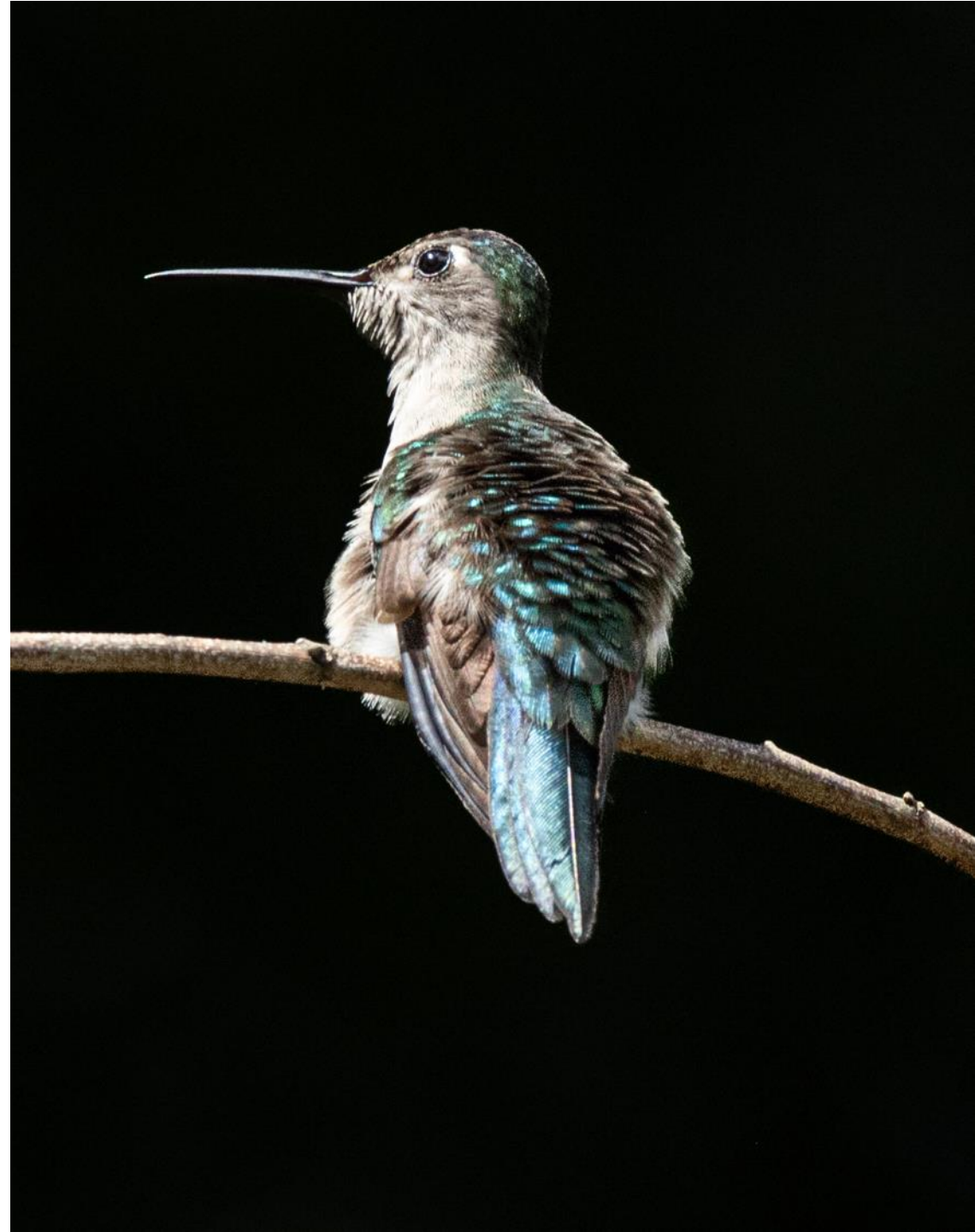
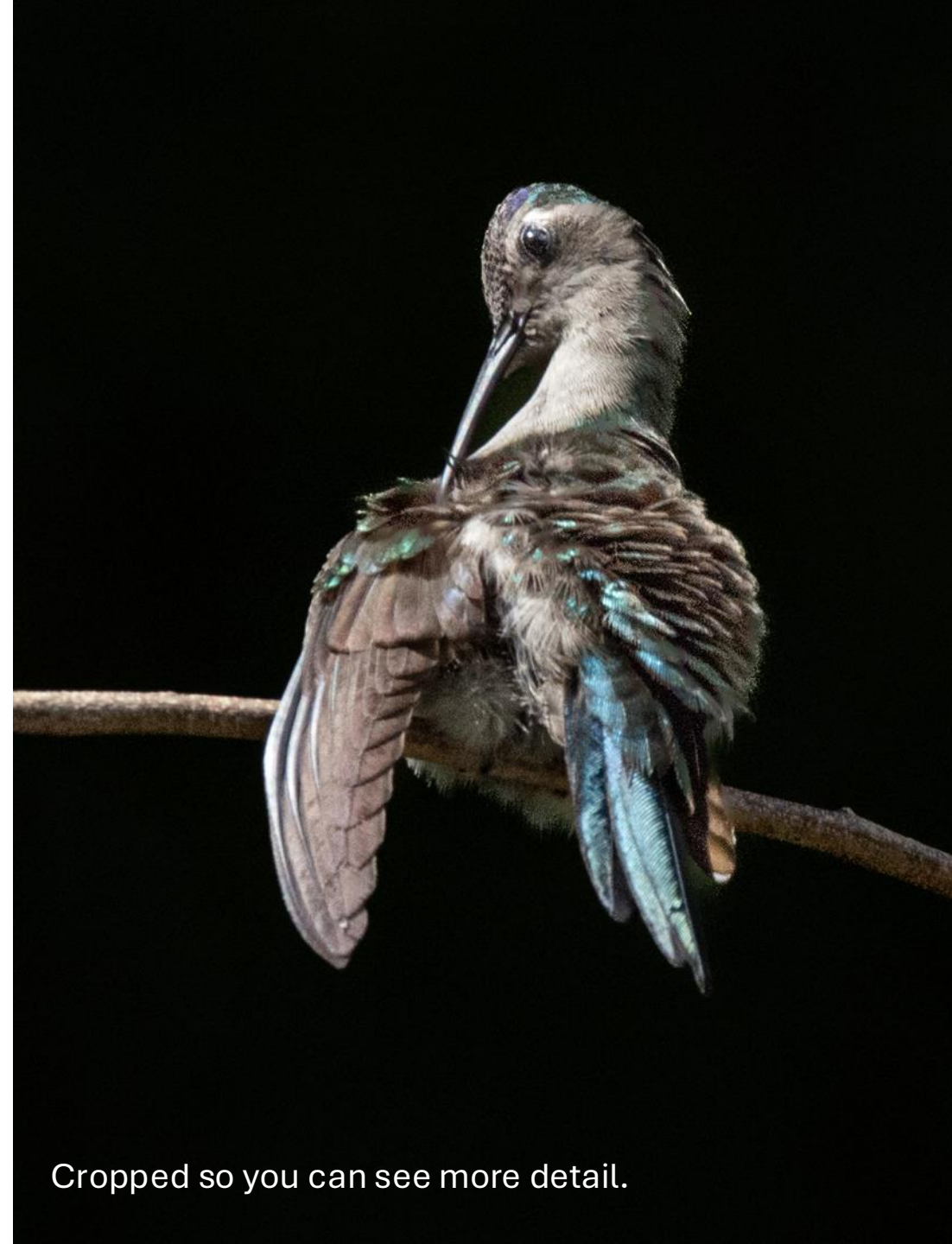




Photo by Nicholas Hellmuth with 600mm prime Nikkor lens on Nikon D810 camera, September 5, 2018, the first year of the PNYNN research project on flora, fauna and biodiverse ecosystems. There are many species of hummingbirds waiting. We have even found hummingbird nests in front of our bungalow in the hotel El Sombrero Ecolodge—which is surrounded by natural forest.



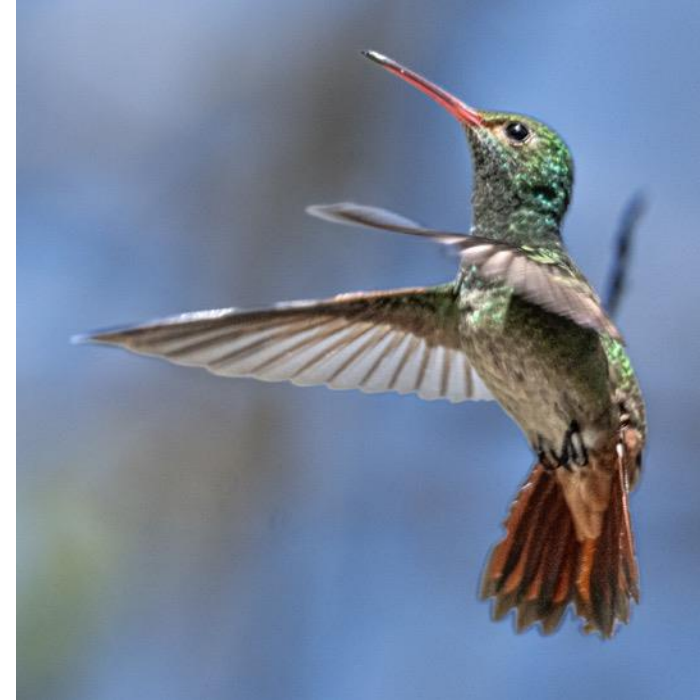
Cropped so you can see more detail.



f/ 9, 1/3200th of a second, ISO 1000



f/7, 1/2500th of a second, ISO 1000



f/8, 1/2500th of a second, ISO 1000

Having been a guest visiting professor (photography and research professor in wide format inkjet printing technology and software) at Universidad Francisco Marroquin (Guatemala City) for about 5 years, I like to show “what it takes” to capture a hummingbird without having the wings blurred.

These photos by David Arrivillaga, FLAAR Mesoamerica, with Sony lens FE 400-800mm F6.3-8 G OSS on Sony A1 (Alpha 1) camera. March 21, 2026, in PNYNN, between Lago Yaxha and Laguna Sacnab.

Processed in Camera RAW by Nicholas Hellmuth.



Photos by David Arrivillaga
processed in Camera RAW by
Nicholas Hellmuth.

In none of these photos can
you see the feet of these
hummingbirds yet the Classic
Maya often show mythical
hummingbirds with wide feet
and talons.

The flowers are of *Bauhinia
divaricata*. There are many
local common names
including patra de vaca, pata
de Venado, and more.

Not only do hummingbirds like
the nectar, but people can eat
several parts of this plant. That
said, no publication on Maya
food has recognized the
potential edibility of this plant.



Flowers of
Bauhinia
divaricata



This hummingbird seems to be trying to decide which flower has the most nectar to slurp up.

You need $1/2500^{\text{th}}$ of a second to “stop the wing from being blurred”.

We have put colored tape on our windows because otherwise about once every several years, a bird will crash into the window. It also helps to have curtains to show the birds that they can't "fly through the window". But, one time we found a hummingbird elsewhere that had hit the window so hard we could not rescue it, so we photographed it.

Dec. 27, 2009, so probably in Peten, since I usually did a field trip to study flora and fauna some where every Christmas.





While on field trips we hike between 5 and 10 kilometers each day. On rare occasions we have hiked up to 20 kilometers in a single day—when we want to get to a remote ecosystem we-do-what-it-takes. While hiking we often see a hummingbird on their camouflaged nest.

Photo by Erick Flores, April 18, 2018.



FLAAR was created (founded) in 1969 to map Yaxha and to study the Teotihuacan influence on Yaxha Stela 11 and in the layout of streets and avenues in two parts of the site.

We have been continuing to accomplish research at Yaxha but now exclusively on flora, fauna and biodiverse ecosystems.

The hotel El Sombrero Ecolodge is a comfortable place to stay and has hummingbirds all around it—and a crocodile lives at the edge of Lago Yaxha in front of the hotel. This crocodile is very old and is blind—it never comes out on the shore.

Most hummingbirds of Peten have no curve at the end of their beak.



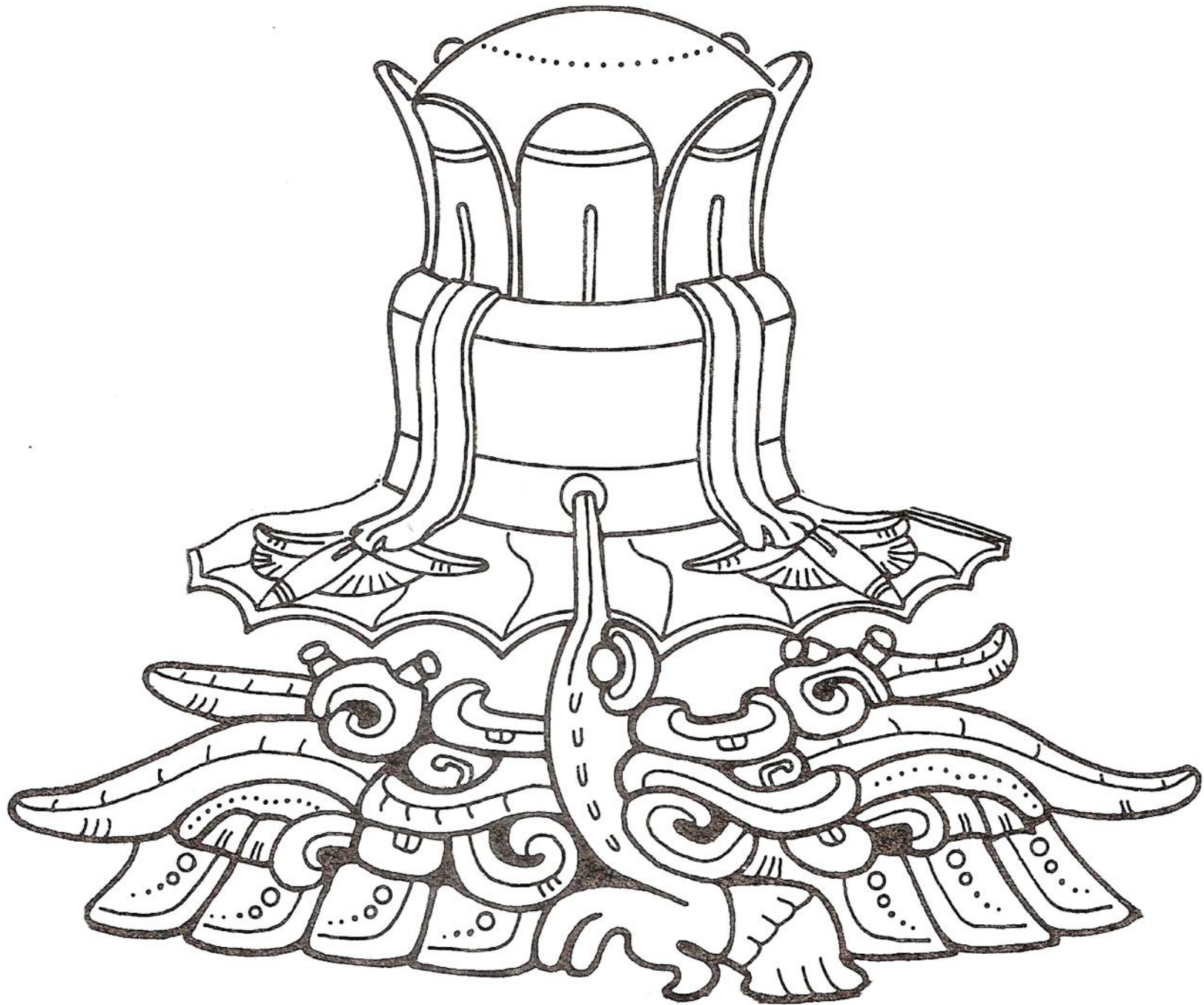
Hummingbird on a flowering tree in front of the restaurant of hotel El-Sombrero, Yaxha. Photo by Nicholas Hellmuth, April 19, 2018.

Chapter 4

Hummingbirds in Maya art already known and published

Lots of hummingbirds have already been published, such as by Hellmuth in 1987, plus lots by Oswaldo Chinchilla in 2010. As we will see on many more pages, lots of Maya hummingbirds have a “serpent face” wing.

Hellmuth 1987a: Fig. 123 and
Hellmuth 1987b: Page 223.





These precise drawings by the FLAAR team in Graz, Austria have been published without citation. Their original publications are Hellmuth 1987a: 61, 122 and 123 and Hellmuth 1987b: The fish are shown in Hellmuth 1987a: Fig. 60.

It helps to have precise, accurate drawings plus it helps to have cross-lit photographs.



Multiple hundreds of basal flange bowls have been found in Peten. Most are polychrome painted but lots are gouged-and-incised blackware (Hellmuth 1924b).

The gouged-and-incised design on the side of this blackware basal flange bowl is similar to designs found on the sides of blackware cylindrical tripods.





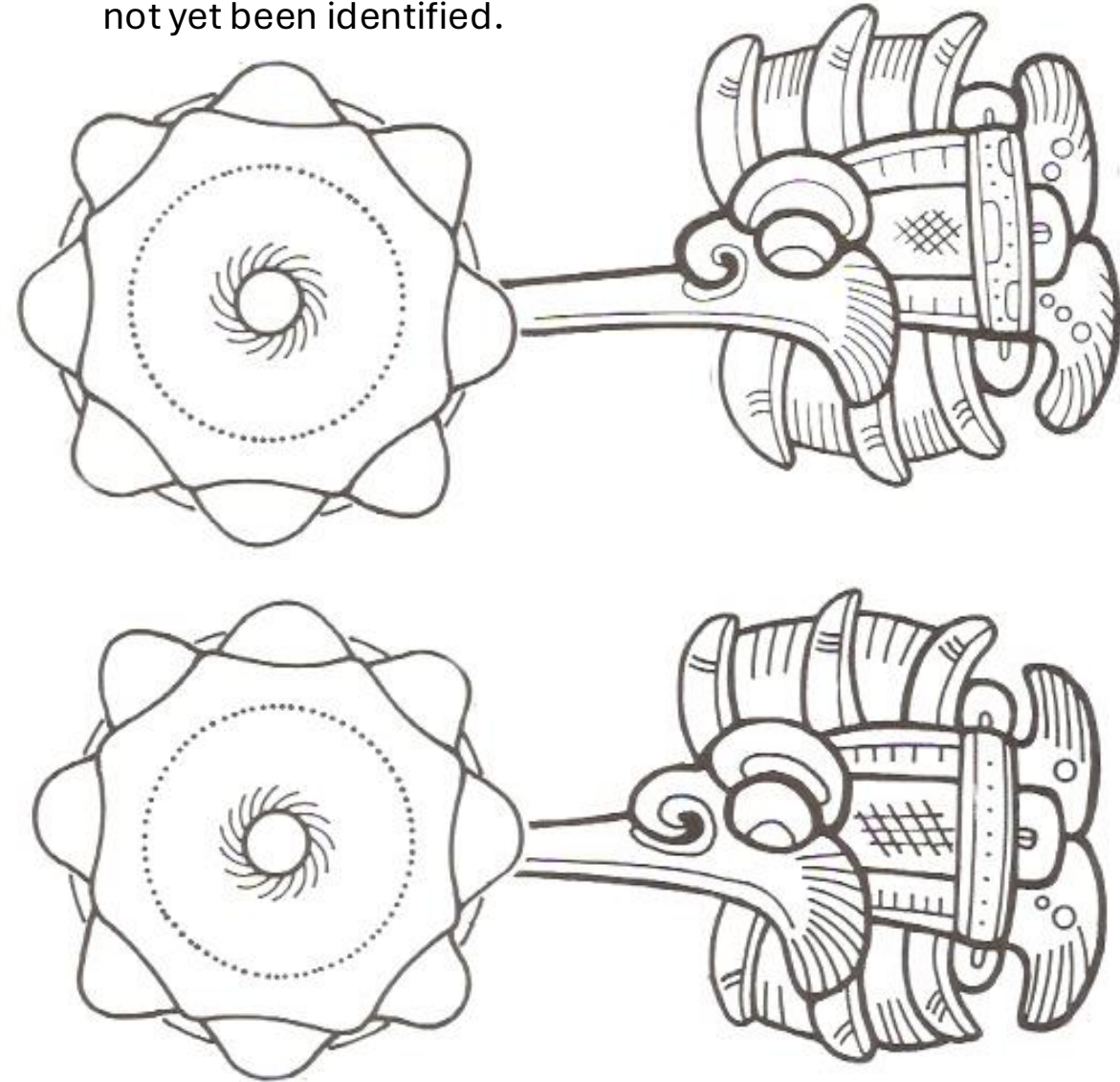
“Fish” with “beak” of a hummingbird on a gouged and incised vase, Kerr rollout K1507



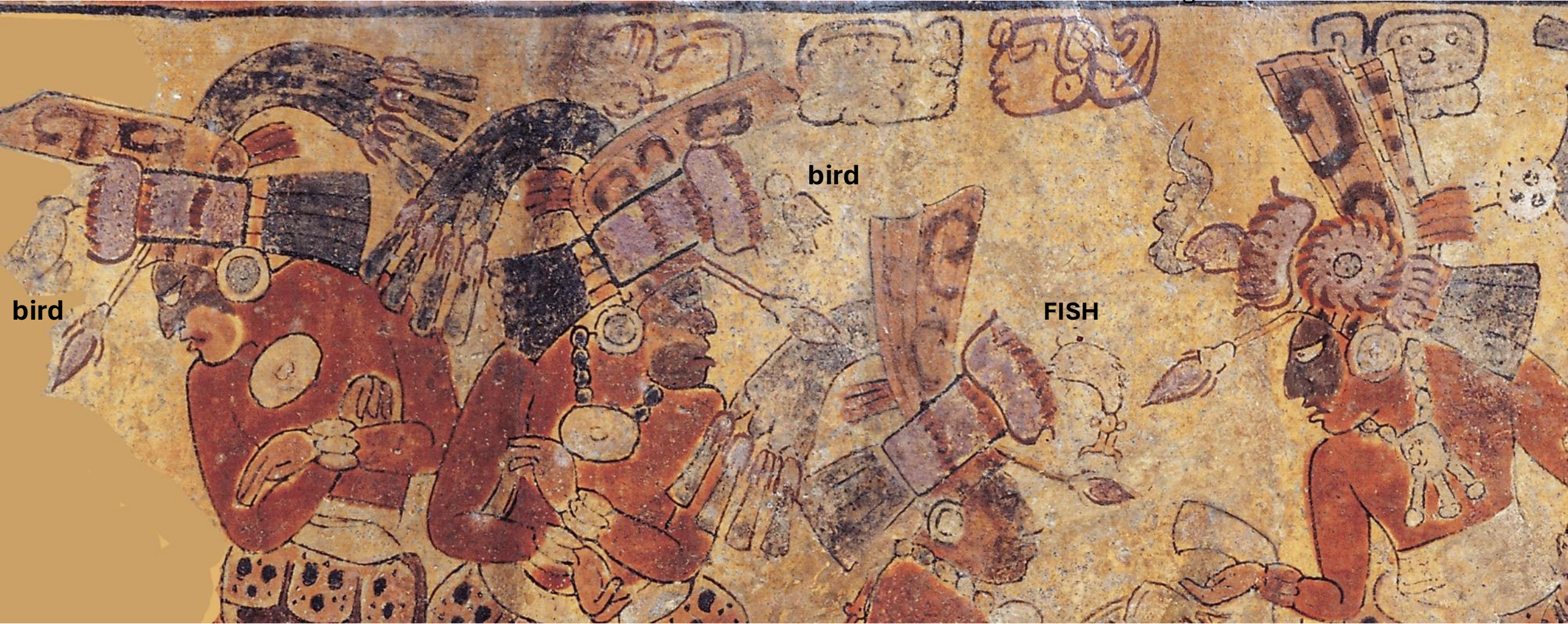
Hummingbird glyph as fish, Piedras Negras Panel tiktok jeroglificosmayas video

Not previously noticed or documented that there are Maya “fish with long beaks of a hummingbird”.

So far this plant has not yet been identified.



Typical “Yaxchilan” style flower headdress but neither bird nor fish— instead a creature’s head is sticking out emitting material from its mouth.



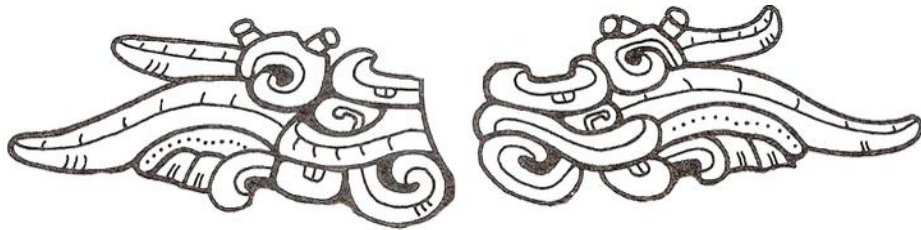
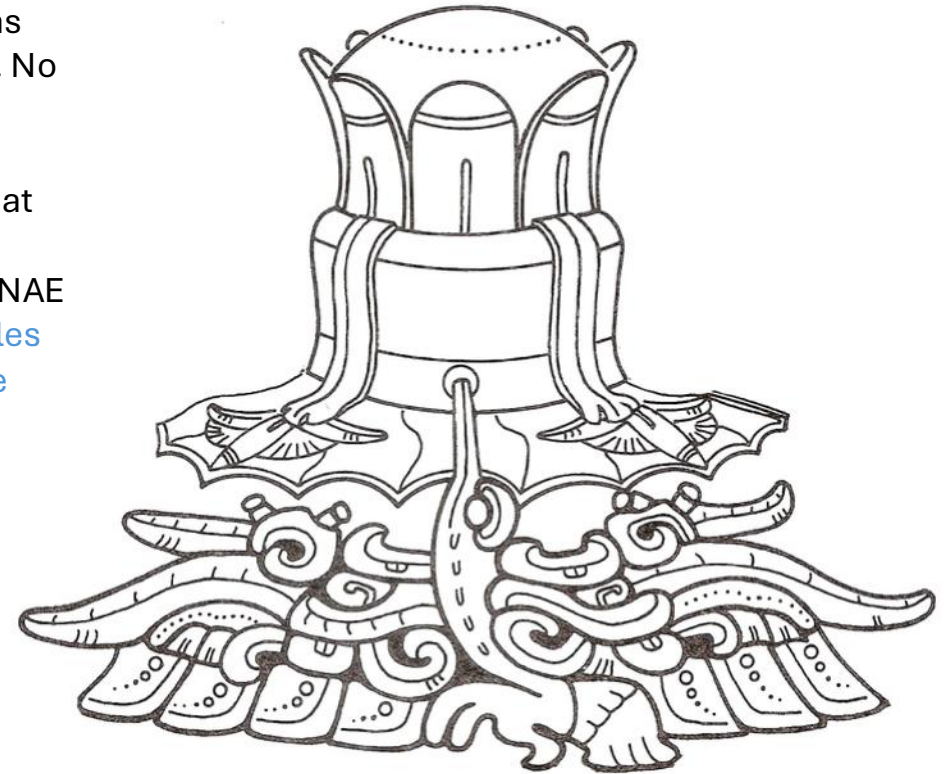
Hummingbird vase, Kerr rollout K3009, Mundo Perdido, Tikal, now at MUNAE, photo in Dumbarton Oaks database.

(Looper 2009: Fig. 2.15).

Many Maya Hummingbirds have Snake-Face Wings



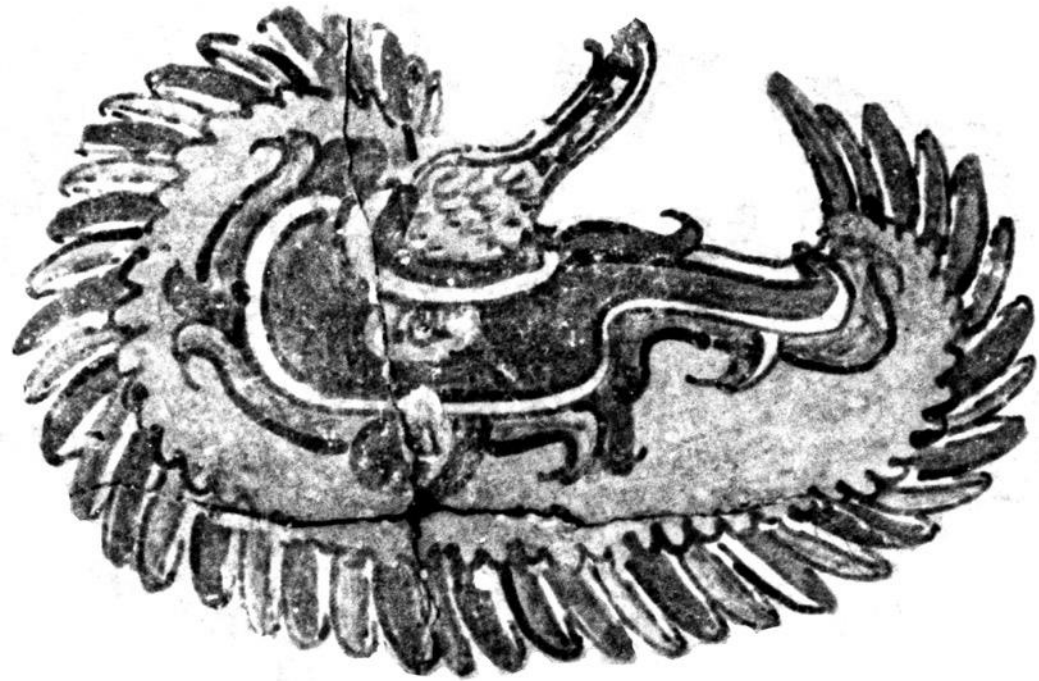
Hummingbird-man (jeroglificos mayas on tiktok, by [Pablo Gonzalez Mireles](#)). No caption or citation. This is a stucco façade of a building, Naranjo-Sa'al, Peten. Oswaldo Chinchilla told me that Alexandre Tokovinine included this drawing in a presentation at SIAG MUNAE a few years ago. [Pablo Gonzalez Mireles kindly sent me a PDF of this complete article by Tokovinine and Fialko 2019.](#)



Most (but not all) giant birds in Maya art have a profile snake-like head as their wings. You can find many many examples in Hellmuth's PhD dissertation, both in the bi-lingual (Deutsch English) edition: 1987b: frontispiece, Fig (Abb): 519, 520, 529, 530, 532, 542, 543, 549A and B, 550, 562, 577, 579

And in Vol. II of the English edition: 1987a: **Fig. 122 and 123.**

Long legs and long neck suggest that this is a waterbird, though the beak reminds you of a hummingbird. No curl at the end.



Cropped, rotated, and processed so you can see details. Lots of Maya waterbirds have this same serpent-face wing.

Cropped from scan of contact sheet **43235-04-Neg-01**, FLAAR Photo Archive, Dumbarton Oaks, Trustees for Harvard University. Lots more wings are in Hellmuth's book on the Principal Bird Deity plus in Hellmuth 1987a: Fig. 114, 118, 119, 120, 121, 122 and also lots in Hellmuth 1987b.





Lots of Red Band Tepeu 1 Style bowls (at the right) and other ceramics have Serpent Face Wings on hummingbird men (above Tokovinine).

K4950

Two owl-like birds and two other birds all have the same serpent-face wing. Although this wing is flaunted by the Principal Bird Deity, this wing style has a more generic meaning since it can be found on lots of totally different large birds. None of these four birds is a Principal Bird Deity—nor related (other than sharing the wing).

There is a fifth bird in the tree to the far right. The Principal Bird Deity is usually up in a tree—but the bird in this scene does not have the head of a macaw nor of a Snake Eating Hawk. So evidently the Classic Maya had several different giant bird creatures in different chapters of their book of myths.

The other side of this round-bottomed vase shows the rare Maya “hand-ball game”. There is a Kerr rollout, K1288, of the whole scene (Hellmuth 2024f: page 1).





Hummingbird with exaggerated curve at the end of its beak. Many, but not all, Maya hummingbirds are featured with their exaggerated beak piercing a stylized flower, as here. [The two vertical designs rising up from the head—are these the antennae of a hummingbird moth? We all assume these are hummingBIRDS but they may be hummingMOTHS \(hummingbird moths, two genera and lots of species across the Maya areas of Mesoamerica\).](#)

Both these birds wear a necklace, an anthropomorphic feature.

Zaculeu (Foncerrada and Lombardo 1979: page 324).

The scroll-eyelid reptile monster face has its nose and diagonal nose beads facing to the right, But there is also a curved fang and snout facing to the left.



These serpent-face wings deserve a MA thesis or PhD dissertation.

This face is most common on the Principal Bird Deity but also on this variant of the long-beaked humming-bird.



I estimate that this is a Tepeu 1 bowl.





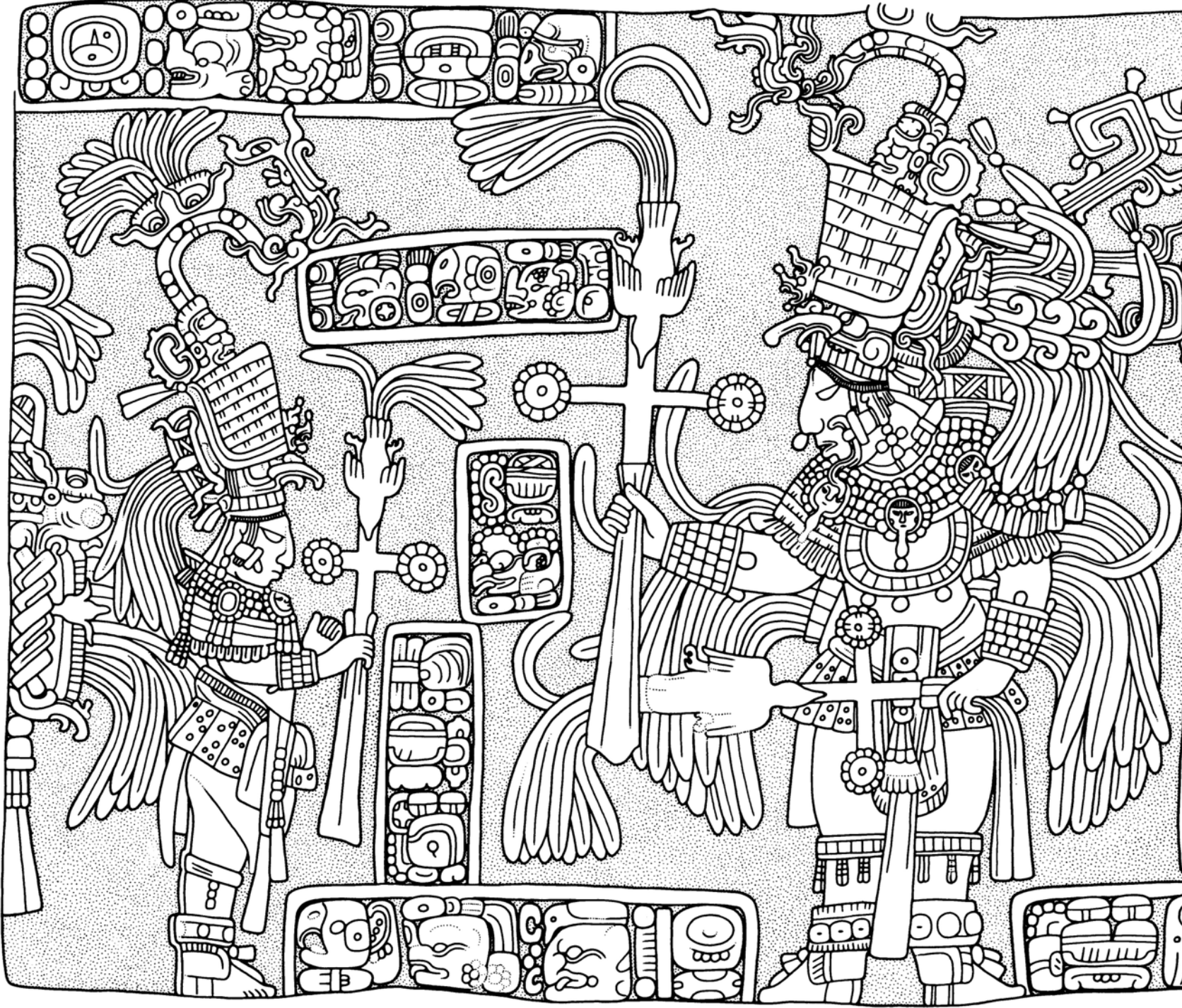
Two hummingbirds in a Chama scene, so these are highland species and Maya Highland style. These two flowers are not widely known but are not water lily flowers (which is the most common in all Maya world). Picture 50

None of these three birds has a beak anywhere near the size or shape of a Maya hummingbird. Plus, their tail feathers are too long for most species of Neotropical hummingbirds.

Many different genera of birds like nectar from flowers besides hummingbirds.

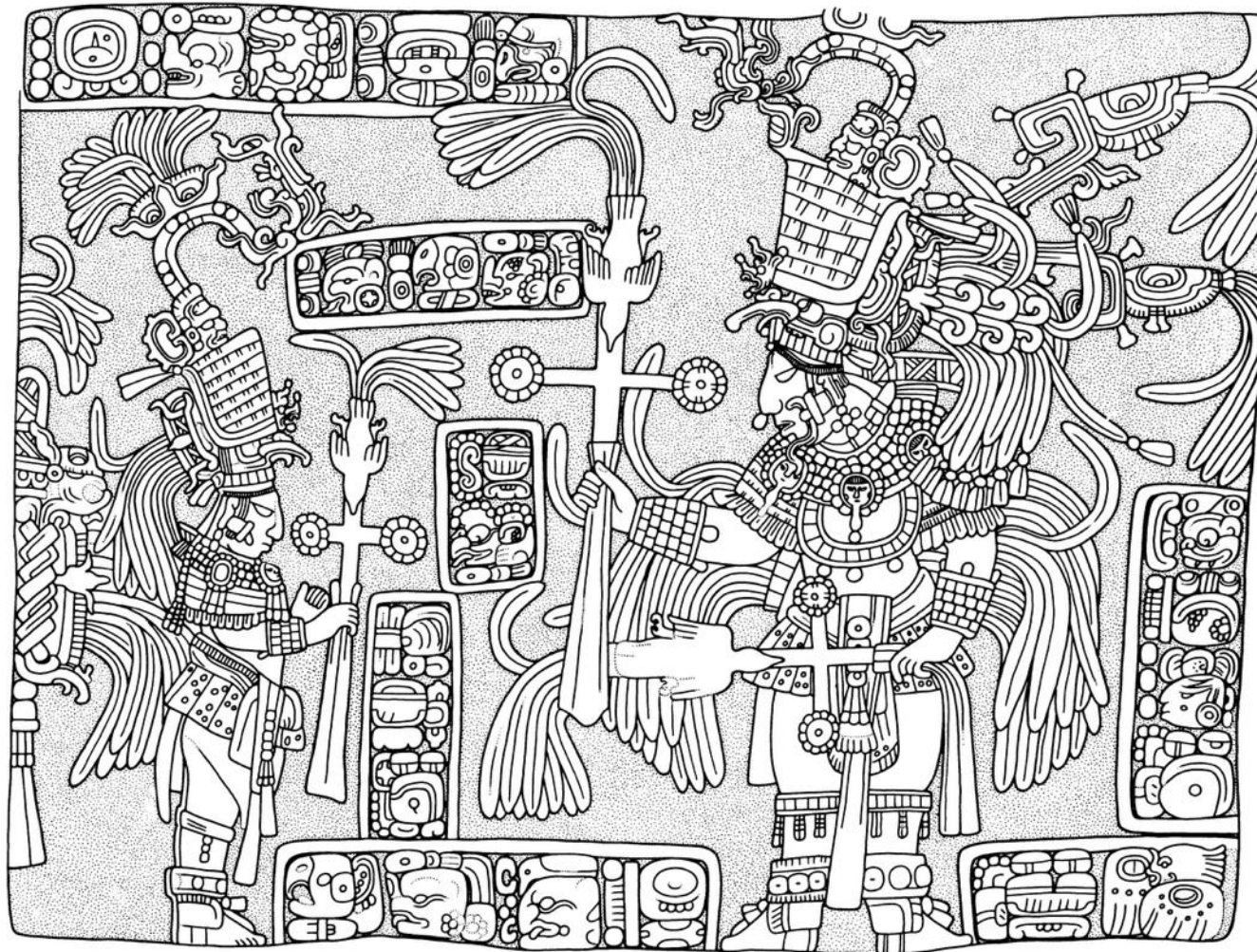
That said, the cruciform objects each have potentially stylized Maya “flowers” on both sides. Similar accessories (but with double stacks of “flowers”) are featured on Yaxchilan Lintel 5, Structure 1.

Yaxchilan Lintel 2, Structure 33, drawing by Ian Graham, CMHI-PMAE, Harvard.



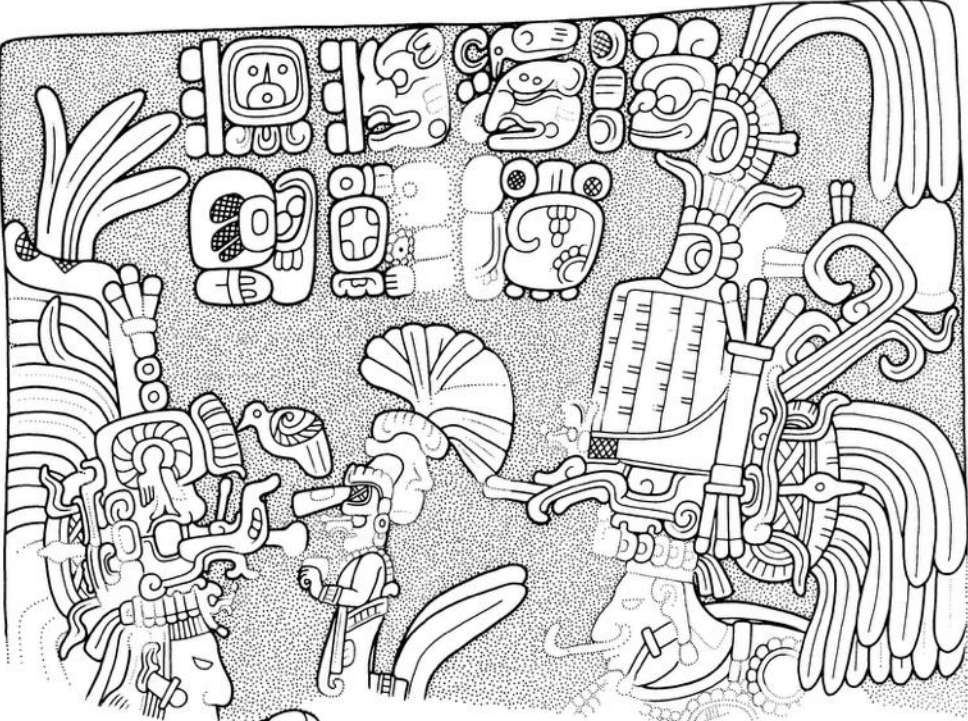


Yaxchilan-Lintel 5 Ian Graham CMHI PMAE Harvard



Yaxchilan Lintel 2, Structure 33, drawing by Ian Graham, CMHI-PMAE, Harvard.

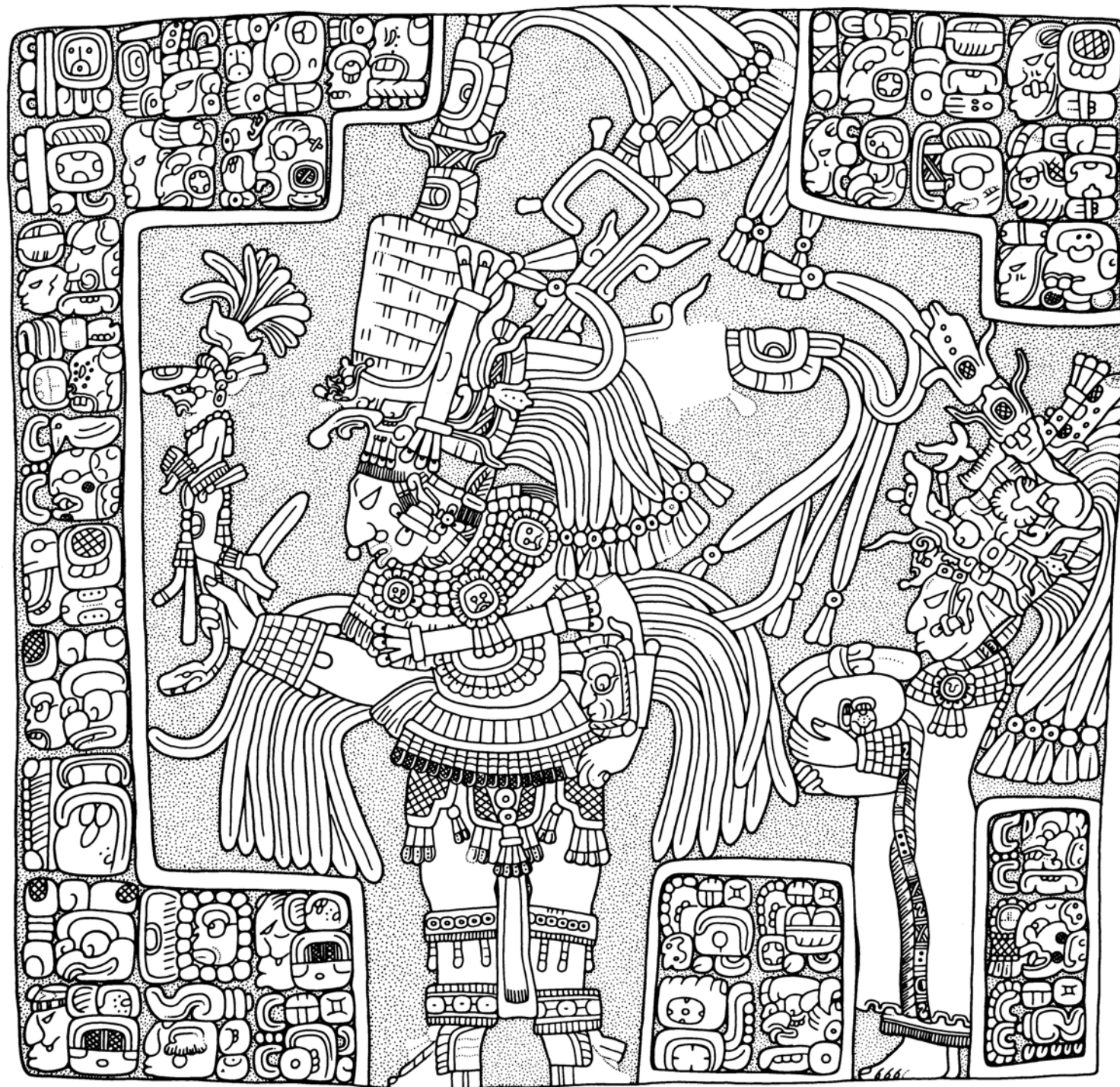
So, two totally different Yaxchilan lintels have the same accessories: a “cross” with stylized “flowers” with an eager bird.



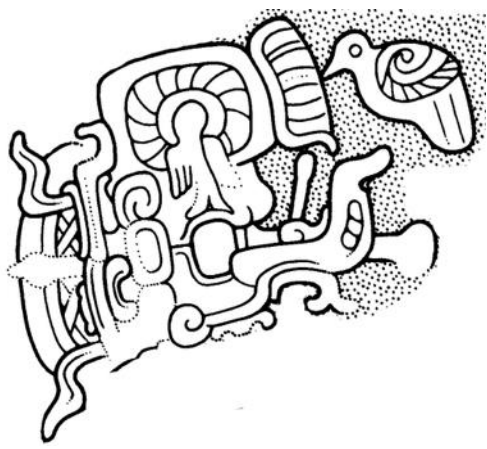
Yaxchilan
Lintel 58



Yaxchilan
Lintel 54, both
CMHI-PMAE,
Harvard.



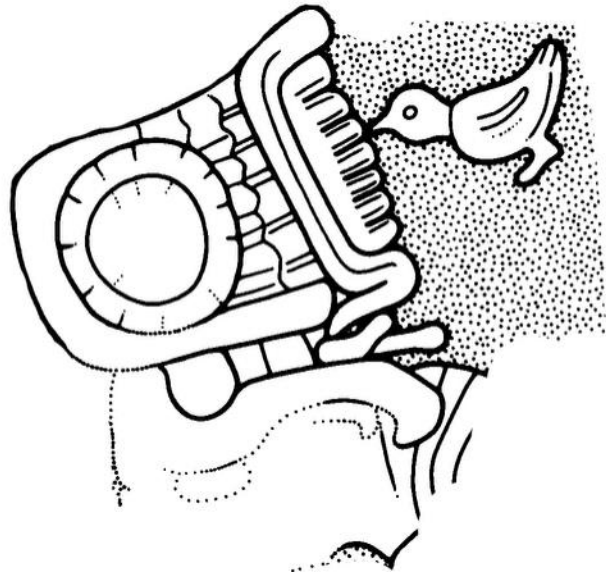
Hummingbird flower headdress, Yaxchilan Lintel 1,
drawing by Ian Graham, CMHI PMAE, [Harvard University](#).



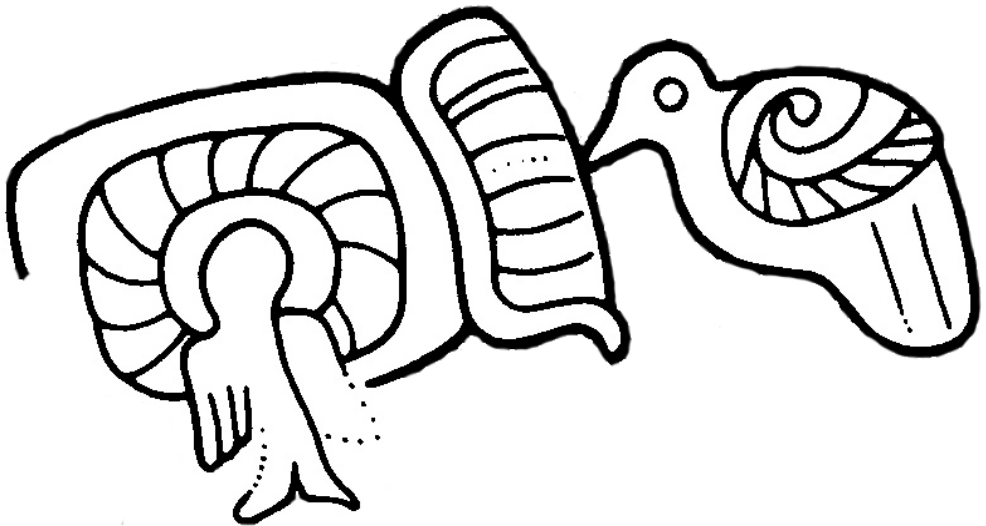
Yaxchilan Lintel 54, CMHI PMAE



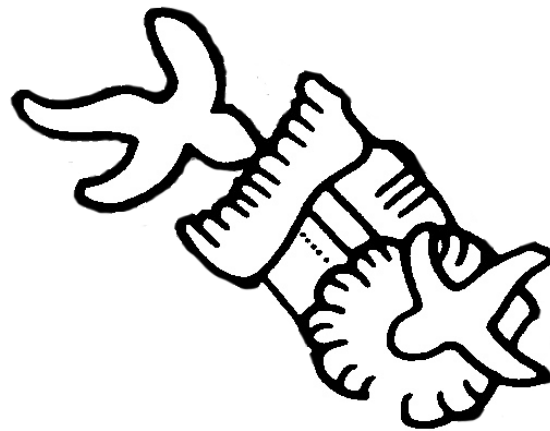
Yaxchilan Lintel 1,
CMHI-PMAE,
Harvard University



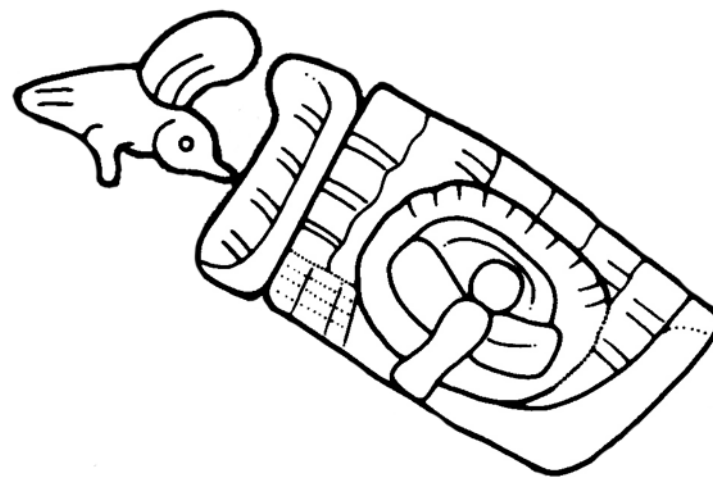
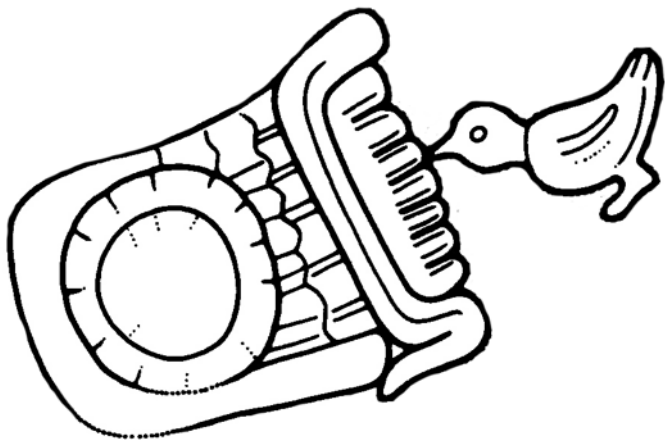
No long beak is featured on these three lintels, so these birds may be other than hummingbirds.
Yaxchilan Lintel 58.



Yaxchilan Lintel 54, CMHI PMAE



Yaxchilan Lintel 1, CMHI PMAE



Each headdress has two flowers, so I estimate that each headdress had two birds. But the area of the left flower on the left headdress of Yaxchilan Lintel 58 is eroded, so no bird is shown in the drawing. When you try to find the photo you get a message Not Available. But photos on line do not show any remains of a bird and the circle of the flower is continuous—not bird tail crossed it as on the other frontal flowers.



Hummingbird vase, Kerr rollout K3009, downloaded from database of improved digital quality of Dumbarton Oaks



The background color is the same as on dozens of taller vases that show parades of Xibalba demons and *wayob*. I had named that style Red Background Tepeu 1. Would help to have the project of Ron Bishop and Dorie Reents-Budet test the clay of these shorter vases to see if the short vases are same ceramics as the common taller ones.



This hummingbird is similar to those on several other scenes plus remind me of the small nectar-loving birds on some lintels of Yaxchilan.



This scene was important enough to be repeated almost identically on both sides of this short vase.

Why does the original database not admit whether the white color is (or is not) modern paint—and whether repainted in New York City or Florida (or elsewhere).

The "hummingbird" has a feathered crest and very long tail—so not sure that it's really a hummingbird or a Maya composite. Or, another bird of the Maya areas that also really likes to slurp up nectar.

Cropped by Hellmuth from Kerr rollout K9113.



Kerr notes do not mention Holmul Dancer scene, albeit unlikely from Holmul itself. The style reminds me of modernized paintings.



Most of the original scans in New York turned out too yellow. Hopefully Dumbarton Oaks can rescue the original transparencies and let the world see the original color.

Another issue is why the original Maya vase database does not admit which vases are repainted—for example, is most of the white paint on this vase from the 8th century or from the 1980's in New York City or Florida? Or is all the paint authentic Classic Maya?



Regional variant of what I have provisionally named the Yaxchilan Lintel Flower headdress. Here the birds have long thin beaks, so are potentially stylized hummingbirds. The flowers are also stylized, **so a challenge to identify.**

Cropped by Hellmuth from Kerr rollout K5456.



Minimalized temporary “throne room”, has the usual curtains above and stylized feline hide upholstery (but no peg areas featured). Kerr rollout K5456

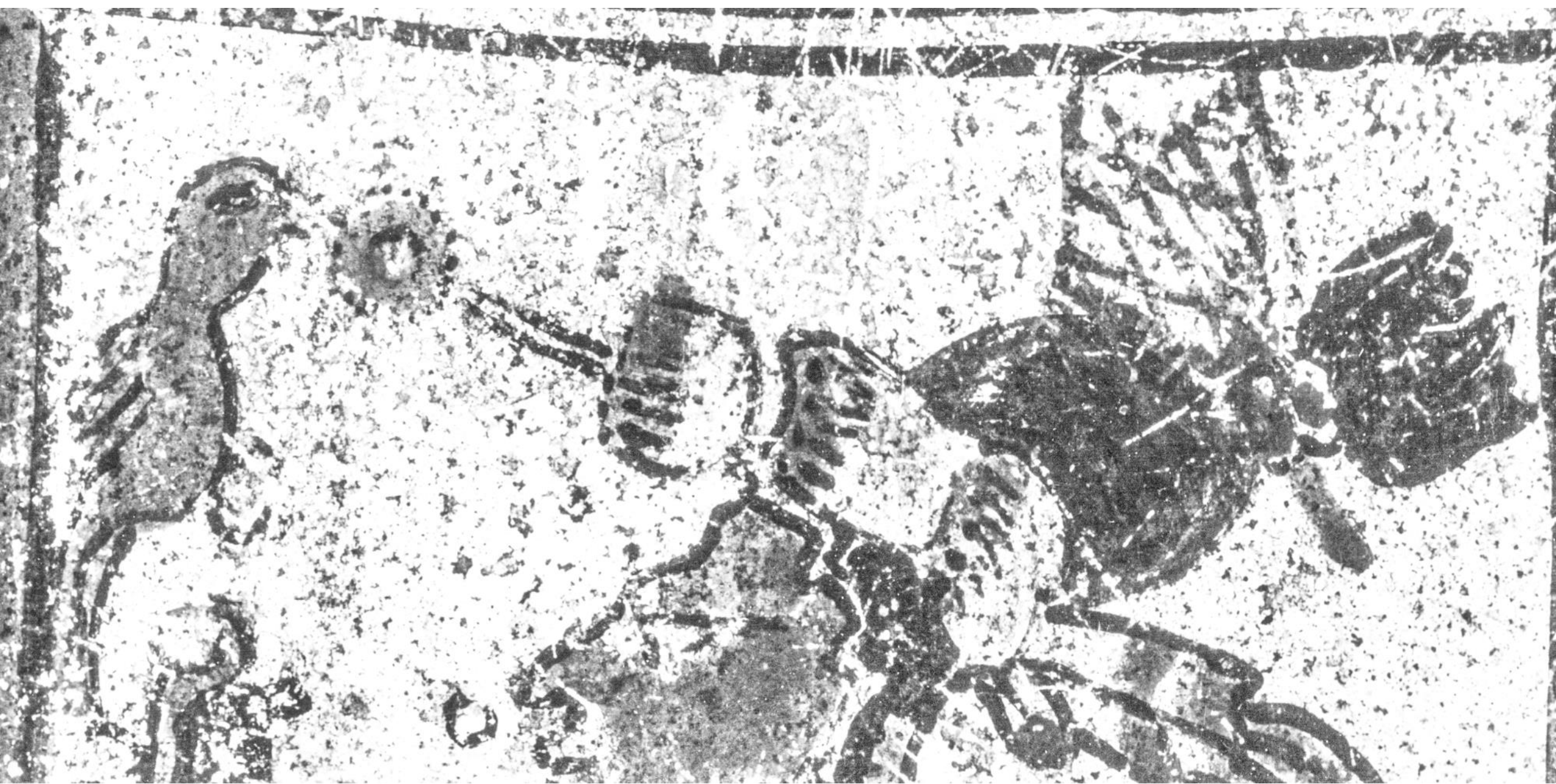
DO

Palanquin with one of the porters. This person seems to be of higher status—but notable that both are wearing similar headdresses,

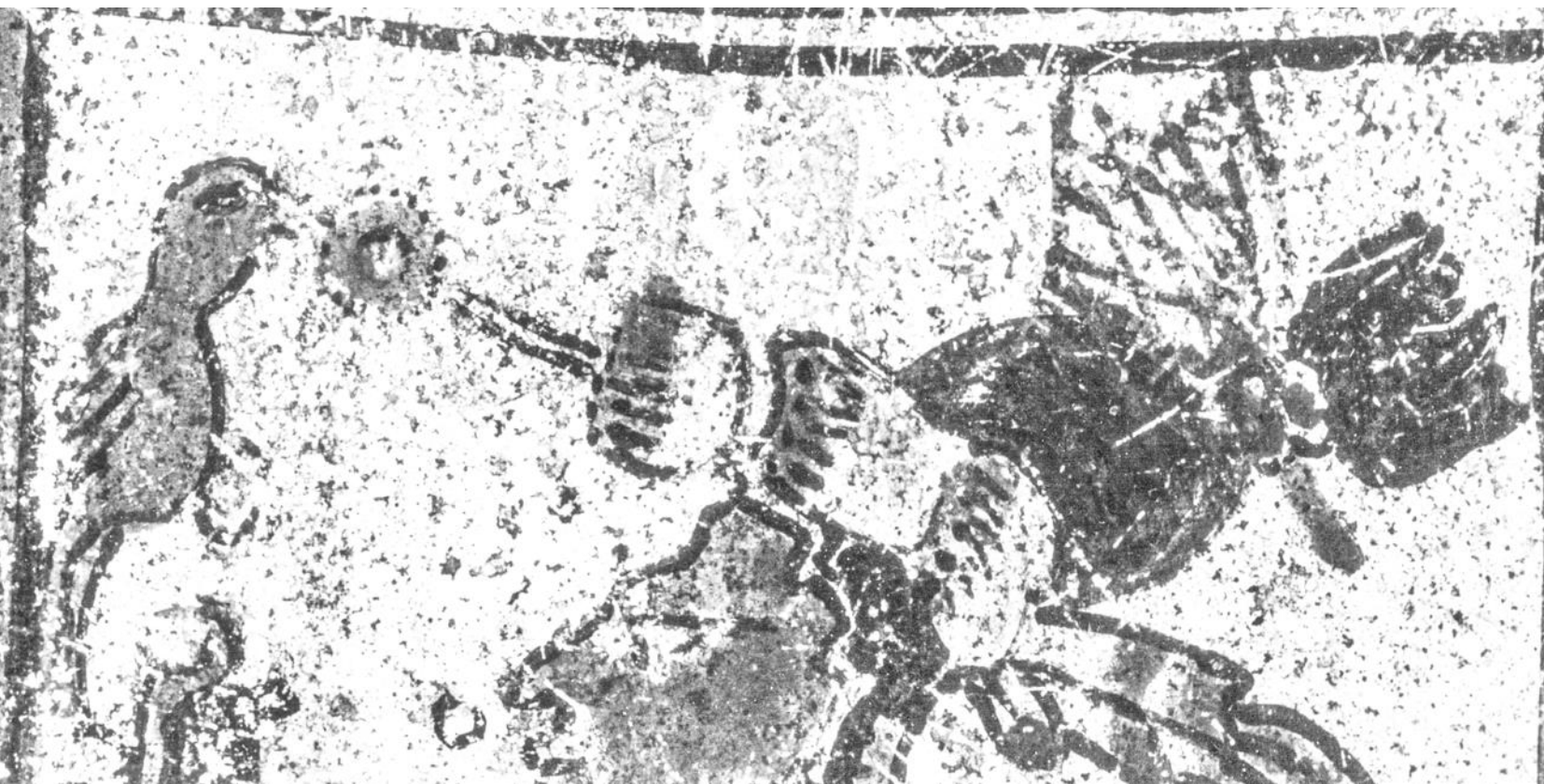


This hummingbird is more realistic size, but the artist is featuring its legs and feet—not visible on 90% of the flying/feeding hummingbirds that I have photographed in Peten.

Contact sheet **492795-07.**



Hummingbird with its beak “though” a stylized flower (though this artist shows the beak behind, not through). Cropped by Hellmuth from contact sheet **265441-31**, scanned by Senaida Ba with an Epson Perfection V39 Scanner. If you used a Leica camera or Hasselblad camera many decades ago, scan the contact sheets with a better-than-average scanner, such as the EV39.



Hummingbird with round stylized flower featured on its beak. This is a rare square vase (so not a round vase).

Hellmuth photos, FLAAR Photo Archive, contact sheet **265441-31**, Dumbarton Oaks, Trustees for Harvard University.





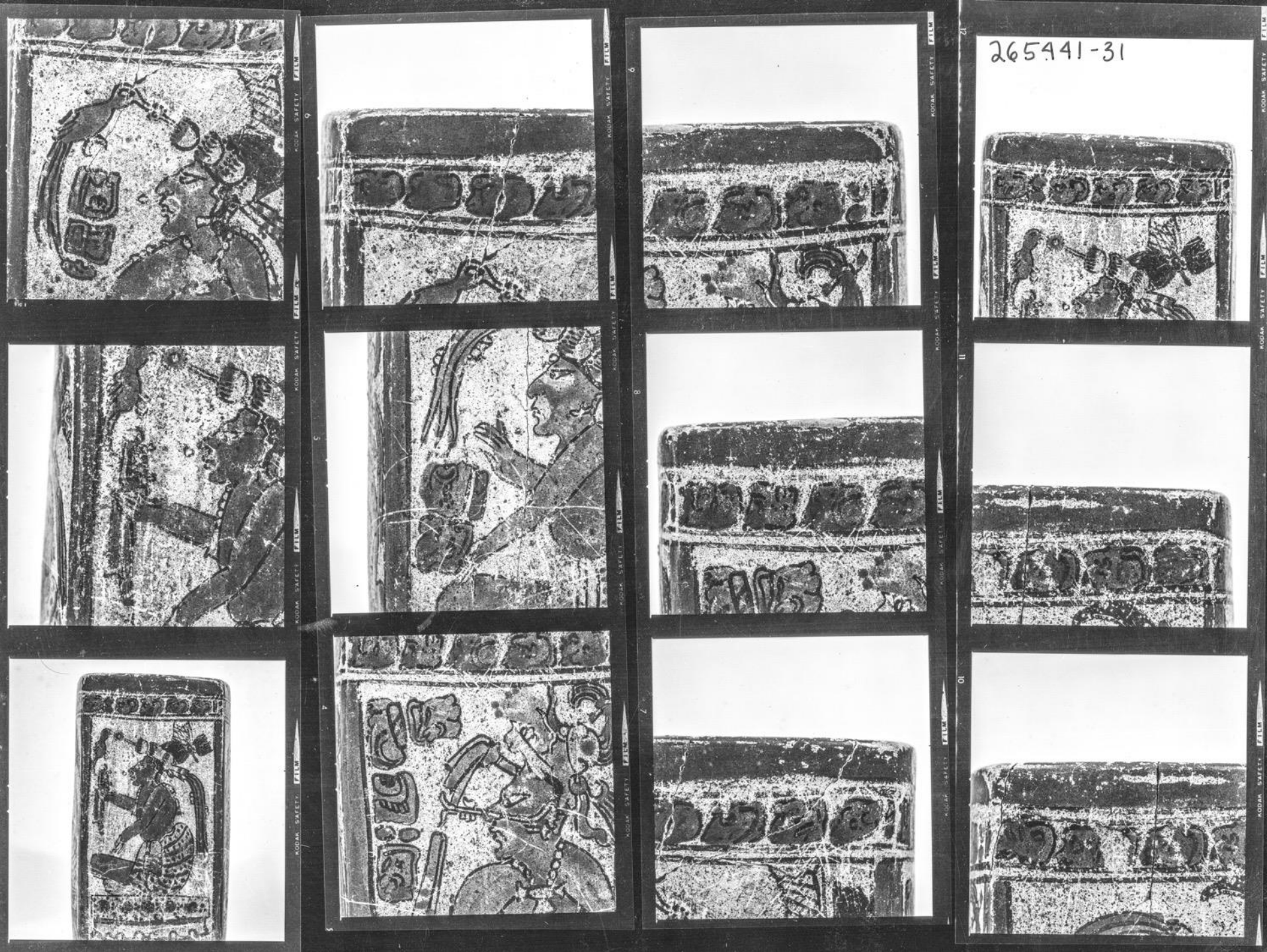
Hummingbird with its beak “though” a stylized flower (though this artist shows the beak more-or-less behind, not through).

Cropped by Hellmuth from contact sheet **265441-31**, scanned by Senaida Ba with an Epson Perfection V39 Scanner.

These hieroglyphs deserve to be studied.

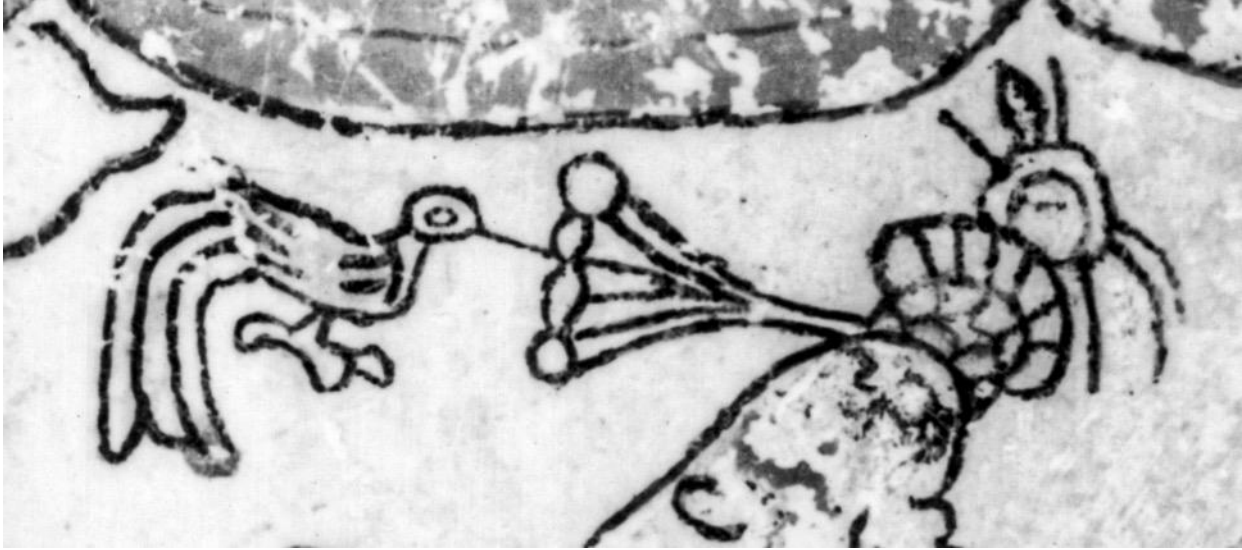
Contact sheet **265441-31**,
scanned by Senaida Ba with
an Epson Perfection V39
Scanner.

All the original B&W contact
sheets were donated to
Dumbarton Oaks, Trustees for
Harvard University, in the
hope that they have access to
a company that can scan the
original black-and-white
medium format negatives
(photographed with a
Hasselblad camera and Zeiss
lens—so of excellent
resolution in the pre-digital
era).



Hummingbird with long straight beak (its end is inside the flower so whether it had curl, or not, is not visible). It is rare to have this on the headdress of a female. Since God N is a male (not a female) it's unsure whether the object on the back is a seashell, or a giant stylized something else. This scene can fuel an entire thesis—shown here is only HALF the scene.

Contact sheet **456981-64.**



Contact sheet **456981-64**

These headdresses are not identical in details with those of the Yaxchilan lintels, but they are obviously regional variants that want to show some of the same aspects—for example—the headdress on the long-nosed man has giant stylized flowers facing left, front, and right.

But only the front one has a bird—and the beaks of both birds on this scene are thin and straight—so obviously showcasing a hummingbird.

Cropped by Hellmuth from Kerr rollout K1549 from database of improved resolution of Dumbarton Oaks, Trustees for Harvard University.

I am not convinced of Kerr's "pseudo-glyphs". **These glyphs are surely readable.**

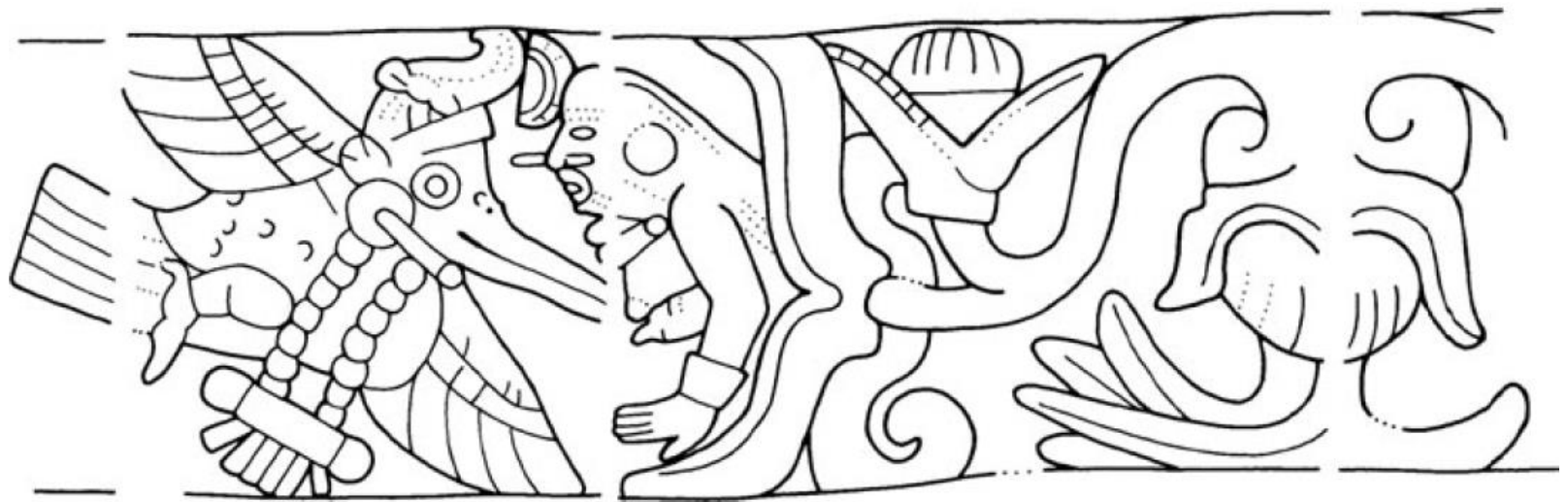
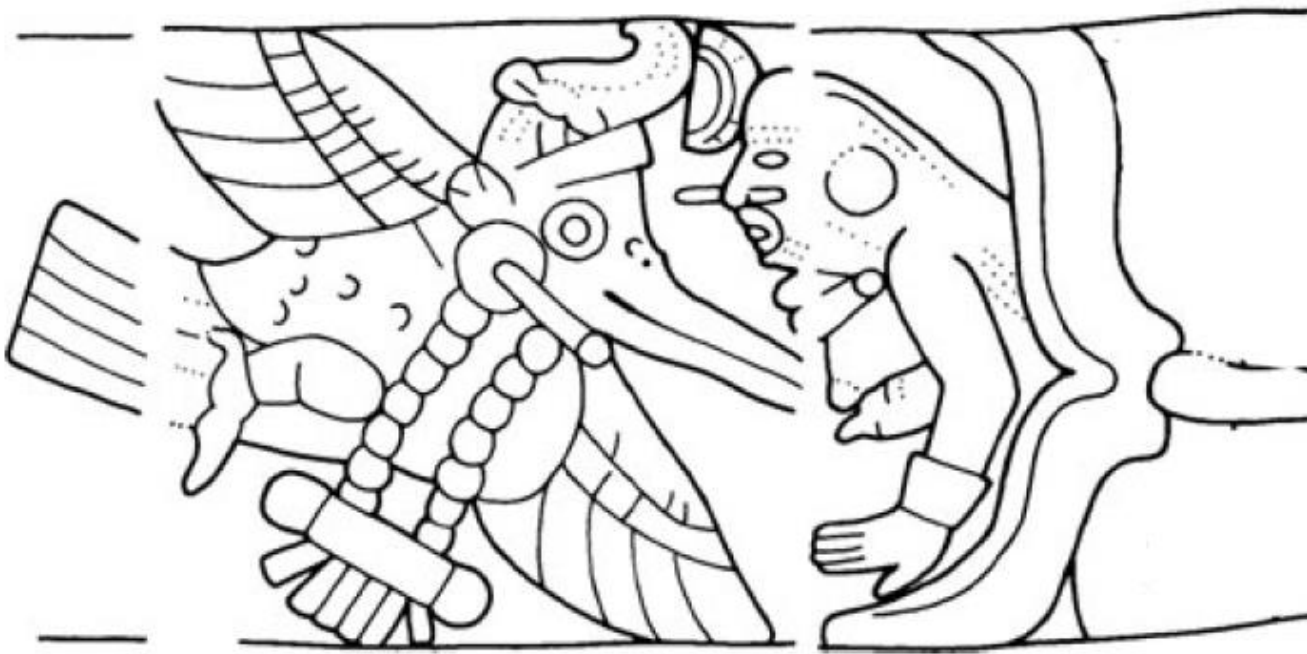




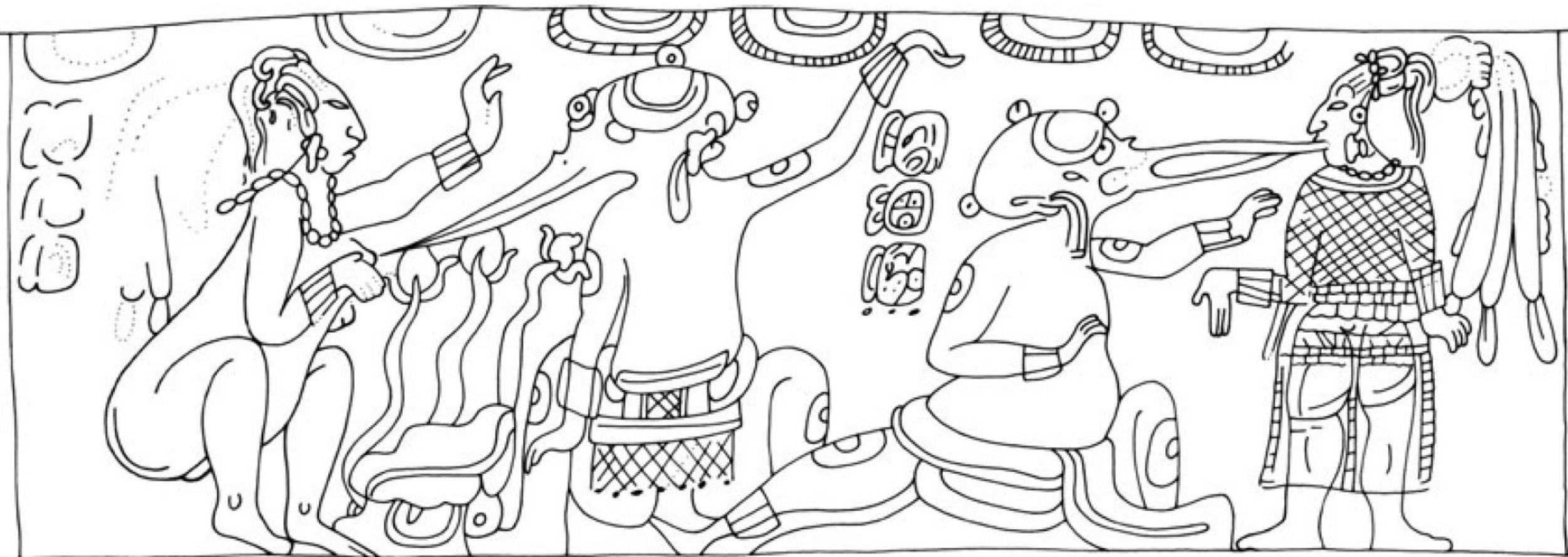
Kerr rollout K1549, from database of improved resolution of Dumbarton Oaks, Trustees for Harvard University.

Chapter 7

Hummingbirds and Composite Hummingbird-Insect-Sucking- Monsters that suck on Breasts of Females or Mouths of Men



Hummingbird aiming for female breast, Chichen Itza, Lower Temple of the Jaguars. This hummingbird is one of the ones published already in the previous century. Now there is this newer drawing by Oswaldo Chinchilla, based on rubbing by Merle Greene Robertson (Chinchilla 2010: Fig. 7).



Another giant hummingbird aiming for a female breast. Kerr rollout K7433 not in DO database.

Drawing by Chinchilla 2010: Fig. 8, calling it a (generic) insect.

[I sincerely thank Dumbarton Oaks for sending me a full-color Kerr rollout of this scene.](#)



Hellmuth digital rollout of Codex Style vase, Museo de Arqueología y Vidrio Moderno, Antigua Guatemala. Separate photo by Chinchilla but same Codex Style vase featured in Chinchilla 2010: Fig. 10. [He calls it a mosquito \(page 53\).](#)



So far I have not found any caption that lists where this plate is located or where it was found.

Captioning this a mosquito is fully understandable but their “sucker” is their flexible proboscis—not a rigid beak. So at the end we list insects with giant beaks.



Often captioned as a mosquito but if so is composite hummingbird-mosquito, focused on woman’s breast on a Maya plate (Chinchilla 2010: Fig. 1). Face and body are anthropomorphic and skeletal. Since this is a “sucking stinger” not really a beak, it shows only “the upper half of a beak”.



Bird but not hummingbird.

Bird but not hummingbird.

“Mosquito man”; the affix-like design on his wings needs to be compared and contrasted with other “composite mosquito-hummingbirds”. This “sucking tube” seems to have a simplified, stylized flower between the creature’s face and his upraised hand. Potentially need to no longer automatically call this a mosquito.

Will help when an epigrapher can “read” the infix on this creature’s wings and see if that helps provide a name for this thin-armed monster.

Jay I. Kislak Collection, Library of Congress. Kerr rollout K2668 downloaded from database of improved digital quality of Dum barton Oaks, Trustees for Harvard University.

This composite creature has the body of a man but with wings on the arm. And, the head is hummingbird proportions. Another obvious feature of a Maya hummingbird is that the beak pierces a flower (here the flower is shown in profile—not in frontal view).

The beak has both the upper and lower halves (some anthropomorphic hummingbirds have only the top part).



Los Angeles County Museum of Art, LACMA.

Hummingbird man vase, Kerr rollout K5975—but in the Dumbarton Oaks database there is only one still photo—no rollout. But the rollout is on-line elsewhere.

Most of us archaeologists and iconographers forget that LOTS of insects feed on flowers—so not just hummingbirds. And some of these insects are so large and flap their wings so fast that they look like hummingbirds.

In fact, there are multiple insects named HUMMINGBIRD Moths.



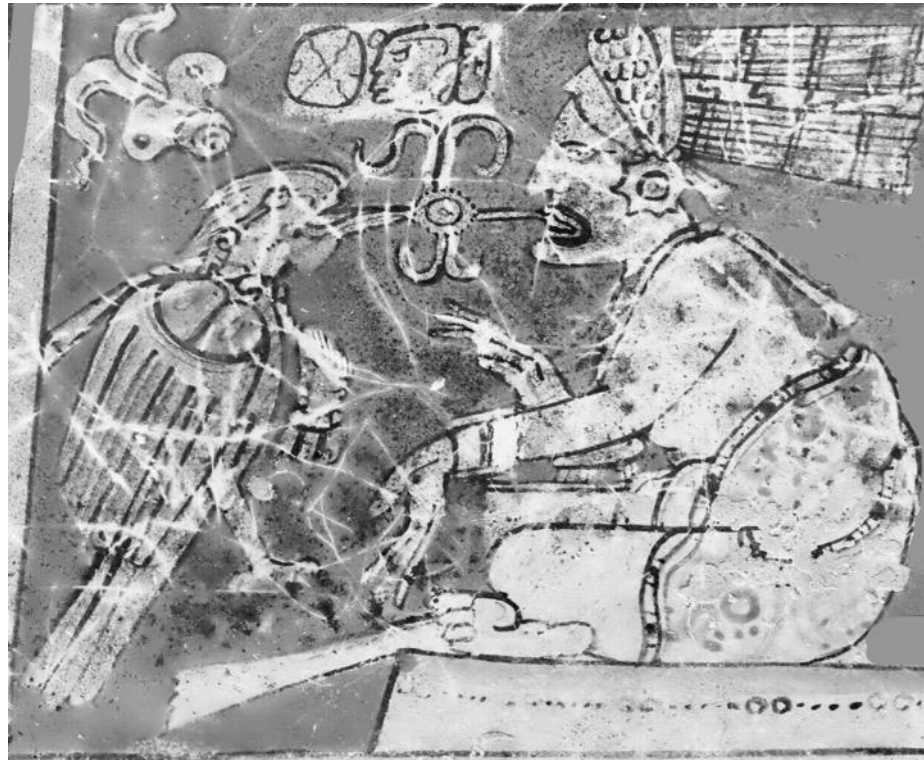
In both of these scenes the giant hummingbird is wanting to suck something out of the mouth of a male.



Cropped by Hellmuth
from Kerr rollout K5975

The word parrot should be removed from the Summary in the D.O. database, or politely say “Kerr says this is a parrot but nowadays we all realize that the Classic Maya NEVER showed a parrot with a beak this long nor a flower on the middle.”

The flower is frontal (which is the usual style). The bird is of giant size (real hummingbirds are small) but otherwise is not anthropomorphic (other than “ear” and necklace).



Cropped by
Hellmuth from Kerr
rollout K4550.

This long text shares many glyphs with a PSS dedicatory formula but is slightly atypical—deserves epigraphic study.



Kerr rollout K4550, downloaded from database of improved resolution of Dumbarton Oaks, Trustees for Harvard University. Would help to have in color.

This giant hummingbird has anthropomorphic ear and long necklace. The beak has a stylized flower in the middle. This bird is “sucking” out of the mouth of the seated individual—who is seated on a throne with oo Symbols of the Surface of the Underwaterworld (Hellmuth 1987a and 1987b). Curious whether the person at the right is male and what is the scroll issuing out (not the normal conch shell; but full conch shell is held in the hand towards the bat). A stylized fish is nibbling on a stylized flower sticking out from the amazingly deformed stylized Maya head.

Already published long ago: Person or Supernatural or “Insect Monster” with giant Hummingbird Beak attached, but not discussed iconographically.



This hummingbird has a beautifully exaggerated length. Says Tikal Bu. 116 but I can't find it in Culbert 1993. (Foncerrada and Lombardo 1979: page 253). Fortunately, they also cite Coggins Vol. II, Fig. 149, where the ceramic is listed as 98K-220. But, even if not from Tikal Burial 116, I am curious why this drawing is not in Culbert's report. Google Image search does not locate this drawing whatsoever (so AI is not yet very useful).





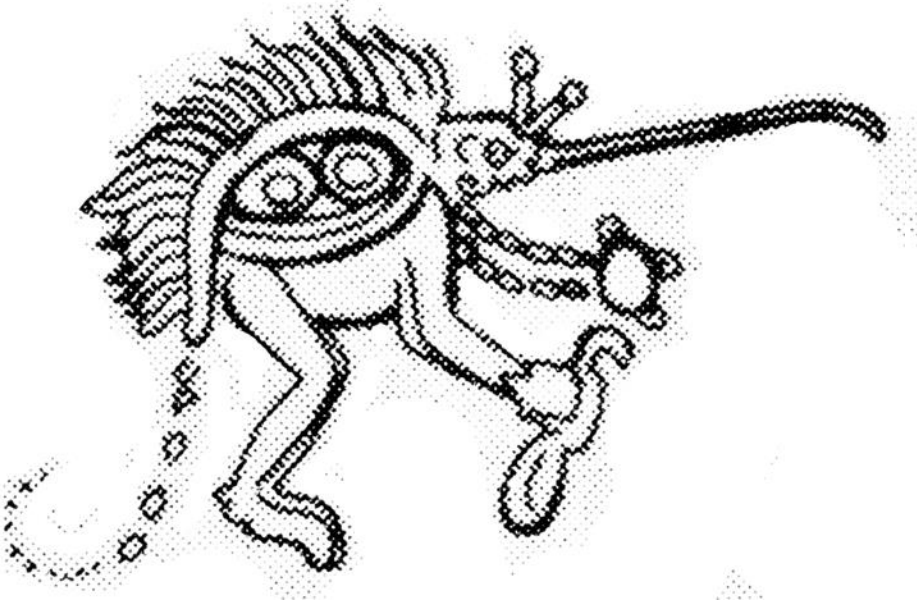


This is a good example of a man with giant “hummingbird “stinger-beak””. You can see this much more easily when you separate it from the other personage.

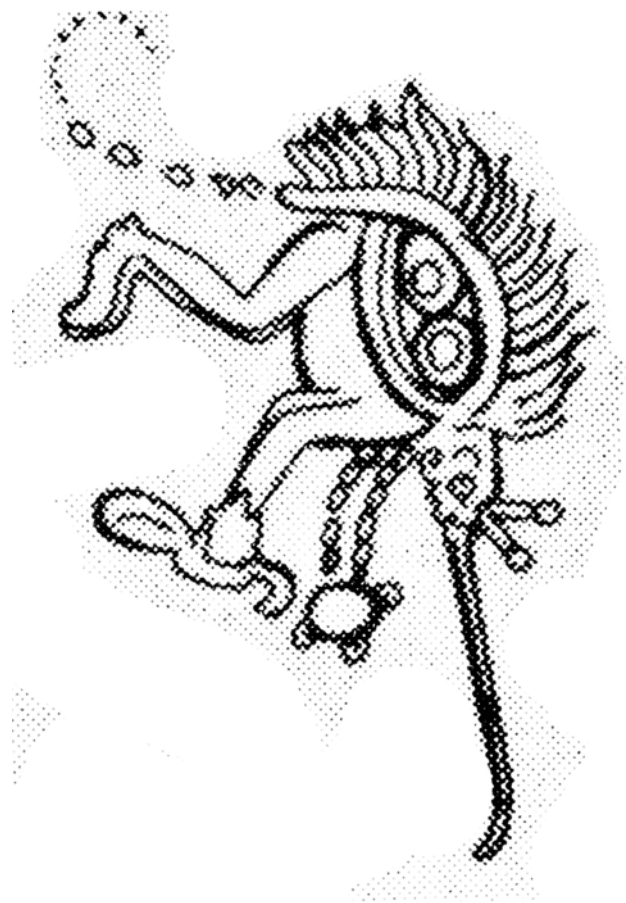


This personage needs to be redrawn (Where is the original vase, and why is it not illustrated by Culbert ??). I estimate that the head is skeletal. Sticking out from the forehead is a common giant stylized Maya flower. This person has “wings” so is most likely a skeletal-faced variant of the common “[insect](#) with [proboscis](#) as front “stinger””. Its beak/[stinger](#) is “damaged” probably by the hummingbird man’s long curved beak. [The “beaks” \(proboscis\) of hummingbird moths are flexible.](#)

More Giant “Mosquito” Composites: Same Beak
as Hummingbird. We show the actual scene in
the following chapter and lots of photos in
Appendix A



Foncerrada and Lombardo 1979: page 190



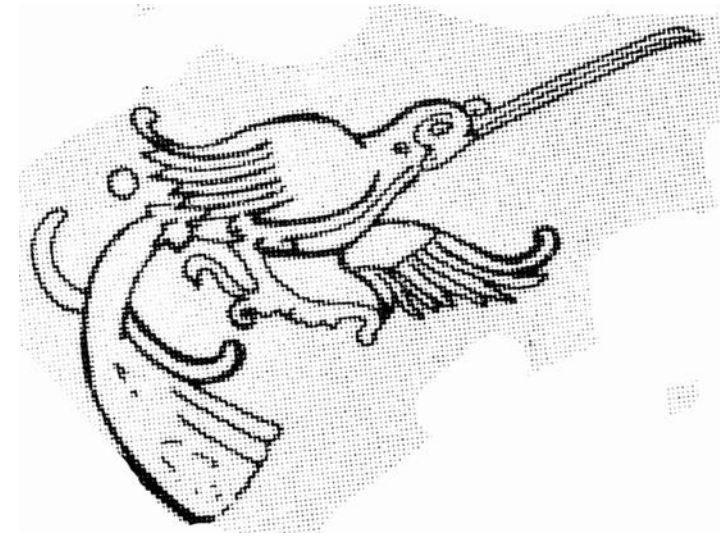
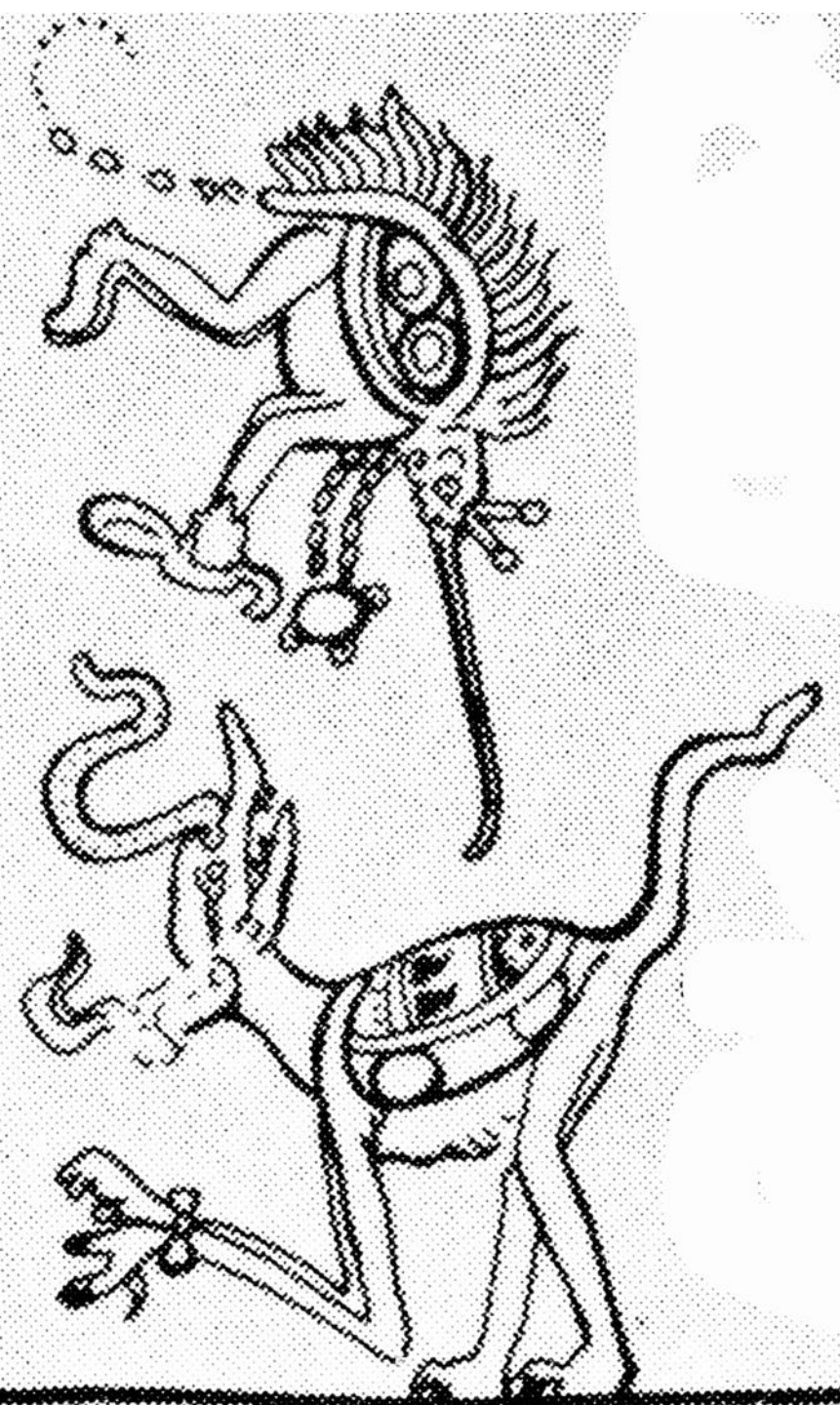
4-Legged “Insect Monsters” with “Hummingbird Beak” that suck from Armadillos

Most giant Maya insects have only four feet—not the six of an actual insect.

With the insect-like feet this is unlikely a hummingbird but shares the same beak and the same size and shape of the head. Has diagonal nose beads and a typical long necklace—both anthropomorphic features (as are the arms and legs). But the feet and hands are not human size or shape.

A mosquito does not suck blood out of a beak...but the Maya seem to have created a composite.

Antennae of an insect?



Beak is similar but not identical. A challenge to know whether the insect has talons on its front legs.



Deer-hoof animal (but featuring “fangs” and forehead flower) is attacked by a “monster” while the armadillo (with the same flower as the deer) is attacked by a “mosquito” with “hummingbird beak” rather than stinger at its base (as a real mosquito would have). This skeletal creature has no wings, and is tagged as “mosquito” from other publications and other scenes where it does have wings (next page).

Published in Hellmuth 2024h: Fig. 15). Kerr rollout, K2759.

This photo can be enlarged to full-page size. This individual photo is 31 MB in the scan (so MB not KB).

Mosquitos have stinger at their tail end but this is a blood sucking monster (notice the skeletal jaw, row of disembodied eyes, anthropomorphic body, and wing behind the arm).

Contact sheet: **471242-14.**



Medium format film (each photo 6x6cm) with Hasselblad camera, Zeiss macro lens on focusing bellows.

This scan is 623 MEGAbytes (and it's a scan of the contact sheet **471242-14**). Hopefully Dumbarton Oaks will be able to scan the original negatives and get even better quality).

Chinchilla and other archaeologists, iconographers and ethnographers focus also on the role of hummingbirds in Maya myths and myths of Mixtec and Aztec codices. I prefer to find examples of hummingbirds in Maya art that have not previously been published in discussions of hummingbirds. Once I have this larger corpus, then other scholars have more documentation for their own separate future studies on mythology.





Kerr rollout, K2759.



Contact sheet: **471242-14.**



K4377

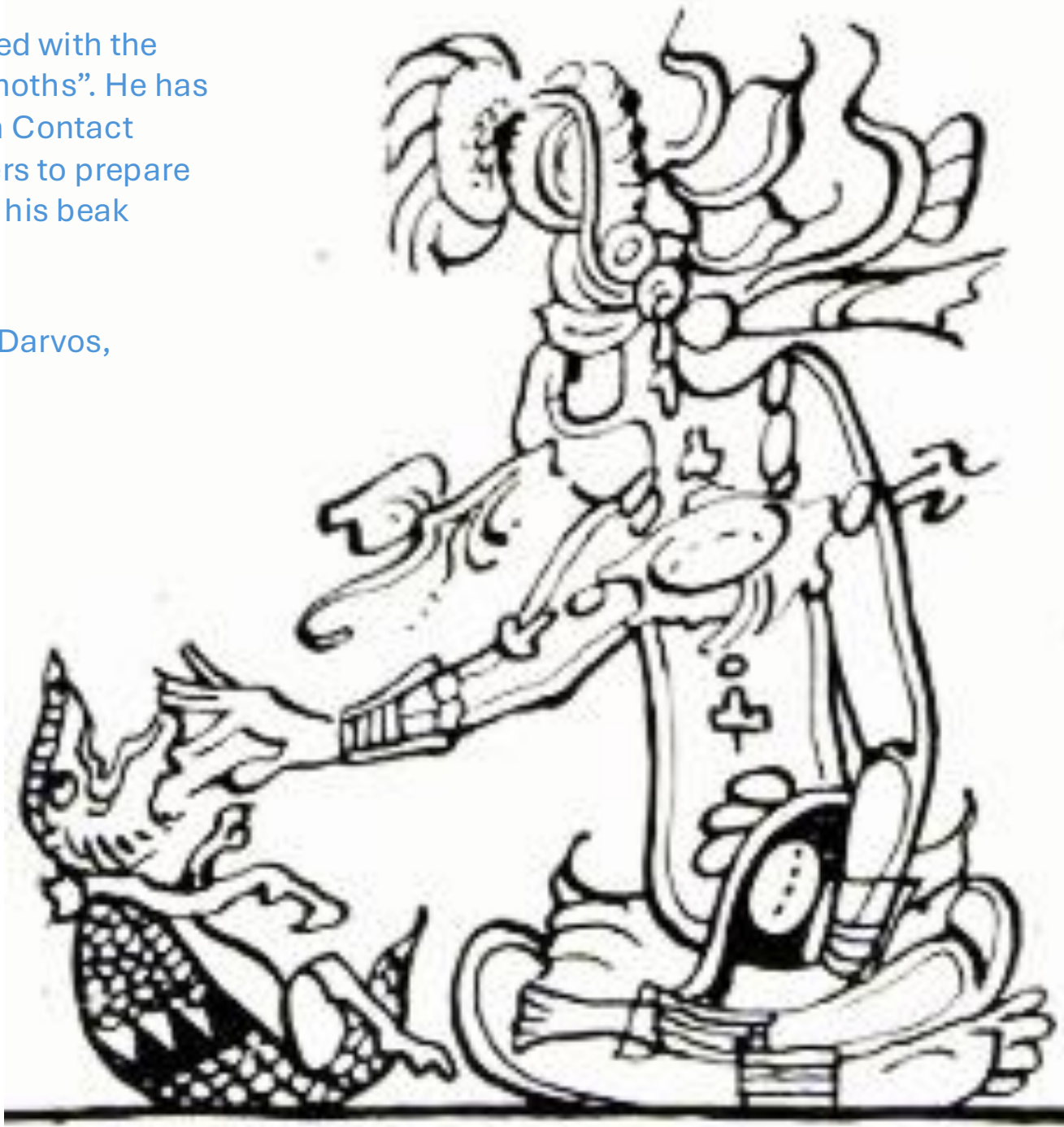
The skeletal face of the upper right "insect", and lower two, look like the same "skeletal mosquito with sucking tube of a hummingbird instead tail-end of a real mosquito."

Chinchilla
2010: Fig. 1



This person has a “deity shaped eye”. His “beak” is clearly associated with the other “mosquito monsters” (that we now know are “hummingbird moths”. He has an anthropomorphic deity head—not a skeletal “insect head” as on Contact sheet: **471242-14**. But this anthropomorphic deity is using his fingers to prepare the same area of the diagonally placed armadillo that will be where his beak

Cropped and cleaned by Hellmuth from helpful drawing by Sandor Darvos, Robicsek 1978: Fig. 187.

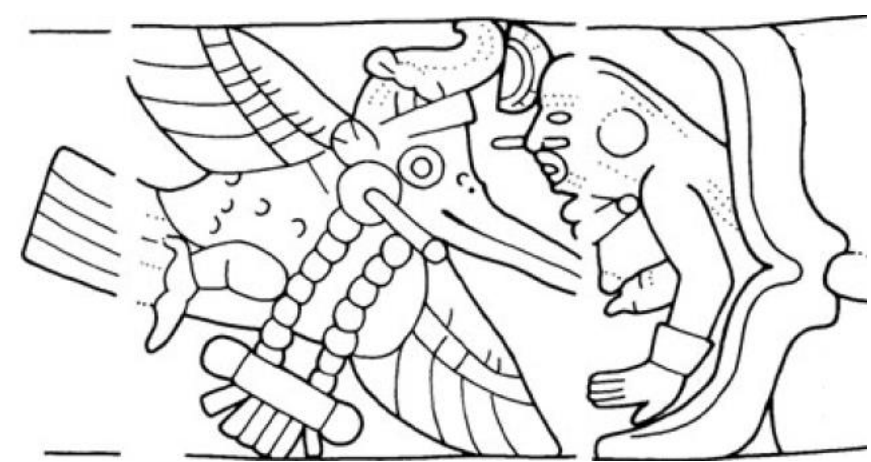




Cropped from Hellmuth digital rollout of Codex Style vase, Museo de Arqueología y Vidrio Moderno, Antigua Guatemala. Also featured in Chinchilla 2010: Fig. 10.

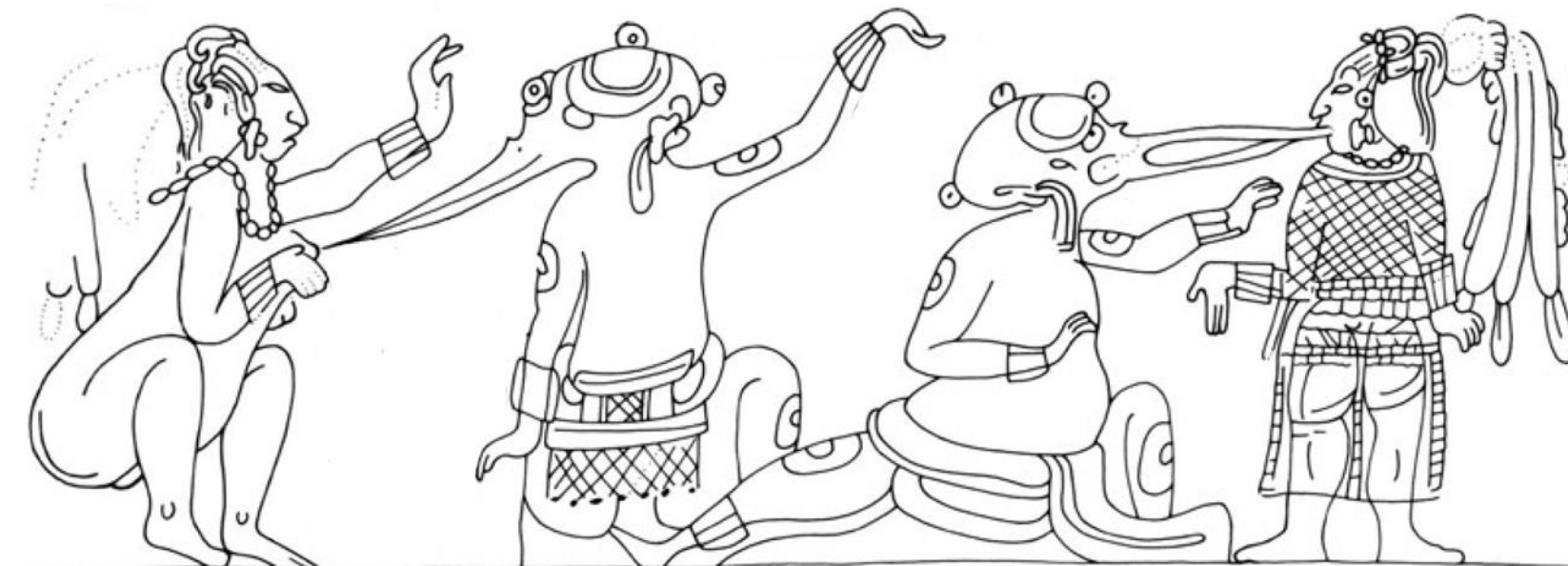


Chinchilla 2010: Fig. 1



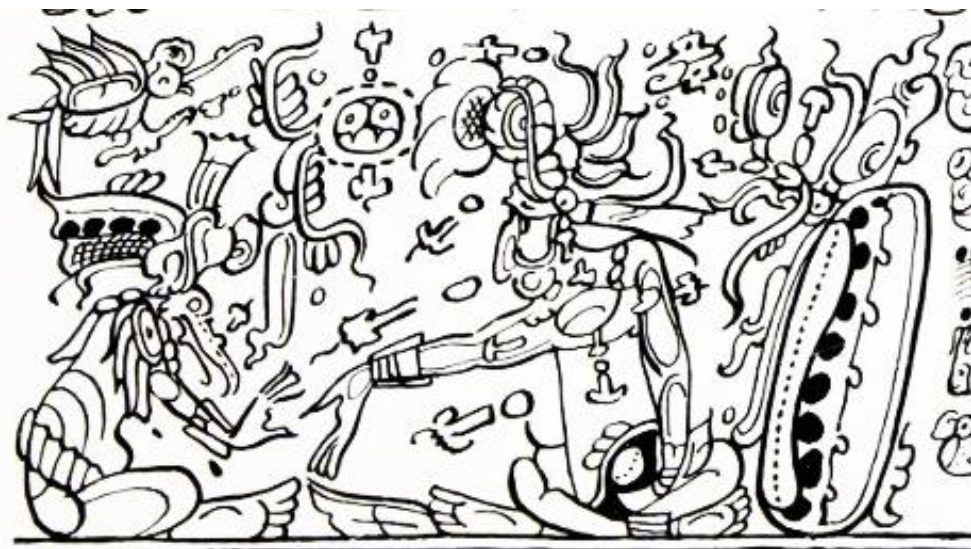
Hummingbird as complete bird (not as a composite insect monster) aiming for a female breast.

Chichen Itza Lower Temple of the Jaguars drawing by Chinchilla (2010 Fig. 7).



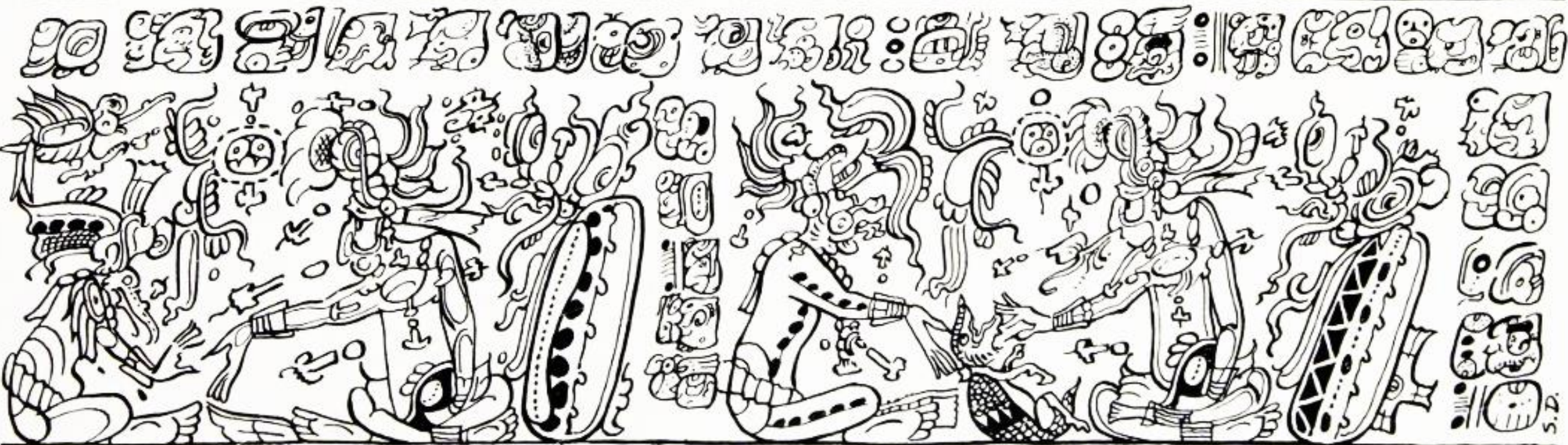
Anthropomorphic hummingbird aiming at a female breast.

Kerr rollout K7433, not in D.O. database. Drawing by Chinchilla 2010: Fig 8,c



Helpful drawing by Sandor Darvos,
Robicsek 1978: Fig. 187.

This armadillo is missing from
Newman and Rossi 2022. This
armadillo is also missing from
Hellmuth 2024h. This “hummingbird”
scene is also missing from all
previous iconographers’ studies of
hummingbirds and insects.





Hemaris thysbe, the **hummingbird clearwing**, is a moth of the family Sphingidae (hawkmoths). (Wikipedia.org). But this is mainly in the USA—not Mesoamerica. The hummingbird hawk-moth is from Eurasia (again, not Mesoamerica). But...if you Google Hummingbird moths you find other species of genera *Hemaris* and *Hyles*. Processed by Hellmuth from <https://birdsinguatemala.com/hummingbird-moth/>

Photo at the right [Mike Boone](http://bugguide.net/node/view/78394) - <http://bugguide.net/node/view/78394>

For the creatures native to Guatemala:
<https://www.insectidentification.org/insect-description.php?identification=Hummingbird-Moth>



Enema jug

This is a bird not a hummingbird MOTH, and it is not attacking the armadillo.



Stylized Maya armadillo, not previously noticed and thus missing from all major iconography reports on armadillos.

Bowl of the Smoking Black Lord, drawing by Maria Zsigmond (Robicsek 1978: Fig. 153).

Hyles lineata, also known as the white-lined sphinx moth, is another general of moths of the family Sphingidae. So same family as moth genera *Hemaris*. They are also known as a "hummingbird moth"

The Maya show lots of waterbirds with long beaks, but such birds are not usually shown sticking their beak on an animal or animal.

Here the long beaked bird or insect sticks its beak onto the nose area of a giant anthropomorphic bat.

This bird's beak lacks the extreme length and curled end of most Maya hummingbirds, so I would consider suggestions that this is not a hummingbird.

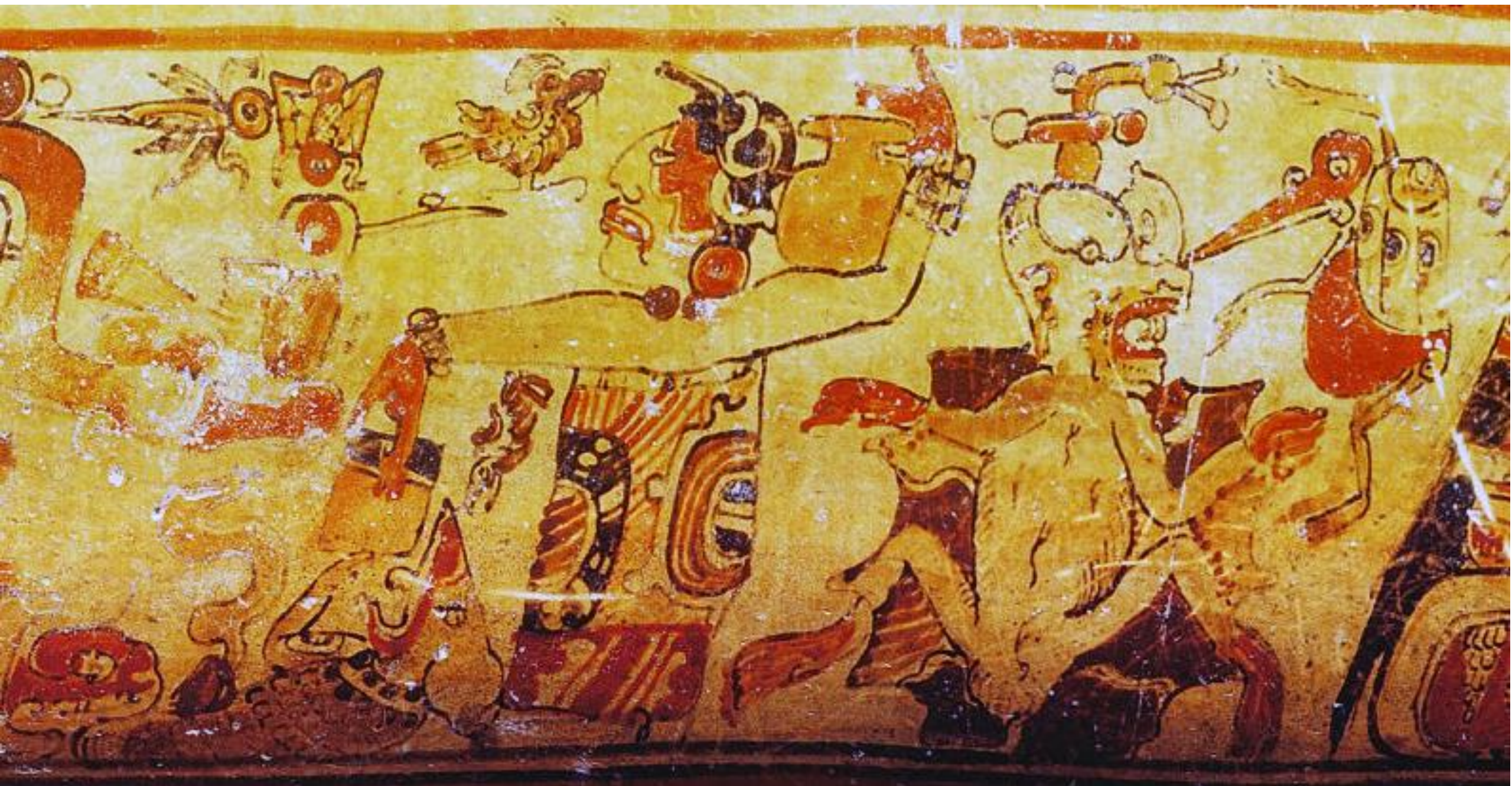
This bird has an arm and leg—so is slightly anthropomorphic. One would assume that the oval motif on this creature is its wings.

This scene is authentic and not repainted.

Cropped by Hellmuth from Kerr rollout, K1254, downloaded from the database of improved digital resolution of Dumbarton Oaks, Trustees for Harvard University.

Chrysler Art Museum.



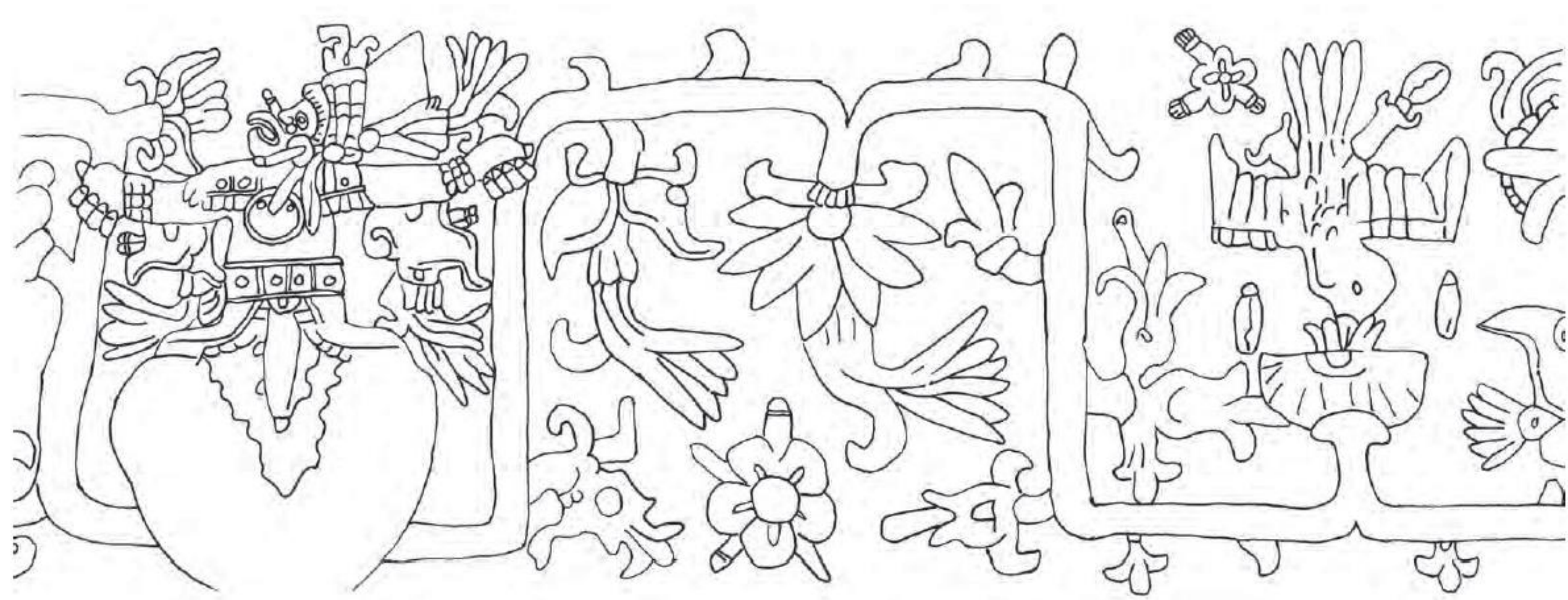


subin-insect-Red-Band-Tepeu-1-Style-Kerr-rollout-K1254-DO-

This is a photo by Nicholas Hellmuth.
The rollout is by Justin Kerr (K1254)
(Hellmuth 2026d).

The rollout helps iconographers and
epigraphers—the photo of the actual
size and shape of the vase helps
archaeologists.





This nectar **loving** bird is possibly a hummingbird, but unless its long beak is far down inside the flower, the beak this artist shows is not what most Maya artists feature for a hummingbird.

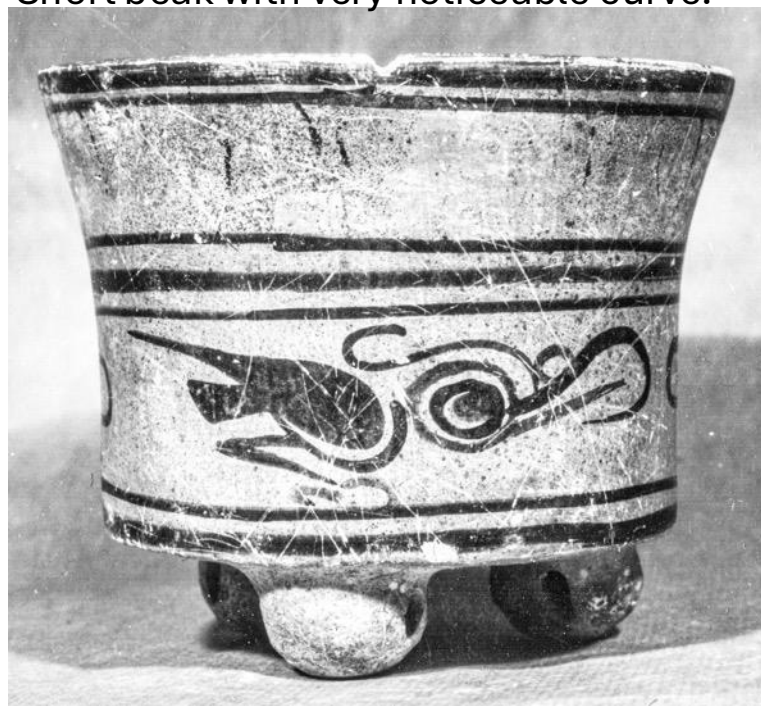
Chichen Itza House of the Snails Str. 5C5, Initial Series Group (Schmidt Stuart and Love 2008: Fig. 8). Drawing by Guillermo Couoh Cen, redrawn and inked by Stevie Love.



Contact sheet **471242-09.**



Short beak with very noticeable curve.

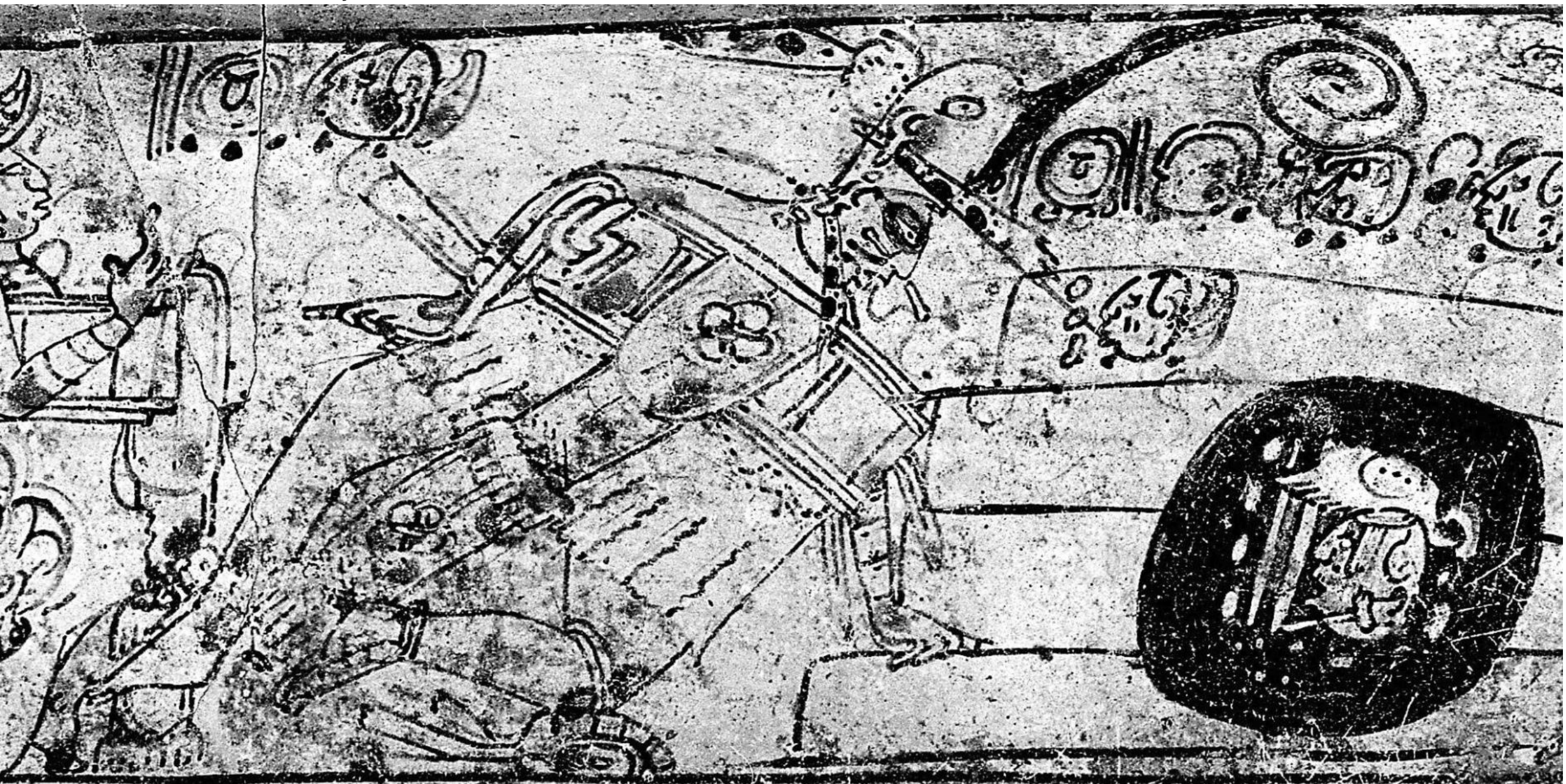


Most ceramics of this size and shape are called cylindrical tripods and 99% of them are Early Classic. But this painting looks more like what I would expect of a Late Classic scene. So is this late Tzakol 3? Or early Tepeu 1?

Contact sheet **471242-09**.

This looks more like the tongue of a hummingbird. No bird in Guatemala has a beak of this size or shape.

Late Classic, Codex Style, Kerr rollout K2912.





Exaggerated hummingbird headdress on ballplayer,mm
Codex Style Kerr rollout K2912.

Downloaded from database of improved digital quality of
Dumbarton Oaks, Trustees for Harvard University.



Scroll of a hummingbird MOTH

Rollouts are essential for iconographers and helpful for epigraphers. But, for archaeologists, it helps to see the size and shape of the actual ceramic.

This size and shape is not common in Central Peten—but Codex Style ateliers probably produced a lot of this shape.

There are over 2,300 pages in a dozen volumes of FLAAR reports on the ballgames of the Maya and their neighbors. Balls of this large size and very common. And, most of the ballgame “ceremony” took place adjacent to steps—not in the ballcourt alley between the two buildings.



The rollout is by Justin Kerr but this still photo is by Nicholas Hellmuth, FLAAR Photo Archive, Dumbarton Oaks, Trustees for Harvard University.

Museo Fundacion la Ruta Maya.

The long beak with slight curl at the end is a variant (the curl is not exaggerated too much).

This is an anthropomorphic head and has a “nose” with nose beads rising up, plus has a headdress and earrings.

Many Maya plates have a “kill hole” drilled or poked or hammered into them before being placed in an elite burial..

Polychrome plate, Peten or nearby area.

The 5-spot motif is of interest.

This is an authentic Late Classic Maya painting—no modern repainting.





→7



→8



Stuccoed-and-painted Late Classic Maya ceramic, with three very tiny supports (but not an Early Classic cylindrical tripod). Contact sheet **416398-02-Neg-07**, 08 and 09. The contact sheet says Kodak Safety Film 6057, which the Internet says is Plus-X Pan Professional (PXP), black-and-white film. This is medium format size, known as 120 format in the previous century. I had three different film backs for 3 different Hasselblad cameras, so I could photograph square (6x6 cm) and get 12 photos for each roll. Or I could put on a different back and get 16 photos in rectangular format. And the third film back was for color transparency film.

For 35mm I had three Leica cameras, several Leica macro lenses, including focusing bellows. Plus several tripods, tripod heads, and lots of studio quality lighting with light stands. Often when I was flying to a different country I had to hire two taxis at the airport to hold all the equipment.

The large ceramic container at the left is known as “an enema jug.” If you Google Hellmuth, Maya, enema you will get several iconographic discussions of everything related to Maya enema ceremonies. Hellmuth (and Peter de Smet) won the 2022 Ig Nobel Prize for this research.



Traditional exaggerated Maya hummingbird beak on skeletal man. Kerr rollout, Kerr K4377. Dumbarton Oaks database of improved quality.



Hummingbird beak on skeletal man, enema scene, Kerr rollout, K4377, improved resolution of database of Dumbarton Oaks, Trustees for Harvard University

Jaguar-costumed men are common in Maya enema scenes. The enema syringe is clearly visible.

Kerr rollout K2669, downloaded from Dumbarton Oaks database.



Is this bleeding
decapitated head
being used to add
to the enema
recipe?



Kerr rollout K2669.





Enema jug with anthropomorphic bird at the left. The curved end of the beak suggests a possible stylized Maya hummingbird—but other bird(s) may also be an inspiration. This anthropomorphic creature has a giant human foot and sort of a human mouth below the lower part of the bird beak.

These two views are on contact sheet **471242-53**, but we have not yet found the other sides of this scene. This scene was probably not yet found (in the 30,000+ photos) for the year 2022 multiple publications by Hellmuth on the Maya enema ceremony.

Flying bird trying to eat something in the middle of an object the size and shape of an enema syringe.

The long beak suggests a hummingbird. With no long neck and long legs, this is unlikely a waterbird.



Rare portrait of a Maya stela on a scene on this vase.

An animal is across the top, probably sacrificed.
Another animal is seated facing the stela.

A Maya man has his hands outstretched, associated with what looks like an enema syringe (the hole in the middle is what suggests it's a clyster).



Maya
dog.

A giant enema jug with an armadillo on the right and a bird with serpent-face wing on the left.

This bird has a curved beak, so is a potential hummingbird.

This photo is Fig. 26 in Hellmuth 2024h. It was previously published elsewhere (Robicsek 1978: Plate 143) but we have not yet found that publication nor photos of any other sides of this same bowl.



This scan from Robicsek's 1978 book, Plate 131, 142, 143, and 144 shows the key features of this enema scene. But there is no author and no photographer mentioned in the scan name by whoever scanned this many years ago. Thus I sincerely thank Peter De Smet for sending me the source: Robicsek 1978. The color plates are a different sequence than the plates within each chapter.

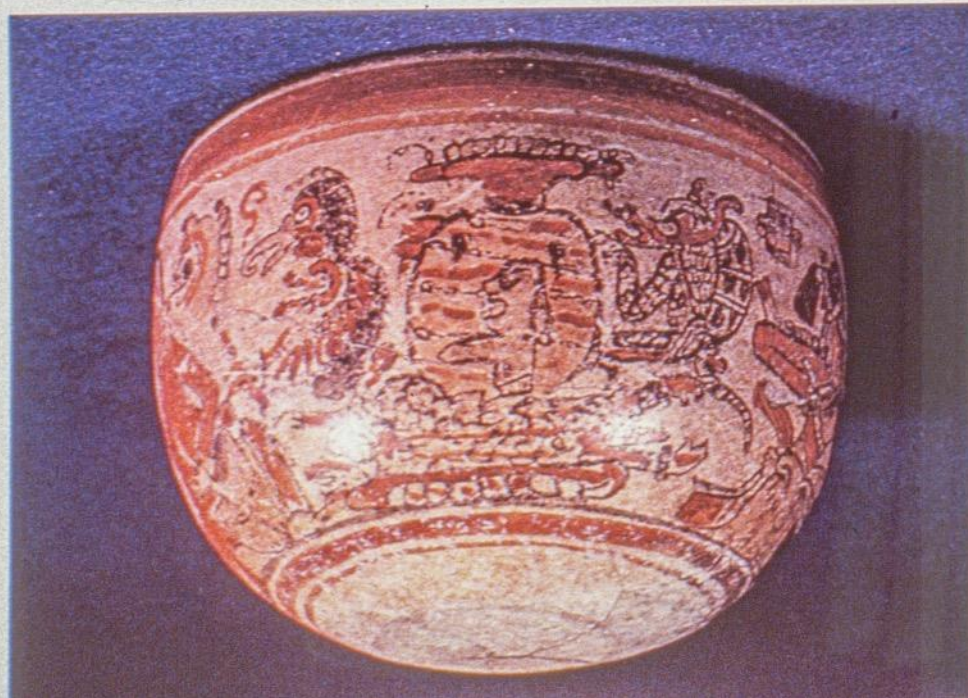
This is a Red Band Tepeu 1 Style vase.



Plate 141



Plate 142



Bowl of the Smoking Black Lord,
drawing by Maria Zsigmond
(Robicsek 1978: Fig. 153).

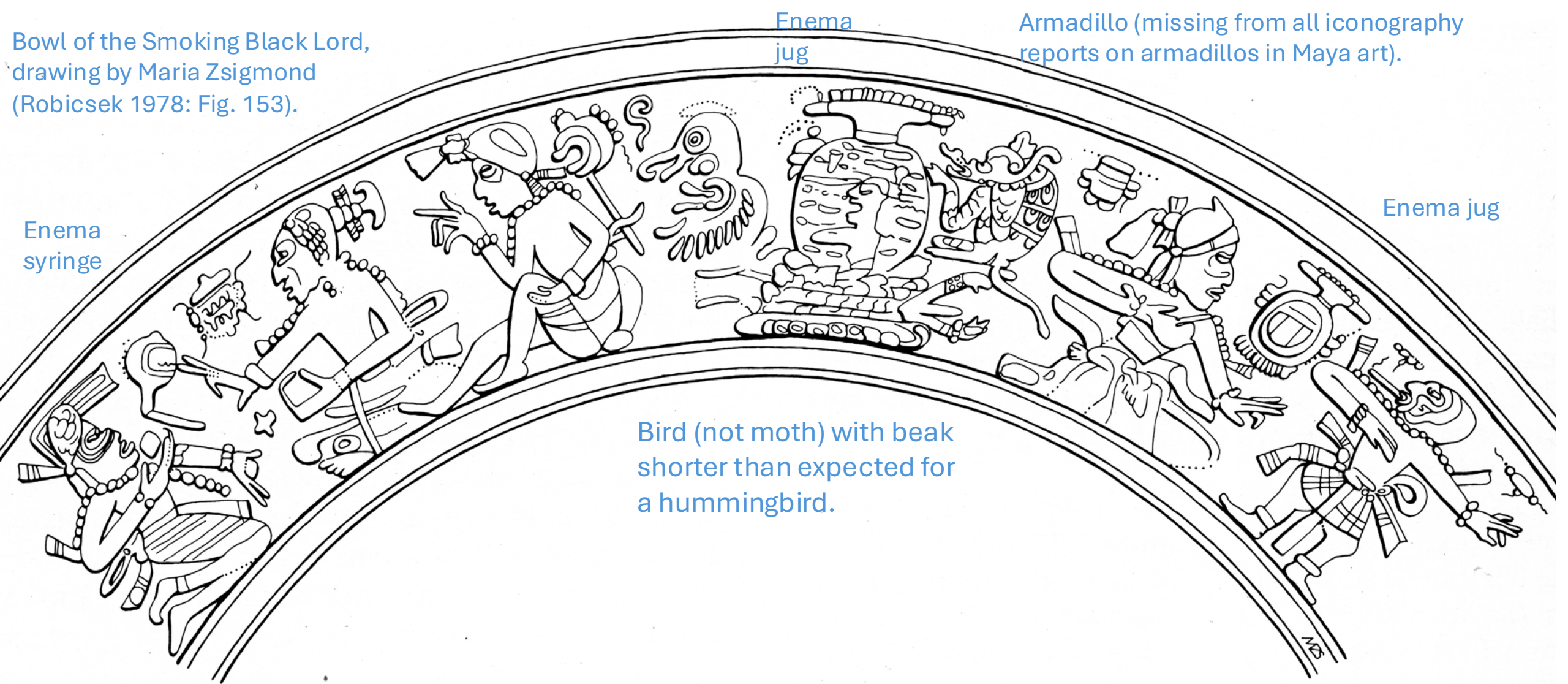
Enema
jug

Armadillo (missing from all iconography
reports on armadillos in Maya art).

Enema jug

Enema
syringe

Bird (not moth) with beak
shorter than expected for
a hummingbird.



Suggested Reading to learn about Enema Jugs, Enema Clysters, and other accessories of Maya Enema Rituals

DE SMET, P. A. G. M.

1985 Ritual enemas and snuffs in the Americas. Ph.D. dissertation. Latin America Studies no.33. Foris Publications.

DE SMET, P. A. G. M. and N. M. HELLMUTH

1986 A multidisciplinary approach to ritual enema scenes on ancient Maya pottery. *J. Ethnopharmacol* 16(2-3):213-262.

This is a republication of the Appendices by Hellmuth in the PhD dissertation of De Smet. This is the publication that won the 1922 Ig Nobel Prize in Art History.

<https://arstechnica.com/science/2022/09/maya-ritual-enemas-and-constipated-scorpions-the-2022-ig-nobel-prize-winners/>

FURST, P. T., and M. D. COE

1977 Ritual enemas. *Natural History* 76(3):88-91.

Furst and Coe are the scholars who first recognized, documented and published the enema ceremony of the Maya. Once Hellmuth learned from their illustrations of enema jugs and enema syringes (clusters), Hellmuth was able to find dozens, scores, more, which he published the following year (1978).

HELLMUTH, Nicholas M.

1977 Classic Maya Vase Paintings which now allow the Identification of Enema Iconography. Paper read at the International Symposium on Maya Art, Architecture, Archaeology, and Hieroglyphic Writing, June 25 - July 2, 1977.

Based on Hellmuth photos of 20 vases or bowls and 2 plates. Although no actual lecture from this “pre-digital” decade exists, the major advances are preserved in the text.

HELLMUTH, Nicholas M.

1978 Principal Diagnostic Accessories. FLAAR. First update of 1977 notes, 9 pages that list all the contents of scenes that allow you to recognize a Maya enema ceremony.

HELLMUTH, Nicholas M.

- 1985a Principal Diagnostic Accessories Of Maya Enema Scenes, 1978, revised November 1984. Appendix B, pages 137 -148. Appendix C, pages 149-159, is captions to the 43 of photographs by Nicholas Hellmuth of enema scenes. In: *Ritual enemas and snuffs in the Americas*. Ph.D. dissertation. Latin America Studies, no. 33, Centro de Estudios y Documentación Latinoamericanos. P.A.G.M. De Smet, ed. Dordrecht: Foris Publications.

HELLMUTH, Nicholas M.

- 1985b Principal Diagnostic Accessories of Maya Enema Scenes, *Preliminary Notes in Maya Iconography*, No. 5. Written in 1978, revised November, 1984, revised July 1985, Cite as 3rd revised edition, 1985. FLAAR.

HELLMUTH, Nicholas

- 2022a Time-line of Discovery of Enema Paraphernalia and Enema Rituals. FLAAR (USA) FLAAR Mesoamerica (Guatemala). 20 pages.

HELLMUTH, Nicholas

- 2022b Classic Maya Enema Scenes not previously Published, Classic Maya Enema Ceremonies, Enema Accessories pictured in Maya Plates, Vases, Bowls, Iconography of Enema Jug, Enema Clyster, and Enema Scenes in general. FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 110 pages documents how many Maya paintings show enemas but most of these were not previously known.

The presence of hummingbirds and/or hummingbird monsters was not yet noticed so no hummingbirds are included. Nor armadillos.

HELLMUTH, Nicholas

- 2022c Classic Maya Enema Ritual Iconography. *The Aztlander*, Vol. 2, No. 11, November 2022, edited by Jim Reed and Michael Ruggeri, 3 pages.

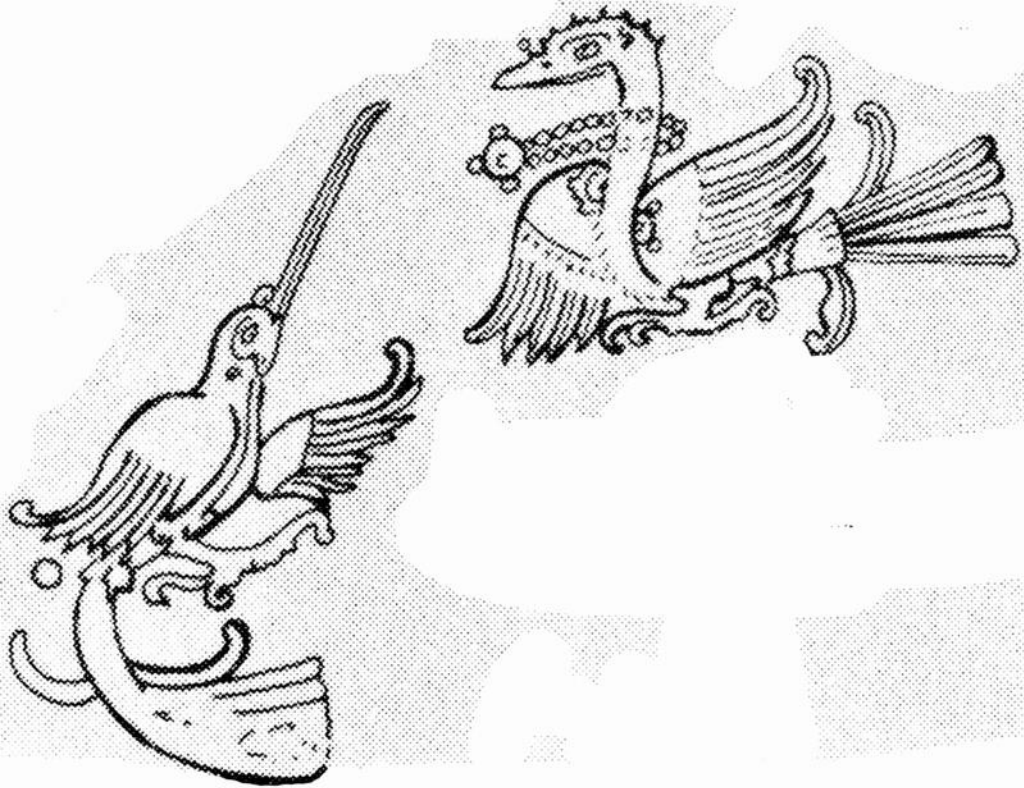
HELLMUTH, Nicholas

- 2022d Classic Maya Enema Ritual Iconography. Monday, November 21 • 8 PM EST • 7 PM CT. This is the actual lecture.



Are these long tail feathers an exaggeration—or is there a species of nectar loving birds that really have such features.

Due to their length, I think they are mostly an exaggeration—need to find what inspired this.



Exaggerated width of birds' feet is popular for Maya artists.



Another example of exaggerated width of hummingbird feet.



Hummingbird with its not very long beak deep into a giant flower (in decades of studying water lily flowers of Mesoamerica, I have not yet noticed a hummingbird nearby—only insects). The gigantic tail features are completely imaginary. As with most Maya birds, the feet are very wide and with sharp claws at both ends. I have not yet seen any actual hummingbird with feet this wide—and—when they are flying, they keep their feet tucked so close to their stomach that you can't see the feet in most photos.

Cropped by Hellmuth from Kerr rollout, K1345 of a Codex Style vase. The Dumbarton Oaks database allows you better digital resolution than the old Maya Vase Database, so you can now enlarge details. Hopefully the fresh scans by D.O. will provide even more resolution so that it will be easier for illustrators to draw these scenes with precise details.

Tiktok.com/@jeroglificosmayas, Pablo Gonzalez Mireles, Naranjo-Sa'al, PNYNN, in Tokovinine and Fialko 2019 you can see the entire façade in their Fig. 8,a and 8,b..



These two hummingbirds have exaggeratedly long tail feathers, so are a composite birdio

Codex Style low vase or bowl, Kerr rollout K1345, downloaded from database of improved digital quality of Dumbarton Oaks, Trustees for Harvard University.



I have studied flowers in Maya art for many decades, and not many scenes have flowers with these size and shape of sepals and petals. Plus, what are they growing from? Or are they simply attached to the ornaments worn by this individual.

These birds are clearly keen on sucking up nectar or something else inside these flowers (so you don't see the curve at the end of their beaks). Their tail feathers are MUCH longer than most Maya hummingbirds. Need to learn what other long beaked birds have such long tails—and love to suck up nectar from large flowers.

Or, is this simply an exaggerated Maya bird personality from a myth that is not in the Popol Vuh.



This scene could fuel an entire MA thesis—the divider panels are totally atypical. Is this scene from the Yucatan peninsula? Or Belize? I would not expect such a scene from the Maya Highlands or Peten. The glyphs around the upper part face right which is rare. All the glyphs in vertical columns face left which is the traditional way.

Definitely
God K, Kawil

Possible
Hunter's
hat

Kerr includes this in his God D inventory but the only potential God D is second from the left. Kerr rollout, K1507 from Dumbarton Oaks enhanced database. (Hellmuth 2024d: caption for Fig. 37 on page 37). I am still not convinced there is any traditional God D, and unless the hieroglyphs give the Hero Twin's names, I am not yet convinced that the two idealized men (far left and far right) are the Hero Twins.

Fish with
“hummingbird
beak” (but no
flower?)

Upside down
“hummingbird”



3-Circles
motifs

Would help if an epigrapher
could find the names of these
curious mythical personalities.

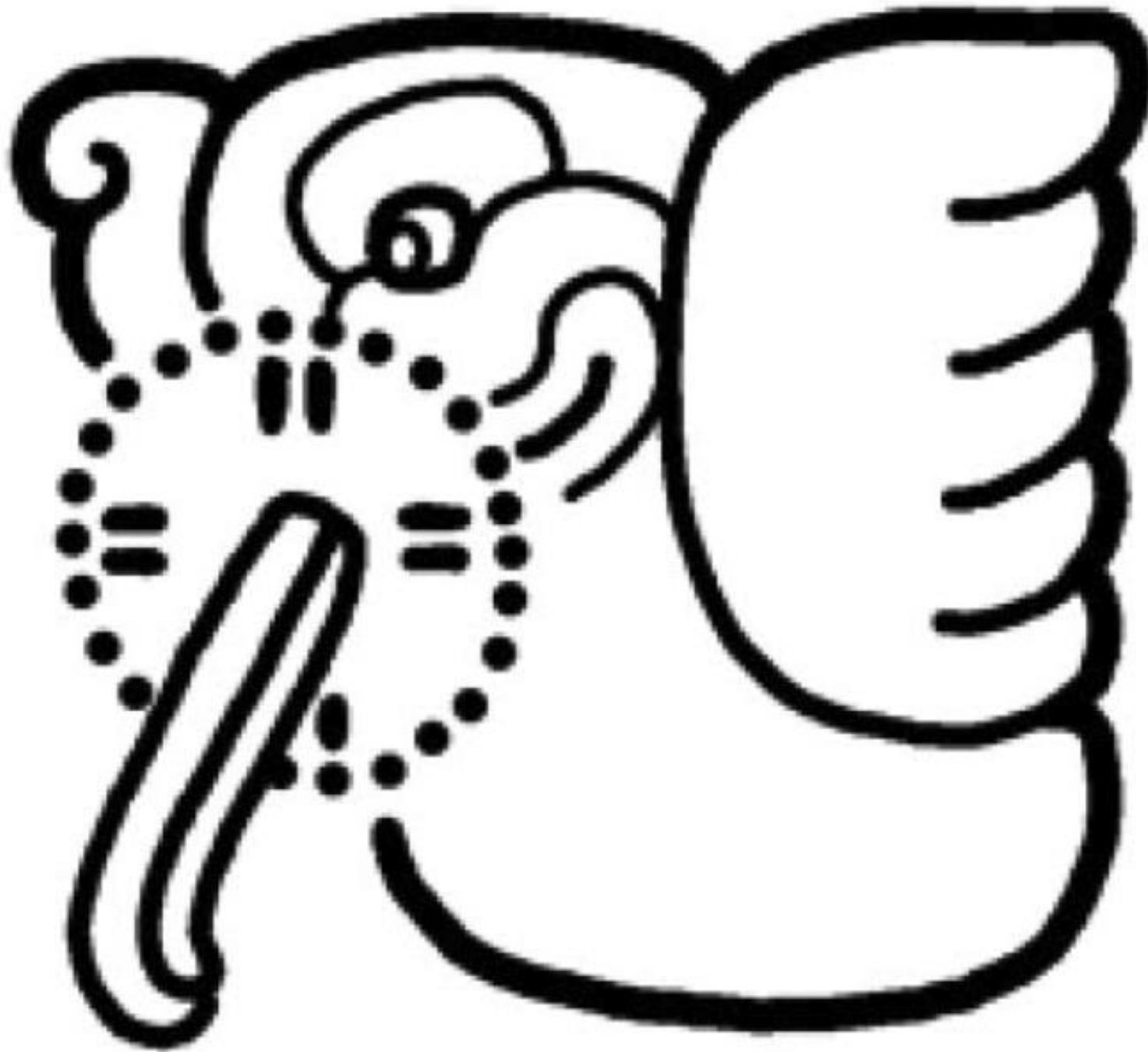
Chapter 12

Hummingbirds as Full Figure, Personified Hieroglyphs in Maya Inscriptions

Since I am not an epigrapher or a linguist, I can more easily learn to recognize and read Maya hieroglyphs by starting with the glyphs that are a complete bird, complete animal, person, deity, etc.—full figure, personified hieroglyphs. So I have written several FLAAR Reports on this subject (Hellmuth 2024a, 2024b, 2024c, 2024d and 2025). Simultaneously in Mexico, Mauricio Moreno Magariño has accomplished years of library research that resulted in a thesis of over one thousand pages of illustrations and documentation of full figure glyphs. He included several hummingbird glyphs. I show examples that are on line in helpful publications.



Stone and Zender show hundreds of Maya hieroglyphs nicely organized by subject, so for hummingbird (subject 90), they show the two best known examples and caption it with the Mayan hieroglyphic reading, *Tz'unun* (2011: glyph 90).



This is one of the two hummingbird glyphs that is featured in most discussions of hummingbirds that include epigraphy.

Colas et al. 2002: Fig. 5, Burial 2, Vessel 2. The “flower” pierced by the beak has its outside edge with circles of completely different size and shape than in the drawing of the same glyph by Stone and Zender and others.



Figura 3.204. Representaciones del signo TZ'UNUN en la escritura maya: A) Vasija 2, Baking Pot, dibujo realizado por Christophe Helmke (Colas, Helmke, Awe y Powis 2002: 37, fig. 5); B) Dintel 2, Templo IV, Tikal, detalle del dibujo realizado por William Coe (1982), tomado en Simon Martin (2007: 3).

Moreno 2025: page 425 Fig 3.204 shows the context (the entire glyph block)

Moreno 2025: page 120, Fig. 2.6 shows an example not in most other studies of hummingbirds.

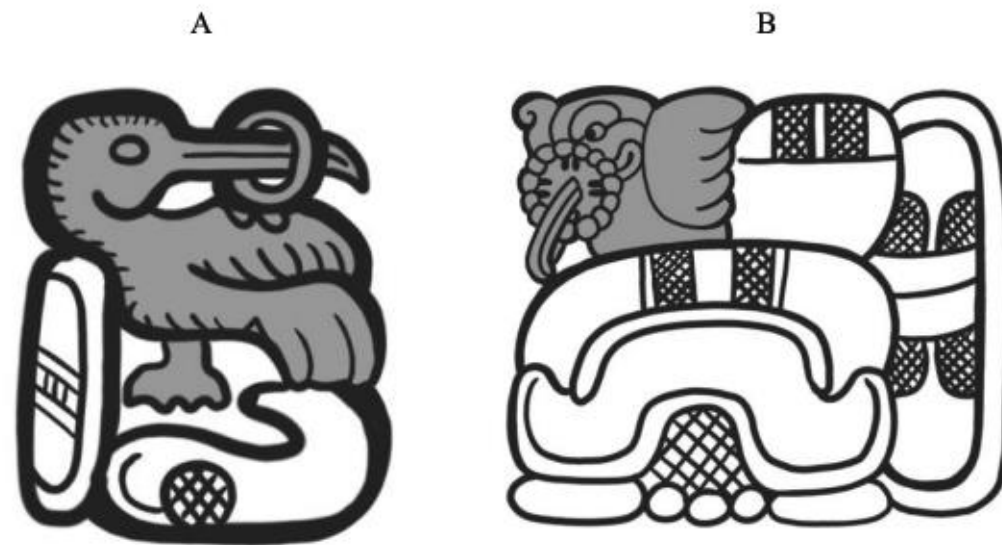


Figura 4.8. Representaciones del signo TZ'UNUN en la escritura maya. Dibujos realizados por Mauricio Moreno Magariño a partir de los dibujos de figuras completas de Andrea Stone y Marc Zender (2011: 209), los elementos que les rodean a los signos elaborados a partir del dibujo de Christophe Helmke (Colas, Helmke, Awe y Powis 2002: 37) para la figura A y Simon Martin (2020: 170, figura 37a) para la figura B.

Moreno 2025: page 534 Fig 4.8

C
tz'u-²nu
tz'unu[n]
'Colibri'



Figura 2.6. Ejemplos de signos auxiliares. Dibujos tomados de Lacadena García-Gallo (2010a: 6, B, C, D) y de Kettunen y Helmke (2020: 20, A).

Vasija 2, Entierro 2, Baking Pot.

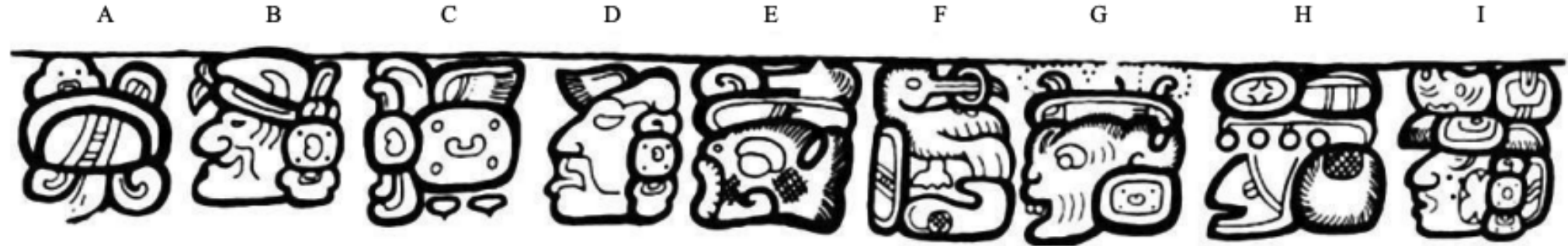


Figura 6.2. Vasija 2, procedente del enterramiento 2, Estructura 2, Grupo Bedran, sitio de Baking Pot. Dibujo por Christophe Helmke tomado de Colas, Helmke, Awe y Powis (2002: 37).

The hummingbird in Glyph space F is one of the two full figure hummingbird glyphs that is most frequently pictured.

Baking Pot, Belize,
Burial 2, Vessel 2.

Drawing by Helmke in
Moreno 2025: page
735, Fig. 6.2 citing
Colas et al. 2002: Fig.
5.

Análisis epigráfico:

Transcripción, transliteración y traducción realizadas con base al análisis de Colas, Helmke, Awe y Powis (2002: 36-37) con algunas modificaciones propias:

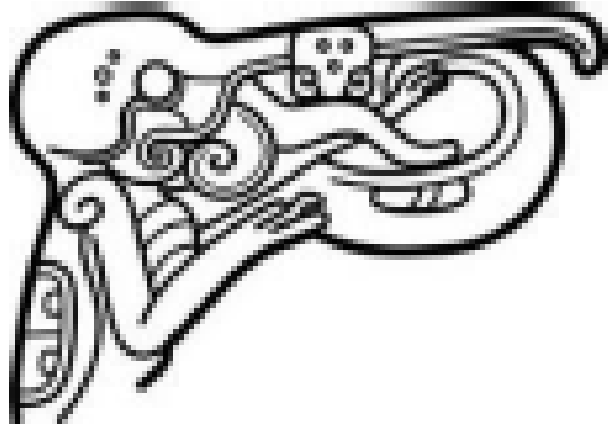
(A) **i-tu-wa-la** (B) **PAWAHTUN?** (C) **yu-k'i-bi** (D) **TZIHIL** (E) **te-le-KAKAW?** (F) **?-TZ'UNUN-LEM?** (G) **to-ko-tz'i?-bi** (H) **'AJAW-CHAN-li-TE'-HA'** (I) **K'INICH-'OL-TUM?**.

iyuwal pawahtun yuk'ib tzihil te' le kakaw tz'unun lem tok tz'ib[il/al] 'ajaw chan[i]l te' ha' k'inich 'ol tum?.

'Entonces ahora, (el Dios) Pawahtun?, su recipiente para cacao fresco (de) Tz'unun Lem Tok Tz'ib[il/al] (Brillante Colibri, Pedernal/Escriba?), Señor de las Cuatro Aguas (Baking Pot?), Señor del Corazón/Centro'.

ya

Same or similar
glyph-like symbol is
on the wings of
hummingbird-insect-
monsters



The straight length then the downward curve at the far end is what tells me that this full figure hieroglyphic scribe is showing the upper beak of a hummingbird (or waterbird). The head is also acceptable size and shape for a Maya bird.

The arm and hand are anthropomorphic even with just three fingers. The rest of the body has reptilian underside. Would help if an epigrapher can see whether the (incomplete?) hieroglyph on this creature's back tells us more about its identity.

This is listed by Moreno under ya, not with hummingbird glyphs (Moreno 2025: page 975)

Hummingbirds in the Maya Codices

Tozzer and Allen (1910) did not find enough hummingbirds in the codices to even include any of the few that Eduard Seler did find and publish.



Codex Madrid LVII
Cort XXIII Seler Fig
394 Villacorta page
338



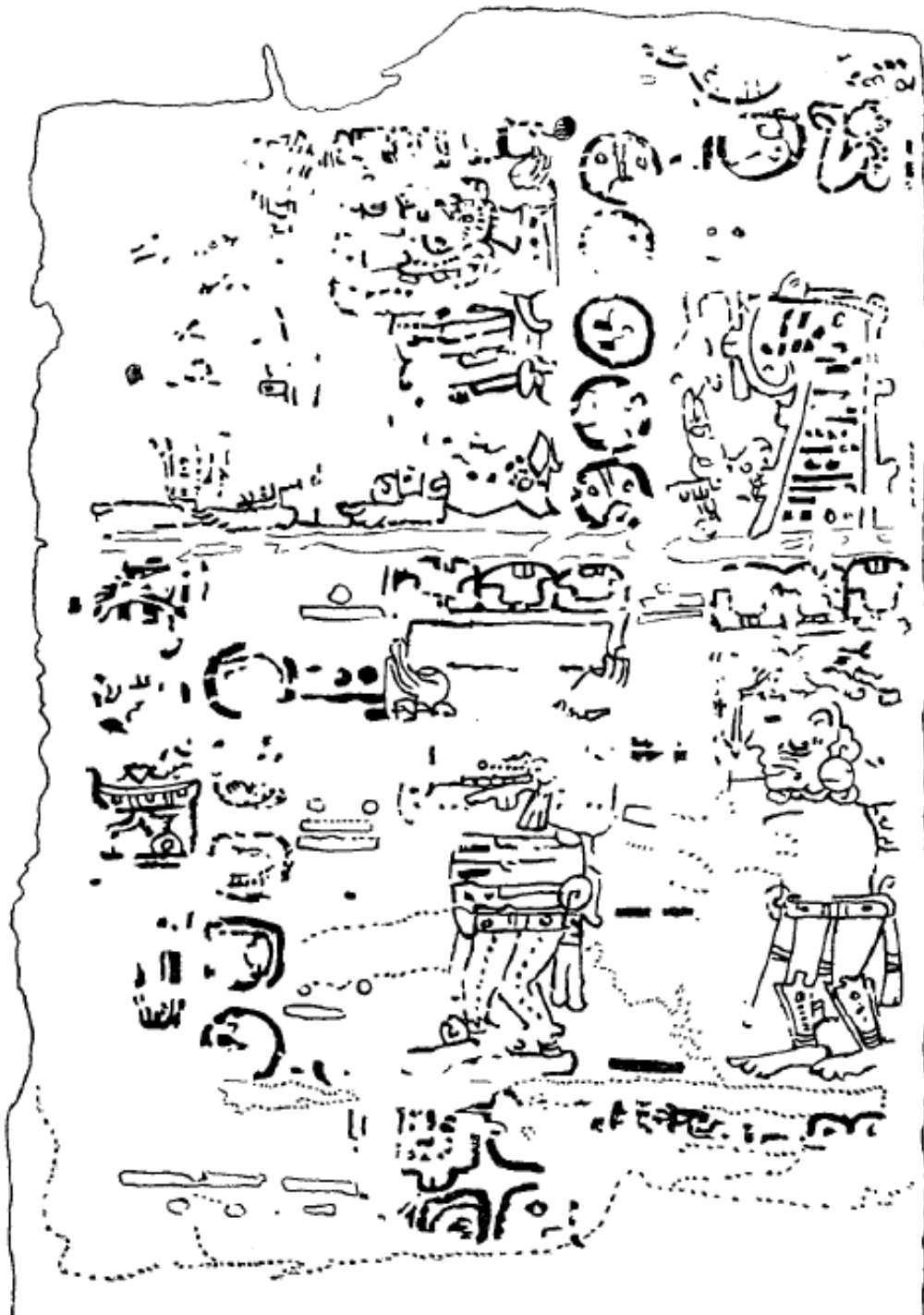
Codex Dresden
page XXXV

Notice that all these birds have a stylized glyph-like symbol for flower. All are birds (so far no hummingbird moths in the codices but need to look for them).

So far I have not yet found these Post Classic (probable) hummingbirds in any discussion of iconography or myths of Maya hummingbirds. I found them only in Seler and then pulled them out of the codex drawings by Villacorta and Villacorta.



Hummingbird, Codex Dresden page XXXV, Villacorta page 80.



The “ring of dots” is the Post Classic symbol for the “flower” that the hummingbird showcases on its beak. But none of the Post Classic hummingbirds have beaks even 30% the length of some of the super long Maya Late Classic hummingbird beaks.

I call this the Codex Madrid and the page # given by Villacorta is LVII. The alternative name for the entire codex is Codex Tro Cortesianus (meaning Codex Troano of 70 pages + Codex Cortesianus of 42 pages).

Seler 1996: Fig. 394 calls this Cort XXIII. His research was published auf Deutsch over a century ago.

Villacorta and Villacorta, page 338



Tail reminds me of
the head of a fish.



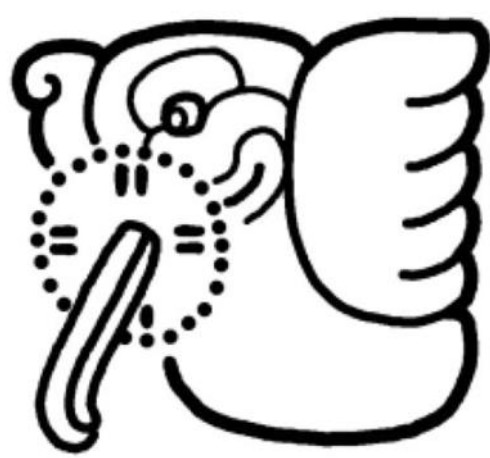
Codex Dresden, VII



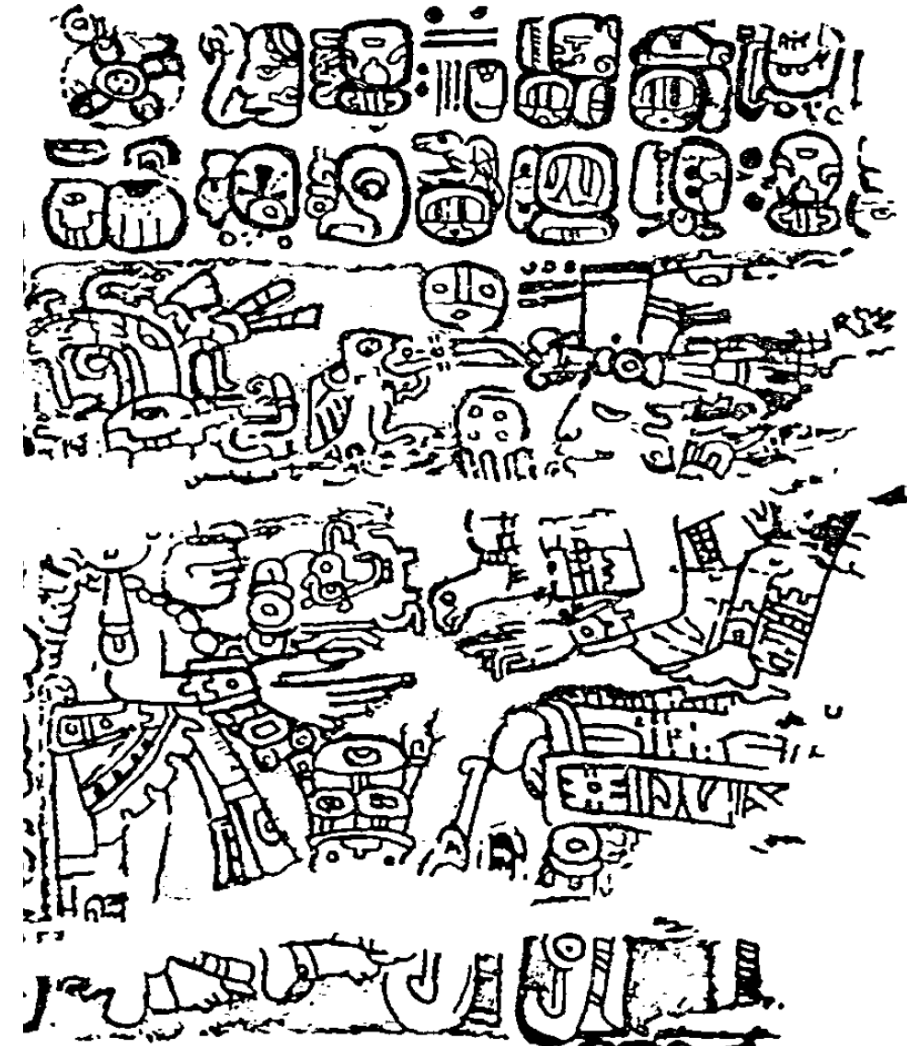
Hummingbird, Codex
Madrid XXIV, Villacorta page
292, closeup



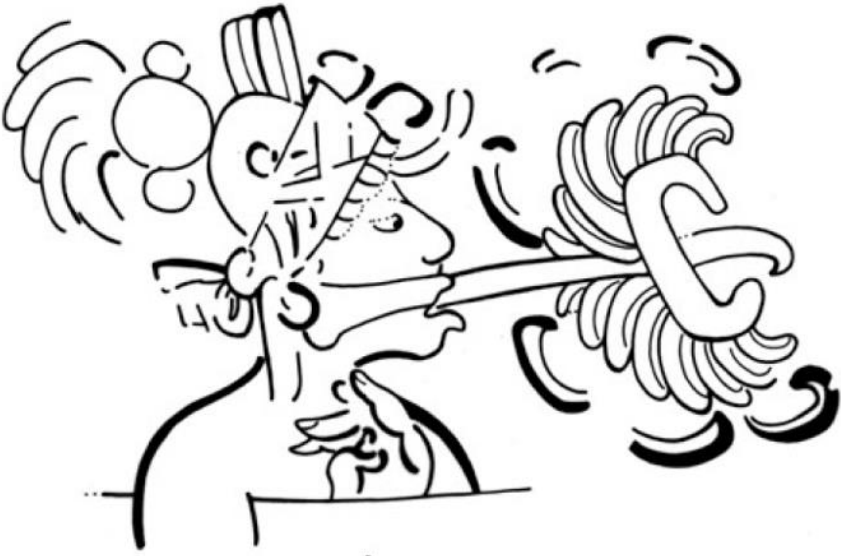
Same flower
for over one
thousand
years.



Full figure hieroglyph with bird is in the
horizontal text in the middle.



More Examples of Men or Supernaturals or Composites with giant Hummingbird Beak sticking out from their face



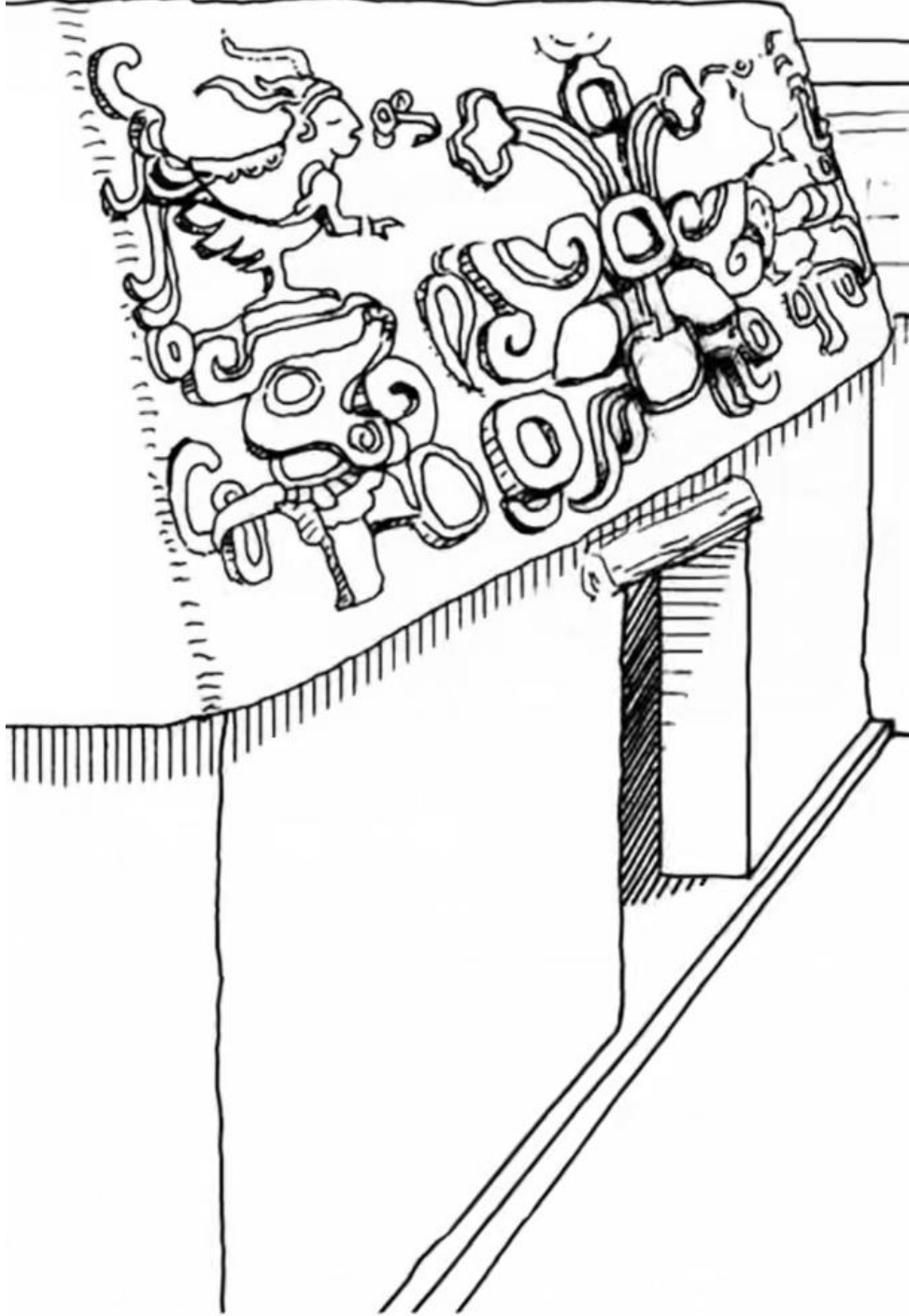
Hummingbird Man (man with a hummingbird beak piercing what usually is a large flower), Museo de Arqueología y Vidrio Moderno, drawing by Oswaldo Chinchilla (2010: Fig. 3, b).

P. Galeev produced a helpful drawing of this scene in Tokovinine and Fialko 2019: Fig. 5,b.



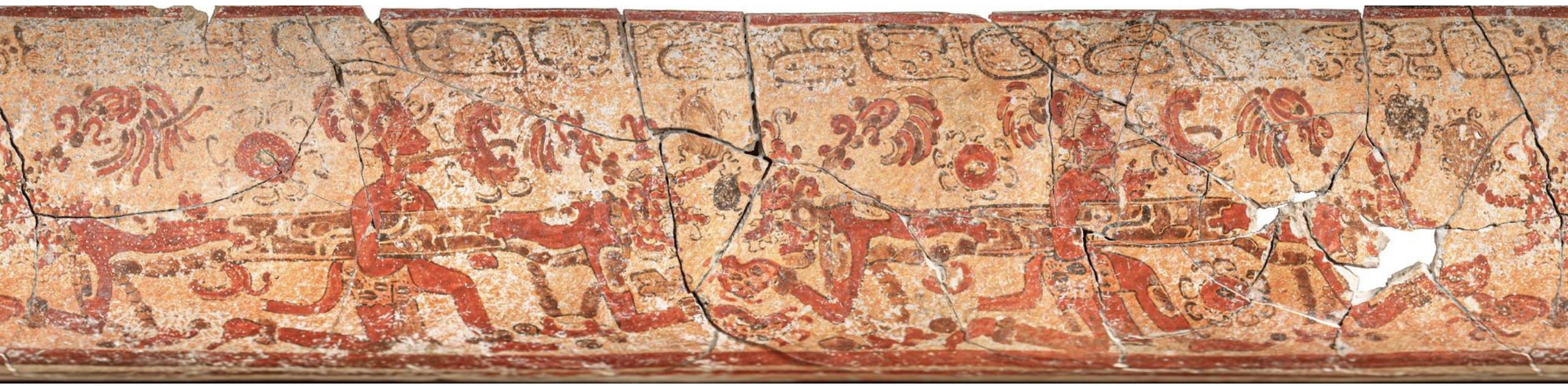
Hummingbird Man (but a hummingbird with serpent-face wings of a Principal Bird Deity). This mythical bird has a completely human face and human necklace. The beak is the traditional Maya hummingbird beak that pierces a stylized symbol for a Maya flower.

(jeroglificos mayas on tiktok). No caption or citation but the author and illustrator [Pablo Gonzalez Mireles kindly sent me the PDF of the source, by Tokovinine and Fialko 2019. This is a stucco façade, Naranjo-Sa'al, PNYNN.](#)



I found this amazing hummingbird on drawings of this stucco façade of a Classic Maya building. This was a tiktok video named jeroglificosmayas. No name of who made this helpful video, and no caption for where this frieze sculpture was documented and published. This tiktok person deserves recognition for having made available a hummingbird that I have not yet noticed in any archaeological or epigraphical publication on Maya hummingbirds. But Oswaldo Chinchilla told **me** that this scene is from Naranjo-Sa'al in a lecture at SIAG MUNAE by Alexandre Tokovinine. **The TikTok author kindly responded and sent me a PDF that shows the source of the drawing (Tokovinine and Fialko 2019: Fig. 6.**

I have found and photographed two or three Maya ceramics whose PSSequence dedicatory formulae are literally backwards. Most Maya hieroglyphic texts have all the individual glyphs facing to the left. And 99.9% of all PSSequences have their glyphs facing to the left.



Digital rollout by Nicholas Hellmuth many decades ago, in what is today the Museo de Arqueología y Vidrio Moderno. This Hellmuth-FLAAR digital rollout is 29 Megabytes which is a very helpful digital resolution so that you can enlarge on your computer monitor to see details.

What the Maya picture here is a chapter in an incredible myth that has not often been studied by archaeologists or iconographers. I love the way the jaguar-pawed deities are “speaking with each other” with hand gestures (paw gestures). I am curious whether there is a profile/half-frontal Loincloth Apron Face on the middle of this monster.

The two black insects have rarely been discussed—this scene could (and should) field an entire MA thesis.

From this bowl Oswaldo Chinchilla produced a drawing of the bust of this “Hummingbird Man” (2010: Fig. 3, b).



It helps to show the size and shape of the bowl, so you can recognize that this is a ceramic replica of the dry seed pod of *Crescentia cujete* (that grows in most savannas of PNYNN and PNLT that FLAAR has studied and published in recent years).

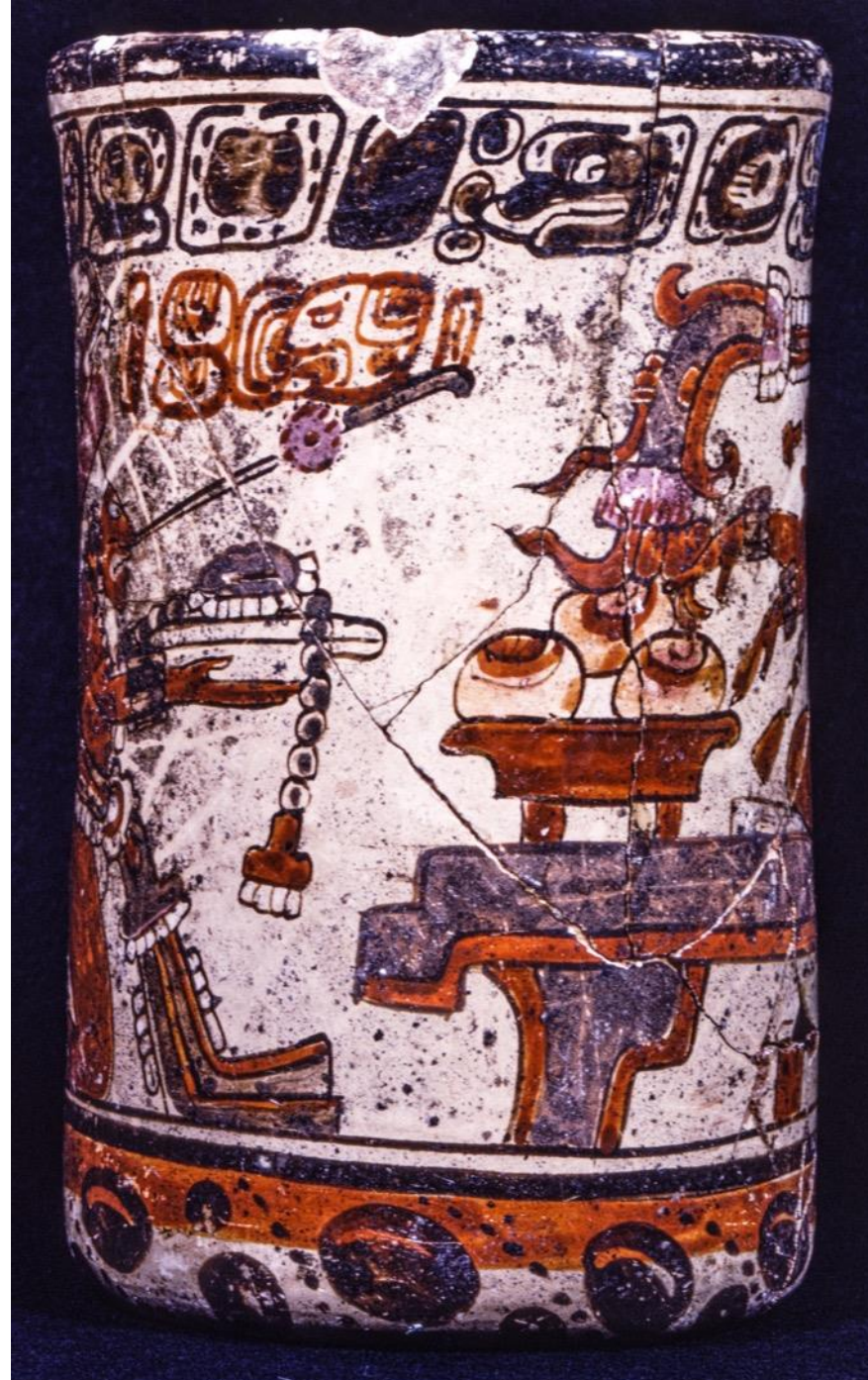
Every time we are in really remote mountains of Alta Verapaz, and we stop to visit a Q'eqchi' Maya family (to study the plants they use to thatch their roof such as kala, platanillo or aak), the family offer us their home-made chocolate in the dried seed pod of *Crescentia cujete*. Surely there are some bowls of Tepeu 2 times, but I estimate that most ceramic bowls from Peten of this size and shape are Tepeu 1.

Digital photo by Nicholas Hellmuth many decades ago. Dumbarton Oaks, Trustees for Harvard University.





No other enema accessories so not
Necessarily an enema jug behind the person.



To my knowledge this Man with Hummingbird Beak has not previously been known to epigraphers or iconographers. Our goal is to make all these scenes available



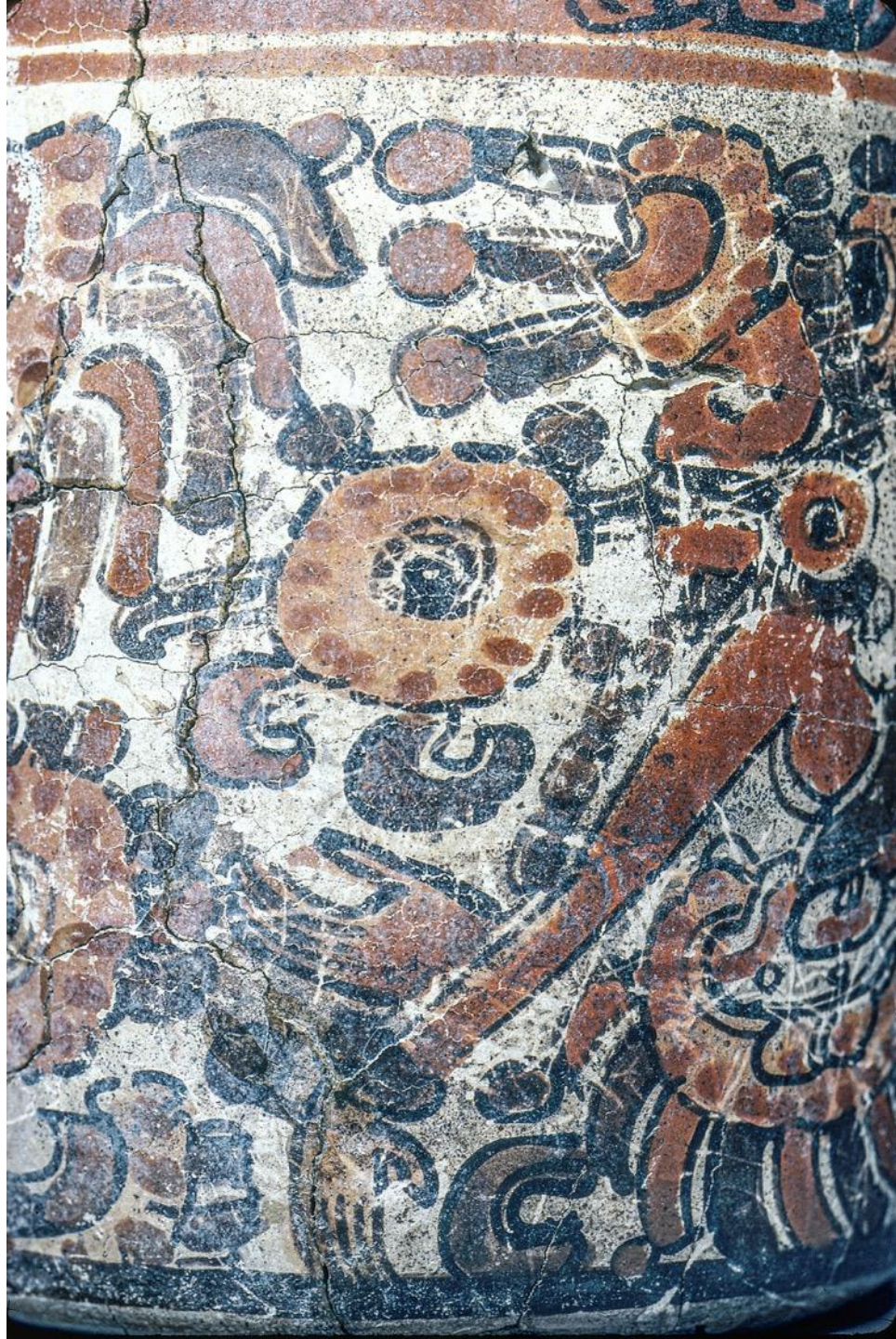
Pseudo-Glyphs around the upper part but glyphs in the scene may be more realistic. Feline spots around the lower area.

To my knowledge this man with hummingbird beak has not been known to iconographers before.

The many decades of Hellmuth photos around the world will help students and scholars.

This vase is Red Band Tepeu 1 Style (what I originally called Red Rim Tepeu 1 Style back in the 1980's-1990's).

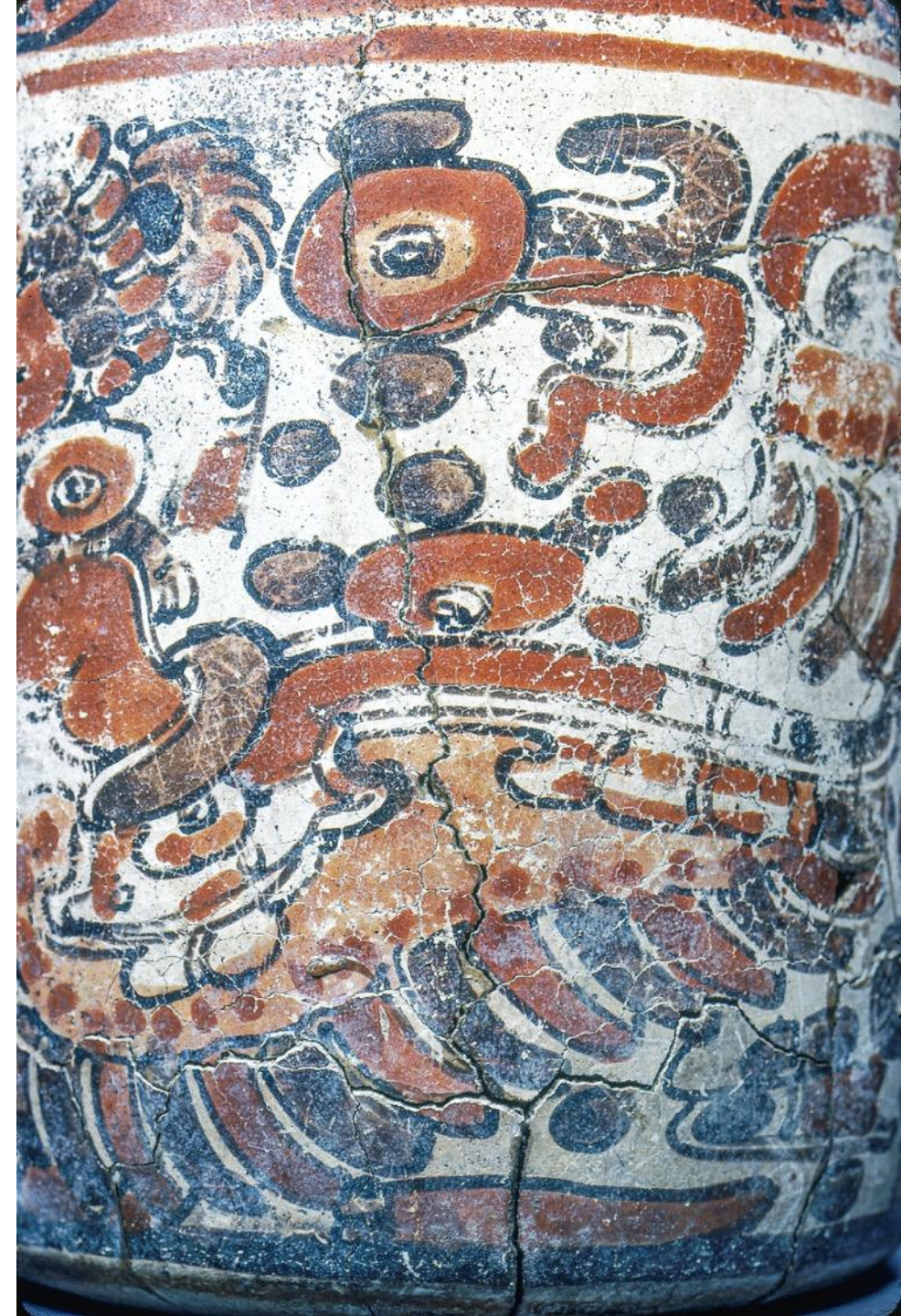
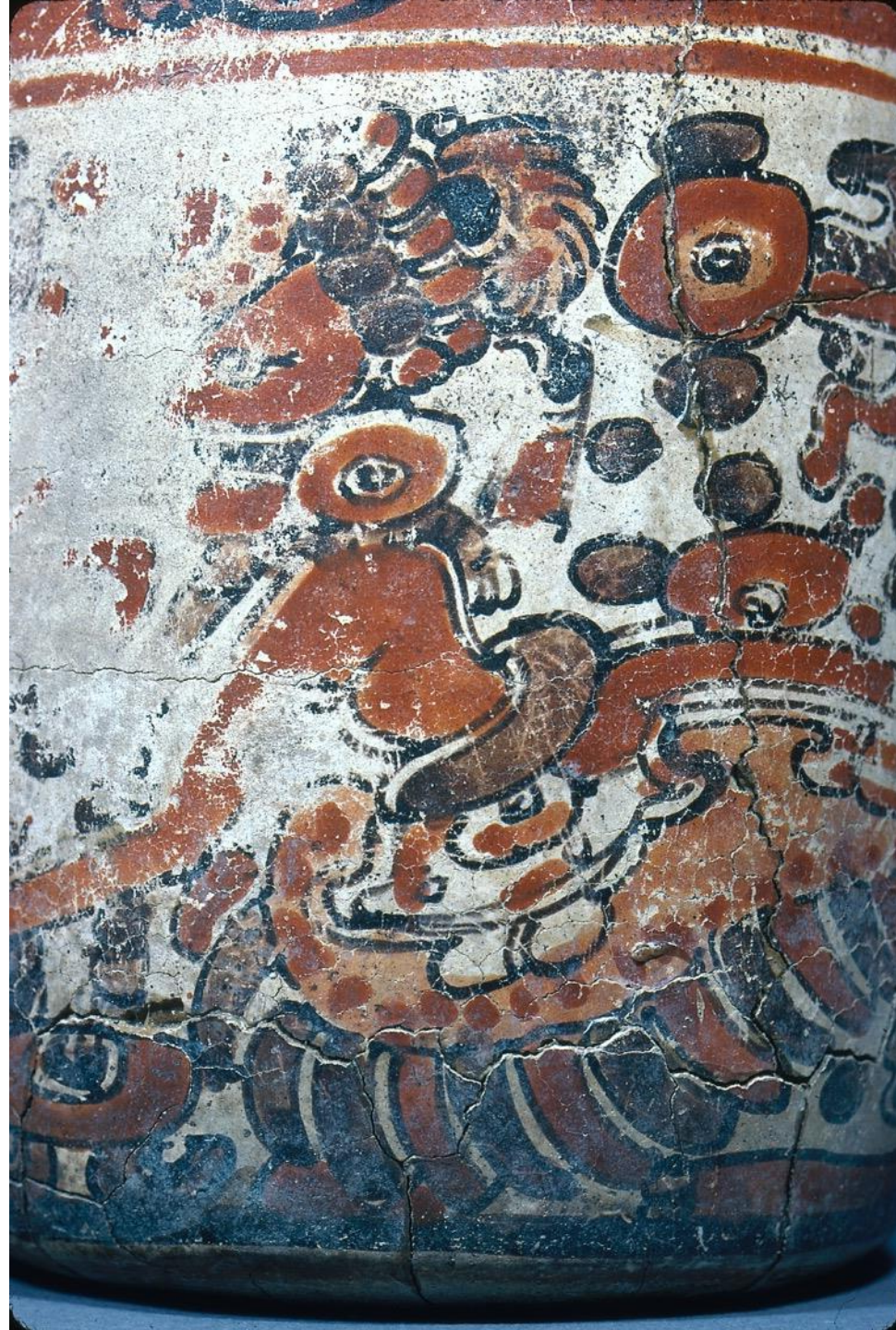
Fourteen views are available to study in Hellmuth 1926d: 39, 40, 41, 42, 43, 44

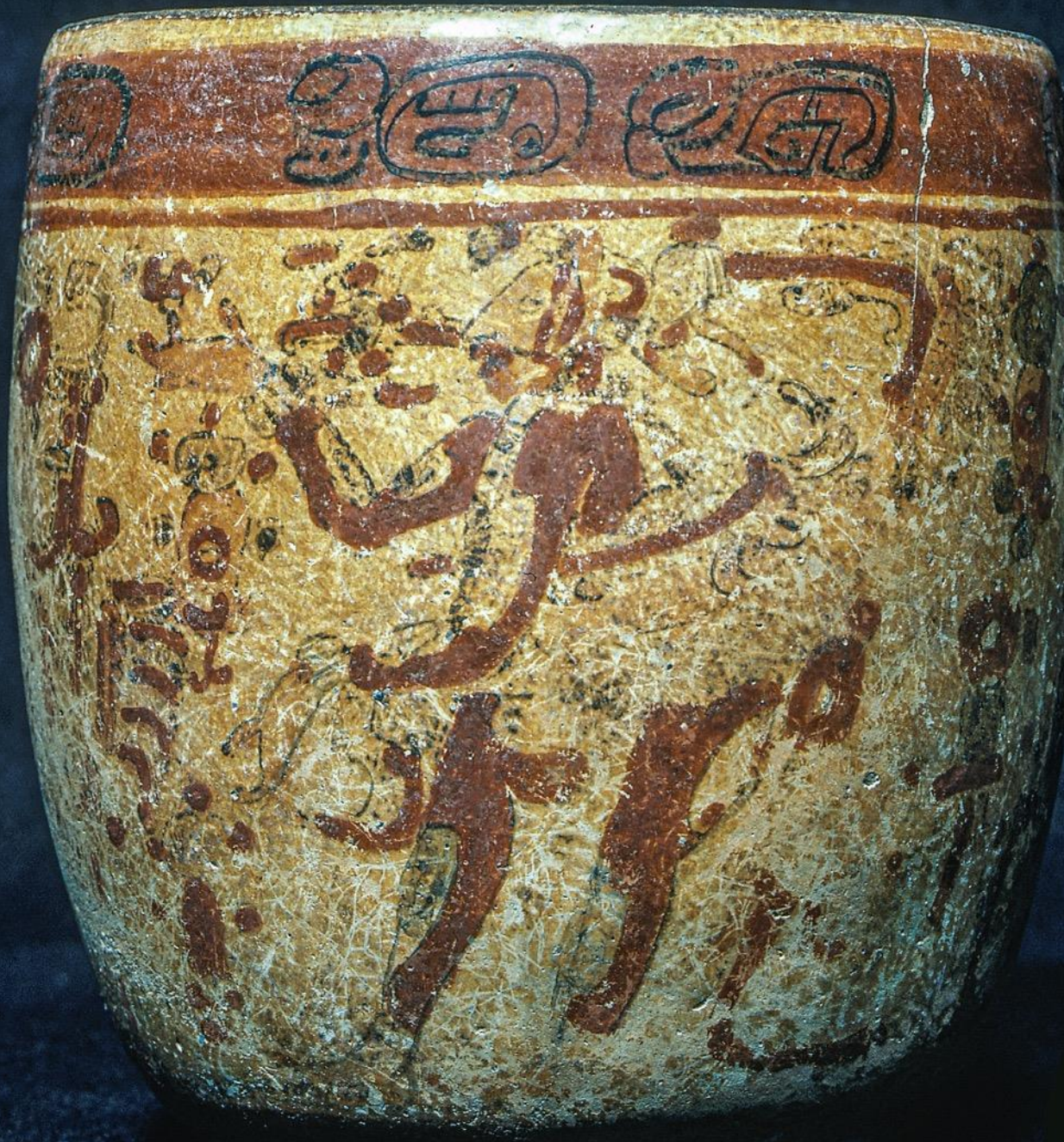


The giant wing of each of these men with hummingbird beaks is the snake-face wing.

There is another Red Band Tepeu 1 vase with the same scene—possibly the same atelier or at least the same region.

A related scene (on completely different style and probably a different century) has been made available by Tokovinine in his 3D models (on [SketchFab.com](https://sketchfab.com)).





All three have simplified Serpent Face Wings. All have curl at the end of their beak—only upper beak is featured. Red Band Tepeu 1 bowl.



Same side as on the previous side (Hellmuth 2026d: 48).



Have not yet found the "4th side" of this scene.



Cropped by Hellmuth from Kerr rollout, K4950.



Cropped by Hellmuth from Kerr rollout, K4950.



Kerr rollout, K4950 is only available at a weak 121 KB—is not yet available on the Maya vase database of increased digital quality of Dumbarton Oaks, Trustees for Harvard University. But 121 KB is “better than nothing”.

This is a Red Band Tepeu 1 Style bowl version of what Tokovinine photographed in 3D. The vase he photographed is more a vase than a bowl and has no red-band. Plus the vase photographed by Tokovinine has a PSS—most Red Band Tepeu 1 Style bowls have pseudo-glyphs (Hellmuth 2026d).

A very detailed Primary Standard Sequence (PSS dedicatory formula) with a very fishy Kakaw(a), cacao, chocolate glyph in the middle.



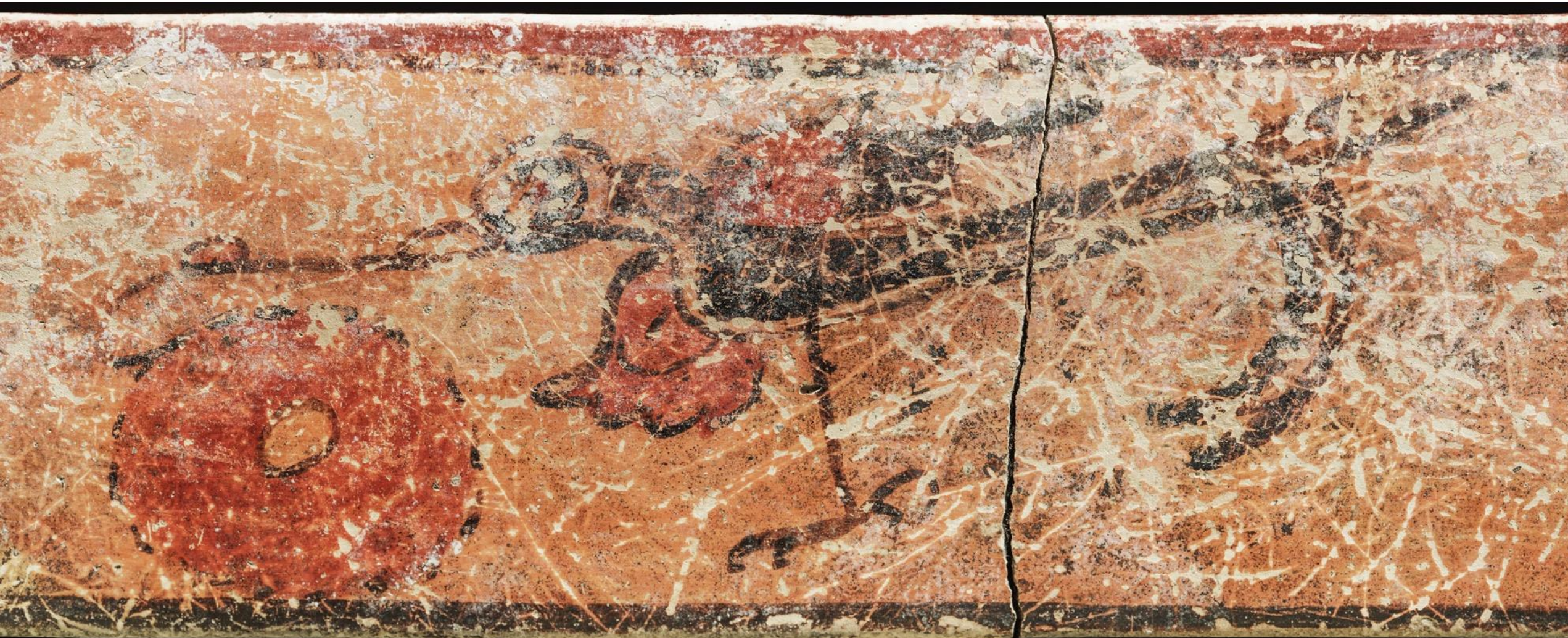
Are these three serpent-winged hummingbird men each by a different artist (but all of the same atelier)? The personage at the right is minutely different (but could very well be all from the same artist).

The “beak” is only a top part, and very curled at the end. The ”flower” that it pierces is enormous and stylized (a large version of what is rising from their forehead).

These views are from an excellent 3D model by Tokovinine on SketchFab.com.

Chapter 15

More Hummingbirds in Maya Art not previously available for study







This digital rollout by Nicholas Hellmuth with Better Light scan back is 103 MEGabytes, while most other rollouts are 103 KB. And this rollout was at only 37% of the capability of this FLAAR rollout system. To scan at 100% in the late 1990's resulted in files that were not easy to handle and storage in the previous century was not as readily available as are TB sized hard drives for recent years.

We (FLAAR and Hellmuth) have donated all these rollouts to Dumbarton Oaks, Trustees for Harvard University so that eventually they can be available in a helpful database for students and scholars.

This is a rare size and shape for a Late Classic Maya ceramic. Not unique, but not common.

So, it's important to publish this size and shape so that archaeologists have this information available for their own research projects.





Medium format (Hasselblad) Contact sheet 471671-20; the 35mm (Leica) contact sheet is 471671-32.



471671 is the number that Modernage Custom Darkrooms of New York City gave to each “batch” of rolls of films that were sent to them. These are their in-house numbers, not based on any date.

-20 means roll #20 in that batch, which means they developed 20 rolls at once. I was a Post Graduate Research Fellow at Yale starting in 1968 (for archaeology of Peru since I did one summer field work at Ancon for Harvard’s Peabody Museum then the next summer’s field work for Yale University high up in the Andes Mountains (east of Lima). So the project director wanted more assistance so he awarded me the Post Graduate Research Fellowship. Then OAS awarded Hellmuth another different Yale fellowship with George Kubler (which was extended) and then Mike Coe awarded Hellmuth a third Fellowship at Yale—so it was easy to send my film to nearby New York to be developed even if I did the photography in museums in Canada, Mesoamerica, UK or EU.

This bird has the same “upside down spangled J” as both the Principal Bird Deity and God D. To my knowledge this is the first hummingbird that is so totally conflated with the Principal Bird Deity.

This bird has the loong beak of a Maya hummingbird plus the complete curl at the end. Is the curl a Maya attempt to show the amazing length of the tongue of a hummingbird?



The wing of this supernatural hummingbird is the same serpent reptilian face as on most wings of the Principal Bird Deity.

PLUS, this bird has the same “upside down spangled J” as both the Principal Bird Deity and God D. To my knowledge this is the first hummingbird that is so totally conflated with the Principal Bird Deity.





What is the feature shared by God D and the Principal Bird Deity is the spangled design rising up from the head of this bird.

This is a giant mythical hummingbird because its beak pierces a giant stylized flower.

He wears a necklace.

The talons are similar size and shape to many waterbirds that we show later in this presentation.









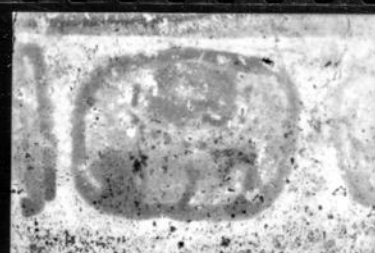
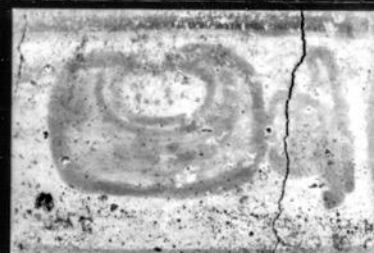
The PSS glyphs are shown on the following page.



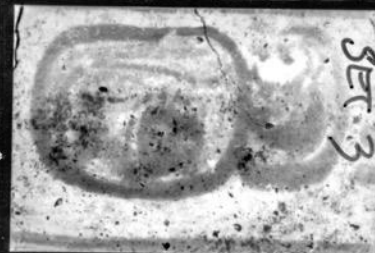
9A PAN F 10 → 10A SAFETY FILM 11 → 11A ILFORD 12 → 12A PAN F 13 → 13A 14



14A ILFORD 15 → 15A PAN F 16 → 16A SAFETY FILM 17 → 17A ILFORD 18 → 18A PAN F 19



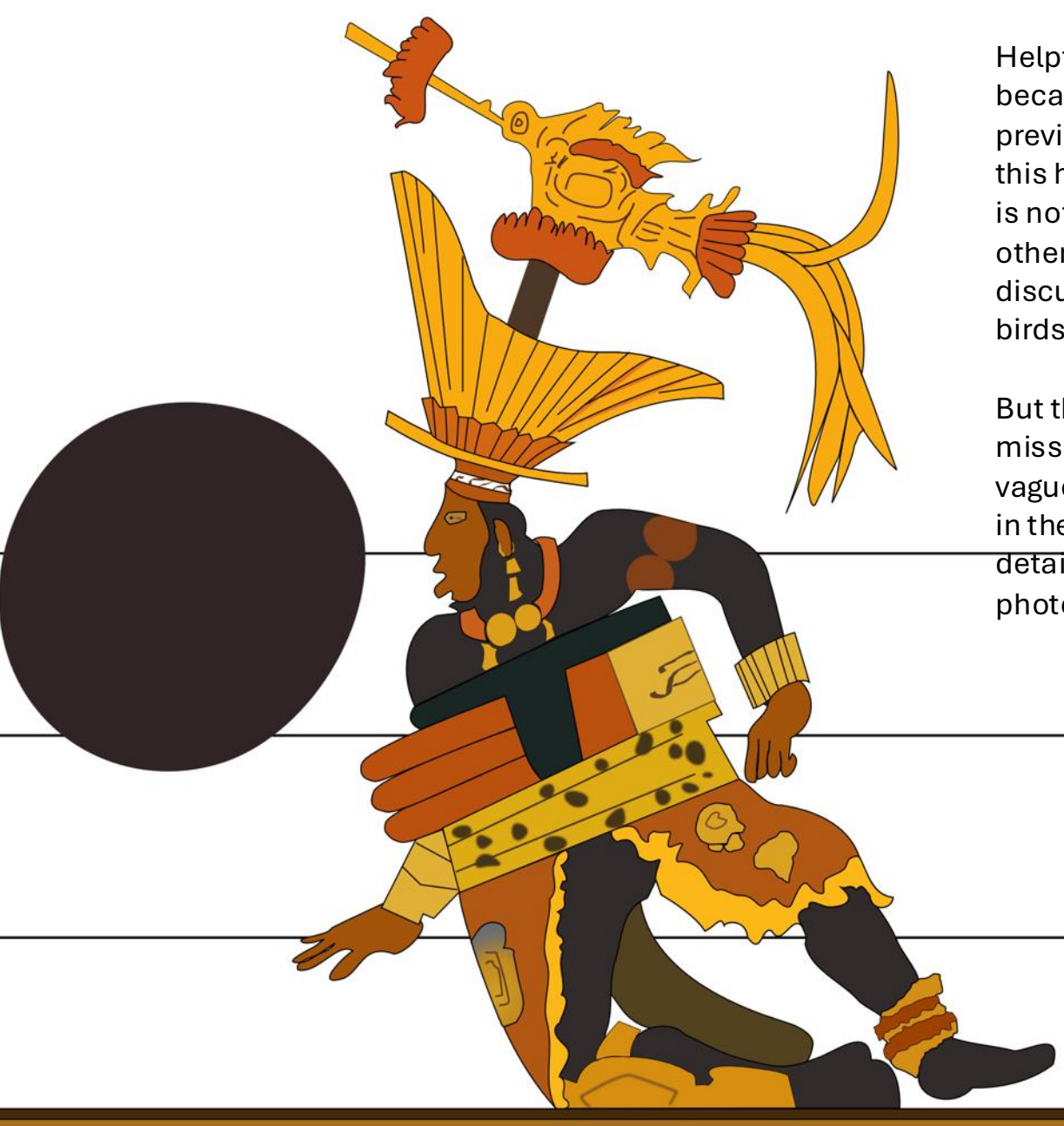
19A 20 → 20A ILFORD 21 → 21A PAN F 22 → 22A SAFETY FILM 23 → 23A ILFORD 24



24A PAN F 25 → 25A 26 → 26A 27 → 27A 28 → 28A

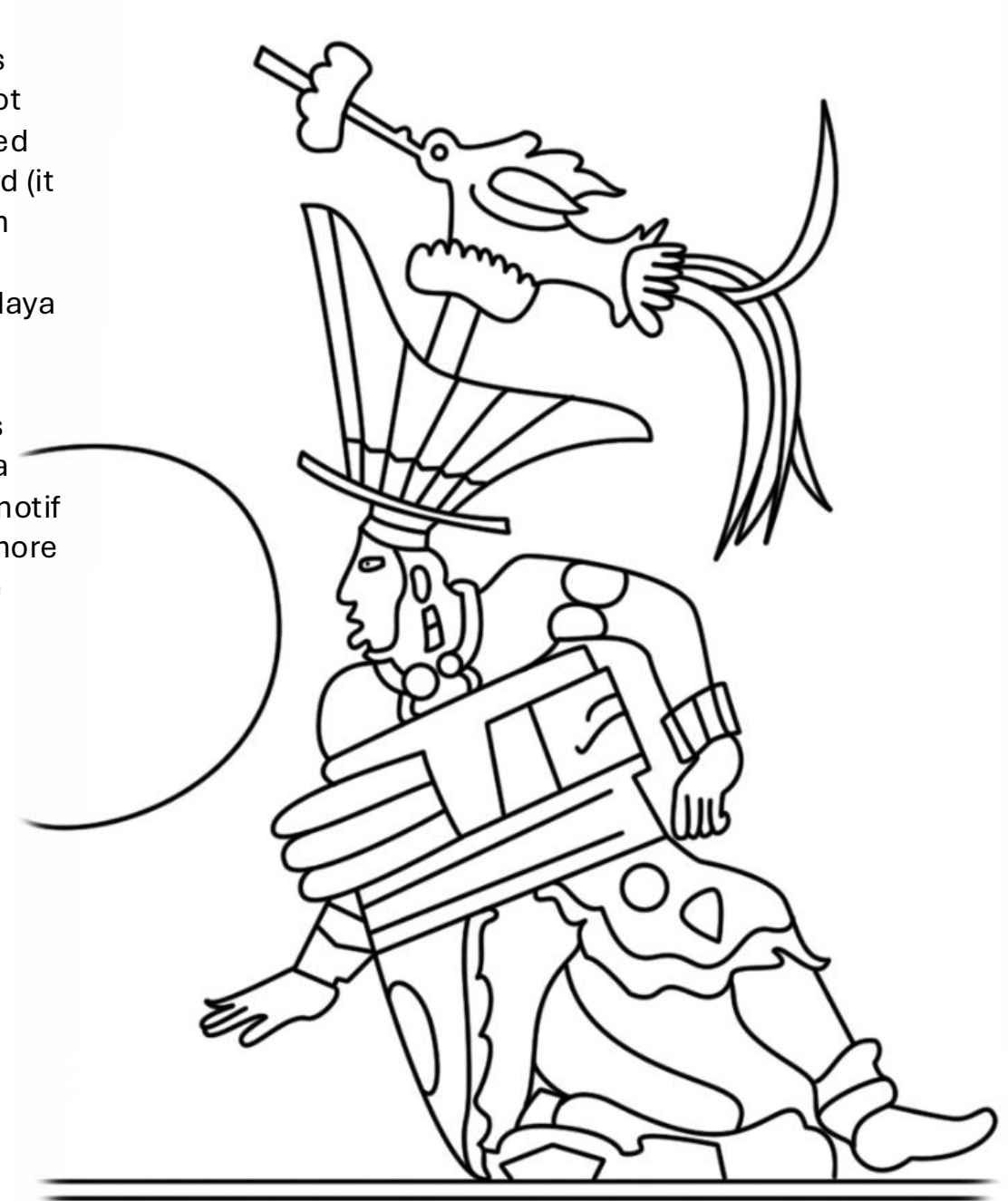
During the decades of photographing in museums around the world, I was not yet an epigrapher in that previous century. But I estimated that if I make the time, effort and expenses to photograph each individual hieroglyph with a macro lens, that then these close-up photos would help epigraphers in the future. I had special Leica bellows with special close-up lens to accomplish these views for epigraphers and linguists.

In 2024 all of these contact sheets and as many of the B&W negatives that survived half century were all donated to Dumbarton Oaks, Trustees for Harvard University so that they can make all this research material available to students for their theses and dissertation and to scholars for their symposium presentations, articles, and books in future chapters on advances in deciphering the PSSequence dedicatory formula of Maya ceramics.



Helpful drawings because I had not previously noticed this hummingbird (it is not included in other authors' discussions of Maya birds).

But the drawings miss the hint of a vague Yearsign motif in the tail. Lots more details are in the photo.



Kerr rollout, K2803, Dallas Museum of Art, object number 1983.148.

Curiously the Dumbarton Oaks database of improved digital quality shows only one single view—so not even a still photo of each player. Curious, because Hellmuth 2025b: page 3 shows a rollout listed for the D.O. database.

So far, of the hundreds of Maya ballplayers that I have studied across half-a-century of iconographic research, this is the first time I have noticed a hummingbird atop a ballplayer headdress. The two different sketches are a good start, but would help to have a high-resolution rollout so we can document that the hummingbird beak did not have a curved end. I photographed in many collections in Dallas, so this was probably photographed in Texas before it was donated to the museum. It's always helpful when collectors donate to a museum—and even more helpful when they do not buy looted art from Mesoamerica.



The tail reminds me of a Teotihuacan Yearsign. The flower reminds me of the giant flowers on Yaxchilan lintels and elsewhere—would help greatly to know what plant this represents.



The helmet reminds me of Teotihuacan military helmets of the Early Classic, though now in the Late Classic these helmets have changed.

The round circle, the long “beak: and the flower being pierced suggests a hummingbird beak sticking out of the helmet. The details in front of the end of the beak are unclear (at first, I thought it was a tiny hummingbird with its beak pointing left, but now I estimate the beak is coming from the round circle on the front of the helmet).

It helps when the scan of a single image is over 48 MEGabytes. This makes it easier to show details when you enlarge a detail.

The tag on these scans says March 1976, so either this was photographed in that date in the previous century or was scanned at that date (having been photographed earlier). All are photos by Nicholas Hellmuth, FLAAR Photo Archive. Dumbarton Oaks, Trustees for Harvard University.





The long beak, curl at the end, and flower symbol in the middle are all pure Maya logos for the sacred hummingbird. But the long thin neck is “pure Maya waterbird size and shape”. But the beak has no waterbird features—is pure hummingbird. *Pseudobombax ellipticum* trees often grow along the shore of wetlands so no surprise that the Maya also feature a waterbird with this stylized flower (Zidar and Elisens 2009: Fig. 3,d). Kerr rollout, K7610, Los Angeles County Museum of Art (LACMA).

To my knowledge, neither of these two Bombacoideae hummingbirds has been shown in any report on hummingbirds of the Classic Maya.

The name of this plant family has been changed but since I began to study *Ceiba aesculifolia* trees, *Pachira aquatica* and *Pseudobombax elliptum* many decades ago, I too prefer their historical plant family name Bombacoideae. These are the three trees that inspired the size and shape of the flowers that Charles Zidar studied.



Chapter 16

Not all long-beaked birds are Hummingbirds



This beak is the same as hummingbirds whose beak penetrates a stylized flower. But...is this a long-beaked waterbird? Or a composite hummingbird variant whose neck is the length of many waterbirds?

When time was available, in the 1970's-1980's-1990's, I photographed each artifact with color transparency film (slide film) and also with black-and-white film. The B&W contact sheet for this plate is **448146-05-Neg 32** and Neg 33.





Is this a hummingbird or a waterbird or a conflation (composite) of both? Codex Style. B&W of same scene are **406608-4**.

Waterbird, definitely not a hummingbird. But, the talons of this waterbird are very similar to the large wide talons of some Maya hummingbirds.

Neg. 09



Cropped by Hellmuth from scan of contact sheet # **492795-05**.

Photographed with Hasselblad medium format camera with Zeiss lens.

Neg. 07



Three identical hieroglyphs—does that mean the simple message was very important?

Neg. 10



I estimate that this bowl was painted in “Holmul Orange” color. There are lots of Late Classic Maya vases and bowls in Holmul Orange color in addition to the famous Holmul Dancer themes. Many of these Holmul Orange bowls and vases feature waterbirds. I have not yet found one that features a hummingbird.

Neg. 11



Beak the same thin length and with a curl at the end as a hummingbird beak. But these are not likely to be hummingbirds.





Obviously a water bird and not a hummingbird.

The long beak with curved end is very common on Maya hummingbird portraits.

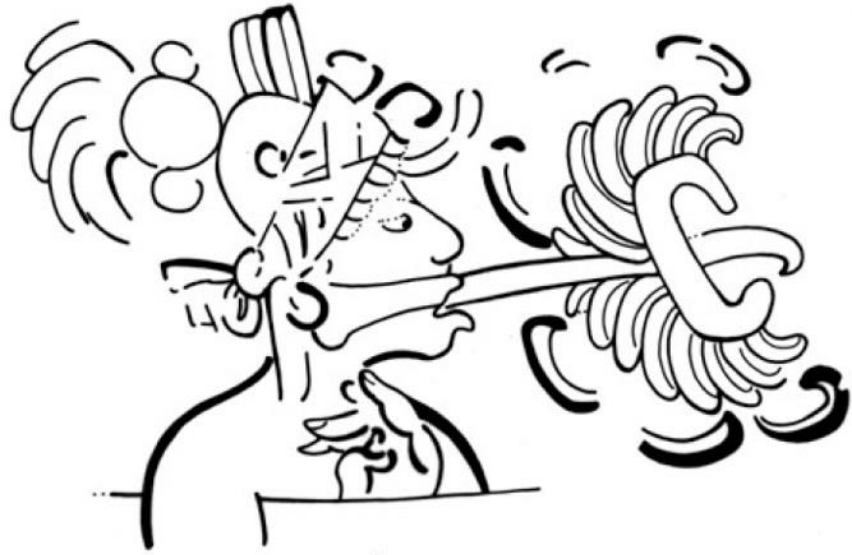
But...if the bird has a very long neck and very long legs it's usually a wading waterbird). The presence of fish make this all the more obvious.



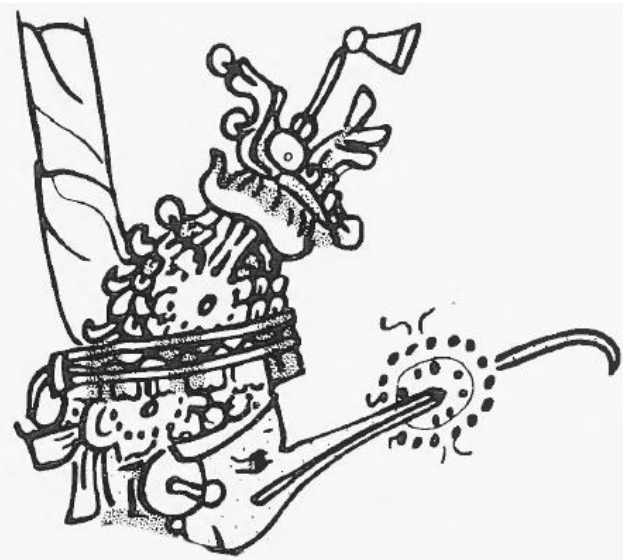
This is a stylized hummingbird whose feet are very similar to those of Maya portraits of large waterbirds. So many hummingbirds have feet of exaggerated size to make them similar to those of waterbirds??



Chapter 17 More Research Topics to focus on in future thesis or PhD dissertation



Lots of ethnobotanists, epigraphers, iconographers and archaeologists have studied flowers in Classic Maya art, but would help to have a thesis or an article on all the variants of flowers pierced by the exaggerated beaks of stylized Maya hummingbirds. One obvious place to start is House E of the palace acropolis of Palenque, Chiapas, Mexico. It's even called the "Flower House". I show samples on the following page.

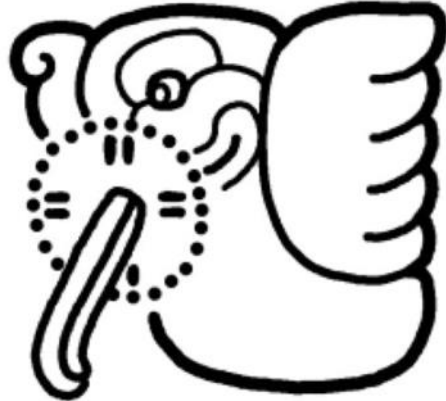
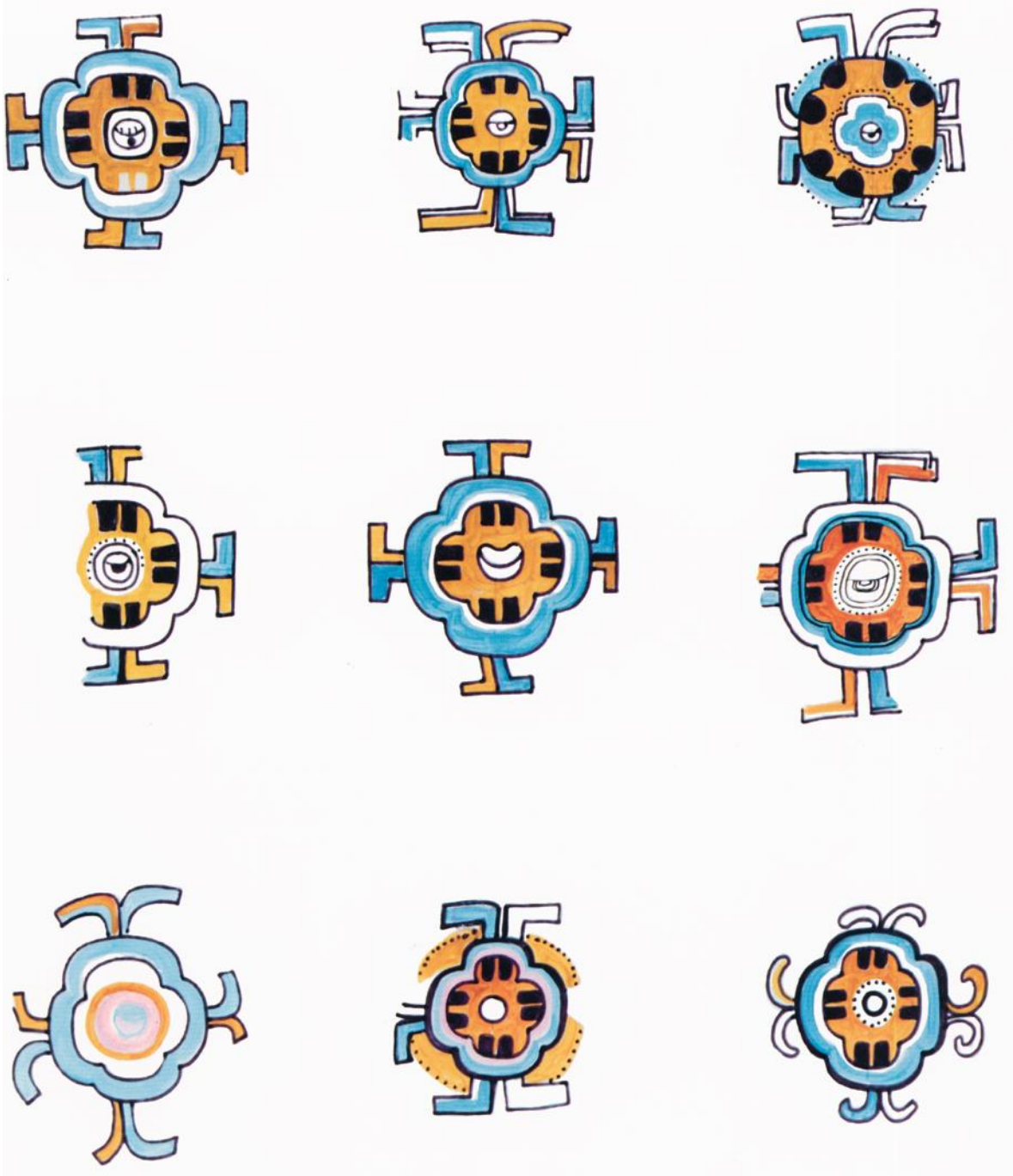


Since there are no hummingbirds in murals or sculptures of the palaces of Palenque acropolis, it is understandable that there is no caption or comment about that aspect. The helpful achievements of Merle Greene Robertson were her photos and rubbings—and publications of these illustrations that have assisted scholars for decades.

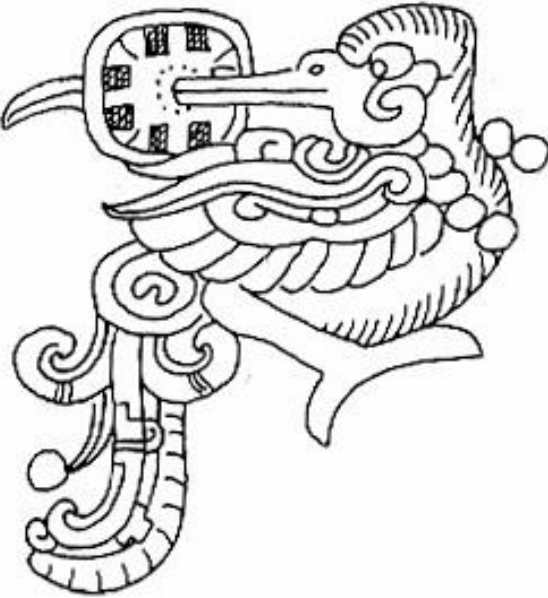
These Palenque flowers have a 4-petalled, almost “cave entrance” frame. So far, most of the flowers pierced by hummingbirds are completely round, with no “petals”. Nonetheless there are many similarities.

Palenque House E murals
(Robertson, Volume II 1985: Fig. 43).

Also look at a motif from Tikal that we show several pages on: Culbert 1993: Fig .79,c,3.



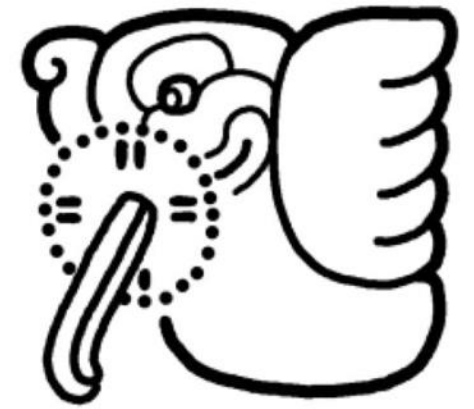
Full-figure hieroglyph for hummingbird, in several epigraphy reports and theses.



From the Belgian Tripod, a bird in a complex scene (not a hieroglyph).

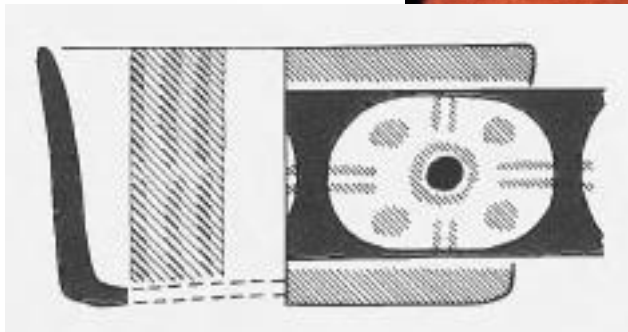
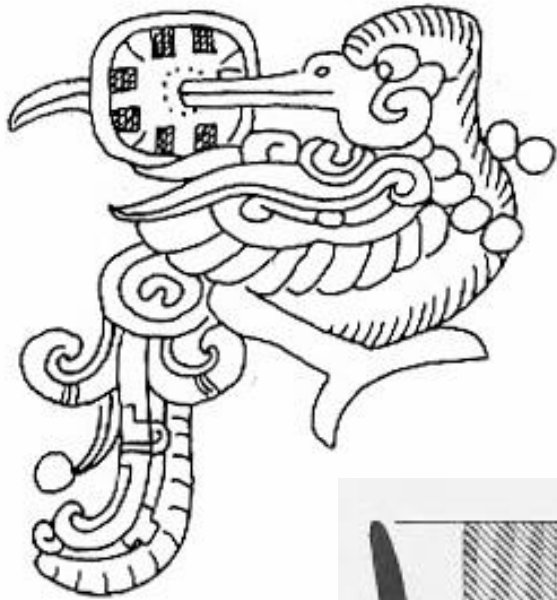
The glyphs around the upper part are simplified and repeated, so generally called pseudo-glyphs. But in my multiple-volumes of FLAAR Reports on pseudo-glyphs, I suggest that most could be read if linguists and epigraphers would focus on them.

The three symbols in the vertical area look to me as related to the stylized, simplified, flower motifs that are often pierced by the hummingbird beaks.





Drill holes like these are very common on Maya ceramics. Usually it's two holes, one on either side of the crack (the holes are for string to tie the vase back together—evidently there was no readily available glue??). But no visible cracks which raises the question of whether parts of this scene were repainted??



This design reminds me of the flower of hummingbird scenes. Zacatel Cream Polychrome Bu. 156 (Culbert 1993: Fig .79,c,3).

The curve is what suggests a hummingbird, albeit there is not space to make it the expected length. Notice that like some other composite creatures, this “person” has a human mouth under the beak (which is only the upper half of a real bird’s beak).

This bird “monster” is holding a “severed” head in its hand. If the glyphs are readable would help to have a translation.

Summary and Conclusions on Hummingbirds in Maya Art



- We found the first hummingbird that is totally conflated with the Principal Bird Deity.
- a rare observation is that several of the birds with their beaks deep into giant flowers (especially on lintels of Yaxchilan) are other nectar loving birds, thus probably NOT hummingbirds at all
- "fish" with "beak" of a hummingbird (carved vase Kerr rollout K1507) plus the Early Classic blackware basal flange bowl lid scene.
- Senaida Ba discovered that the hummingbird MOTH was clearly related to many Maya scenes. Sergio Jerez noticed this same aspect.

The giant profile serpent face as a wing is also shared with the Principal Bird Deity. That aspects is common, but what's new is the presence of the headdress design that is a logo of most God D portraits and lots of Principal Bird Deity portraits.

- Plus, have found more examples of hummingbirds than in most other previous publications on iconography of hummingbirds

Oswaldo Chinchilla has produced the most comprehensive study that compares Maya scenes of butterflies with Maya myths about butterflies. But now we can add the several additional findings, especially the relationship with the Principal Bird Deity and that there are lots of birds besides hummingbirds that like to stick there short beaks into flowers to such nectar. Plus, the unexpected discovery that lots of waterbirds have the identical length and curl-at-the-end as do hummingbirds. And if some mythical fish also have "bird beaks" there seems to be a curious relationship of hummingbirds to wetlands. Are hummingbirds occasionally denizens of the Surface of the Underwaterworld? I did not notice this during my research of the 1980's for my PhD dissertation.

I have not yet entered mythology of hummingbirds, in part because Chinchila and others have already done that. Plus my goal was to increase the database

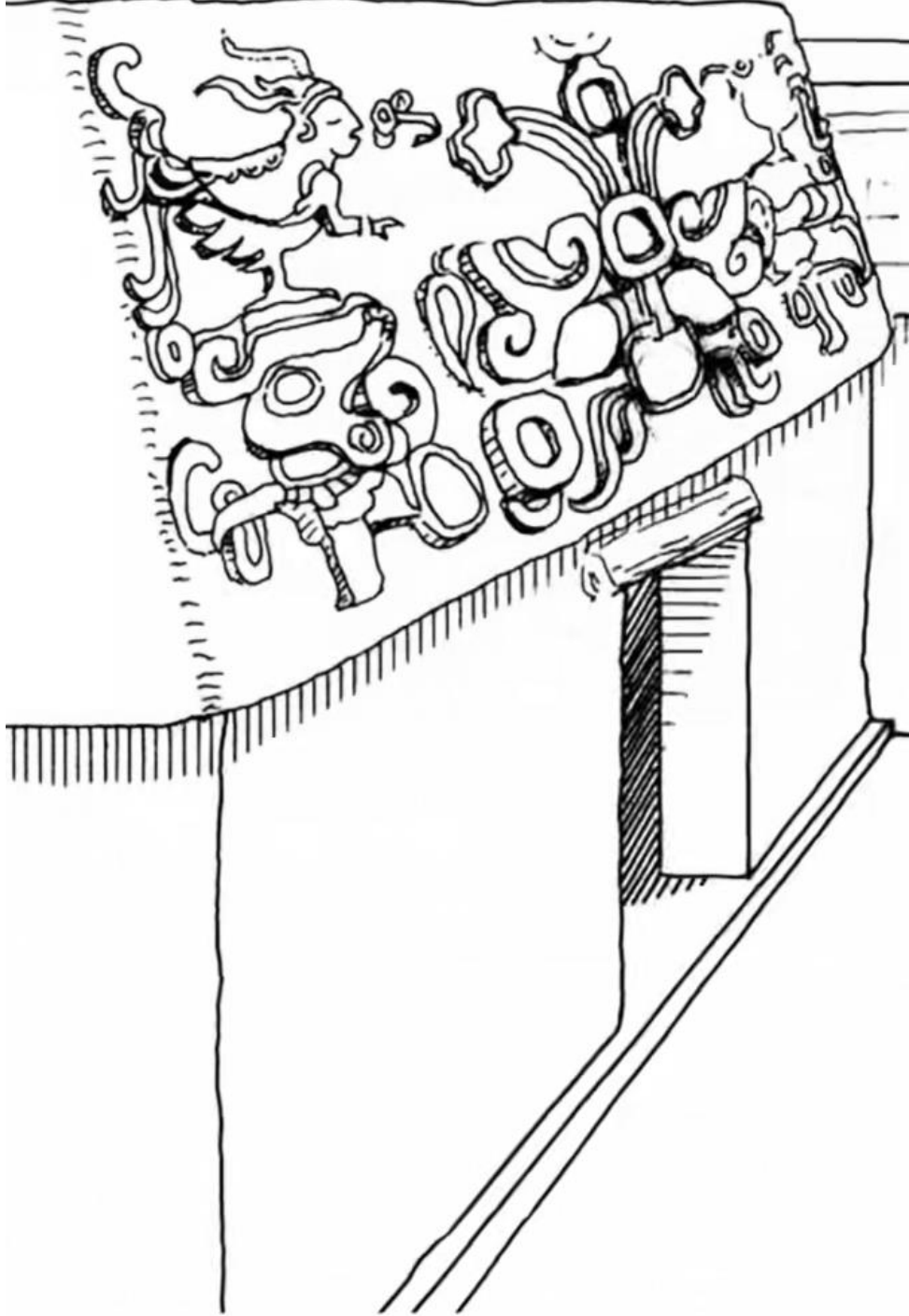


This is a hummingbird MOTH, not a hummingbird. Senaida Ba (FLAAR Mesoamerica for many years) knows these moths from flowers near her home in Chipemech, between Senahu and Cahabon, in the mountains of Alta Verapaz, Guatemala.

birds-Guatemala.com

Sphingidae family of hawk moths, also called sphinx moths.

There are lots of mythical, stylized, Maya hummingbirds not previously pictured in lectures or articles on hummingbirds



one of the most unexpected finds resulting from many hours over many days during of research to prepare this presentation for the Museo Fundacion la Ruta Maya is s archaeological drawing is on Tik Tok and Google AI is, so far, not able to find any ly report with the same drawing.

Tok video on hummingbird hieroglyphs does not have a caption citing what archaeological site and what publication and author.

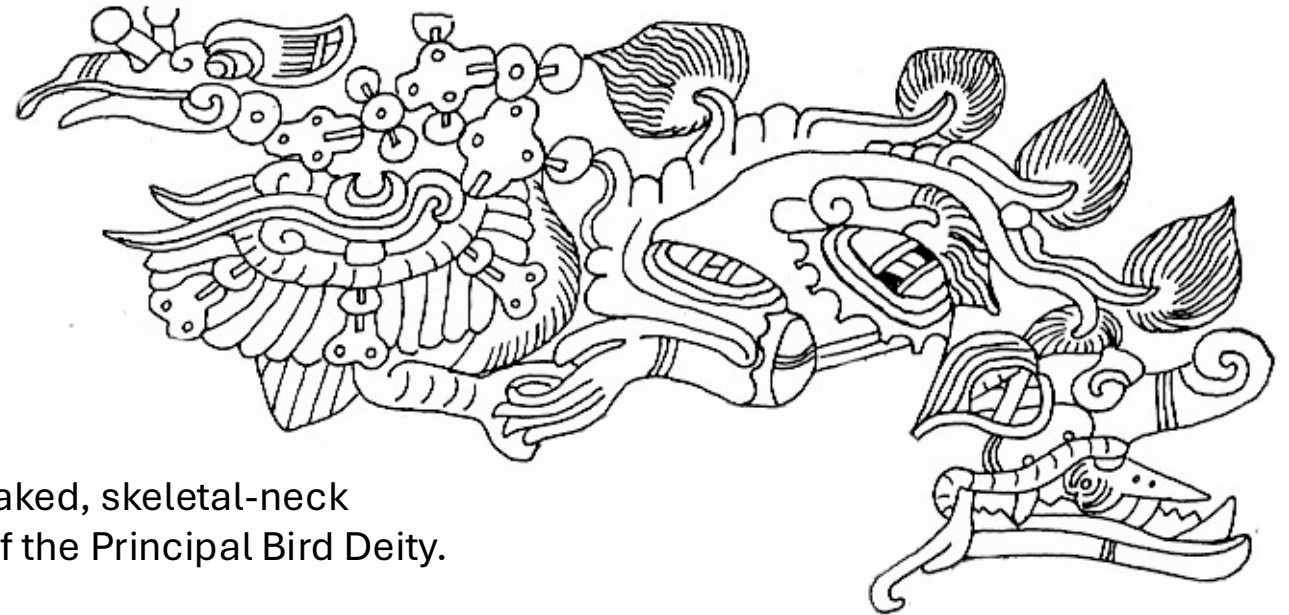
**Moving from the Mythical Hummingbirds
in Maya Beliefs to the Giant Crocodiles,
especially the Bicephalic Cosmic Monster**



Early Classic Maya
hummingbird with its beak
through stylized Maya
flower symbol.

I first published this in 1988
but was not focused on
hummingbirds in that
decade.

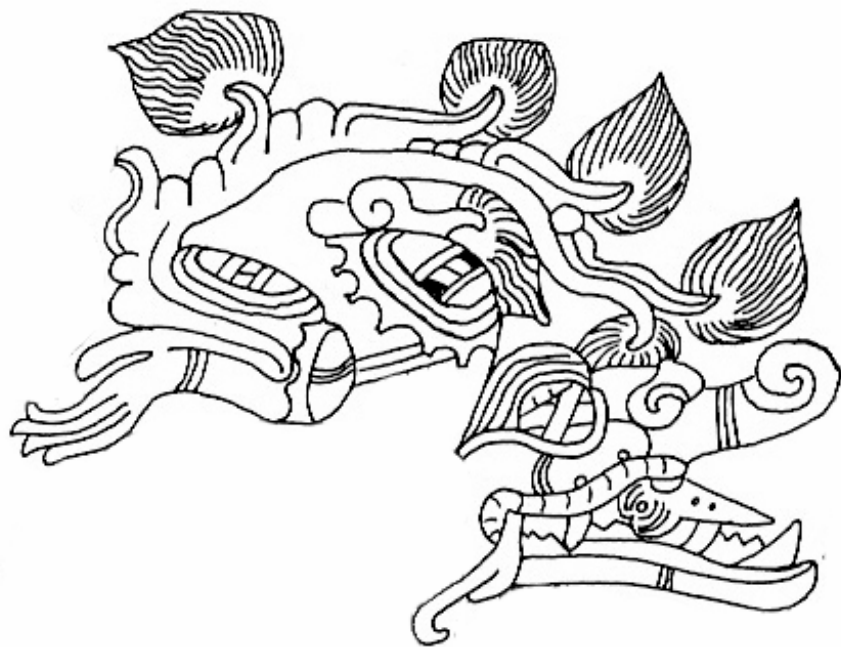
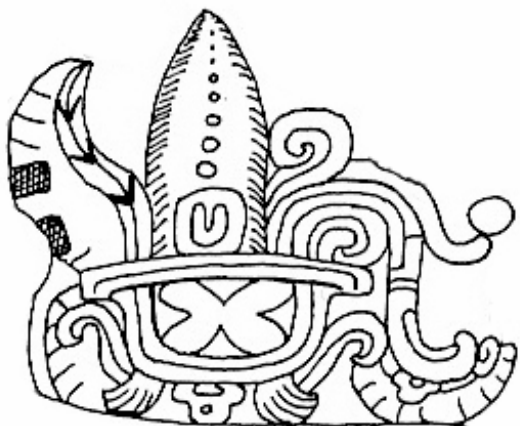
On the same incised cylindrical
tripod a crocodile tree.



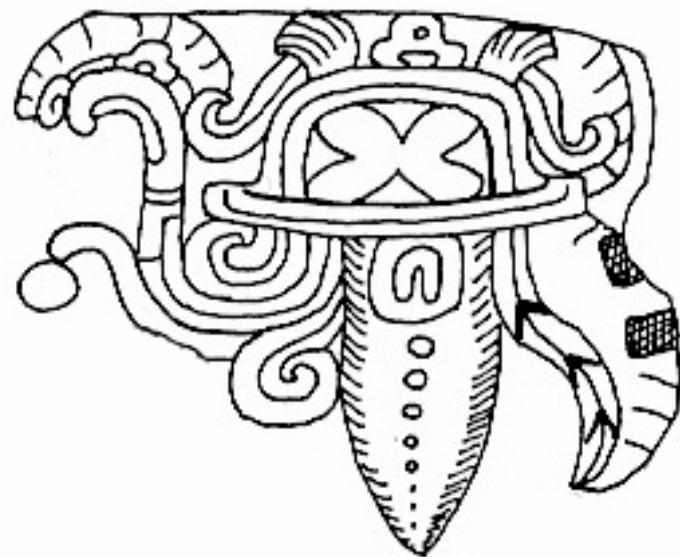
Long-beaked, skeletal-neck
variant of the Principal Bird Deity.



crocodile tree



This is a crocodile tree; usually they rise up from the ground but in this scene the “tree” is wandering a bit.

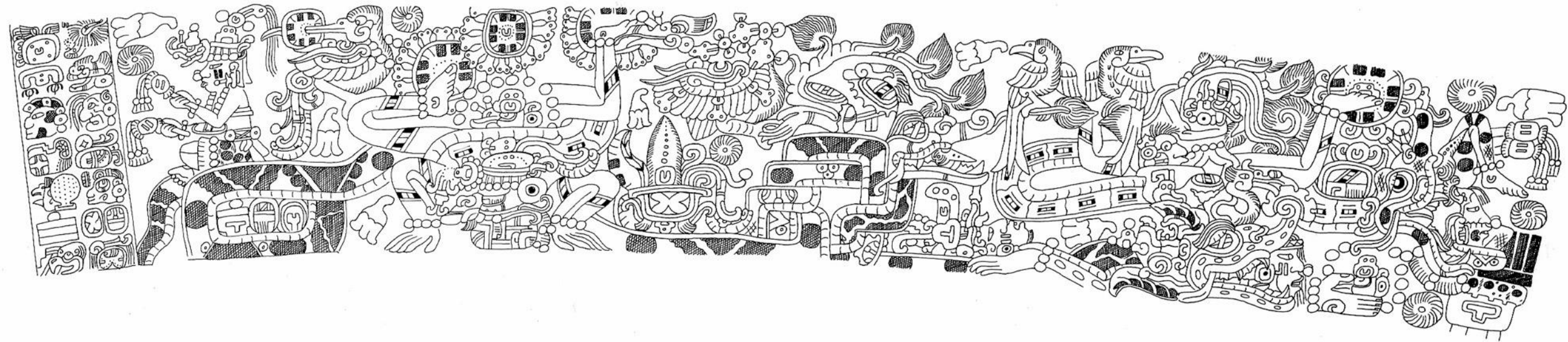
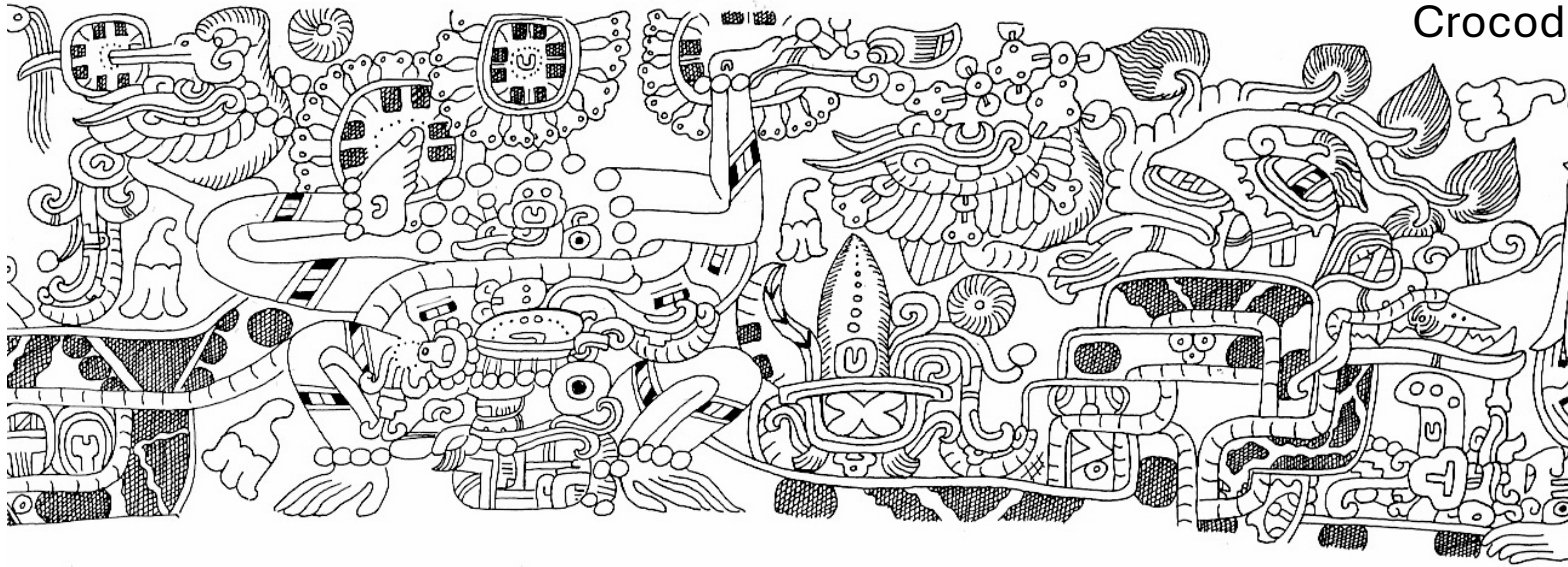


On the Bicephalic Cosmic Monster this is usually upside down, as the “tail” of the deer crocodile.

Hummingbird

Different mythical bird

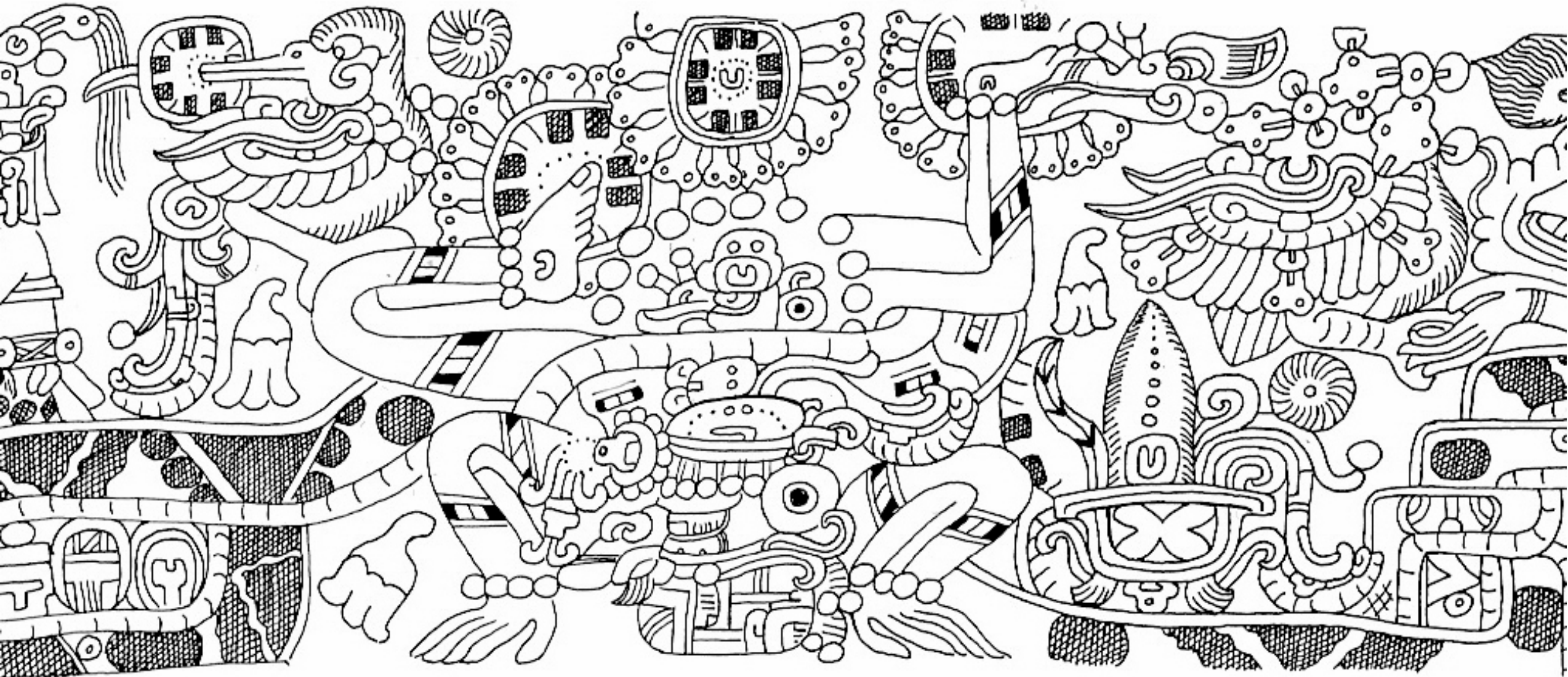
Crocodile tree



Excellent drawing by Lin Crocker.

Stylized Maya hummingbird
but with very long tail.

Completely different giant mythical
bird—with snake head on the wing.



Stylized profile/half frontal Loincloth
Apron Face coming out of the mouth
of this deity-faced man.

Quadrupartite Badge (but
no monster head)



The skeletal neck of the Early Classic bird on the incised cylindrical tripod reminds me of the bird with skeletal neck on the Blom plate (Hellmuth 2023b).

The Principal Bird Deity is a macaw at Copan and in the Highland Maya Popol Vuh. The Principal Bird Deity in the Early Classic art (and earlier in Izapa) is a snake-eating hawk (same bird as the “Laughing Falcon) in Chiapas and Peten (Hellmuth 1987a; 1987b).



425

Abb. 425. Die „Helden-Zwillinge“ in identischer Verkleidung, sie sind nur durch sehr feine Unterschiede auseinanderzuhalten; Blom-Teller.

Fig. 425. Headband Gods as identical twins. Only the different thrones allow them to be recognized as probably Numeral Nine (left, Xbalanque), and the Spotted Partner (Hunahpu, right).

Hellmuth 1987b: Fig. 425. No hummingbird here whatsoever.

In the contemporaneous Early Classic across the Costa Sur of Guatemala there are dozens of large cylindrical tripods. Plus a few GIANT cylindrical tripods (such as one at Museo Fundacion La Ruta Maya).

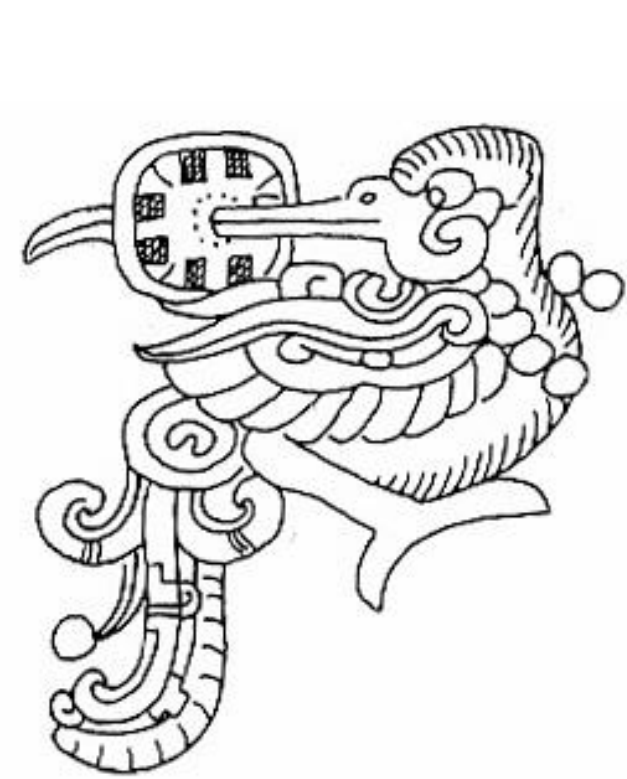
But in Peten, so far, I know of only two incised blackware cylindrical tripods of this size—one is the Berlin Tripod (published by Grube and many others). The Belgian cylindrical tripod that I show here is the second example (probably on several contact sheets, of which one is: **456981-51**).

Each of these two large cylindrical tripods is like multiple pages in a 4th-5th century edition of the Popol Vuh. Both are in excellent condition. Would help to study the clay (material from which each was made) to see whether both came from the same atelier or at least same area.

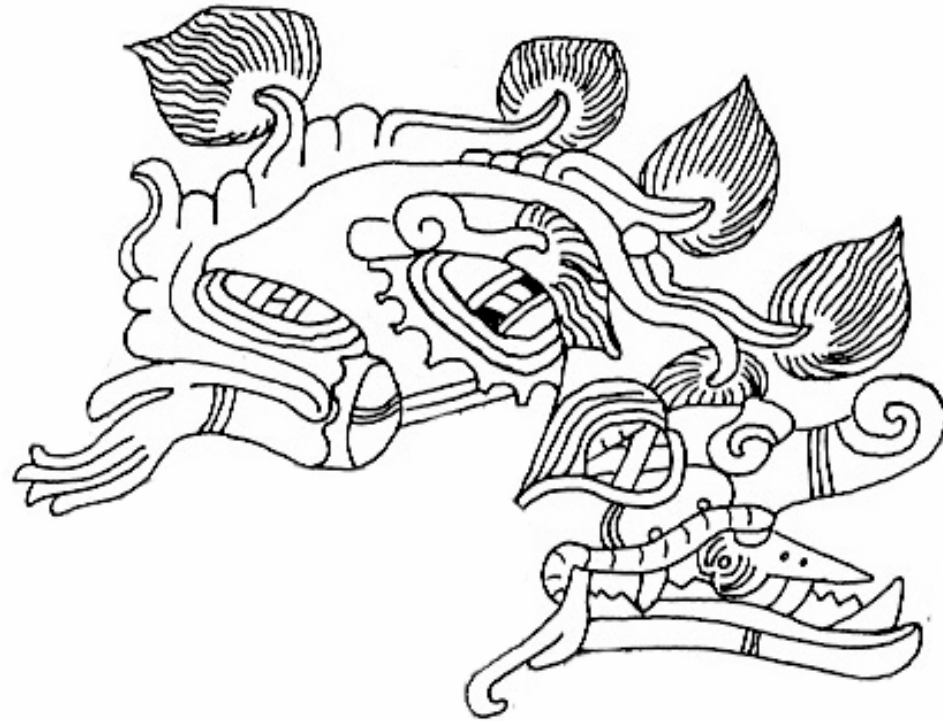
A cylindrical tripod from Tikal Problematic Deposit 48 is also even wider, but is not incised blackware. Curious that this giant Peten cylindrical tripod has a Teotihuacan scene (but not in Tiquisate style).



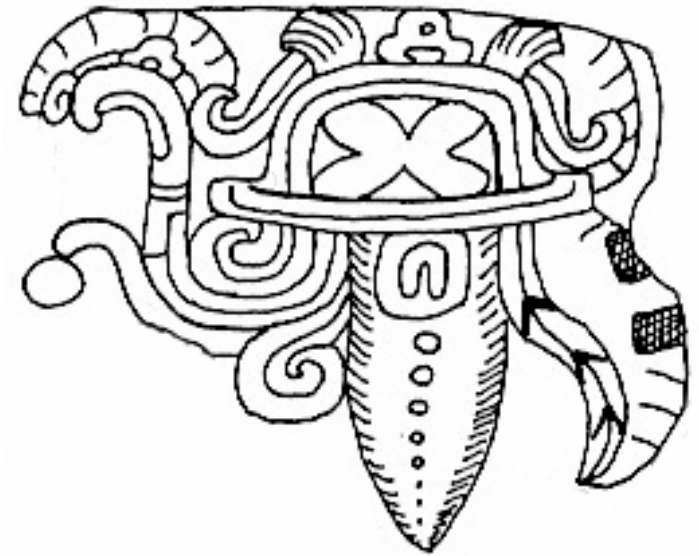
I have multiple hours on crocodiles in Maya art, starting with “the Crocodile Tree”. But since I found so many more hummingbirds than I expected, the several chapters on crocodile iconography will be another lecture at another time. But I show just a few hits of what are in crocodile scenes—especially the Quadripartite Badge Headdress (and monster).



Rare presence of a hummingbird in same scene as a Crocodile Tree.



Most Crocodile Trees grow upright, but on this complex scene the the tree is sideways.



Quadripartite Badge Headdress is usually upside down at the “tail end” of the Bicephalic Cosmic Monster.

Appendix A

Altun Ha Style Vase with Lots of Stylized Maya Bird and Bird-Insects

I show the 4-legged “insect-bird” on the front cover of: *Altun Ha Style Vases, Iconography and Primary Standard Sequence (PSS) Hieroglyphs* (Hellmuth 2024f). And more photos on pages 2, 3, 4, 5, 6, 7, 8, 9 and 10. This publication explains why I call these “Altun Ha Style” vases.

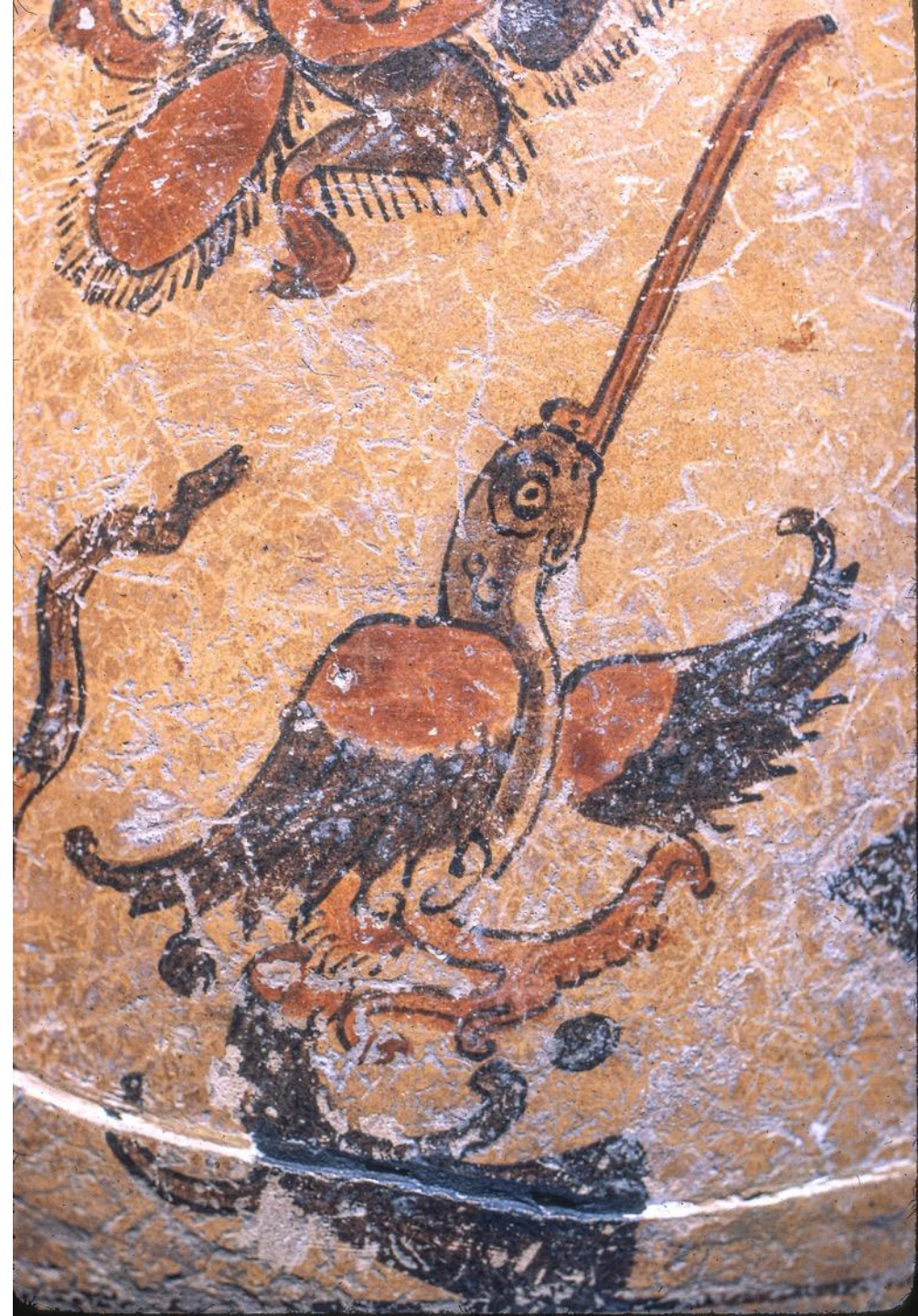
During the 1970’s, 1980’s and 1990’s I brought my entire portable photo studio to museums literally around the world: Japan, across Germany and the rest of the EU, USA, Canada, 18-months in Mexico, obviously Guatemala for decades. In the UK, the directors and administrators of several museums kindly allowed me to bring my portable photo studio to their museum, so I could photograph the Altun Ha vase with such a nice PSS and lots of mythical creatures.

One museum I photographed in was in Liverpool. Many museums have changed their name, and on the Internet there is a National Museums Liverpool, and World Museum Liverpool.

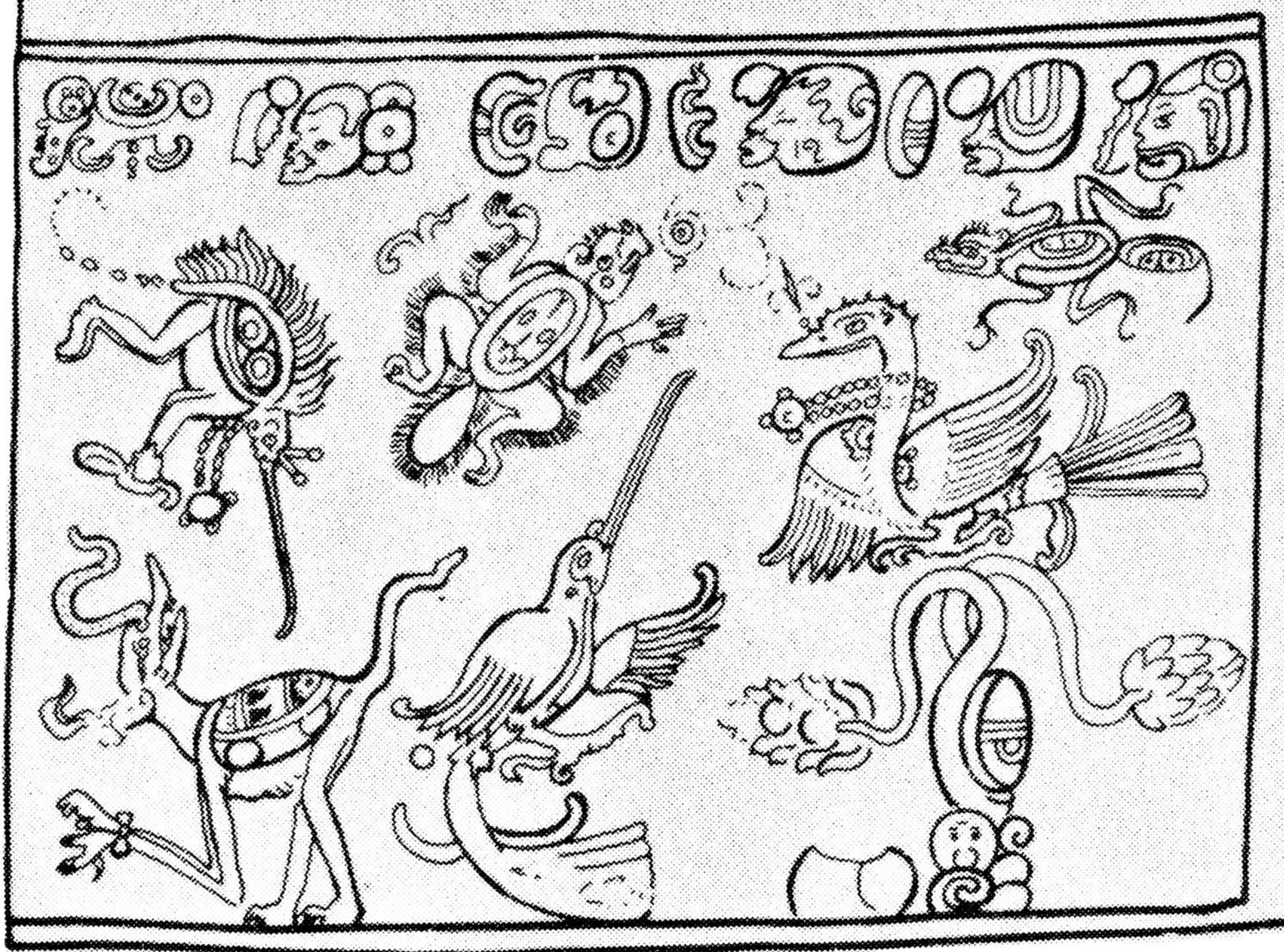
In the previous century you could bring literally “tons” of baggage on an airline flight, and for my “carry on” I had a the Remin Kart-A-Bag model Tri-Kart 800. When I went by pickup truck or had even more heavy camera studio equipment I also had a Kartmaster HD-500 (which by itself weighs 44 pounds). I would use the Kart-A-Bag to carry very heavy equipment from airport check-in to the departure gate. Then I would fold it up. I have no idea how my body could then carry the Kart-A-Bag plus all the equipment onto the airplane and find space in the overhead racks. Nowadays not many airlines would allow anyone to bring this much camera equipment into the airplane (obviously most of my equipment was in checked-bags). In several cities I had to have two taxicabs simultaneously carry me and my photography equipment to the hotel and then later to the museum.

The result of these thousand of miles of flights with tons of portable camera equipment are what resulted in the multiple tons of 35mm color slides, medium format color transparencies, B&W negatives, plus 4x5” and a few 8x10” color transparencies that I donated to Dumbarton Oaks, Trustees for Harvard University, so that all these photos can be available to scholars for their research and to student for their thesis.





There are many helpful drawings of this “Gann vase” of Altun Ha Style.





The long legs suggest a deer, but the tail is longer and head is not the shape of a deer's head (though the ear is similar). But the three rows of designs on the encasement of the body suggest an armadillo. And the long legs do not end in deer hooves. This is an armadillo on steroids.





Now you can see that the length of the head suggests a Mayanized armadillo (on the Altun Ha style vase at the left).

The context also documents the animal as an armadillo: a 4-legged anthropomorphic composite "insect monster" is aiming his long beak at an armadillo (unclear why an armadillo is such a favorite target).

The Kerr rollout is known and frequently published but the Hellmuth photo and the Altun Ha style scene are not often in studies of Maya armadillos such as Newman and Rossi 2022.



Kerr rollout, K2759.



Contact sheet:
471242-14.



Hummingbird Moth, *Hyles lineata* Wikipedia, 9687769149
LOTS more photos on
https://www.inaturalist.org/taxa/49348-Hyles-lineata/browse_photos



Genus *Hemaris* has several species in the Maya areas of Mesoamerica.

Feel inspired to find even more insects with giant “beaks” such as the Mayan Hercules beetle, *Dynastes maya*. This is a horn, not a beak, which may help explain why the “hummingbird composite monsters” don’t have a “lower beak”. Also look at publications on insects by José Monzón Sierra, UVG. So also look at the *Dynastes septentrionalis*.



Genus *Hemaris*.



Hummingbird moths found by Senaida Ba in iNaturalist.

Notice how long the proboscis is. A proboscis is flexible and can scroll at the end.

Also need to check to what degree a real hummingBIRD's tongue can curl? But I still estimate that the inspiration for these giant composite monsters is a hummingbird MOTH since a mosquito is very small. The Maya may have “conflated” the idea of sucking blood to create a composite hummingbird-moth-mosquito monster? More entomological, linguistic, ethnographic, ethnohistorical and iconographic research will help. But at least now we can add the hummingbird MOTH to the inventory of mythical Maya composite creatures.

References Cited and additional Suggested Reading

BRAAKHUIS, H. E. M.

2005 Xbalanque's Canoe. The Origin of Poison in Q'eqchi'-Mayan Hummingbird Myth. *Anthropos*, No 100. pp. 173-191.

The download on Academia.edu failed to download but earlier I downloaded it elsewhere. No illustrations of any hummingbirds.

CHASE, Arlen F.; CHASE, Diane Z. and Adrian S. Z. CHASE, Adrian S. Z.

2025 Positioning the Early Classic Period at Caracol, Belize: Caracol Archaeological Project Investigations During 2025 (first year of a 2-year program spanning 2025 and 2026). Report Submitted to the Belize Institute of Archaeology. 161 pages.

Bird in Fig. 9f has its beak eroded but being super-narrow, is potentially a hummingbird (as those authors caption it). The “tail” looks like a play on a stylized fish tail. A very similar conflated composite “hummingbird” is pictured by Prufer and Dunham 2009: Fig. 4).

<https://caracol.org/wp-content/uploads/2026/01/2025-reduced.pdf>

CHASE, Arlen F.; CHASE, Diane Z.; CARPENTER, Maureen; CHASE, Adrian S. Z. and Melissa M. BADILLO

2025 The Tomb of Te' Kab Chaak at Caracol, Belize: Context, Contents, Dating, and Implications. Chapter 13, pages 153-167 in *Research Reports in Belizean Archaeology*, Vol. 19, 2025. Institute of Archaeology, NICH, Belize.

Potential hummingbirds are pictured in their Figure 26. Would help to have drawings of both.

<https://caracol.org/wp-content/uploads/2025/08/Chase-et-al.-2025b-reduced.pdf>

CHINCHILLA, Oswaldo

2008 El mito del colibri en el arte maya. Lecture at Museo Popol Vuh, UFM.

First image, 1:15 is a plate that shows same scene as on vases. This plate is rarely published elsewhere. Drawing of this scene is 7:41 the same drawing is in Chinchilla 2010: Fig. 1.

<https://www.youtube.com/watch?v=2Hb2ePi08go> 1:04 (one hour four minutes) Unfortunately from 44 minutes 33 seconds onward the video fails to produce image or sound.

CHINCHILLA, Oswaldo

2010 Of Birds and Insects: The Hummingbird Myth in Ancient Mesoamerica. *Ancient Mesoamerica*, vol. 21; pp. 45-61.

This is the best report on iconography of hummingbirds in Classic Maya art.

COGGINS, Clemency Chase

1975 Painting and Drawing Styles at Tikal, An Historical and Iconographic Reconstruction. PhD dissertation, Dept of Fine Arts, Harvard. Two volumes. More pages than I can count. Download as a PDF is super-helpful.

CULBERT, T. Patrick

1993 The Ceramics of Tikal Vessels from the Burials, Caches and Problematical Deposits. Tikal Report No. 25, Part A, University Museum Monograph 81. The University Museum, University of Pennsylvania. 370 pages in the downloadable PDF.

FONCERRADA de Molina, Marta and Sonia LOMBARDO de Ruiz

1979 Vasijas pintadas mayas en contexto arqueológico: (catálogo). *Estudios y fuentes del arte en México*; 39, UNAM. 364 pages.

HELLMUTH, Nicholas M.

1967 Structure 5d-73, Burial 196, Tikal, Peten, Guatemala, A preliminary report. Harvard Honor’s Thesis. (was awarded Summa Cum Laude)

There is one download of all 400 pages together in one PDF; plus other downloads by volume (two volumes).

HELLMUTH, Nicholas M.

1986 Basal Flange Bowls and Tetrapods: Early Classic Maya Iconography and Ceramic Form. Corpus of Maya Art, Vol. III. 126 page list of all the basal flange bowls and tetrapods photographed up until that date.

Lists the names (numbers) of the B&W contact sheets (35mm color slides were too many (30,000 or more) so we never had funds to number and catalog these). Lots of notes on the basal flange bowl lid that has the two hummingbirds and the two “fish” with hummingbird-beaks.

<https://flaar-mesoamerica.org/wp-content/uploads/2025/01/BASAL-FLANGE-BOWLS-and-tetrapods-WITH-INTERIOR-PAINTINGS-Nicholas-Hellmuth-1986-CHAPTER-1-pages-22-147.pdf>

HELLMUTH, Nicholas M.

1987a The Surface of the Underwaterworld: Iconography of the Deities In Early Classic Maya Art of Peten, Guatemala. English edition of 1986 PhD dissertation. Two volumes: Vol. I, text; Vol. II, illustrations. Available as a download on-line.

HELLMUTH, Nicholas M.

1987b Monster und Menschen in der Maya-Kunst. Eine Ikonographie der alten Religionen Mexikos und Guatemalas. Graz, Austria: ADEVA.

Available as a download on-line.

HELLMUTH, Nicholas M.

1988 Early Maya Iconography on an Incised Cylindrical Tripod. In: *Maya Iconography*. Edited by Elisabeth Benson & Gillett Griffin: 152-174. Princeton University Press.

HELLMUTH, Nicholas

2023a Neotropical Flora and Fauna that you can see in 5 days in Peten (in January). PNYNN and PANAT, RBM, Peten, Guatemala Field Trip of January 2023. *FLAAR Reports*. FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 108 pages.

Hummingbird **nests** on page 40 and page 99 <https://flaar-mesoamerica.org/wp-content/uploads/2023/03/Neotropical-Flora-and-Fauna-that-you-can-see-in-5-days-in-Peten-in-January-PDF-FLAAR-RBM-Feb-2023-NH.pdf>

HELLMUTH, Nicholas

2023b The Story of the Blom Plate: a Masterpiece of Maya Iconography and Primary Standard Sequence, PSS, Hieroglyphs, Chetumal, Quintana Roo, Mexico. *FLAAR Photo Archive Publication Number 18 Iconography of Maya Ceramics of Mexico, Publication Number 1*, FLAAR Reports. 32 pages in downloadable PDF.

HELLMUTH, Nicholas

2023c Crocodile Trees, Jicara/Morro Trees, Loincloth Apron Face Trunk-base Trees. Chapter 5 of *Iconography and Ethnozoology of the Crocodiles and Caiman of Mesoamerica and their relation with the Cosmology of the Underworld and the Heavens*. Symposium Presentation July 27, 2023. 115pp.

HELLMUTH, Nicholas

2024a Hummingbirds, Tepeu 1 Bowls. *FLAAR Reports*, FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 9 pages.

Available on Academia.edu and on ResearchGate. We will be adding this to Maya archaeology and Maya ethnozoology websites in August.

HELLMUTH, Nicholas

2024b Black Basal Flange Bowls. *FLAAR Reports*, FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 48 pages.

The blackware basal flange bowl lid that shows two hummingbirds and two fish ”with hummingbird beaks” is on pages 35, 36, 37, and 38.

Downloadable on-line.

HELLMUTH, Nicholas

2024c Classic Maya Art, Iconography & Symbolism PowerPoint Presentations in Full Color, Abstracts of Lectures, Symposium & Conference Topics available. *FLAAR Reports*, FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 103 pages.

Hummingbirds in Maya art are pictured on pages 35 and 41. Fig. 72 shows a vase that has a “hummingbird man” in front of a stepped throne but we do not yet have photos of that segment of this God D with God L scene.

HELLMUTH, Nicholas

2024d Late Classic Maya Vases, Bowls and Plates with God D, Part II, Kerr Rollouts that include God D. *FLAAR Reports* FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 53 pages in the downloadable PDF.

<https://flaar-mesoamerica.org/wp-content/uploads/2024/09/God-D-in-Kerr-rollouts-Hellmuth-Sept-2024-FLAAR.pdf>

HELLMUTH, Nicholas

2024e Birds on Late Classic Maya Plates. *FLAAR Reports*, FLAAR (USA) and FLAAR Mesoamerica (Guatemala).37 pages in downloadable PDF.

Bird with beak the size and curled-end shape of a stylized Maya hummingbird is pictured on page 25. I estimate that this has not yet been included in any lecture or publication on hummingbirds in Classic Maya art.

<https://flaar-mesoamerica.org/wp-content/uploads/2024/09/plates-birds-FLAAR-Reports-Nicholas-Hellmuth.pdf>

HELLMUTH, Nicholas

2024f Altun Ha Style Vases, Iconography and Primary Standard Sequence (PSS) Hieroglyphs. FLAAR Reports FLAAR (USA) and FLAAR Mesoamerica (Guatemala), 38 pages in the downloadable PDF.

Insect with hummingbird beak is shown in Fig. 7 on page 7. Actual Maya hummingbird is shown in Fig. 10, page 10.

<https://flaar-mesoamerica.org/wp-content/uploads/2024/09/Altun-Ha-vases-PSS-and-iconography-Sept-2024-Hellmuth-FLAAR.pdf>

HELLMUTH, Nicholas

2024g Handball Games of the Late Classic Maya, Yes, the Maya did use their Hands on ballgame balls (but different sized balls). FLAAR Reports FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 5 pages in the downloadable PDF.

<https://flaar-mesoamerica.org/wp-content/uploads/2024/06/handball-game-Kerr-K1288.pdf>

HELLMUTH, Nicholas

2024h Armadillo in Late Classic Maya Art, Iconography. FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala).

Available on-line as a download.

HELLMUTH, Nicholas

2025a *Piscidia piscipula*, Jabin, Dogwood, with Hummingbird Pollinator Yaxha and Nakum areas of Parque Nacional Yaxha, Nakum and Naranjo. Volume 6 for Series: *Flowers worth experiencing at Parque Nacional Yaxha, Nakum and Naranjo, PNYNN Reserva de la Biosfera Maya, RBM, Peten, Guatemala, FLAAR Reports*, FLAAR (USA) and FLAAR Mesoamerica (Guatemala), October 2025. 35 pages in downloadable PDF.

Lots of photos of hummingbirds of Yaxha and Nakum areas of PNYNN.

<https://flaar-mesoamerica.org/wp-content/uploads/2025/11/PNYNN-flowers-worth-seeing-and-learning-about-Pisidia-piscipula-jabin-Nicholas-Hellmuth-FLAAR-Reports-Sep-2025-Vol-6.pdf>

HELLMUTH, Nicholas

- 2025b Pseudo-Glyphs on Late Classic Maya Ceramics in Museo Popol Vuh, UFM, Fundacion La Ruta Maya and on other Vases. VIII Seminario Internacional de Epigrafía Maya, 28 de julio al 1 de agosto de 2025 Museo Popol Vuh, Universidad Francisco Marroquin, Guatemala, Camilo Luin, Organizer. FLAAR Reports, FLAAR (USA) and FLAAR Mesoamerica (Guatemala). 196 pages in downloadable PDF.

<https://flaar-mesoamerica.org/wp-content/uploads/2025/08/pseudo-glyphs-Maya-epigraphy-Simposio-MPV-UFM-Jul-2025-Nicholas-Hellmuth-FLAAR-1st-edition.pdf>

HELLMUTH, Nicholas

- 2025a Deer Heads worn as Headdress by Maya Ballplayers, Deer Hunting Hats worn as Headdresses by Maya Ballplayers, Deer Hides worn by Maya Ballplayers. *Iconography of Maya Deer, Part IV*, FLAAR Reports, January 2025. 54 pages in downloadable PDF.

file:///Volumes/Library/Downloads/Deer_Hunting_Hats_worn_as_Headdresses_by.pdf

HELLMUTH, Nicholas

- 2026d Chapter 4: Maya Pseudo-Glyphs and Rare PSSequence Dedicatory Formula on Red Band Tepeu 1 Style Round-Bottom-Edge Vases. Chapter 4 for multi-chapter Presentation: *Que tal si los pseudoglifos en cada region maya son un dialect regional?* Conferencia Presencial, Jueves 26 de febrero 2026, 7:00 pm Edificio del Museo Popol Vuh, Universidad Francisco Marroquin. 66 pages in downloadable pdf.

LOOPER, Matthew George

- 2003 Lightning warrior: Maya art and kingship at Quirigua. University of Texas Press. 265 pages.

LOOPER, Matthew George

- 2009 To Be like Gods: Dance in Ancient Maya Civilization. 1st ed. The Linda Schele Series in Maya and Pre-Columbian Studies. University of Texas Press.

MORENO MAGARIÑO, Mauricio

- 2025 Palabras Animadas: Análisis de los Signos de Figura Completa en la Escritura Jeroglífica Maya en el Período Clásico (250 – 900 D.C.). Ma Thesis, Universidad Autónoma de Chiapas, Universidad de Ciencias y Artes de Chiapas. 1064 Pages In The Downloadable PDF.

Hellmuth’s research and publications in epigraphy, especially on full-figure glyphs, are listed by Moreno pages 69-73 and elsewhere..

NEWMAN, Sarah E. and Franco D. ROSSI

2022 The Fox and the Armadillo: An Inquiry into Classic Maya “Animal” Categories. *Ancient Mesoamerica*, 1-23. Available on-line as a download.

ORDÓÑEZ Fajardo, María Anaité

2012 Representaciones Artísticas de Flora y Fauna en los Artefactos Arqueológicos en la Cuenca Mirador, Petén, Guatemala. Thesis, Licenciada, USAC. 157 pages in downloadable PDF.

The glyph on page 59 does not show a biological hummingbird and page 135. But the bird on her page 24 is an acceptable hummin gbird.
https://biblioteca.usac.edu.gt/tesis/14/14_0475.pdf

PRUFER, Keith M. and Peter S. DUNHAM

2009 A shaman’s burial from an Early Classic cave in the Maya Mountains of Belize, Central America. *World Archaeology* Vol. 41(2): 295–320 The Archaeology of Caves, Shelters and the Deep Karst.

A conflated composite “hummingbird” is pictured by Prufer and Dunham 2009: Fig. 4). A very similar minimalized composite “bird” in Chase, Chase, and Chase 2025 Fig. 9f has its beak eroded but being super-narrow, is potentially a hummingbird (as those authors caption it). The “tail” looks like a play on a stylized fish tail. Downloadable via Academia.edu

ROBERTSON, Merle Greene

1985 The Sculpture of Palenque, Vol. II: The Early Buildings of the Palace and the Wall Paintings. Princeton University Press. 302 pages.

ROBICSEK, Francis

1978 Smoking Gods: Tobacco in Maya Art, History, and Religion. University of Oklahoma Press. 258 pages.
Super helpful that you can at least read it on-line via archive.org <https://archive.org/details/smokinggodstobac0000fran>

ROBICSEK, Francis and Donald HALES

1981 The Maya Book of the Dead: The Ceramic Codex; the Corpus of Codex Style Ceramics of the Late Classic Period. University of Virginia Art Museum. 257 pages.

ROSSI, Franco D. and Sarah NEWMAN

2025 Seeing and Being Bugs in Classic Maya Art. *The Mayanist* Vol. 7, No. 1, pages 33-54.

SCHLESINGER, Victoria

2001 Animals and Plants of the Ancient Maya: A Guide. University of Texas Press. 351 pages.

Shows hummingbird on page 209, but a drawing of actual bird—no Maya scene.

You can read this on-line but not download: <https://archive.org/details/animalsplantsofa0000schl>

SCHMIDT, Peter; STUART, David and Bruce LOVE

2008 Inscriptions and Iconography of Castillo Viejo, Chichen Itza. *The PARI Journal* 9(2):1-17.

SELER, Eduard

1996 The Animal Pictures of the Mexican and Maya Manuscripts, 2nd edition. *Collected Works in Mesoamerican Linguistics and Archaeology*, Volume V of the present edition comprises Volume IV of the *Abhandlungen*, translated into English from *Gesammelte Abhandlungen zur Amerikanischen Sprach-und Alterthumskunde*, Frank E. Comparato editor of the Labyrinthos edition.

Hummingbirds in non-Maya codices of Mexico are pictured on page 233. Hummingbirds in Codex Borgia but also in Maya Codex Dresden are on page 235. More Maya codex hummingbirds are on his page 236. Other examples (some Maya) are on page 238. So far, I have not seen any of these Maya hummingbirds in any major article or lecture on “Hummingbirds in Maya Art” yet several have the same “flower” being pierced by the beak.

https://www.maya-archaeology.org/FLAAR_Reports_on_Mayan_archaeology_Iconography_publications_books_articles/83_Eduard_Seler-Collected-works-in-mesoamerican-linguistics-and-Archaeology-FLAAR.pdf. Made available on-line by Nicholas Hellmuth, FLAAR.

TAUBE, Karl

2003 Ancient and Contemporary Maya Conceptions about Field and Forest. Chapter 26, pages 461-492 in *The Lowland Maya area: three millennia at the human wildland interface*. Food Products Press.

Download on-line (ResearchGate and Academia.edu).

Captions to his Fig. 26.10 suggests there are remains of hummingbird aspects. The glyph, however, is acceptable hummingbird.

TOKOVININE, Alexandre and Vilma FIALKO

2019 En el Cerro de los Colibríes: el patrón divino y el paisaje sagrado de la ciudad de Naranjo. En *XXXII Simposio de Investigaciones Arqueológicas en Guatemala, 2018* (editado por B. Arroyo, L. Méndez Salinas y G. Ajú Álvarez), pp. 825-838. Museo Nacional de Arqueología y Etnología, Guatemala.

I sincerely thank Pablo Gonzalez Mireles for sending me this PDF. His TikTok video is what allowed me to see these hummingbirds. Google Search did not show any helpful results so I always appreciate the help of colleagues.

TOZZER, Alfred and ALLEN

1910 *Animal Figures in the Maya Codices*. Peabody Museum Papers Volume 4, no. 3, 184 pages. Available on-line.

Curiously they have no page specifically on hummingbirds whatsoever. Seler’s studies were published mas o menos in the same decade and Seler included multiple examples of hummingbirds in the Maya codices—but Tozzer and Allen show zero. Nonetheless, for dozens of other creatures of Maya culture, Tozzer and Allen 1910 is an essential research resource.

VILLACORTA, J. Antonio and Carlos A. VILLACORTA

1933 *Codices Mayas*. Tipografia Nacional. 450 pages.

Codex Dresden are pages 12-158
Codex Paris are pages 180-222
Codex Madrid are pages 226-448

All are available on-line as easy download. Full-color version is via ADEVA, Graz, Austria and other publications.

YOSHIMOTO, Jiichiro; CANO, Enio B. and Samanta ORELLANA

Insectos de Guatemala : Guía de identificación. Universidad del Valle de Guatemala. Three editions available, different dates.

It helps to have a book like this focused on the insects of one country written by entomologists who have dedicated their lives to studying insects.

ZIDAR, Charles and **Wayne ELISENS**

2009 Sacred Giants: Depiction of Bombacoideae on Maya Ceramics in Mexico, Guatemala, and Belize. *Economic Botany*, 63(2), 2009, pp. 119–129. The New York Botanical Garden Press.

<https://www.tiktok.com/@jeroglificosmayas/video/7590186443864050961>

has helpful information on colibri, hummingbirds.