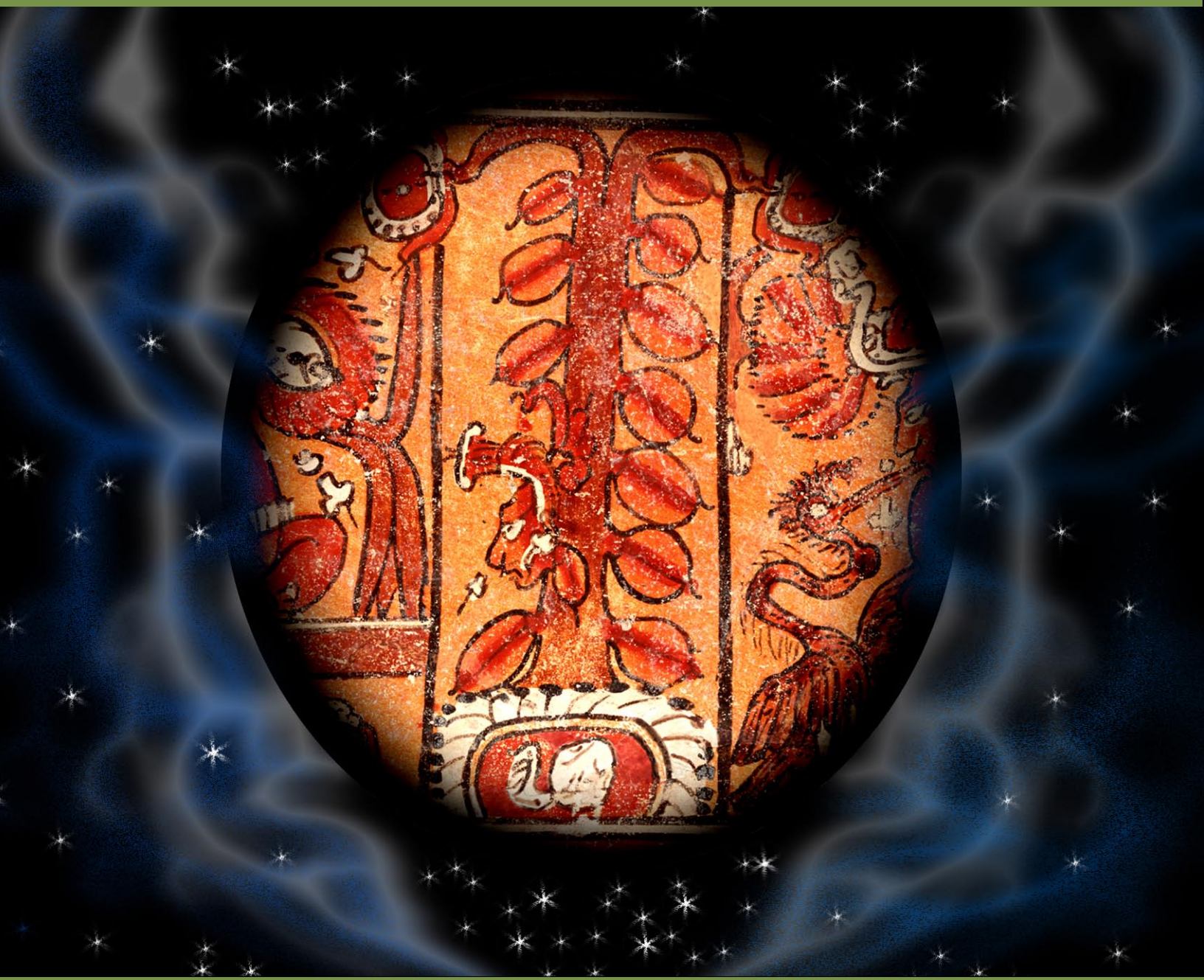
The Mysterious Tree

ASOCIACION FLAAR MESOAMERICA

December 2008



Biologist Mirtha Cano

FLAAR

The Mysterious Tree

The tree painted in a vase of the ancient Maya (Fig. 1) is recognized by some archaeologist as a cacao tree, others might think that is a papaya or a jicara tree, or just a stylish tree, but what is it? What those trees have in common?

Papaya, morro and cacao trees have the characteristic that the fruit are born directly from the trunk; this is called cauliflower, many trees in Central America have the same characteristic.

But if we look carefully at the structures, in the drawing, the fruit is born directly from the trunk, besides, the trunk is large and has oblong to obloid fruits side by side, that are born at the base to the top of the trunk. The fruits have a longitudinal line at the center with a floral vestige at the end of it.

The flower at the top of the human head present an evolved calyx, the sepals have longitudinal lines similar to strikes that also are present in petals, the form is tubular or campanulated and have long stamens emerging from the flower.

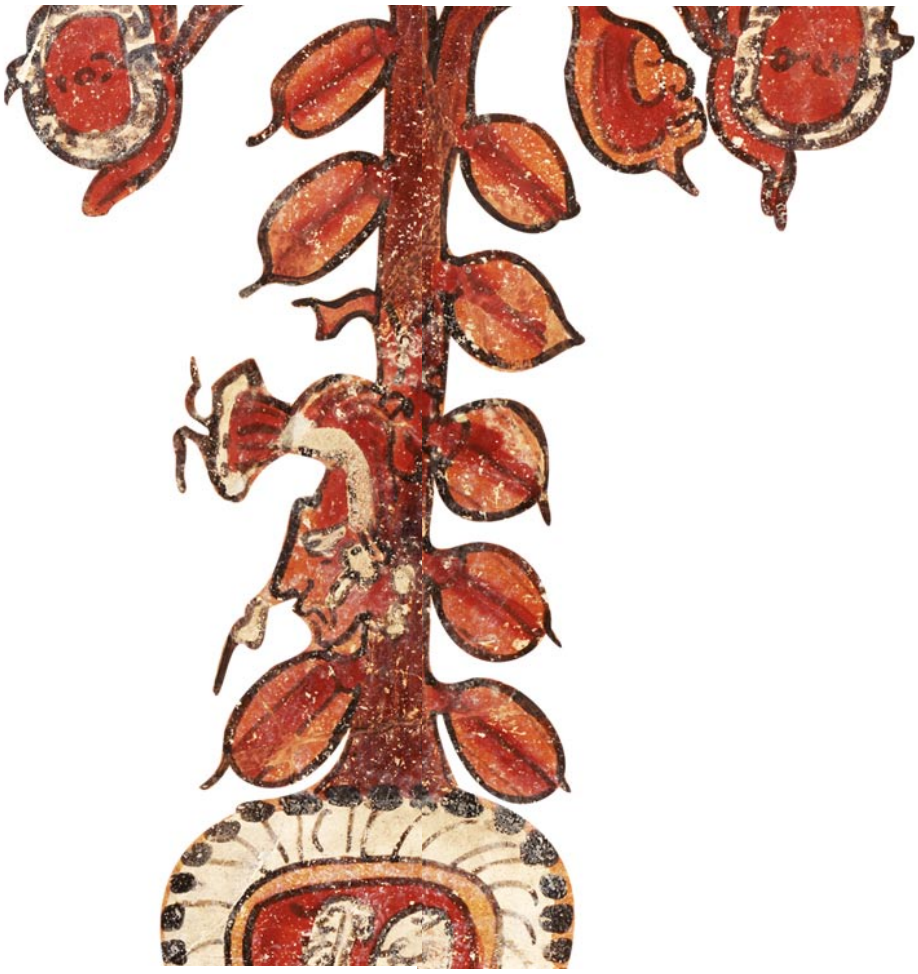


Fig.1 Tree drawing of a Maya Polychrome vase Rollout, From the Popol Vuh Museum at the Francisco Marroquín University. Photo by Nicholas Hellmuth.

The Mysterious Tree

In the papaya tree (Fig. 2) the trunk is usually simple, columnar at maturity, bearing conspicuous petiolar scars that are not shown in the Maya vase.

According with Morton (1987) sometimes are present female flowers, male or hermaphrodite flowers. The female flowers have a cup formed by a crown of five-pointed star very sharp and easy to distinguish, the fruits are large and globose, the hermaphrodites flowers has the both (female and male) flower in the same tree, the fruits are globose and lobulated.

The male flowers grow on long stems from more than half a meter in length and at the ends are clusters racemes in clusters of about 15 or 20 flowers. The flowers are formed by a long tube by petals soldiers, contained 10 stamens, placed in two batches of five each. The flower has a small rudimentary pistil and lacks stigmas. These flowers do not bear fruit, but if they do are elongated (Olaya 1991).

The fruit is variable in shape depending on the specie, and variety, wild plants are small and globose-obovoid, cultivated plants are often large and obovoid to oblong, yellow or orange at maturity ( )

The origin of the papaya tree is uncertain but some authors considerate originated from Tropical America (Olaya 1991, Morton 1987, Standley and Steyermark 1951, Gerrit D., Sousa M., Et.al 1994) where about 30 species domesticated in every tropical region of the word exist.

The Maya name in Yucatan is "*Cunché*" or "*cumché*", it is reported that the Ancient Maya cultivated this fruit as an important part of their diet but was not a sacred fruit as cacao, corn and others (Shaver, 1996).

Even when the tree has some similitude with the Maya vase the characteristic of the flower do not match with the drawing in the ceramic vase.

Many archaeologists suggest that the drawing is about a cacao tree because of the importance of cacao in those times, it was used as money and the drink was made only for the elite people in rituals and sacrifice (Simon Martin 2005)

The cacao has so many representation in Mayan art, one of them is the relationship with the human sacrifice cited by Oswaldo Chinchilla (2008) in his work called "Cacao and the Human Sacrifice, Guatemala South Coast), another representation as the rebirth as a cacao tree after death, represented in one of the Rollout drawing by Nikolai Grube of vessel K6547 (Schele and P. Mathews, 1988).

Also some biological aspects of the cacao tree, such its origin and distribution: cacao criollo it is native from Mesoamerica (Motamayor J.C., Risterucci A.M., Lopez P.A., Lanaud C. 2000) the fruit is glabrous, ovoid-oblong, with veins along the fruit, presenting concordance with the ceramic vase drawing.

But the only botanical characteristic that doesn't match with the Maya vase drawing again is the flower.

The Mysterious Tree

Fig.2. At the top: papaya fruit and trunk showing the scars, At the right: Papaya tree with several fruits hanging of the trunk. Down at the left: Papaya blooming. At the right: Wild papaya with fruit and flower. Papaya tree from the Mission Taiwan, La Libertad, Petén Guatemala 2007. FLAAR photo archive.

The Mysterious Tree

The cacao tree (Fig. 3) has small inflorescences that are born along the naked trunk and main branches, the flowers are long-pedicellate, with pink calyx, its lobes *lance-acuminate*, about 6-7 mm. Long. The petals have a yellowish color (MacVean 2006).

Comparing the papaya and the cacao tree, the similitude with the fruit in the Maya vase are of considerate importance, but the difference is in the flower structure, in both trees cacao and papaya, the morphology of the flower do not match with the flower in the Maya vase drawing.

Fig. 3

The Mysterious Tree

Trying to find the tree with all the characteristics and flower that match with the drawing, we (Dr. Nicholas and me) travel to Petén, Chiquimula, Suchitepequez, Santa Rosa, Escuintla to find the two species of morro or jícara tree which are *Crescentia cujete L*. and *Crescentia alata L*. from the Bignoniaceae Family.

This two species are similar, (*C.cujete*) can be easily identified from (*C. alata*) by the shape of their leaves, witch has a shape of a cross, the other one is lanceolate. In this case is not necessary determinate the specie, because the drawing barely shows real leaves in my opinion and has unreal characteristics that lead to the myth of the mysterious tree.

In the route to Taxisco, Santa Rosa, we found a *Crescentia cujete* tree that had all the blooming stages: button, flower, fruit and rip fruit. I noticed that the flower is similar to the drawing in the ceramic vase, (Fig. 4) the flower has an involved calyx of 1.5-2.5 cm. long, the corolla is yellowish white or greenish with dark purple veins, has 4.5-7.5 of cm. long.

Fig. 4 Cr*escentia alata young flower with a stingless bee at the top. Crescentia cujete flower down. The fruits corresponding to C. alata. FLAAR photo archive.*

We observed the fruit, and it still has the filament that came from the style in the flower (Fig. 5) this appears in Maya vase, what I called the floral vestige.

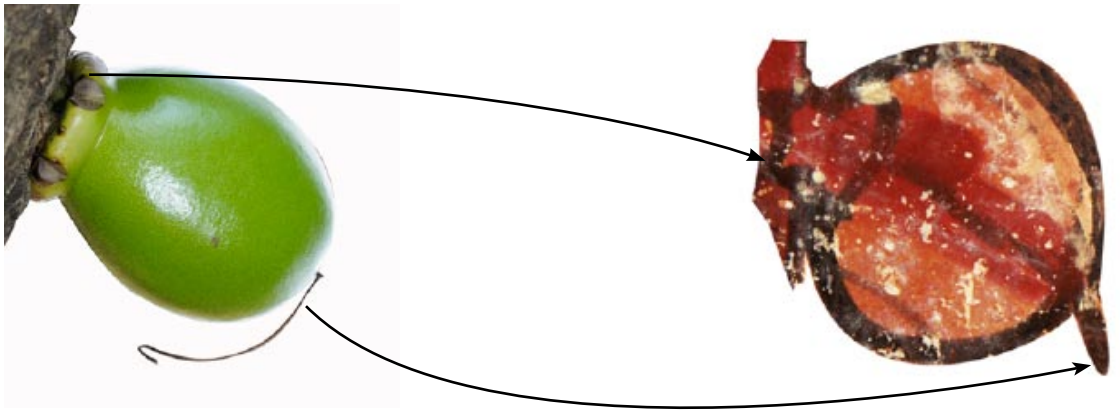


Fig. 5

According with the botanical characteristic of the trunk, flower and fruit in the Maya Vase drawing, compare with papaya, cacao and jícara tree, the last one (Crescentia sp) match with all the characteristics motioned before (Fig. 6) also in the Popol Vuh, the book of the Ancient Maya, translated by Reinoso, Jimenez and Villacorta (1962) it is mention a story about the jícara or morro tree and the human head.

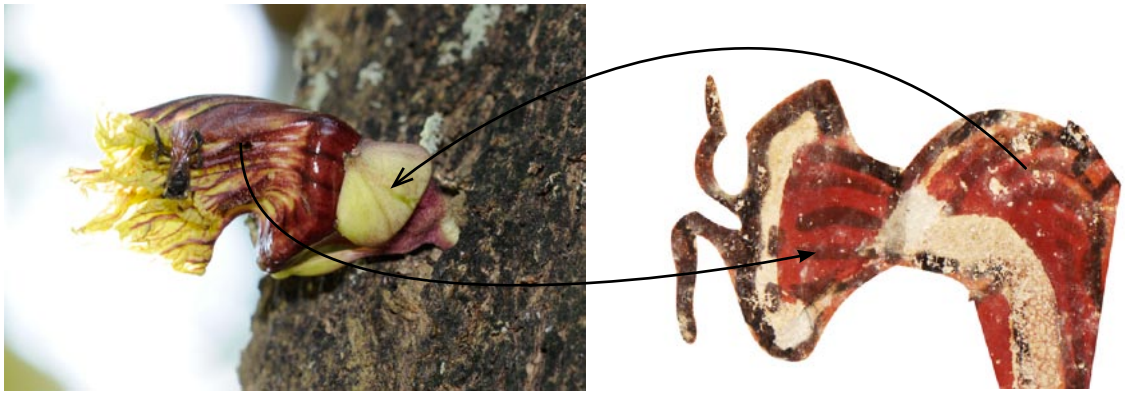


Fig. 6 Comparing fruit and flower of Crescentia alata (jícara or morro) tree with the drawing in the ceramic Maya Vase. Photo by Nicholas Hellmuth. FLAAR photo archive. 2008.

It is written:

"When had come Hunhun-ahpú, Vucub Hunahpú to Hun-Camé Vuucub-Camé, where is my tobacco?

Where is my ocote who went to give you, they say?

We conclude you, sir.

The Mysterious Tree

Okay, now your days will end, you shall be death, you are lost, you shall be sacrificed, your face shall be hidden said Hun-Came, Vucub-Camé.

Then they sacrificed them, they buried them in Pucbal-Chab, their name, they were buried, cut off his head to one of the Ahpú, his greatness buried with the younger brother.

Take the head in the middle of the tree placed on the road, said Hun-Camé, Vucub-Camé.

Then they went to put the head between the tree, and the tree fructified, the tree had no fruit, before the head of one of the Ahpú was put in the tree.

Behold jicaras we speak now at the head of one of the Ahpú.

Then they were amazed Hun-Camé, Vucub-Camé the fruit of the tree, its fruit entirely round.

The head of one of the Ahpú did not appear, only the face with the fruits of the jicaro tree, and that was how Xibalba saw it all, when they came to watch".

The Maya vase illustrates a supernatural event where the decapitated head of Hun hunahpú comes to life after been placed in a jicaro tree, and impregnates a daughter of Chuchumaquic with his spit, leaving his progeny, who later gives birth to the twins Huahpú and Xbalanque.

According with Dorie Reents-Budet (1994) this vase is related to pottery from upper Motagua River valley, from the collection of the Museum Popol Vuh, Universidad Francisco Marroquín Guatemala.

Bibliography:

1. Chinchilla Mazariegos,Oswaldo. **Cacao y el Sacrificio Humano En la costa Sur de Guatemala**. Museo Popol Vuh. Universidad Francisco Marroquín. (Sin Publicar).

2. Leandro Ibar. Cultivo del Aguacate, Chirimoyo, Mango y Papaya. Albiñana. Tecnicas Agropecuarias Ed. AEDOS Barcelona.

3. Morton, J. 1987. Papaya. p. 336–346. In: Fruits of warm climates. Julia F. Morton, Miami, FL.

4. Motamayor J.C., Risterucci A.M., Lopez P.A., Lanaud C. . Cacao domestication. I. Genetic evidence of a South American origin of cacao cultivated by the Mayas. 2000. In : 13 Conférence internationale sur la recherche cacaoyère : résumés. Lagos : Cocoa Producers' Alliance, 1 p..

5.Odijk, Pamela. **The Maya**. Silver Burdett Press: EngleWood Cliffs, New Jersy, 89.

6. Olaya CLara Inés. Frutas de América Tropical y Subtropical. Editorial Norma. Colombia 1991.

7.Shaver, Robert J. **Daily Life in Maya Civilization**. Greenwood Press: Westport, CT, 1996.

8. Schele and P. Mathews, The Code of Kings: **The Language of Seven Sacred Maya Temples and Tombs** 1998:122, Fig. 3:27

9. Species Plantarum. Papaya 2: 1036. 1753.

10.Standley and Steyermark. **Flora de Guatemala**. Volumen 24.10 parte 3.4. USA: Natural History Museum. Chicago Press. 1950.

11. Reents Dorie-Budet. **Painting The Maya Universe: Royal Ceramics of the Classic Period.** Duke University Press. London 1994.

12. Reinoso. Diego. **Popol Vuh. Crestomatia Quiché**. Versión Castellana de Antonio Villacorta. Gutemala. 1962.

These FLAAR Reports

You can find these and more reports at: www.maya-archaeology.org/