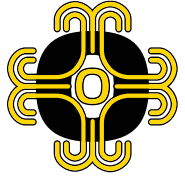




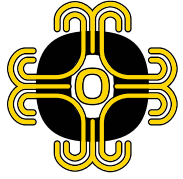
Luz Graciela

Antropóloga Holística Ph.D.



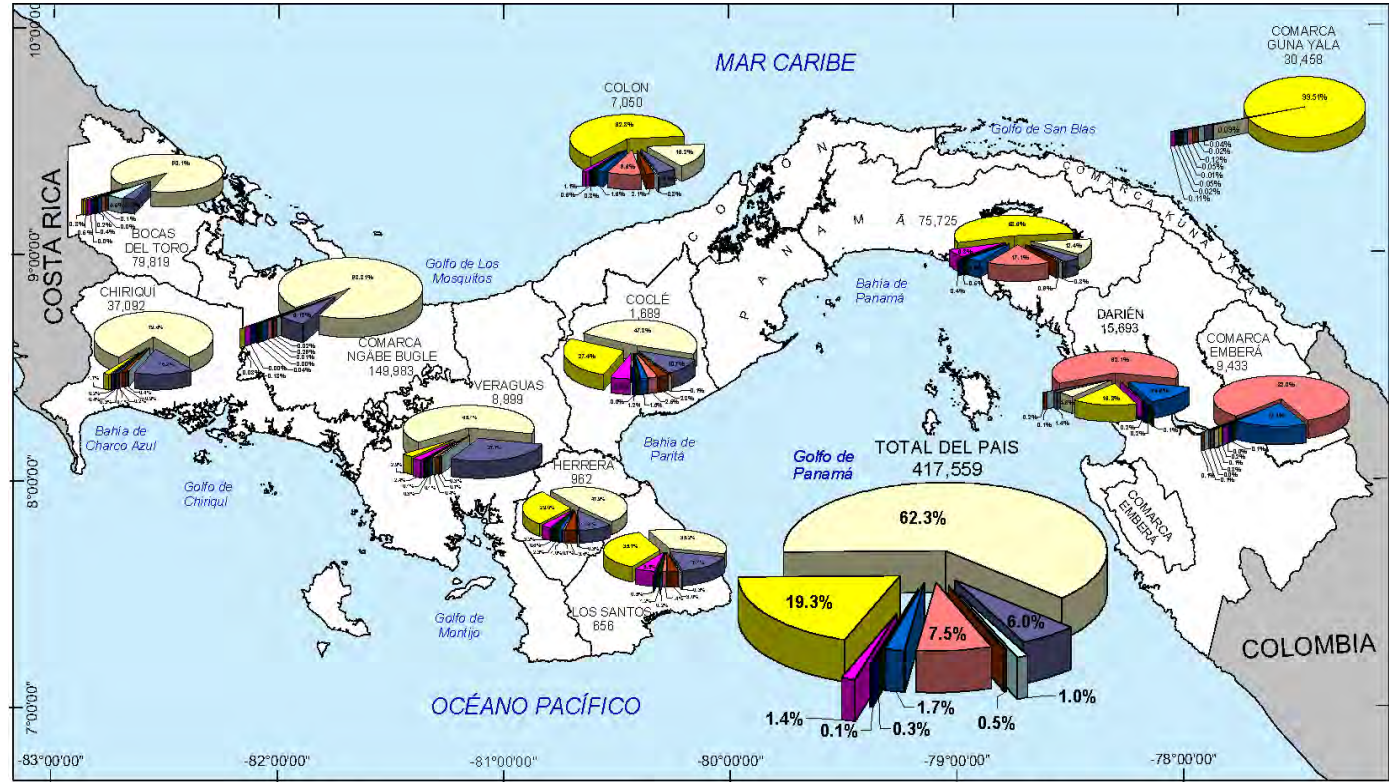
Who are de **Ngäbe**,
formerly known
as **Guaymi** ?





Distribution of Ngäbe

according to the 2010 census of population and residence by self identification.



LEYENDA
Grupos Étnicos

- Kuna
- Bokota
- Otro
- Ngäbe
- Emberá
- No Declarado
- Buglé
- Wounaan
- Bri Bri
- Teribe/Naso

Escala Gráfica
0 25 50 75 100
Kilómetros

INEC
Instituto Nacional de Estadística y Censo

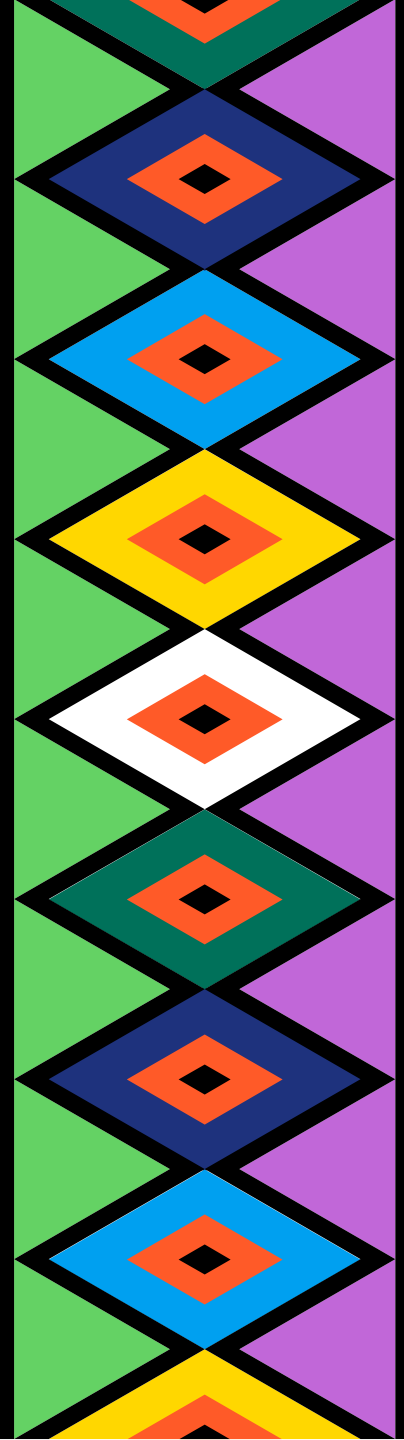
Fuente: Instituto Nacional de Estadística y Censo de la Contraloría General de la República, Censos Nacionales de Población y Vivienda 2010, Resultados Finales Básicos, Cuadro 20.

ELABORADO POR LA SECCIÓN DE CARTOGRAFÍA, INSTITUTO NACIONAL DE ESTADÍSTICA Y CENSO, CONTRALORÍA GENERAL DE LA REPÚBLICA



Article 13 of the United Nations Declaration of Rights of the Indigenous People, approved by the General Assambly, in it's 107th plenary sesion on 13 of september of 2007*

 *First draft received in 1990 in the Direction of Indigenous Politics, Ministry of Government, when I was the Director, was sent to all the Indigenous General Congresses, that immediately changed the name that imperialistic governments had assigned them, and then they decided to use the names by wich they call themselves.



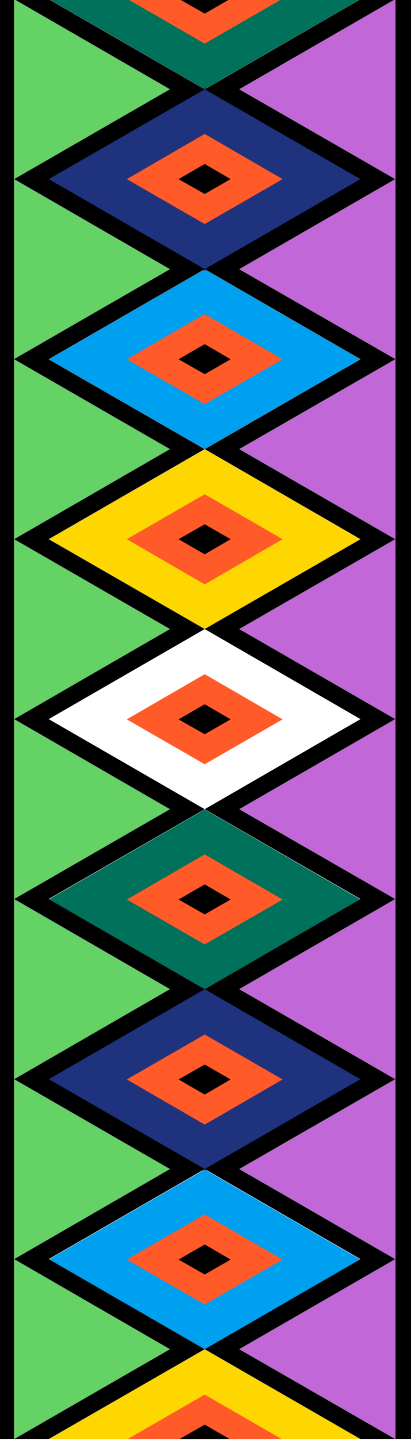
the change

from Guaymi to Ngäbe

- 01 The indigenous people have the right to revitalize, utilize, foment, and transmit to their future generations their histories, languages, oral traditions, philosophies, systems of writing and literature, and attribute names to their communities, places and persons, as well as to maintain them.
- 02 The States will adopt effective measures to ensure the protection opf this right and also to ensure that the indigenous people can understand and make themselves undestood in their political, judiciary, and administrative actions, giving them for that, when necessary, interpretation services or other adecuate means.

Article 13 of the United Nations Declaration of Rights or the Indigenous People, approved by the General Assambly, in it's 107th plenary sesion on 13 of september of 2007*

 *First draft received in 1990 in the Direction of Indigenous Politics, Ministry of Government, when I was the Director, was sent to all the Indigenous General Congresses, that inmediately changed the name that imperialistic governments had assigned them, and then they decided to use the names by wich they call themselves.



the change

from Guaymi to Ngäbe

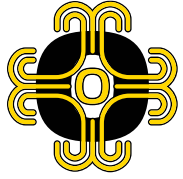
Ngäbe derives from Ngöbö = **God**

and classifies them as children of God.

Guaymi in kichwa = **My Woman**

in Andean countries.

The DNA analysis of the frozen mummy of the “Maiden of the Andes” revealed that her paternal genes were Ngäbe.



What does the DNAm revealed of 46 Ngäbe and 63 Guna women?

1998 Batista, Oriana I; Connie J. Kolman, Tomás D. Arias, Françoise Guionneau-Sinclair, Evelia Quiroz, Eldredge Bermingham. Variación en el ADNmt de dos Tribus Amerindias Chibchas, los Ngobe y Guna de Panamá. In Primer Congreso Científico sobre Pueblos Indígenas de Costa Rica y sus fronteras MEMORA. Compiladores: **María Eugenia Bozzoli, Ramiro Barrantes, Dinorah Obando y Mirna Rojas.** Costa Rica: UNICEF, Universidad de Costa Rica (UCR), Universidad Estatal a Distancia (UNED), Editorial Universidad Estatal a Distantica (EUNED)

Expansion 84,000 – 56,000 years, occurred presumably in Mongolia, Asia

Mongol spot = “jagua”
(*Genipa americana*)
around buttocks

Joints of elbows &
knees

Metabolism of alcohol

By the gums of the upper jaw, and not
by the liver like blacks and whites.

CHIBCHA

Expansion 9,300 – 10,000 years approx. occurred in lower Central America

Languages of chibcha origin:

- **Ngäbe** (in Panama)
- **Guna** (in Panama)
- **Cabecar** (in Costa Rica)

Oriana I. Batista, Autonomous University of Chiriquí

Connie J. Kolman and Elredge Bermingham, Smithsonian Tropical Research Institute

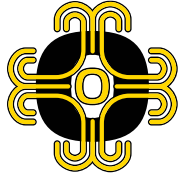
Tomás Arias, Institute of Human Genome Universidad de Panamá

Françoise Guionneau-Sinclair, Department of Anthropology, University of Panama

Evelia Quiroz, Department of Virología, Gorgas Memorial Center

1998 Primer Congreso Científico sobre Pueblos Indígenas de Costa Rica y sus Fronteras. Memoria. María Eugenia Bozzoli, Ramiro Barrantes, Dinorah Obando y Mirna Rojas, Compiladores. San José, Costa Rica: Fondo de las Naciones Unidas para la Infancia (UNICEF); Universidad Estatal a Distancia (UNED); Universidad de Costa Rica (UCR)

GenBank data base, cuna L39319-L39326; ngöbé L39327-L39356

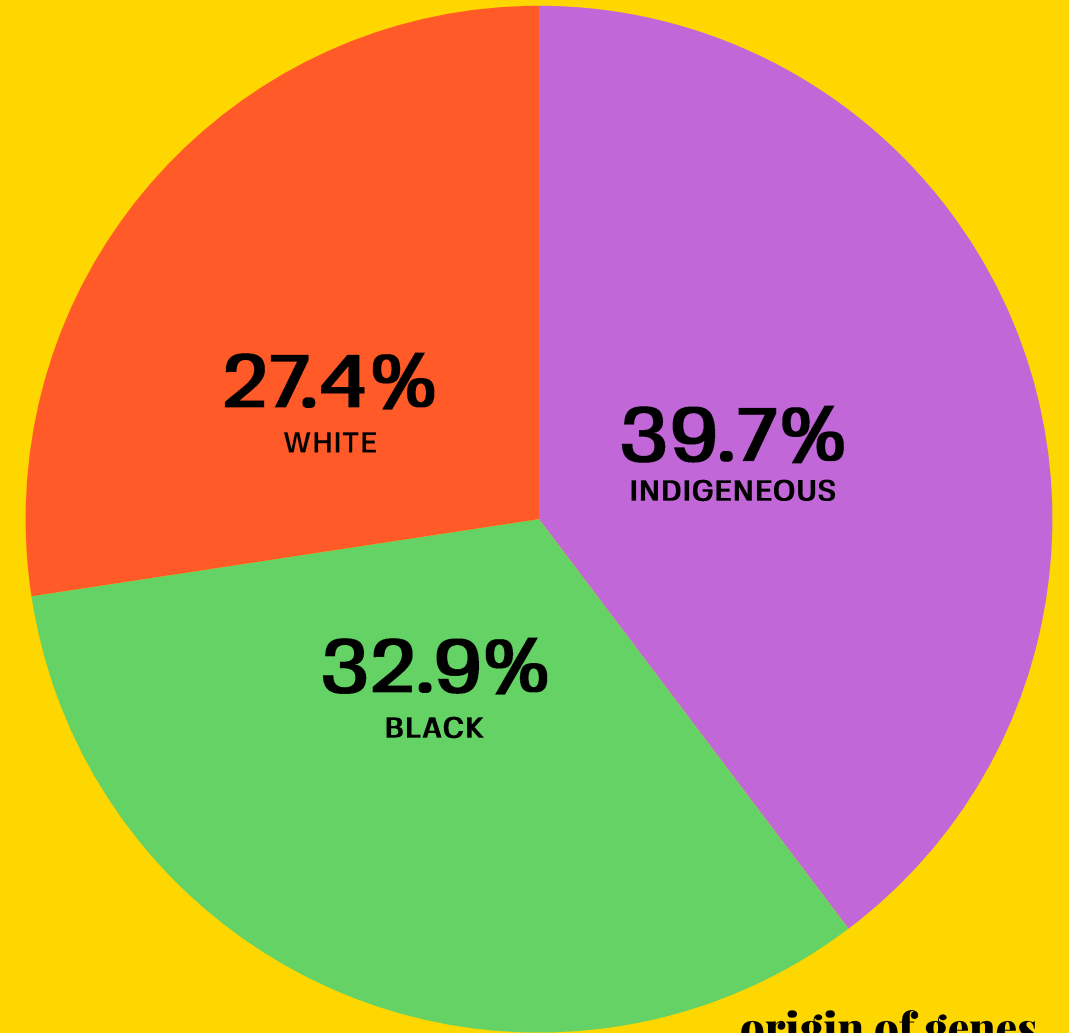


overall genetic composition

for the Republic of Panama

The provinces of **Chiriquí, Coclé, and Veraguas** have the highest composition of genes of indigenous origin.

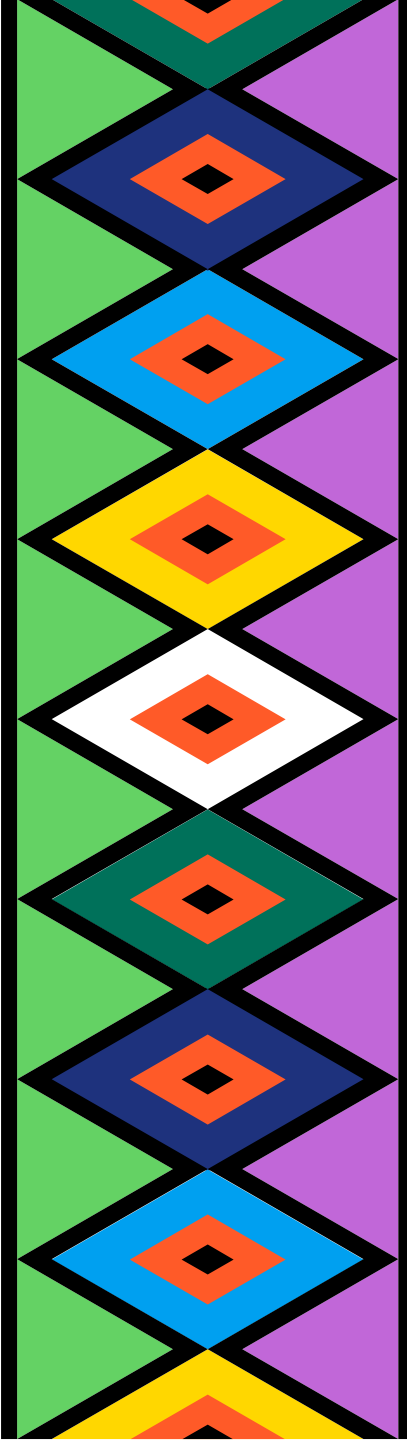
2003 **Tomás Arias**. Panamá: Un País Indígena Mestizado. In Caminos de Maíz. Agosto / Septiembre, páginas 41 a 43. Tomás Arias was the founder and Director of the Institute of Human Genome, University of Panamá



origin of genes

Change is something normal in all languages through time.

Using texts of written languages, linguists have calculated that every 1,000 years, 19% of a language base vocabulary changes.



glotochronology

is the linguistic-mathematical process

chrono = time

logia = knowledge / study of

A base vocabulary is formed by words common to the human experience on Earth, or in a region of the Earth.

A comparison is made of the sounds of languages in a same linguistic family:

1. Count how many words have changed.
2. Calculate 19% of the base vocabulary being used.
3. Compare that percentage with the number of words that have changed to determine how much time those languages have been separated.

Change is something normal in all languages through time.

1968 Wilbert, Johannes, Editor. South American Indian Languages by Cestmir Loukotka. Prague: Institute of Ethnology and Folklore, Czechoslovakian Academy of Science. Los Angeles: Latin American Center, University of California.

1979 Javilla, Luciano S./ Töti Döbaribo y Melquiades Arosemena. Kukwe Ngäbere: Breve Diccionario Guaymí-Español. Panamá: Dirección Nacional de Patrimonio Histórico, Instituto Nacional de Cultura e Instituto Lingüístico de Verano.

1997 Diccionario Bilingüe Ngäbe-Español. Panamá: UNESCO, Red Nacional de Pueblos Indígenas de Panamá (REDNAEPIP) y Centro Indígena para el Desarrollo y la Conservación Ambiental (CIDCA)

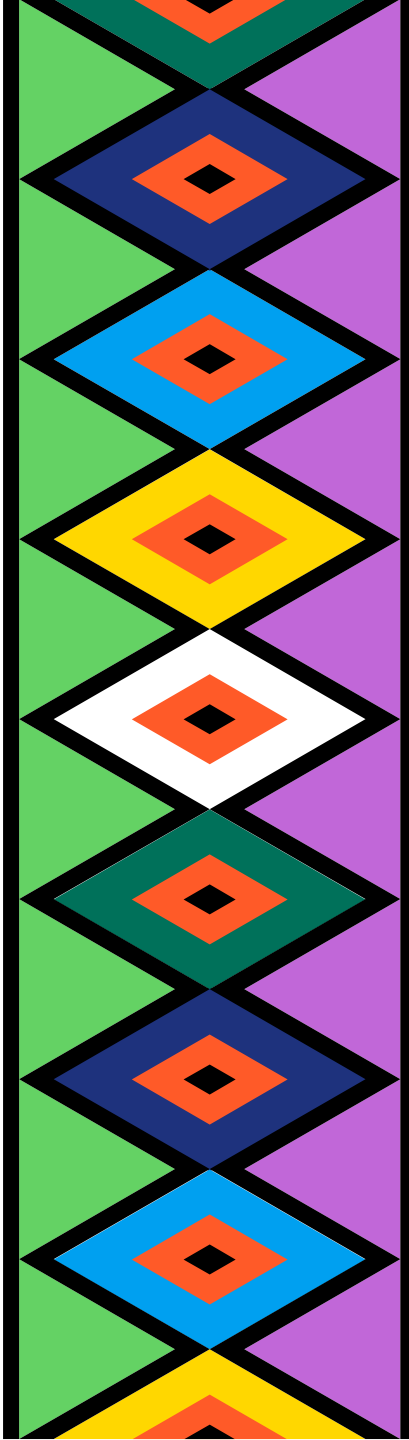
1985 Erice, Jesús, c.m.f. Diccionario de la Lengua Kuna. Panamá: Impresora de la Nación/Instituto Nacional de Cultura.

glotochronology

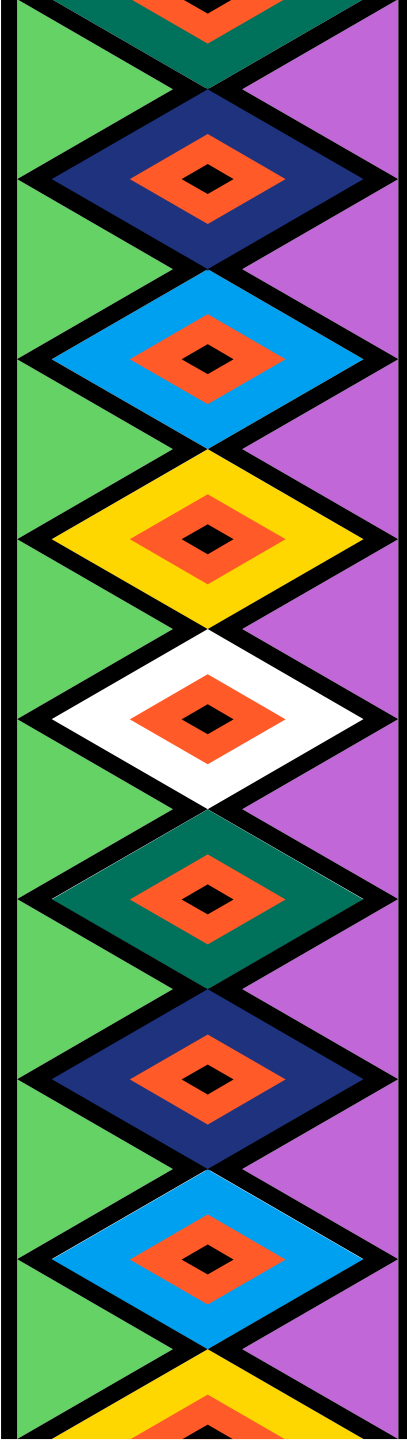
comparison between **ngäbere** and guna, of the macrochibcha linguistic family

On the basis of 45 words of the base vocabulary of the Czechoslovakian linguist Cestmir Loukota

plus four words of the British linguist Brinton presented by Wilbert (1968), the Diccionario Bilingüe Ngäbe-Español (Javilla y Arosemena, 1997), the Diccionario De la Lengua Kuna (Erice, 1985) and Diccionario de la Lengua Caribe Cuna (Puig 1944).



Change is something normal in all languages through time.



*phonological & phonemic similarities

**BT = Bocas del Toro;
Ch = Chiriquí

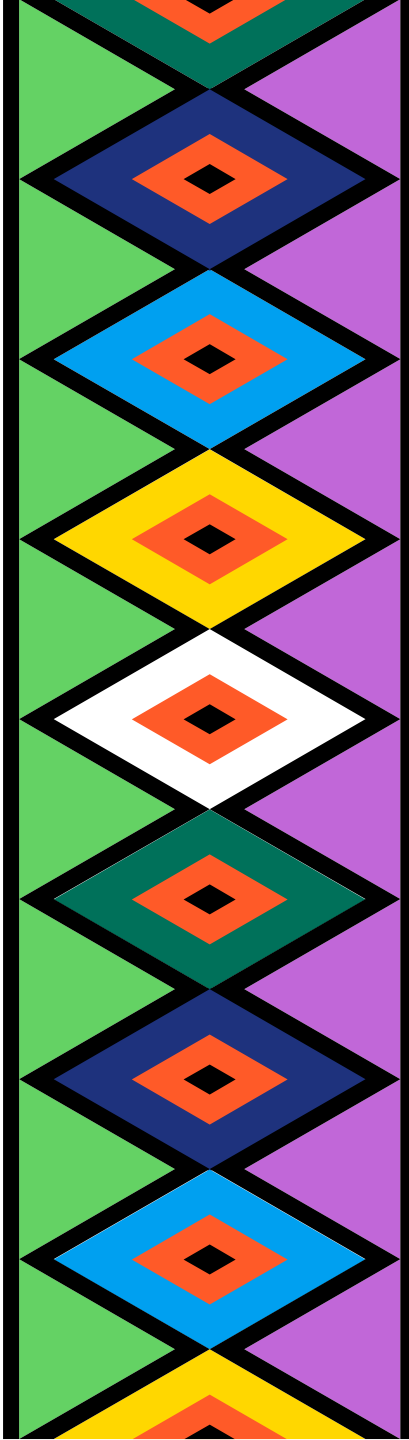
2005 Joly Adames, Luz Graciela.
Lenguaje y Literatura Ngöbe/Ngäbe .
David, Panamá: Rapi Impresos

glotochronology

comparison between **ngäbere** and **guna**,
of the macrochibcha linguistic family

English	Ngäbere	Guna
PARTS OF THE HUMAN BODY		
Mouth (brinton)	Kada*	Kaka*; Kaya*
Foot	Ngoto*	Naga*
ELEMENTS OF NATURE		
Stone	Jäkwata*	Akua*
SOCIOCULTURALARTIFACTS / INSTRUMENTS		
CANOE	RU*; DU* (COAST)	ULU*; UR*
ANIMALS		
tapir	Molö*	Moli*
snake	lcha* (BT**); lsa* (Ch**)	lchakua* (not poisonus)
fish	Gwa*	Ua*
NUMBERS		
two	Bobo* (doble fruit)	Po*; Bo*

Change is something normal in all languages through time.



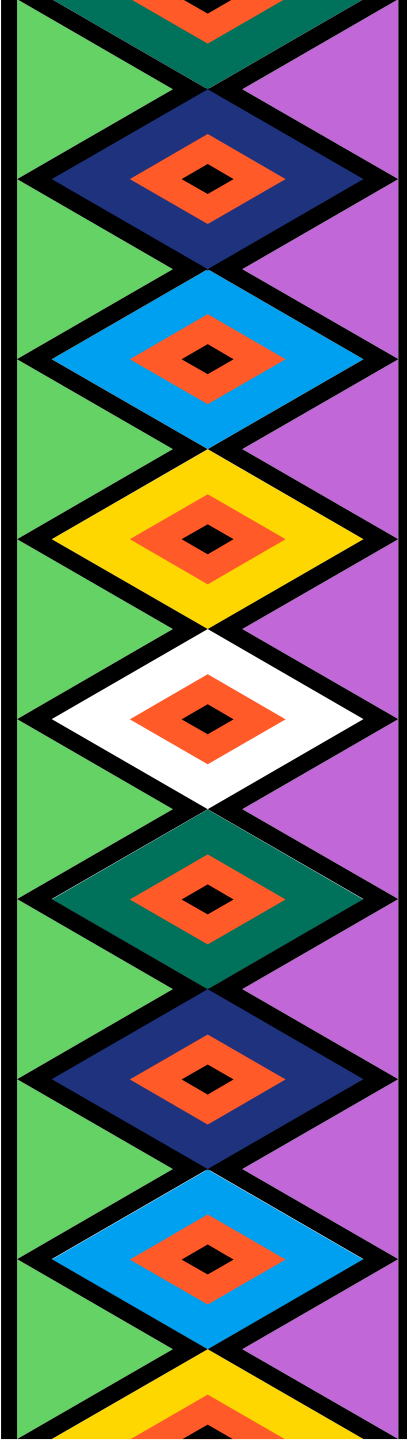
glotochronology

comparison between **ngäbere** and guna, of the macrochibcha linguistic family

When we compare these two languages, we discover that they have 8 sounds that are similar and that have the same meaning, of the 49 words of the base vocabulary.

1. When we subtract 8 from 49, the result is that **41 words have changed.**
2. When we divide 41 by 9.3 which is 19% of 49, the result is 4,409 years of linguistic separation.
3. When we divide 41 by 9.3 which is 19% of 49, the result is **4,409 years of linguistic separation.**

Change is something normal in all languages through time.



glotochronology

comparison between **ngäbere** and guna, of the macrochibcha linguistic family

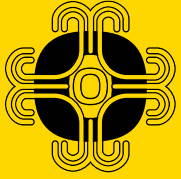
If the genetists inferred that the ngäbe and the guna have been 9,300 years in the lower part of Central America; and the glotochronological calculation revealed a linguistic separation of 4,409 years.

Then; 9,300 minus 4,409 is

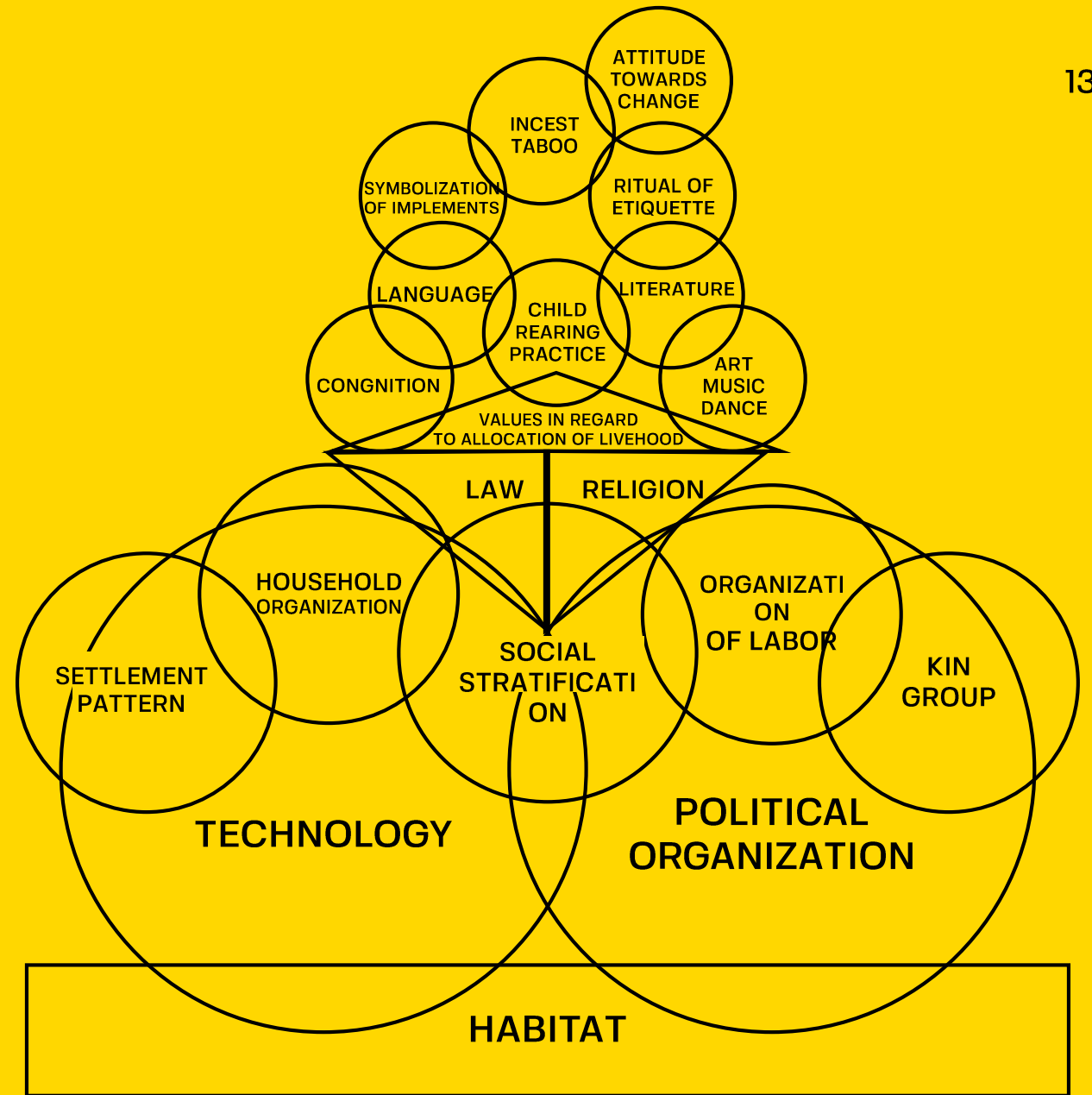
4,891 years of geographical separation.

The ngäbe West and the guna East of what is now the Panama Canal.



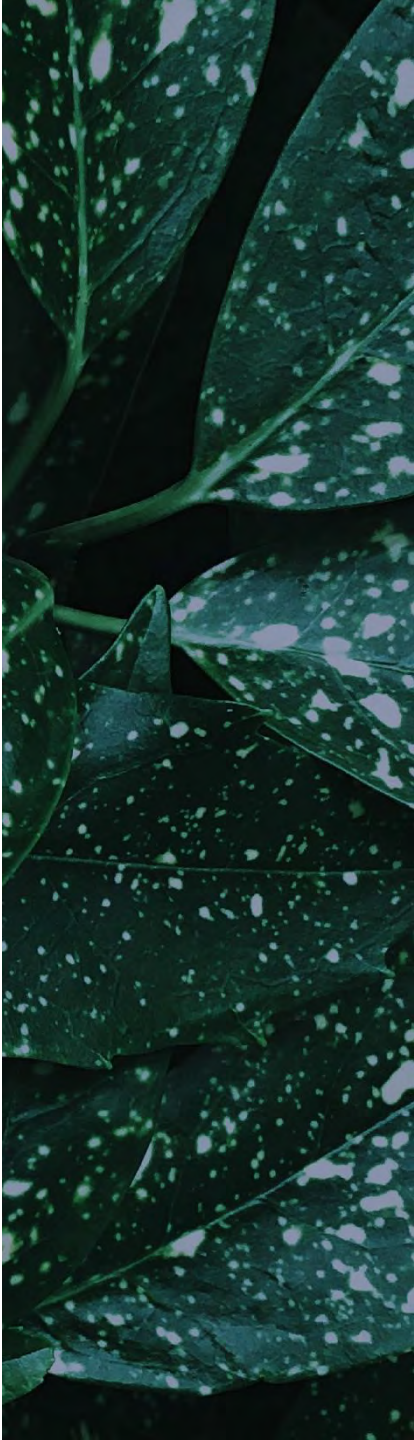


Holistic Sociocultural System



Culture as Adaptation. Yehudi A. Cohen. pp. 40-60. In
Man in Adaptation: The Cultural Present. Edited by Yehudi
A. Cohen. Chicago: Aldine Publishing Company

Adaptation to lowland rain forests under aboriginal conditions involves a broad spectrum of practices.



Habitat

Tropical Rainforest



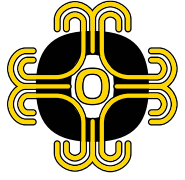
Practices that may be related to the characteristics of a diverse ecosystem.

Whenever possible, low population densities are maintained by practices that include:

- warfare,
- female infanticide, and
- village fissioning.

1979, 1982 Moran, Emilio F.

Human Adaptability: An
Introduction to Ecological
Anthropology. Boulder, Colorado:
Westview Press



Warfare in **ngäbe**
ethnohistory:
Midi Chali

Brothers

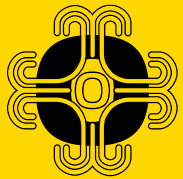
**Midi Chali and
Juite Chali**

Kidnapped by the
Mosiguis / Meskitos



2020-2021 Ing. Agr. Roger Séptimo
Jiménez y Luz Graciela Joly
Adames, Antropóloga, Ph.D.





Warfare in **ngäbe**
ethnohistory:

Midi Chali



Escudo
Casa Real Miskita



El reino misquita en el año 1850
Territorio aproximado del Reino Miskito.



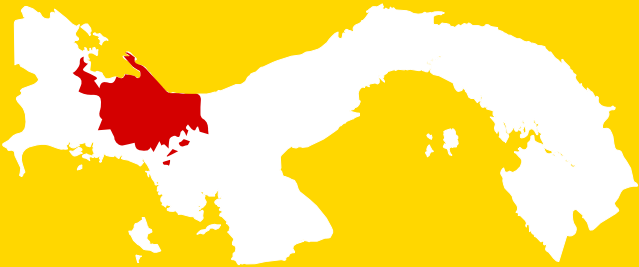
Warfare in **ngäbe**
ethnohistory:
Midi Chali



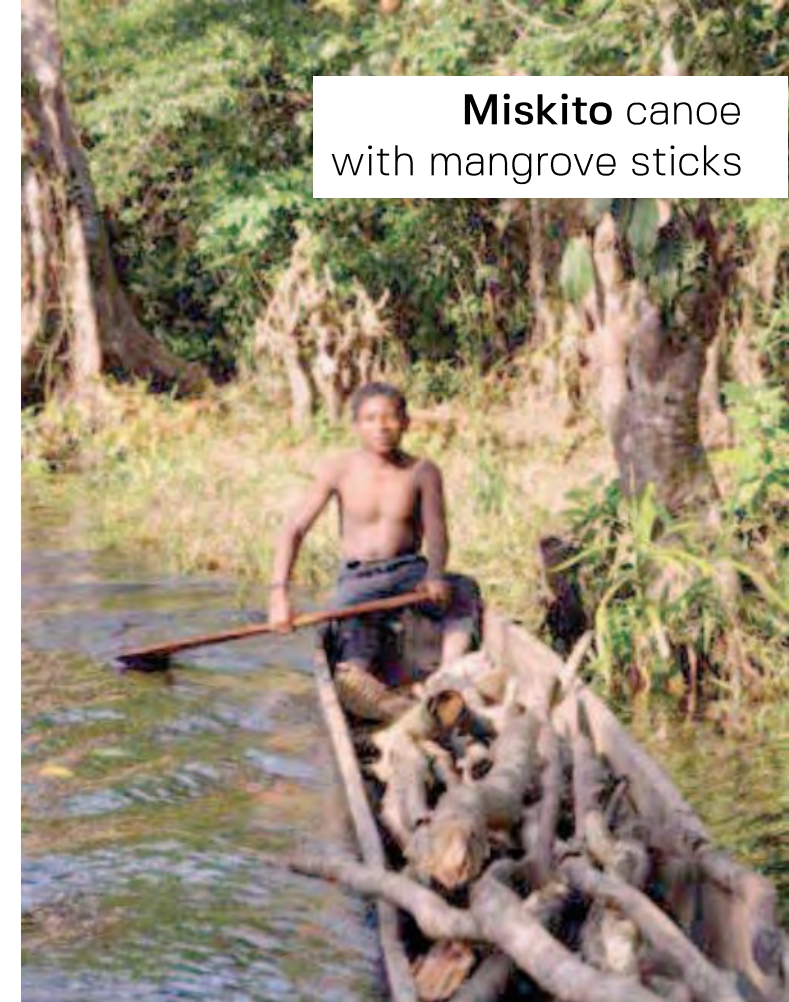
Misquita War Dance

Warfare in **ngäbe**
ethnohistory:

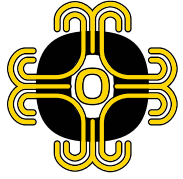
Midi Chali



Miskitos poling their canoe
upriver with mangrove poles



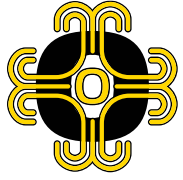
Miskito canoe
with mangrove sticks



Warfare in **ngäbe**
ethnohistory:
Midi Chali

It is remembered that this was the biggest massacre and defeat of the same dimension that the *Mosigu* had. After this killing, the dead *Mosigu* were picked up, their bellies were opened, and, with the same guts of the *Mosigu*, Midi Chali was bathed. Then they gave him a sovereign lashing for his noxious militancy with the *Mosigu*, against the *Guaymi (Ngäbe)*. It seems that he did not intent to inform the *Mosigu* anymore and decided to live with his group. Afterwards, he made or organized a battle that assailed Tolé, since he knew the method of attack and combat of the *Mosigu*, which he imitated to do the heroic feat in Tolé, that is attributed to the *Mosigu*, because it was a commando in a *Mosigui* style, but were *Guaymies (Ngäbe)*. (1)

(1) The Miskitos penetrated the Isthmus, by the Atlantic side, coming from Nicaragua, in the year 1727. In 1732, they invaded the Villa of David, and in 1788 destroyed Bugaba, Tolé, and Cañazas. In the dawn of the 8th of September of 1788, they fell upon the missionaries in the reduction of Saint Joseph of Tolé, burned the convent, stole the sacred vessels, and badly injured Father Ramón Rabago, as is affirmed by the witness Fraile Diego Montes (General Archives of the Indies, Panama, Foil 265, Report of the Governor of Veraguas about the aggressions of the Miskitos in Tolé, Bugaba, and Cañazas, year 1788).



Warfare in **ngäbe**
ethnohistory:
other
territorial
expansionist

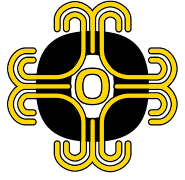
Aside from the
Mosigui
(**Meskitos**), the
Neguide Nag and
the **Neguide**;

Roguin are
described as
territorial
expansionists who
invade the Ngäbe.



The suffix “**de**” in
ngäbere means
“**among**” or “**in**”;

While the suffix “**bo**”
means “**site**” or “**place**”,
in reference to ngäbe
social groups like the
Metobos,
Mironombos, and
Cronombos, who lived
in ngäbe territory.



female infanticide

Ngäbe

Female of
heterocytot twin
is killed by midwife at birth.

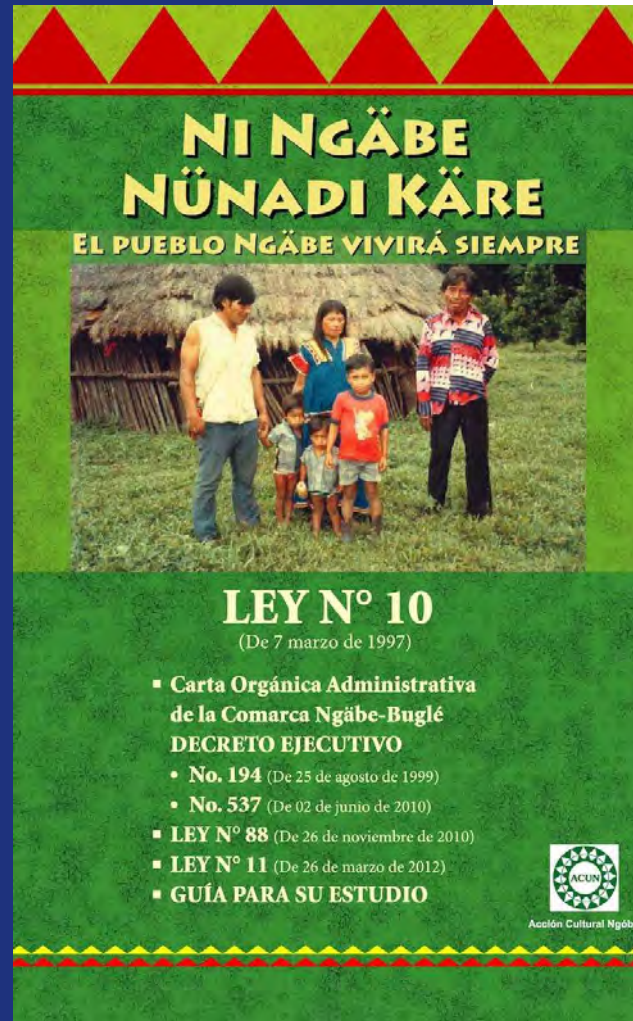
Guna

Albino female child
is killed by midwife at birth.

duality of political organization:

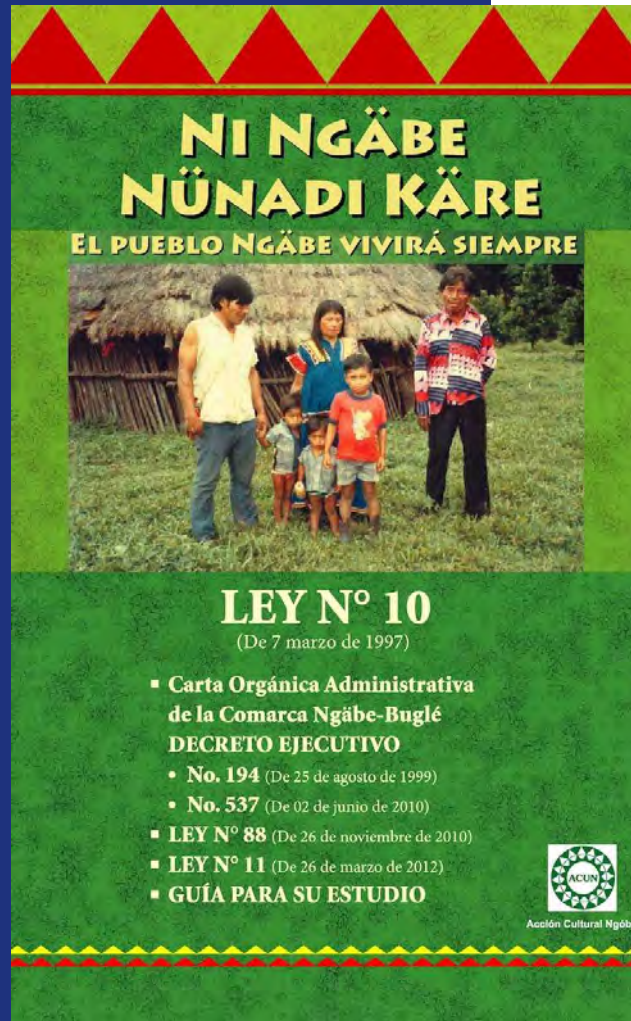
Political organization of the Comarca Ngäbe Bugle

- **Law N° 10 (of 7 March 1997)** “By which is created the Comarca Ngäbe Bugle and other measures are taken.”
- **Organic Administrative Chart of the Comarca Ngäbe Bugle:** Executive Decree N° 194 (of 25 August 1999) “By which is adopted the Organic Administrative Chart of the Comarca Ngäbe Bugle.”



duality of political organization:

Political organization of the Comarca Ngäbe Bugle



- **Law N° 88 (of 26 November 2010)** “Which recognizes the languages and alphabets of the indigenous people of Panama and dictates norms for the intercultural bilingual education”.
- **Law N° 11 (of 26 March 2012)** “Which establishes a special regime for the protection of the mineral, hydric, and environmental resources in the **Comarca Ngäbe Bugle**”.
- Guide for its study.



duality of political organization:

Traditional Indigenous Political Organization

The State recognizes the existence of the:

- **General Congress** of the Comarca as the maximum organism of ethnic and cultural expression and decision of the **Ngäbe Bugle**.
- **Regional Congresses** (Three regions: Nö Kribo, Nidrini, and Kädriiri, divided into districts, corregimientos, and regimientos)
- **Local Congresses** (communities)



duality of political organization:

Traditional Indigenous Political Organization

The Organic Chart establishes how these congresses will function and be organized, as well as the form of electing their traditional authorities:

- **General Cacique (Chief)** - salary by the Ministry of Government of Panama
- **Regional Cacique (Chief)** - salary by the Ministry of Government of Panama
- **Local Cacique (Chief)** - salary by the Ministry of Government of Panama
- **Jefe Inmediato** (Immediate Boss of a Corregimiento appointed by the Local Chief)
- **Vocero de la Comunidad** (Community Advocate elected by the community and can be designated by the Local Boss to serve as regidores)

Likewise, the **Organic Chart** establishes the duties, functions, and rights of the traditional authorities according to the **Constitution and Laws of the Republic of Panama.**



duality of political organization:

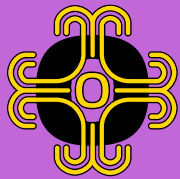
Political Government of the Republic of Panama

There will be a **Comarcal Governor**, of free appointment and removal by the President of the Republic, who **will represent the President**, with the same functions as the governors of the provinces now and in the future, as long as they are compatible with the present law.

Each comarcal district will have a **Comarcal Mayor**, head of the municipal administration of the Comarca, who will be elected by direct popular vote, for a period of five years, and the State will give the Mayor technical assistance by the **National Direction of Local Governments of the Ministry of Government**.

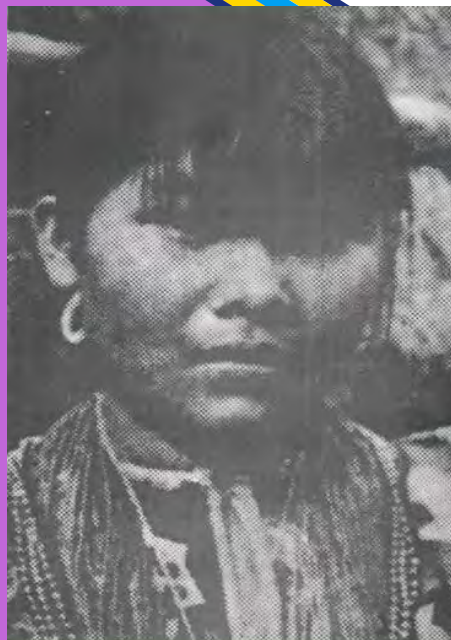
Each comarcal corregimiento can elect by direct popular vote a **Representative**, for a period of five years, and will be a **member of the municipal council of the Mayor**.





Religion: Mama Chi

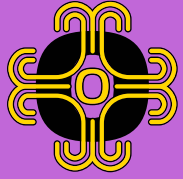
a socio-religious-political movement



On 22 September 1962, Adelia Bejerano Atencio, or **Besigó in ngäbere**, in Boca de Balsa, **Kruningotde in ngäbere**, had a visión of **Mama Kri** (the Virgin Mary) and **Tada Dios Jesus Christ**, who gave her the following messages:

- Keep apart from the latinos.
- Do not buy wire nor zinc, do not buy anything from latinos.
- Do not register children in the Civil Registry.
- Do not go to school. Do not marry latinos.
- Do not communicate these messages to latinos.
- Do not celebrate anymore balserias, chicherías, gwro, jiraka.
- Do not get drunk. Do not fight.
- Do not beat a woman.

1998 Quintero Sanchez, Blas. Mama Chi, el despertar Ngöbe. pp. 82-89 In Pueblos Indígenas de Panamá: Hacedores de cultura y de historia. Panamá: UNESCO-Panamá Proyectos Movilizador de Educación en Panamá

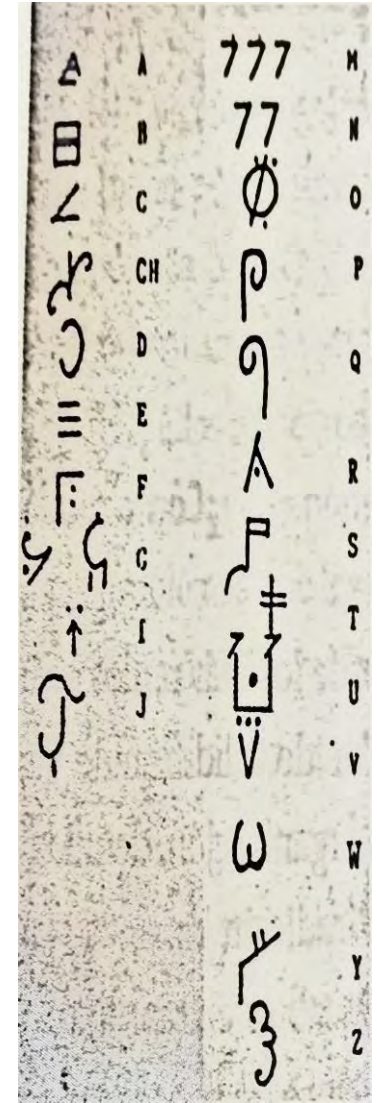


Religion: Mama Chi

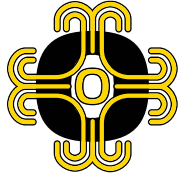
a socio-religious-political movement



- Do not fight for land among yourselves.
- Get marry with the consent of your parents.
- Do not speak obscenities
- Work from Monday to Friday.
- Rest and pray on Saturday and Sunday.
- Have self education.
- Talk in your own language **ngäbere**.
- Learn to write with these glyphs and pictograms.
- Love, respect, and be tolerant among yourselves.



 1998 Quintero Sanchez, Blas. Mama Chi, el despertar Ngöbe. pp. 82-89 In Pueblos Indígenas de Panamá: Hacedores de cultura y de historia. Panamá: UNESCO-Panamá Proyectos Movilizador de Educación en Panamá



comparison of

social stratification in prehispanic times

with changes in hispanic colonialism as reflected in oral ngäbe ethnohistory

1998 Joly, Luz Graciela. "La etnohistoria oral Ngobe". In Pueblos Indígenas de Panamá: Hacedores de cultura y de historia". Panamá: UNESCO.

Prehispanic

Suguiá / Sukia = Diviner

consultant, by physical and behavioral signs at birth and during physical growth.

Security force:

firstborn men, orphans of father and mother, children of unknown parents, pregnant women.

Physical trainers

Observers / informants

sent in groups of four to observe and inform of activities of other groups and persons.

Consuetudinary laws

like the prohibition of incest of a mother with her sons.

Colonial Period

Store owners in ports where the Spanish ships arrived with imported merchandise.

"Patronos"

owners of cattle and pigs who had ngäbe "peasant slaves" who worked for them.

Ngäbe rebels

like **Rogara Meto / Gö Caballero** who burned the stores in Remedios and threw himself into the ocean, from the **Rogatu / Pan de Azúcar** hill, and became a giant fish that would swallow the Spanish ships.

Suguiás

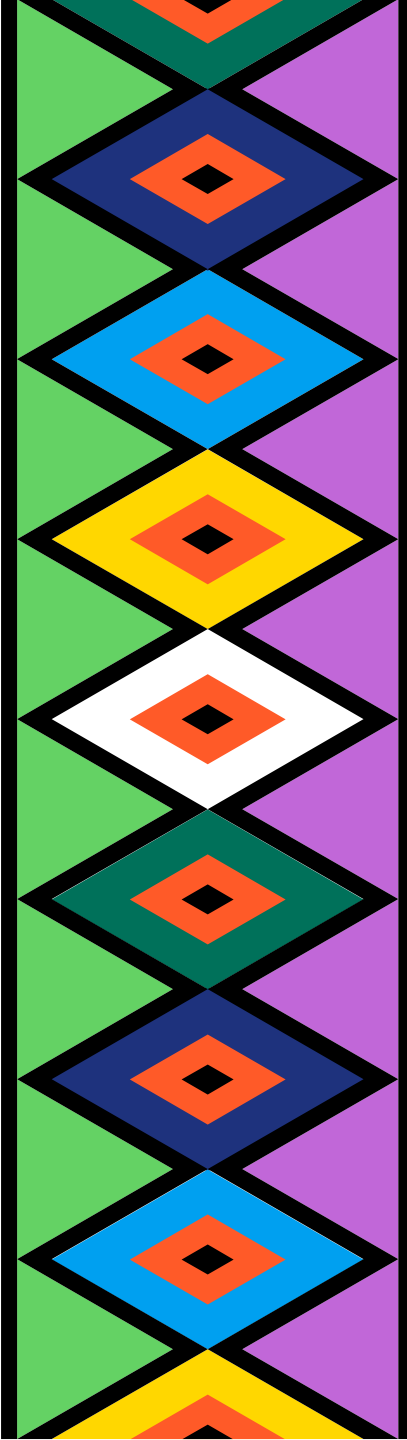
who became traitors and allied with the store owners.

Ngäbe people

who became acculturated and dependant of the merchandise sold in the stores.

“By political economy is understood the relations of power and control that determine the use of natural resources within a social formation of a group through time and space. It is the product of diverse entities and interests; interactions that have not always been symmetrical.”

 1987 Linares, Olga F. pp.10-39 In
 REVISTA PANAMENA DE
 ANTROPOLOGIA N°3



Political Economy of the Guaymí Groups

Historical Contrast with the Kuna

“The current practices of production, commerce, and exchange among panamanian indigenous groups were structured within the frame of confrontation, accomodation, or rejection of external forces. Besides, these foreign influences have not been homogenous. Very unequal historical processes have determined in great part the degree of control that nowadays the Guaymi and Kuna of Panama have over their own resources. The anthropological experience has demonstrated that the groups that have better managed their natural resources are those who, for diverse reasons, have managed to maintain, or have achieved, a high degree of territorial independence.”

“By political economy is understood the relations of power and control that determine the use of natural resources within a social formation of a group through time and space. It is the product of diverse entities and interests; interactions that have not always been symmetrical.”

 1987 Linares, Olga F. pp.10-39 In
 REVISTA PANAMENA DE
 ANTROPOLOGIA N°3

Political Economy of the Guaymí Groups

Historical Contrast with the Kuna

Extensive pastures introduced by the Spaniards for raising bovine cattle pushed the Guaymi from the Pacific lowlands to the highlands; and, ironically, induced the Guaymi to raise bovine cattle in the same way, causing deforestation and erosion in the highlands. Slash and burn agriculture is practiced to initially produce mainly native corn and manioc, plus rice introduced by the Spaniards, but after to plant grasses for cattle.



“By political economy is understood the relations of power and control that determine the use of natural resources within a social formation of a group through time and space. It is the product of diverse entities and interests; interactions that have not always been symmetrical.”

 1987 Linares, Olga F. pp.10-39 In
 REVISTA PANAMENA DE
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Political Economy of the Guaymí Groups

Historical Contrast with the Kuna

On the other hand, the Kuna rejected Spanish colonialism, both religiously and economically, especially cattle raising in extensive pastures, and relied mostly on fishing in the sea and rivers, and hunting in the rainforest.



Ngäbe oral ethnohistory

Human Differentiation

Human differentiation is described according to body height.

The **Metobos** are big and tall, while the **Mironombos** and **Cronombos** are small.

These groups have access to, use, and control different natural resources, with which they do different economic activities. The **Metobos** make salt*; the **Mironombos** and **Cronombos** hunt and fish.

Salinas (salt sites)** is a common surname among the Ngäbe. Many of them go every dry season to the **Playa Zapotal* to make salt, that they mix with dried pulverized fish, crabs, and to take back home to make soup. Salt is also burned and darkened.

**This area, in the district of San Lorenzo, province of Chiriquí, was annexed to the Comarca Ngäbe Bugle, in Chapter III, Article 15, of the Organic Chart.

Ngäbe oral ethnohistory

Human Differentiation

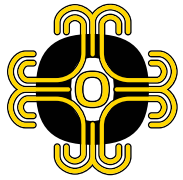
These groups are organized in bands with different leaders. For example, the **Metobos** had leaders like **Ore Meto**, **Dego Meto**, and **Rogara Meto**.

Is this the etymology of the chiricano expression *Meto*?

The **Metobos** are also described as cruel usurpers, who did not allow the **Mironombos** and **Cronombos** to hunt and fish near the salt making sites.

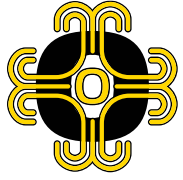
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Technology related
to habitat:
**‘Garden Hunting’
in the American
Tropics**





Technology related
to habitat:

'Garden Hunting' in the American Tropics

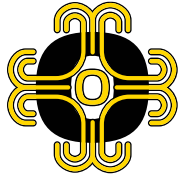


View of Almirante Bay,
Bocas del Toro, from the
Cerro Brujo hill where
Olga Linares dug.



Aerial view of Cerro Brujo. On the upper section in the
center the area where a ngäbe family lived in Cerro Brujo
and Olga Linares would compare the results of her digs
with the animals that this family was hunting and fishing.

View of Almirante Bay, Bocas del Toro,
from the Cerro Brujo hill where
Olga Linares dug.



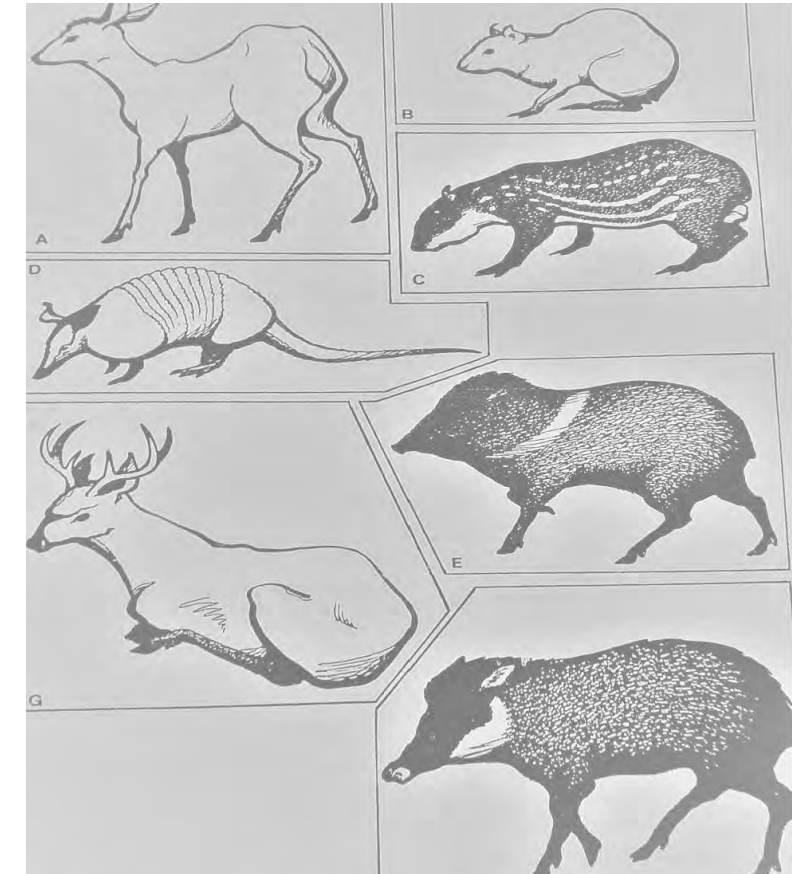
Technology related to habitat:
‘Garden Hunting’
in the American Tropics

Table I. List of Mammals Hunted by the Prehistoric Cerro Brujo Inhabitants^a

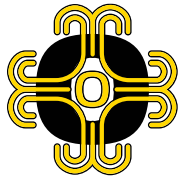
Species	English name	Number of specimens	Minimum numbers	Percent
<i>Dasyprocta punctata</i>	Agouti	822	204	43.8
<i>Cuniculus paca</i>	Paca	224	104	22.3
<i>Dasypus novemcinctus</i>	Nine-banded armadillo	186	69	14.8
<i>Tayassu tajacu</i>	Collared peccary	94	27	05.8
<i>Sigmodon</i>	Cotton rat	28	16	03.4
<i>Odocoileus virginianus</i>	White-tailed deer	20	14	03.0
<i>Oryzomys</i>	Rice rat	16	11	02.4
<i>Tayassu pecari</i>	White-lipped peccary	15	4	00.9
<i>Hoplomys</i>	Armored rat	8	3	00.6
<i>Didelphis marsupialis</i>	Opossum	5	1	00.2
<i>Mazama americana</i>	Brocket deer	3	2	00.4
<i>Caluromys</i>	Woolly opossum	2	1	00.2
<i>Marmosa</i>	Mouse opossum	1	1	00.2
<i>Trichechus manatus</i>	Manatee	13	9	01.9
Total		1437	466	

^a Adapted from Grayson (1973: Table 2, p. 436).

Based on bones found in the excavation sites, which are similar to what **ngäbe** family in **Cerro Brujo** were hunting.



Animals that come to eat what people have planted.



Technology & cognition
related to habitat:

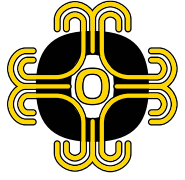
Ñurum / Bötä



Salad with *Chamadorea tepejelote* = **Nurum / Bötä** en ngäbere
“indigenous spaghetti”



Chamadorea tepejelote
= **Nurum / Botä** with
“bichowatä” boiled
green fourfile banana



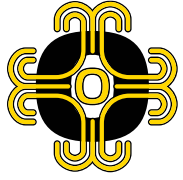
Technology & cognition
related to habitat:

Ñurum / Bötda



Shade palm
chamadorea
tepejelote

Male inflorescence
“Indigenous spaghetti”



Technology & cognition
related to habitat:

Ñurum / Bötä

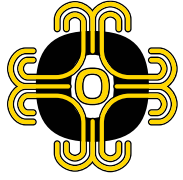


Composition

the edible portion of bodá is made up mainly of protein, minerals and fiber; which is established in this bromatological analysis

Nutrients	Composition
Raw protein	32.75 %
Calcium	6.87 %
Phosphorus	1.38 %
Copper	23.67 mg / Kg
Zinc	72.18 mg / Kg
Iron	716.29 mg / Kg
Raw fiber	8.76 %

Nutritional analysis of male inflorescence of *Chamadorea tepejelote* (IDIAP. 2013)



Technology & cognition
related to habitat:

Carludovica palmata

Ruiz & Pav.

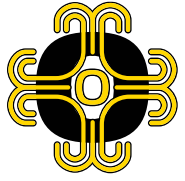


Duke, James A. Isthmian
Ethnobotanical Dictionary.
Fulton, Maryland. 1972:20



Common names in ethnic groups and countries

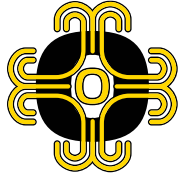
- Cuna/Guna: Sabalet; Soso; Kuskín
- Choco/Embera: Gropo; Naguala
- **Ngäbere: kimo; kimonga (the leaf)**
- Colombia: Iraca; Lucatero; Lucua; Sombonaza
- Ecuador: Panama Hat Palm; Sombrero de Panamá
- Panamá: Atadero; Jipijapa; Guachivan; Porto Rico; Toquillo



Technology & cognition
related to habitat:

Carludovica
palmata
Ruiz & Pav.





Technology & cognition
related to habitat:

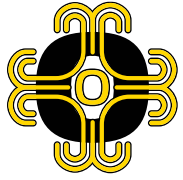
Carludovica palmata

Ruiz & Pav.



Edible stamens of *Carludovica palmata* Ruiz & Pav.
in breakfast with fruits, juice, oats, dark chocolate



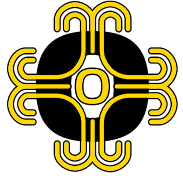


Technology & cognition
related to habitat:

Carludovica palmata Ruiz & Pav.



Artesanal fibre of new leaf of
Carludovica palmata Ruiz & Pav.



Technology & cognition
related to habitat:

Pita / kiga

in ngäbere = *Ananas
magdalenae* (*Aechmea
magdalenae* André)

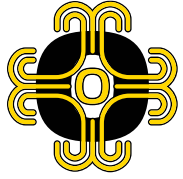
pp. 108 1928 Standley, Paul C. Flora of the Panama Canal Zone,
United States Herbarium, Volume 27. Washington, D.C.: United
States Government Printing Office. 1996 Schulz, Carsten y Gallego,
Aquilina. La Chácara-Arte Vivo de la Mujer Ngöbe: Mitología,
Costumbres, Plantas, Fa- bricación. Estudio Etnobotánico
Participativo. Documento Ngöbe, Tomo XII. San Félix: Instituto
Nacional de Recursos Naturales Renovables. Agencia Alemana de
Cooperación Técnica-GTZ, Proyecto Agroforestal Ngöbe



**The long leaves contain a tough fiber of superior quality
used in Central America for making rope and twine.**

From left to right, photo of pita plant, scraping chlorophyll with a cane
Blade, making thread, boiling threads with natural dyes, sewing a bag,
baby sleeping in a swinging bag, harvesting green bananas and manioc.

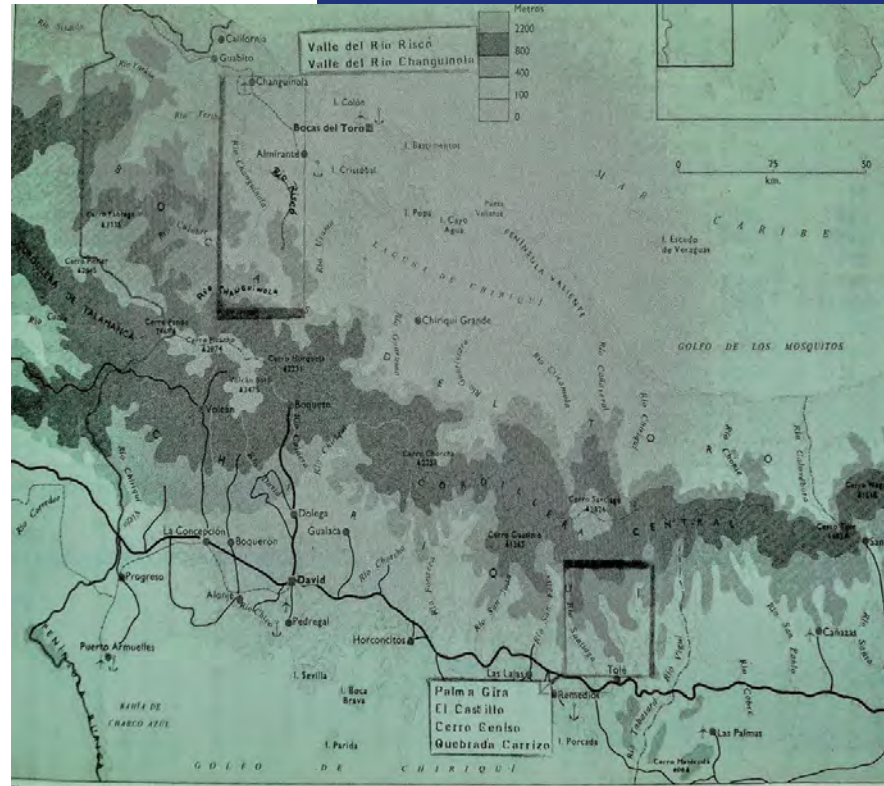




Technology & cognition related to habitat:

Ethnobotanical Inventory of Medicinal Plants

used by the Guaymi Indians in Western Panama



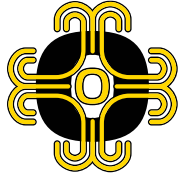
NAMES, LOCATIONS AND POPULATION OF PLACES WHERE “CURANDEROS” RESIDE AND WHERE COLLECTIONS WERE MADE

Source: DEC 1984.

Place	District	Province	Total houses	Population		
				Total	Indian	Non-Indian
Cerro Ceniza	Tolé	Chiriquí	35	264	264	0
Quebrada Carrizo	Tolé	Chiriquí	19	83	83	0
El Castillo	Tolé	Chiriquí	6	32	29	3
Palma Gira	Tolé	Chiriquí	24	162	162	0
Valle del Risco	Changuinola	Bocas del Toro	56	512	498	14

 L.G.Joly, S. Guerra, R. Séptimo, P.N. Solis, M. Correa, M.Gupta, S. Levy, and F. Sandberg
 Journal of Ethnopharmacology, 20 (1987) 145-171
 Elsevier Scientific Publishers Ireland Ltd.





Technology & cognition related to habitat:

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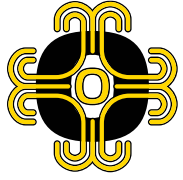
FREQUENCY OF MEDICINAL AND NUTRITIONAL USES OF THE SPECIMENS COLLECTED

Bocas del Toro (September 22—29, 1984)		Bocas del Toro II (March 1—10, 1985)		Chiriqui (December 26, 1984—Jan 2, 1985)	
Edible	10	Snake bites	11	Diarrhea	19
Childbirth	9	Vomiting	10	Snake bites	18
Women's ailments	7	Dreams ^a	9	Fever	13
Dreams	7			Breathing problems	11
Breathing problems	6	Childbirth	5 ^b	Evil Eye	9
Diarrhea	5	Fever	5	Vomiting	8
Snake Bites	4	Poison	2 ^c	Stomach aches	5
				Worms/parasites	5
				Witchcraft	4
				Rubella/measles	4
				Purgative	4
				Edible	4
				Headache	3
				Rashes	3
				Urinating problems	3
				Childbirth	2

^a Themes of dreams: eating and losing appetite; bee bite, transforming into a cat that fights and loses; falling, being in jail; being tied; injured with an arrow; someone touches the dreamer.

^b Includes retention of the placenta in cows.

^c One is a fish poison and the other is poisonous to humans.

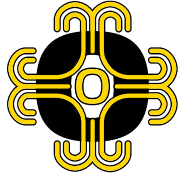


Technology & cognition
related to habitat:

Medicinal Plants



Medicinal plants used by Emilia Santos, of the Association of Ngäbe and Peasant Women, in Quebrada Guabo, district of Besigo. She would tell biology and medicine students, who have to memorize a lot of data, that cacao will open their brains and keep them awake to study.



From left to right, the cacao fruit that is the sacred fruit of the ngābe; the juice of the ripe cacao is poured on the eyes of a person who has been witchcrafted to expell the demons out

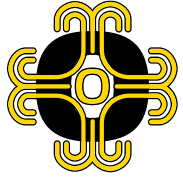
Technology & cognition related to habitat:

Other types of remedies for physical & spiritual illnesses



as evilness gets into the body through the eyes. The black seeds of the cacao are sundried and the grinded to cook the beverage which is drunk without milk nor sugar.





Technology & cognition
related to habitat:

Other types of remedies for physical & spiritual illnesses

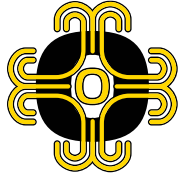
The hair of a pregnant woman is taken to a Sukiá to prepare a traditional medicine. A pregnant woman has a high value in the ngäbe social hierarchy as a source of vitality. For the cure with a hot nail, a type of acupuncture, a pregnant woman is the one who applies it.

50



In the ethnohistories of **Döido** and **Täin** Vega, who became cannibals, the worse crime in **ngäbe** socioculture, small nets made with the hair of pregnant women were buried on the trail where they would pass to attract them as a magnet, and then put them to sleep with a ritual beverage made with cacao chewed by pregnant women, so that they could be tied and buried alive face down over pointed stakes as a punishment for their cannibalism.



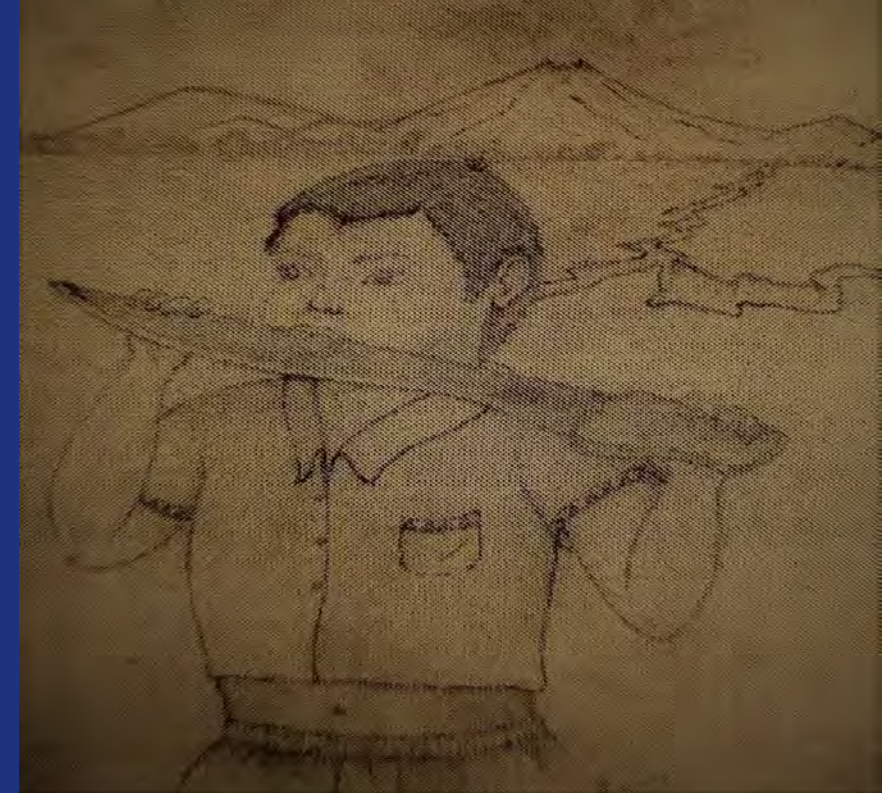


Technology & cognition
related to habitat:

Other types of remedies for physical & spiritual illnesses

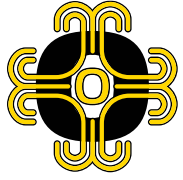


A girl bites a rock
when there is an
earthquake so that
her teeth don't fall.



A boy bites a machete
so that his teeth don't
fall when there is an
earthquake.



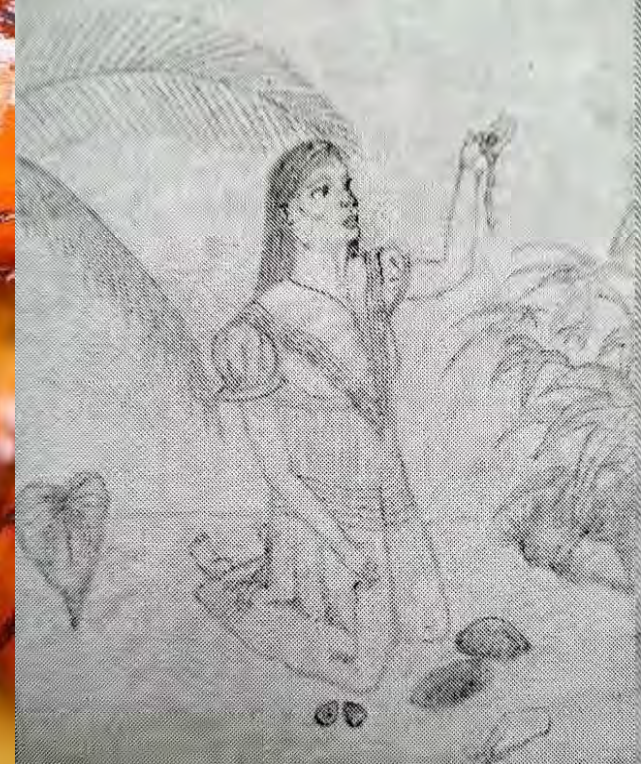


From left to right: the umbilical cord is cut with a cane blade, the dried umbilical cord that falls from the newborn baby is planted with the seed of a pixbá / pifá / peibaye / pejivalle (Guilielma utilis Oerst.),

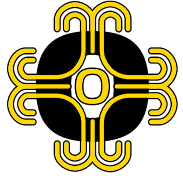
Technology & cognition
related to habitat:

Rituals

related to childbirth



whose fruit is a yellowish-orangy pulp that symbolizes the sun and, therefore, the palm will transmit the energy of the sun to the newborn so that the baby will grow healthy and strong.



Technology & cognition
related to habitat:

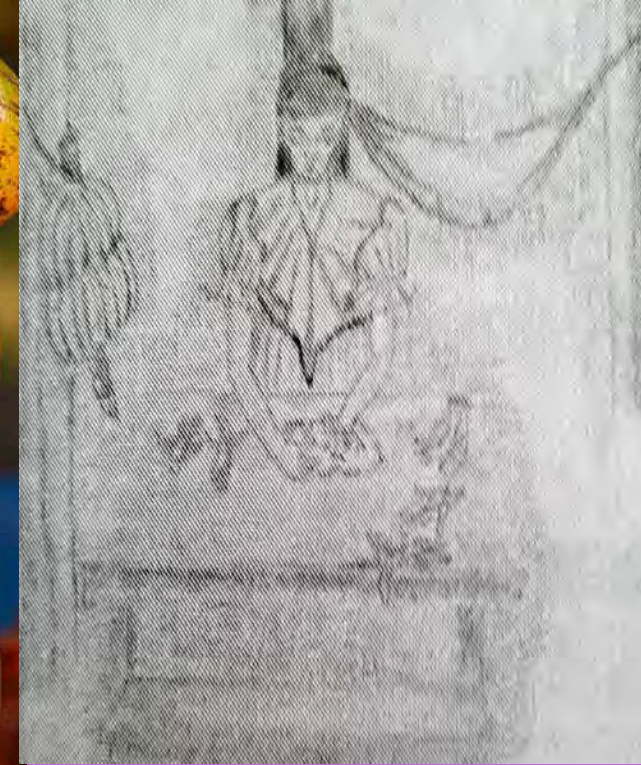
Rituals

related to childbirth

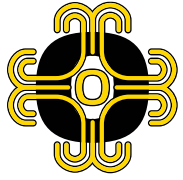
This fruit is rich in vitamin C, calcium and fibre.

This is the umbilical tree of the person who has her/his
umbilical cord buried with, and is the only person who can
harvest the fruits of that tree.

53



The deeper that the placenta is buried, the longer it will take
for the woman to become pregnant again—this is a
contraceptive method; after giving birth a woman has to
purify her hands by mashing cooked green bananas.



Technology & cognition
related to habitat:

Rituals

related to puberty

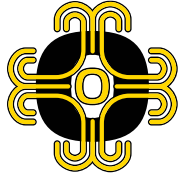


The puberty ritual is called the ceremony of the mouth. Symbolically, the mouth of the head refers indirectly to the vagina, and that the young woman can now eat the male penis.

To talk with a double sense is an appropriate way to talk with modesty, without vulgarity. Also, it is a test or proof of intelligence, to test the listeners, and at the same time provoke laughter if they understood the double sense.

Another name for this ritual is miroli the song for this ceremony.





Technology & cognition
related to habitat:

Rituals

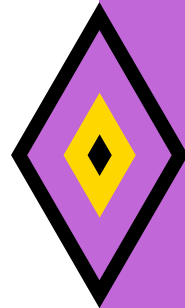
related to puberty

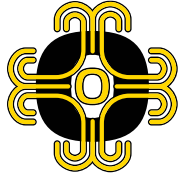


During the four days of the ritual, the young woman prepares four rolls of ground corn for the four ancient women who will give her non formal sexual and reproductive education.

Among these recommendations, she should not stop on the trails or roads to talk to a man, so that she is not classified as a gossip or chatterbox.

During this ritual, the young woman also weaves a white bag, without colors, that symbolizes the virginity of her vagina.



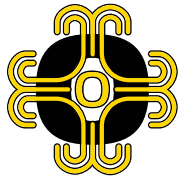


Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”

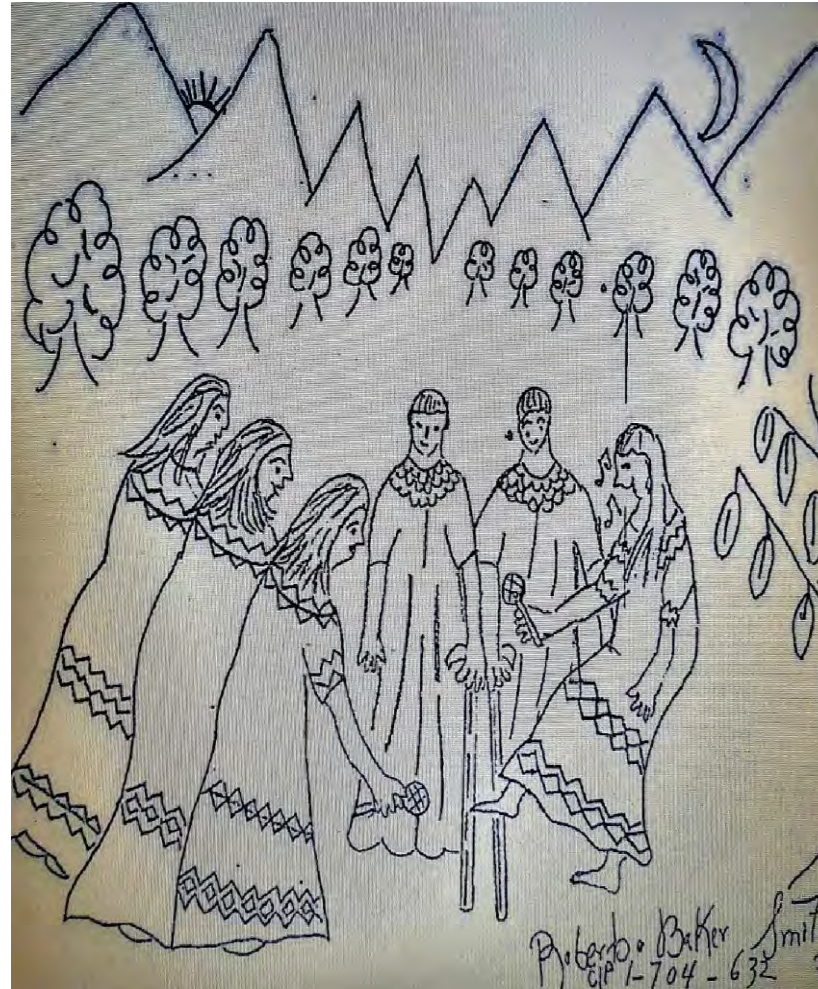




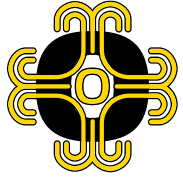
Incest taboo

Consuetudinary Law =
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“The Sun and the Moon”



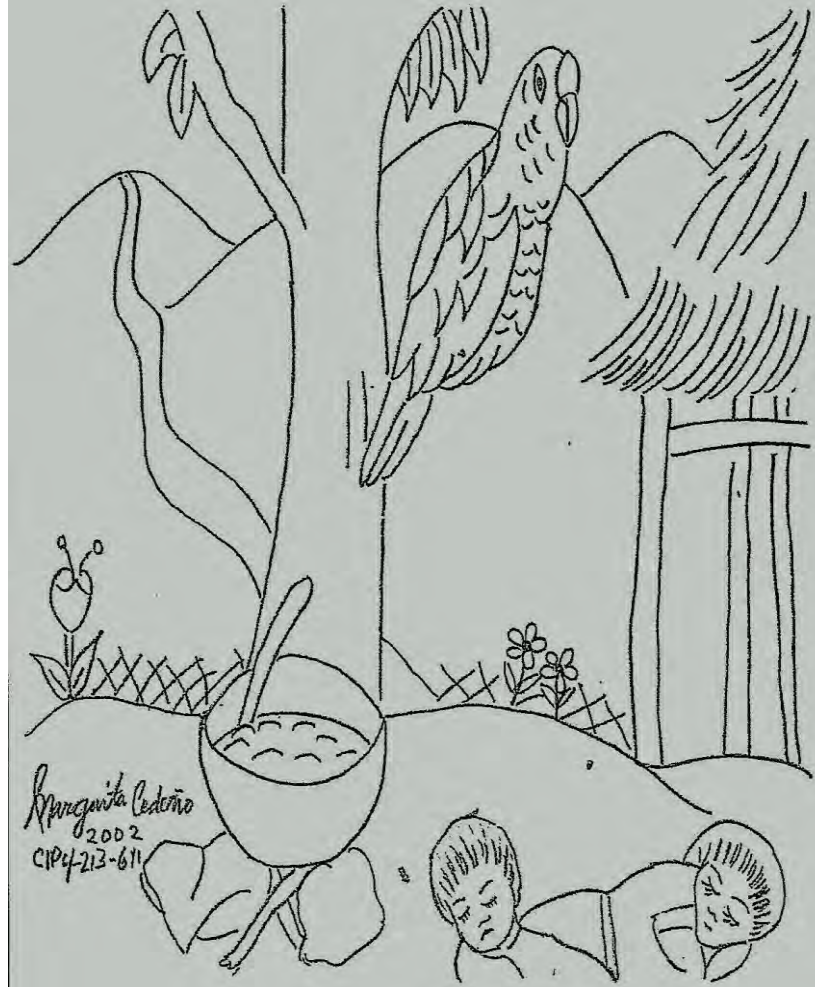
While singing and dancing, Evia would step on the feet of the handsome men dressed in gold and silver to show that she liked them; but always people would tell her that she could not do such a shameful act because these men were her sons.



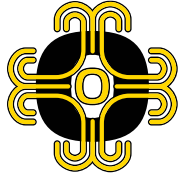
Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”



Evia would answer that such handsome men could not be her sons because she had left them sleeping by the fireplace with her parrot to look over them.



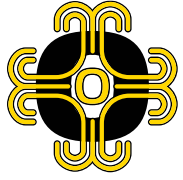
Incest taboo

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The fourth time that Evia was invited to a party, she decided to hide behind some bushes and verify if those handsome men would come out of her house and thus confirm if they were her sons.



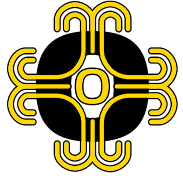
Incest taboo

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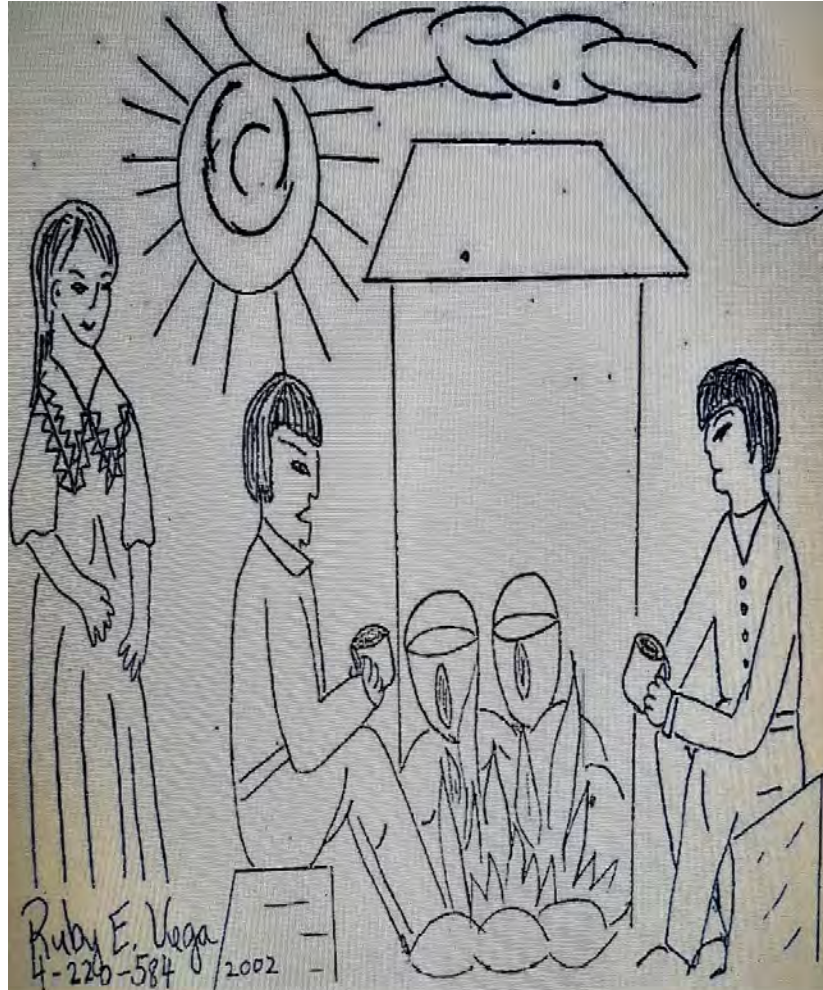
So, Evia decided not to go to the party, but went back to where she lived and started singing and engraving with her fingers and toes all the petroglyphs in the world.



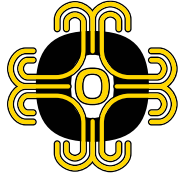
Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”



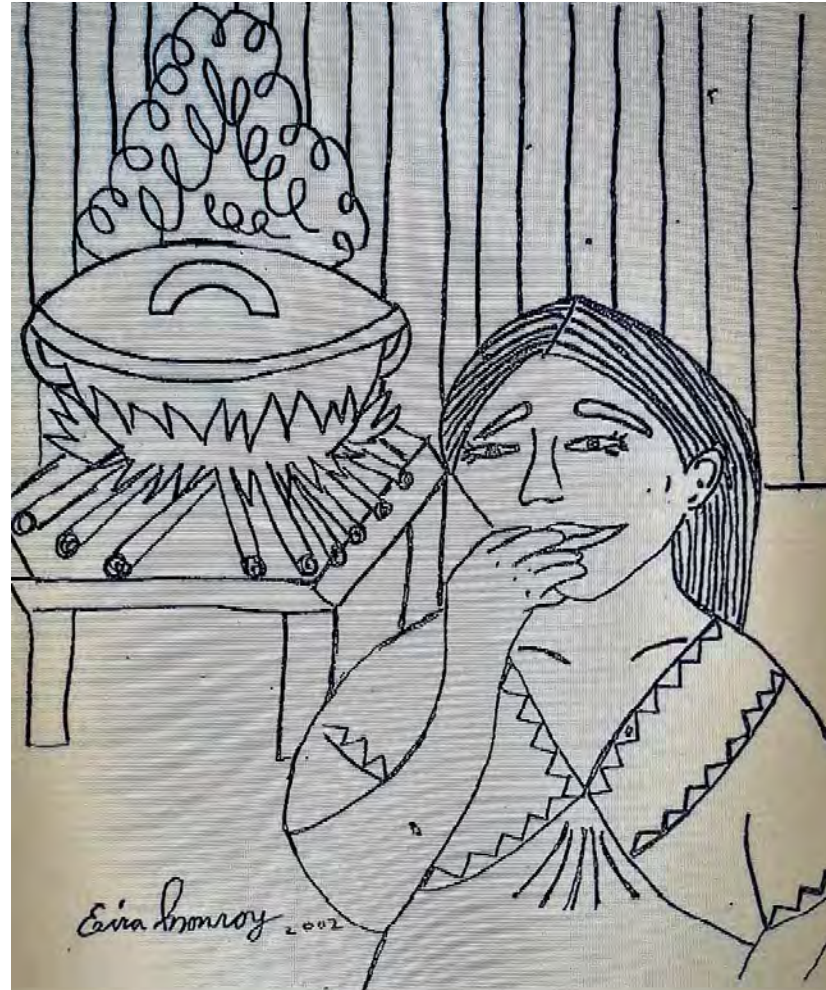
When the sons came back home after the party, they found out that their mother knew that they could transform themselves into those handsome men dressed in gold and silver. So, before deciding what to do with her, they prepared cocoa beverage. The one dressed in gold used red cocoa and the one dressed in silver used white cocoa.



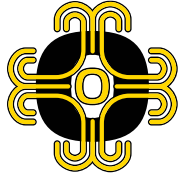
Incest taboo

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“The Sun and the Moon”



They told their mother that they were going to the river to bathe, but warned her not to open the pot where they were making the cocoa beverage. After they left, Evia said: They are my sons; they cannot forbid me to do that. She opened the pot and discovered that the red cocoa had become a girl and the white cocoa had become a boy, and both were linked by a stick in their umbilical cords. Hot cocoa sprinkled and fell on her eyes and blinded her.



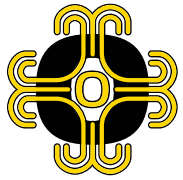
Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”



When the sons returned home from the river, and found their mother blind, they decided to throw her with her parrot into the abyss; but she would always come back to the surface of the earth. They threw her four times in the direction of the cardinal points: east, west, north, south. The fourth time they cut the head of the parrot because it reminded them of their mother's voice. When Evia climbs the ladder to the surface, the earth quakes.



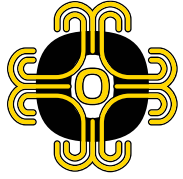
Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”



Evia is alive and will return at the end of times; and will continue coming up to the surface of the earth to eat **soursops**, **mammes**, and **pineapples**, that symbolize men on earth; because she is always madly in love with men.



Incest taboo

Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”

1928 Standley, Paul C. Flora of the Panama
Canal Zone, United States National Herbarium,
Vol.27. Washington, D.C. United States
Government Printing Office.



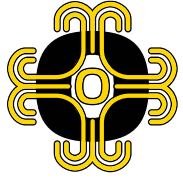
*with white sub acid pulp used
chiefly for preparing beverages and
ices [pp.180-81]

**with fragrant white flowers,
subglobose fruit, which when cut
exudes a white sap, the flesh is of
most agreeable flavor, somewhat
suggesting a clingstone peach,
eaten raw or cooked [pp. 269]

***[pp.107-8] yellowish pulp, some
varieties are sweet and others acid,
some persons are allergic and get
rashes when eat it or drink its juice.

Evia, the mother of
the sun and the
moon, wants to climb
to the Earth to eat
soursops* (*Annona
muricata*), **mammes****
(*Mammea americana*);
pineapple*** (*Ananas
sativus*)

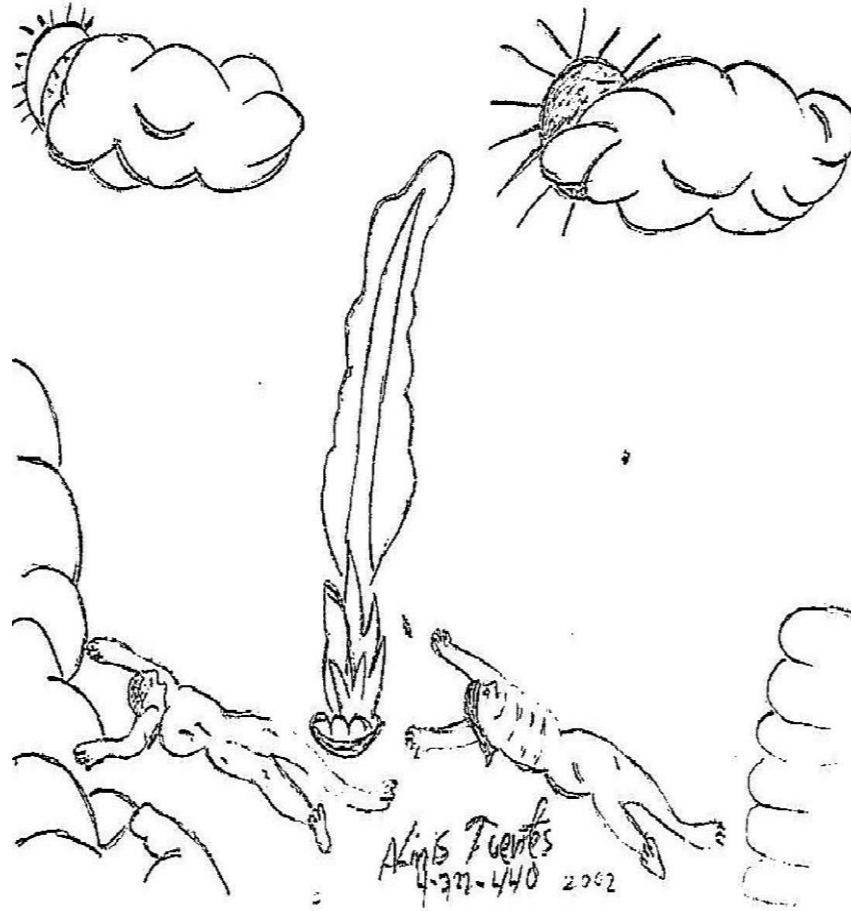
In this **ngäbe**
ethnohistory, these
three fruits represent
humanity with some
people white, some
brown, and some
yellow.



Incest taboo

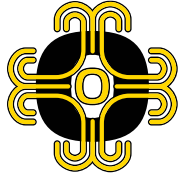
Consuetudinary Law =
Ethnohistory

“The Sun and the Moon”



Is also a cosmogony = The
formation of the sun and the moon.

The sun was the man dressed in
gold and the moon the man dressed
in silver; and they transformed
themselves to shine on the mother
earth.



Technology & cognition
related to habitat:

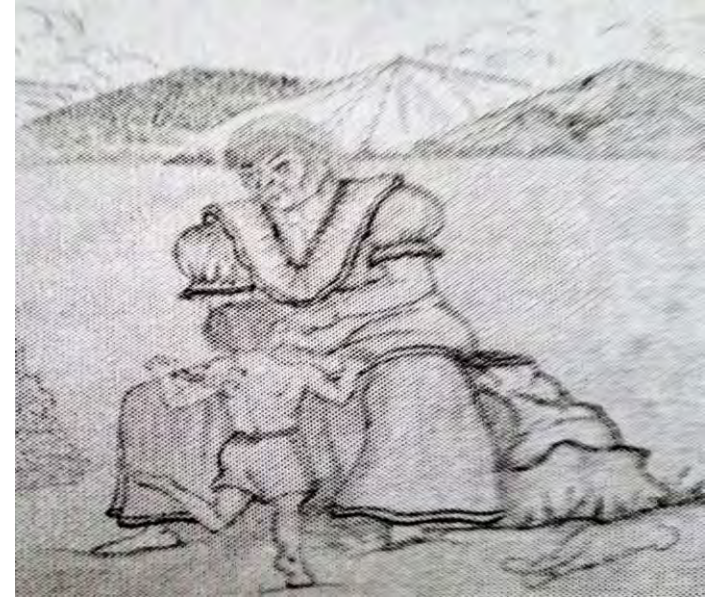
Child Rearing Practices:

Pulling Earlopes

2005 Joly Adames, Luz Graciela. Lenguaje y
Literatura Ngöbe/Ngäbe. pp. 62. David, Panamá:
Rapi Impresos.



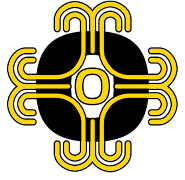
A grandfather pierces the earlobe of a boy with the spine of a stingray when there are electric storms. According to Pastor Duran (1998), this practice is called **guarare** and is the origin of the toponym Guararé in the Azuero Peninsula, where there are several toponyms in **ngäbere**.



Mothers and grandmothers pull the earlobe of their children and grandchildren to correct bad behavior.

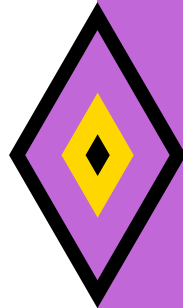
In the puberty ceremony of a girl, four old women pull the earlobes to correct the defects that the mother of the girl has confessed that her daughter has.



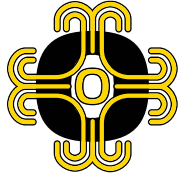


Music, dance, art:

The jegui

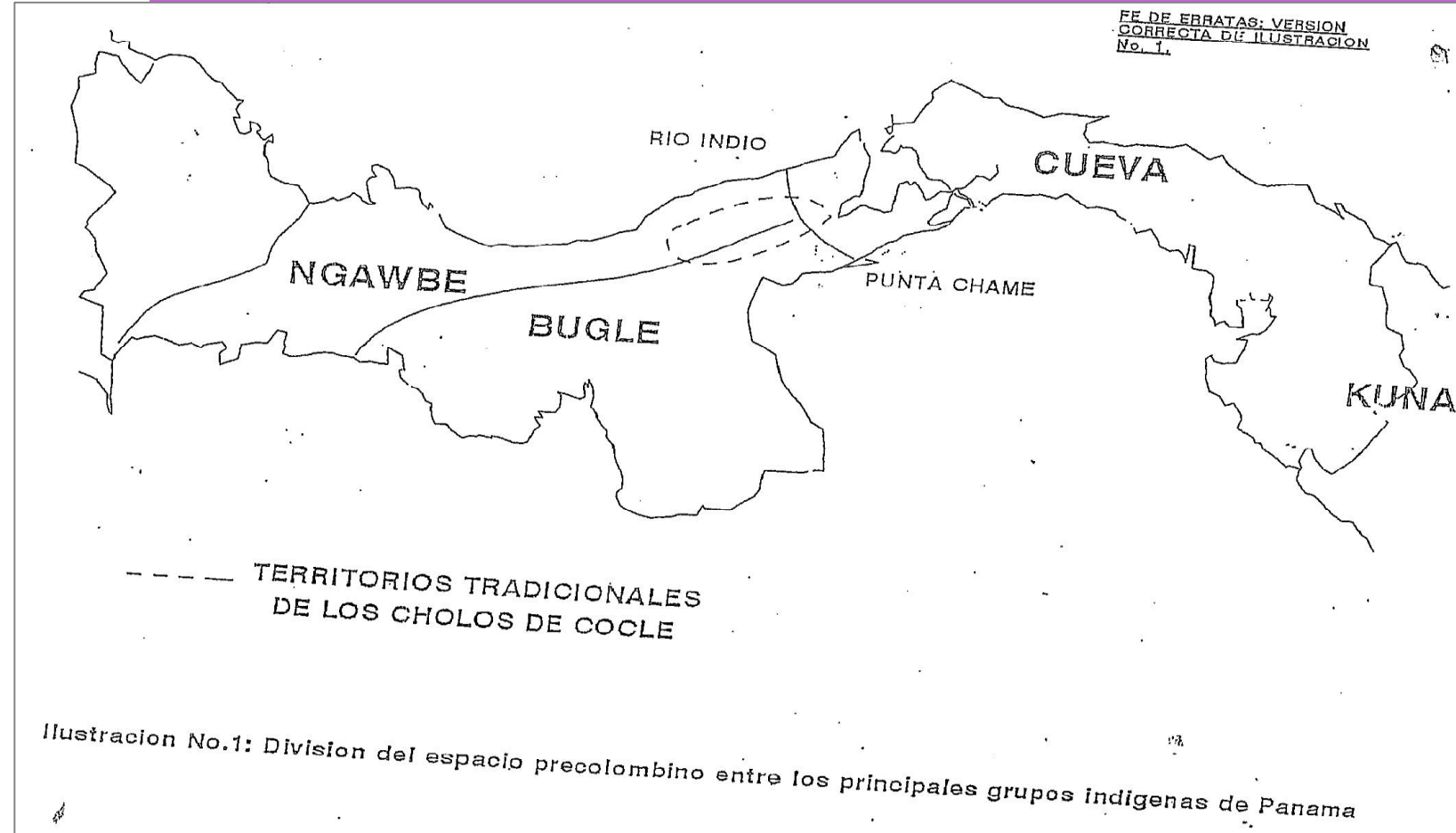


“This dance shows what a community should be: a group or team with a necessary and vital coordination, that follows a rhythm, in which there is harmony expressed in different functions and expressions, but working in one direction, with a great sense of body, with much closeness.”

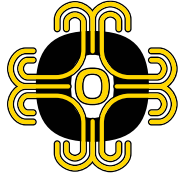


Music, dance, art:

Songs in Buglere



Therefore, it is inferred that the Bugle had a higher ritual category in the past.

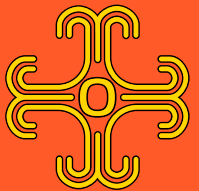


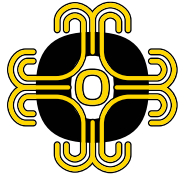
Music, dance, art:

Petroglyph



Petroglyph at the watersource of Boquete is a map of surrounding area; spirals represent hills or elevated areas; circle with hole in the center is the spring that supplies water for the aqueduct of **Boquete**.





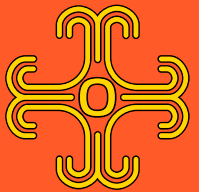
Music, dance, art:

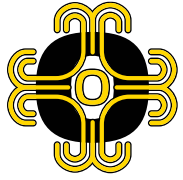
Petroglyph



Fig. 52.—Southwest face of the *piedra pintal* or pictured rock at Caldera
(After Holmes.)

Piedra Pintada de **Caldera**





Music, dance, art:

Petroglyph

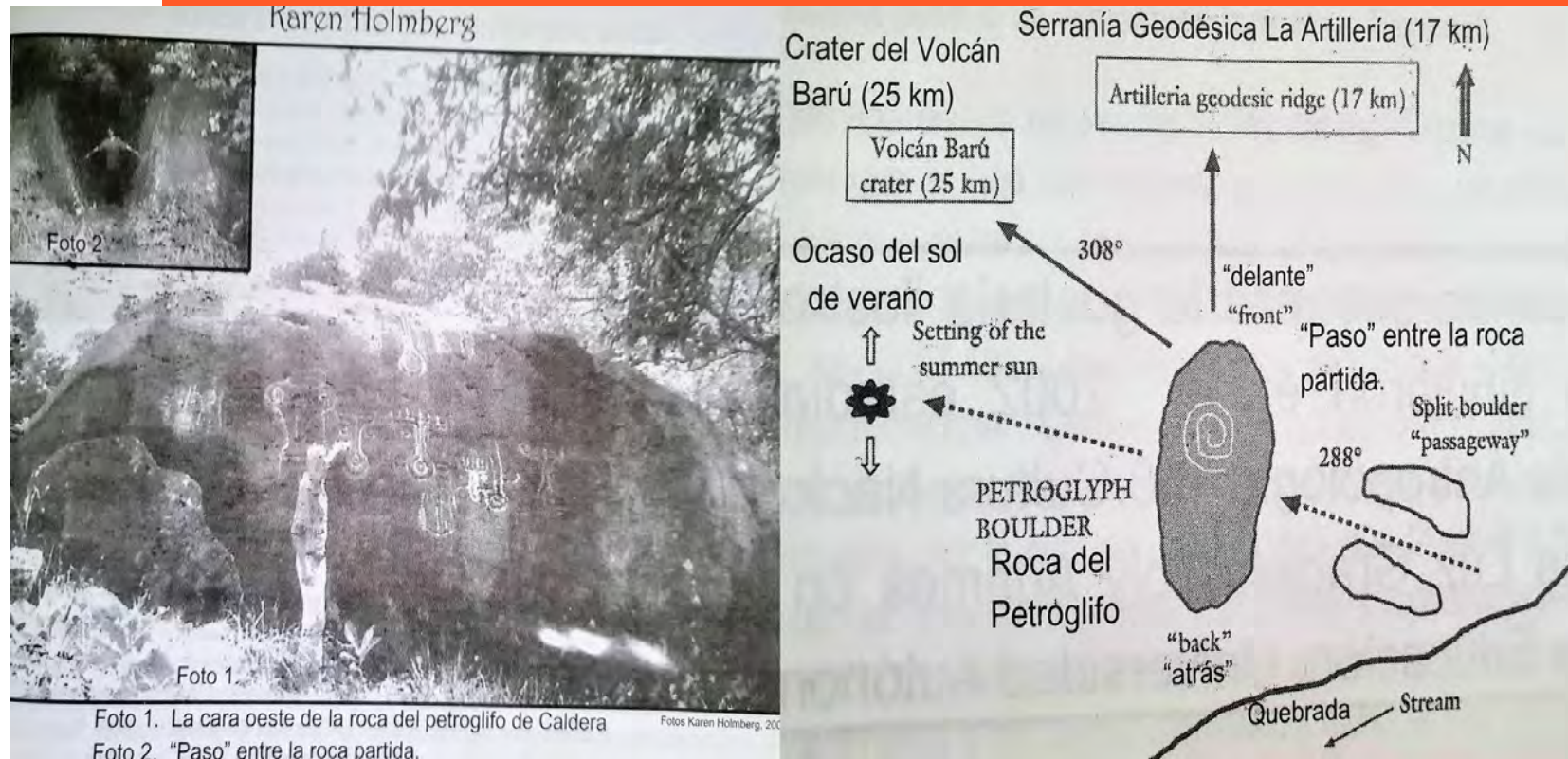
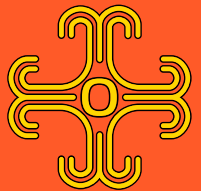
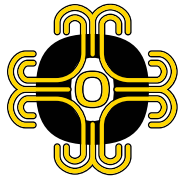


Foto 1. La cara oeste de la roca del petroglifo de Caldera
 Foto 2. "Paso" entre la roca partida.

Piedra Pintada de **Caldera** – Geodesic Relation with the Baru Volcano and the Artillery Ridge in Boquete.

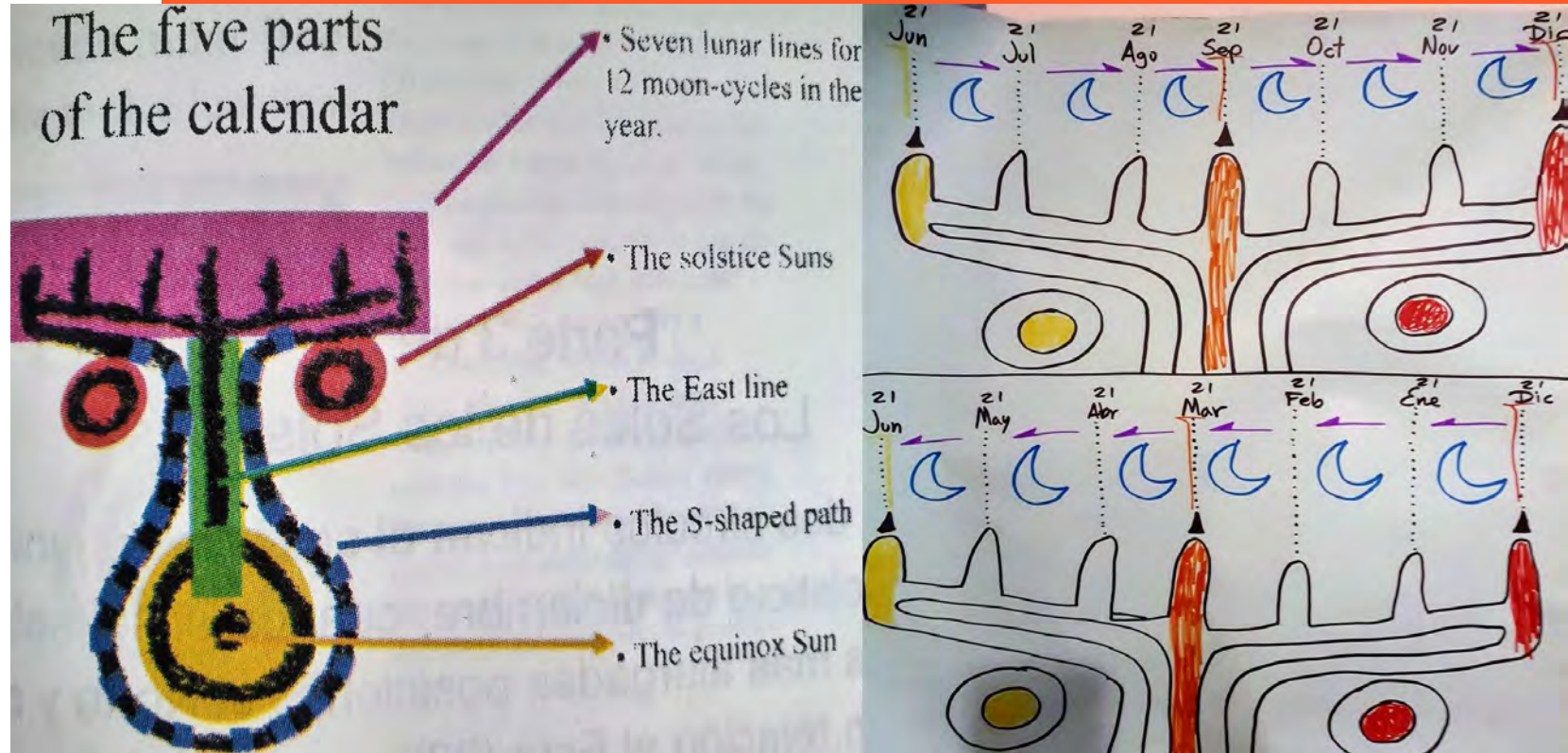


 2007 Karen Holmberg pp.48 y 49 En Joly Adames, Luz Graciela, Compiladora de CONOCE EL ARTE RUPESTRE EN PANAMA: Algunos Petroglifos en Chiriquí. David, Chiriquí, Panamá

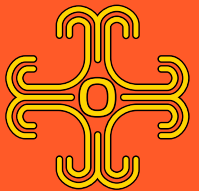


Music, dance, art:

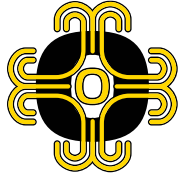
Petroglyph



Piedra Pintada de **Caldera** – Solar / Lunar Calendar



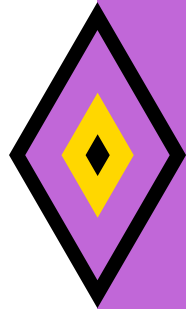
2007 Roberto Pérez Franco pp.42 a 47 En Joly Adames, Luz Graciela, Compiladora de CONOCE EL ARTE RUPESTRE EN PANAMA: Algunos Petroglifos en Chiriquí. David, Chiriquí, Panamá.



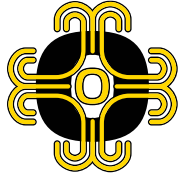
Music, dance, art:

The ngäbetdotde

= “sewn/woven by ngäbe”



Triangles in **nagua** female dress, **kra** bag, **sobró** hat, and **chaquira** collar.



Music, dance, art:

The ngäbe kra

= “bags”

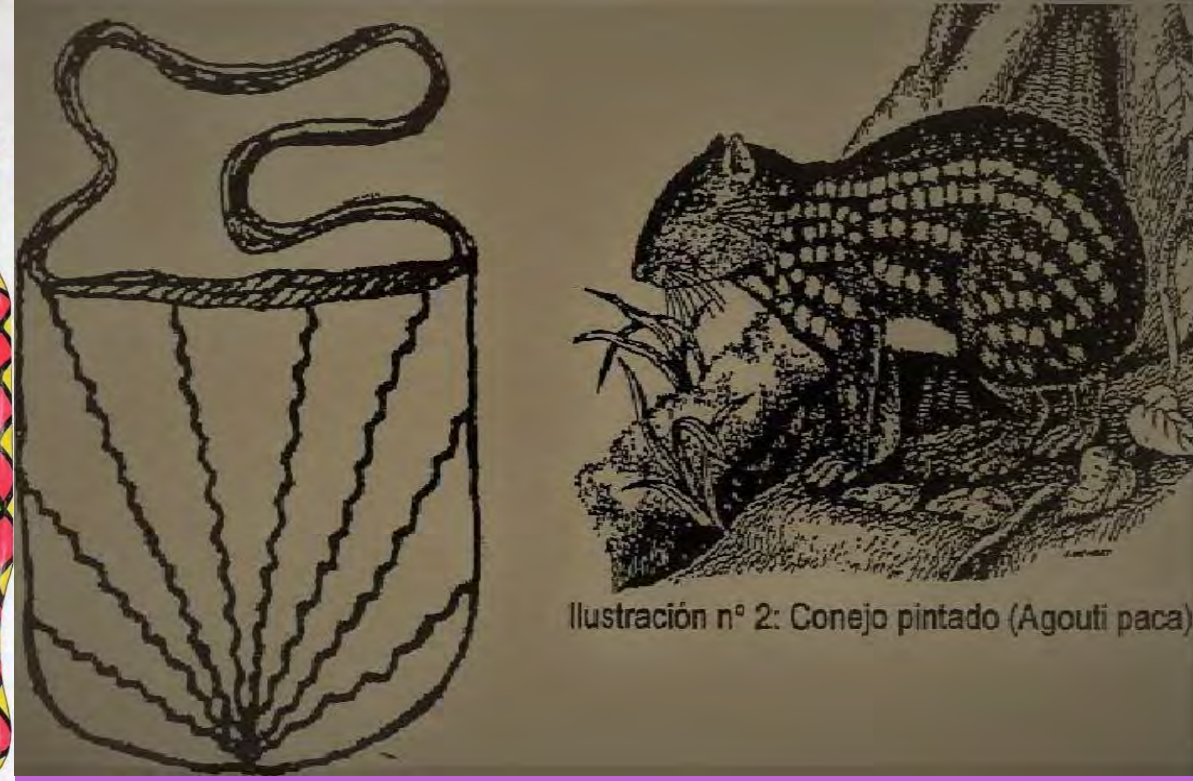
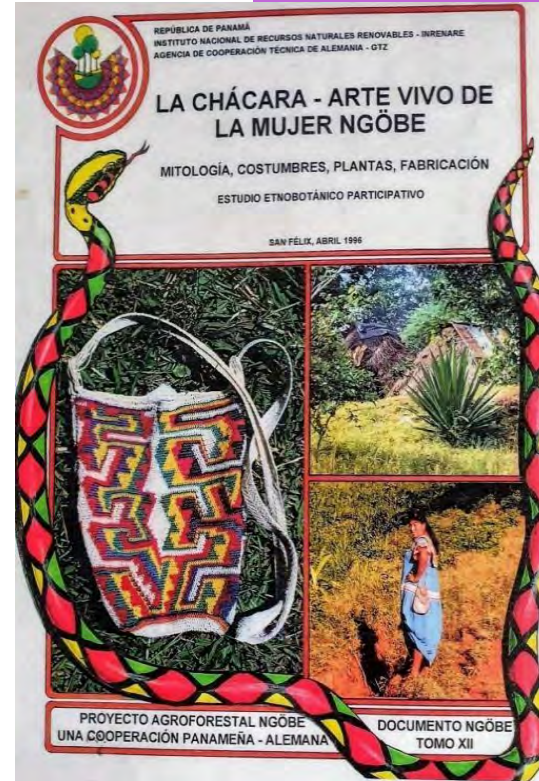
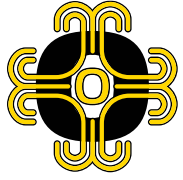


Ilustración n° 2: Conejo pintado (Agouti paca)

1996 Schulz, Carsten y Gallego, Aquilina. La Chácara-Arte Vivo de la Mujer Ngöbe: Mitología, Costumbres, Plantas, Fabricación. Estudio Etnobotánico Participativo. Documento Ngöbe, Tomo XII. San Félix: Instituto Nacional de Recursos Naturales Renovables. Agencia Alemana de Cooperación Técnica GTZ Proyecto Agroforestal Ngöbe



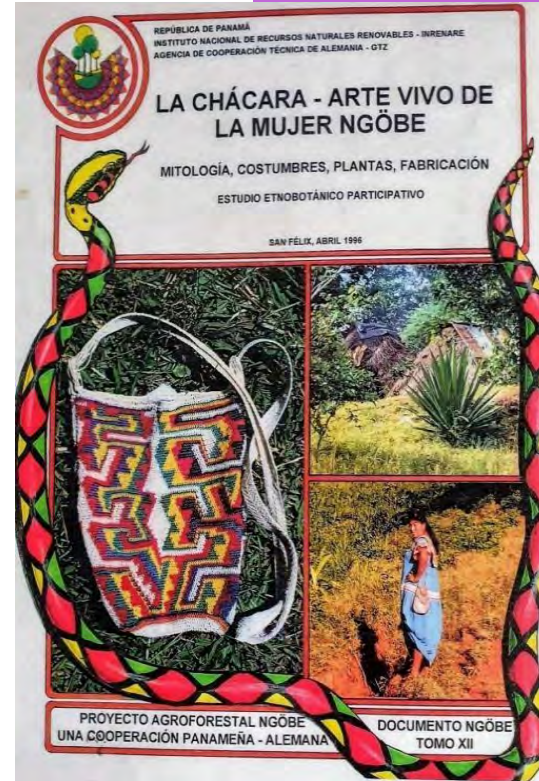
The ngäbe ethnohistory of the **Sukiá Sammy Kebetdo** relates that he ordered the **ngäbe** people to keep the triangles in the skin of the serpent **Magatda** alive so that the **Magatda** would not return to the mainland after the four young men that he sent to the mountain ridge to see what was causing so much rain.



Music, dance, art:

The ngäbe kra

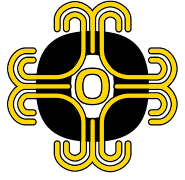
= “bags”



1996 Schulz, Carsten y Gallego, Aquilina. La Chácara-Arte Vivo de la Mujer Ngöbe: Mitología, Costumbres, Plantas, Fabricación. Estudio Etnobotánico Participativo. Documento Ngöbe, Tomo XII. San Félix: Instituto Nacional de Recursos Naturales Renovables. Agencia Alemana de Cooperación Técnica GTZ Proyecto Agroforestal Ngöbe



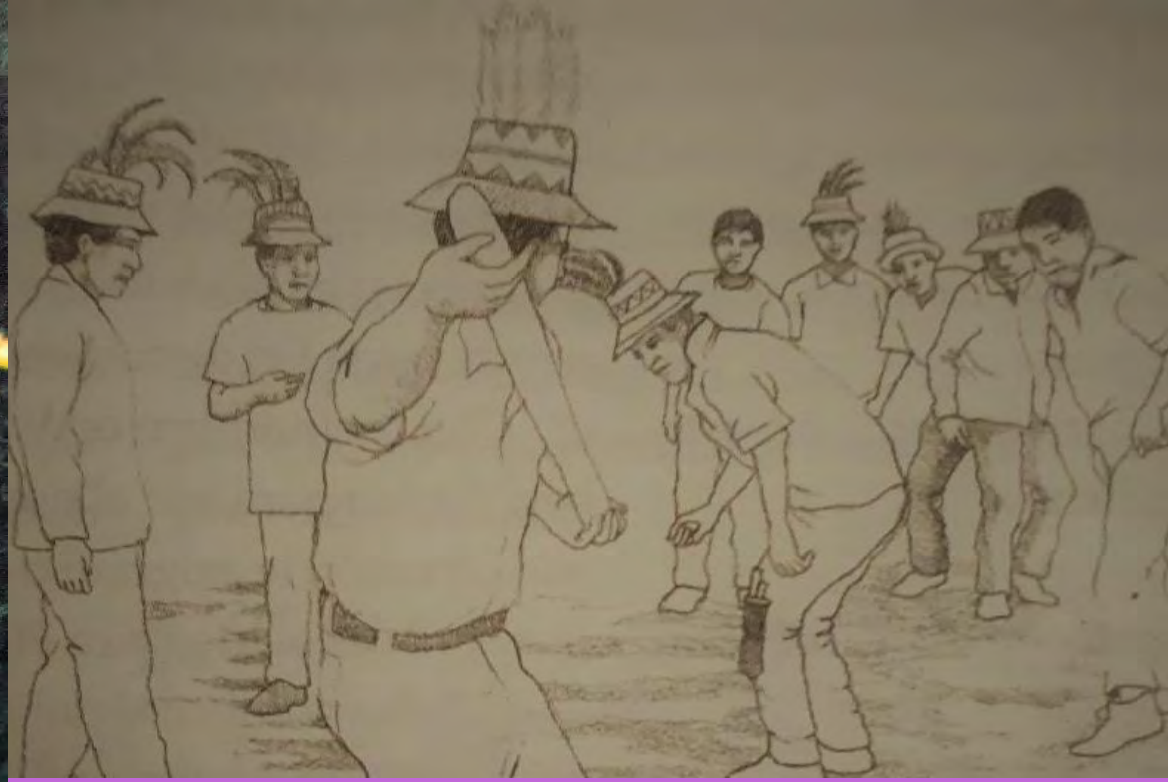
Sammy Kebetdo gave them the formula to throw the **Magatda** to the Caribbean sea. The pictures of hurricanes of NASA look like a coiled snake. **The Magatda was a hurricane.** Thanks to the **ngäbe** people for keeping the triangles alive, Panama gets the tips of hurricanes but not the full force of a hurricane as the in Caribbean islands.



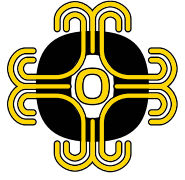
Music, dance, art:

Krung Kita

“balsería” = game of sticks



This is a very ancient game described as a **“game of sticks”** by the Belgian Catholic Brother Adrian Ufeldre of Saint Thomas, between 1622 and 1637, in the area of the Cricamola River, in what is now the province of Bocas del Toro and part of the Comarca **Ngäbe Bugle**.



Music, dance, art:

Krung Kita

“balsería” = game of sticks



The USA Anthropologist Phillip Young (1997), classified it as a game of “ritual brotherhood and rivalry” **Etdebali** with the duality of harmony and discord between ritual brothers.





Suggestions

DIWIMÁ (BARAN) BUBA NGATA

(Ni k'wike) 6 B/ 1.95

12 diwimá (baran) yirá kwose
1 cebolla chi tikete otí chi
2 ajo mrakete kwín
2 güibá tikete kia kia
2 tomate perita
2 cucharas mantequilla bití
2 cucharas mantequilla bití
1/4 taza kian baniste (Ideal)
kulan tikete kia kia
Mren

Serbere lo:

Diwimá (baran) rorá kwose aune mikadre rien mren bití, nibira dorebe ngwane mákwe denká ungenwé bata. Aune ngire ngwane mrakete kwín tenedor bití, sartén yete mákwe mantequilla, cebolla, güibá mike rien fúkwá braibe bití mriente kwín cebolla nibira dorebe ngwane yebiti ajo, kulan aune tomate kekete yete yebiti ne jikrá mike mrite diwimá o baran ngátöbítí ye mike mren aune kian baniste kekete ja mike dorebe kráke arato mákwe jamón kia kia mikete, kwijáda dáne aune queso ngwen mikadre.

PURÉ DE GUINEO VERDE

6 personas - Costo B/ 1.95


Ingredientes:

- 12 guineos verdes pelados
- 1 cebolla mediana cortada en cuadritos pequeños
- 2 ajos bien machacados
- 2 ajíes criollos limpios y cortados en tiritas muy delgadas
- 2 tomates perita
- 2 cucharadas de margarina o mantequilla
- 1/4 taza de leche Ideal
- culantro picadito
- Sal al gusto

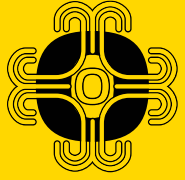
Procedimiento:

Pelar los guineos. Cocinar con una pizca de sal. Cuando estén bien suaves retirar el agua y aun calientes majar con un tenedor muy bien.

En un sartén calentar la margarina o mantequilla a fuego bajo, añadir la cebolla y ajíes, sofreír sin subir el calor de el fogón, revolver constantemente hasta que la cebolla este bien dorada, agregar el ajo y los tomates, mezclar con el puré, ajustar la sal y suavizar con la leche ideal si es necesario. Se pueden agregar recortes de jamón en cuadritos muy pequeños, huevos duros y queso blanco.



Patricia Miranda Allen
Chef Restaurante Cerro Brujo Volcan, Chiriquí, Panama



Suggestions





Jätoaitda

= See You

**Homenaje a la
Dra. Luz Graciela Joly**



Domingo 28 de marzo de 2021, a las 5:00 p.m.
Enlace: meet.google.com/dnw-qrsp-hua

INVITA: DEPARTAMENTO DE HISTORIA, UNACHI

*"El mejor homenaje que puede
tributarse a las personas buenas
es imitarlas".
Concepción Arenal*

*Si desea, puede lucir alguna
prenda de la cultura
ngäbe-buglé*

