

The Frog in Indian Mythology and Imaginative World.

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In a previous work ("Anthropos", XXIX [1934], pp. 319—370) I have treated the appearance of the frog-motive among the South-American Indians mainly from the point of view of its significance in ornamental art. In this I have stressed the surprisingly intensive treatment of this animal motive in earthenware, &c., within certain territories in South America, such as Colombia and the Santarem, and Diaguita-Calchaqui territories. The present treatise should be considered as a continuation of this study although I have not in this case as severely confined myself to South America but have also, whenever it seemed possible, treated statements from the Indians in Central- and North America.

If we examine the roll of the frog in Indian tales and myths, in certain customs and habits, or the Indian imaginative world as a whole we find that the material may be divided into definite groups according to the part which the frog plays in the respective cases. Thus the frog is associated with rain- and fertility concepts; it appears in Indian firemyths, and in their astral mythology; it plays a roll in Indian magic, &c. It is therefore natural to collect the varying motives in groups, whereby, however, a certain difficulty may arise in deciding to which group a certain tale or motive had better be assigned, since several features characteristic for the frog-portrayal may be combined in the same tradition. The material here treated may, however, conveniently be divided into the following seven groups, of which the first through the "material" character to a certain degree stands apart as compared with the others:

1. Positive and negative statements about the frogs as a source of food.
2. Use of the poisonous exudate of the frog, and the conception of the animal as venomous, for instance in magic.
3. Conceptions based on the frog's croaking.
4. The frog in rain- and fertility concepts.
5. The frog-motive in Indian astral mythology.
6. The frog in Indian firemyths.
7. The frog as a totem animal.

In conclusion I have attempted to point out that association between the appearance of this motive in art and in mythology which it seems possible to me to prove.

I. Positive and negative information about the frog as a source of food.

The great wealth, both as regards the species and the individuals, of frogs and toads in South America is a fact well-known from travel descriptions and zoological literature. It is particularly a question of the tropical parts and we have a vivid and typical description of the impression these animals make upon the visitor in IM THURN's book on Guiana: "Of the frogs and toads in Guiana, it is impossible to speak in detail. They are enormously abundant, and their varied and strange croaks combine in a chorus, which hardly ever ceases, gains redoubled force at night, and forms the characteristic sound both on the coast, in the forest, and on the savannah. So deeply does it impress the traveller that, when it has once been heard, he never, walking by an English ditch in spring, hears the feeble croak of one of our own frogs without seeing gigantic tropical scenes rise instantaneously before him. The amphibian which most annoys the colonist is a toad (*Bufo aqua*), which swarms everywhere in muddy places, and at night crawls from the trenches in Georgetown out on the streets in such numbers that it is often impossible to avoid treading on them ¹." We have similar statements from BATES ².

Considering this abundance, as well in individuals as in species, it is natural to question whether the frogs play any roll among the Indians from the point of view of food. Is that so we have of course in this fact one not altogether negligible reason for the rather important place they so often occupy in the popular belief.

If we look in the literature for information concerning the frog as a source of food for the Indians we find as well positive and negative statements. To start with Guiana ROTH takes up the question:

"Frogs and toads, as well as their larvae and eggs, constitute an equally interesting feature of the Indian menu. From Enaco village, toward the upper Potaro, B. BROWN describes certain pits for trapping frogs in connection with a small dry, circular pond, having its bottom all grass covered. It was situated in a small clearing some 50 yards in diameter, and had evidently been artificially made. In the center of this the guide paused and directed my attention to numbers of small circular pits that had been dug all over the bottom of the pond. These averaged from 3 to 6 feet in diameter and from 6 to 8 feet in depth. Leaning against a tree on one side was a bundle of sticks with slightly curved ends. Selecting one, the guide stooped down, and stirring up a large mass of gelatinous froth in the bottom of a pit, dislodged a small flesh-colored frog, which he tapped on the head. In the grass around the pits' mouths were also patches of this froth containing little white frogs' eggs about half the size of peas. These frogs are considered great delicacies by the Indians, and the pits are dug to entrap them when they come to the spot to deposit their eggs. After being gutted and prepared with the 'butter' from turtles' eggs, certain frogs' larvae are eaten by Indians

¹ *Among the Indians of Guiana*, p. 136.

² H. W. BATES: *The Naturalist on the River Amazons*, p. 195. — "A great number of toads are seen on the bare sandy pathways soon after sunset. One of them was quite a colossus, about seven inches in length and three in height. This beg fellow would never move out of the way until we were close to him. If we jerked him out of the path with a stick, he would slowly recover himself, and then turn round to have a good impudent stare. I have counted as many as thirty of these monsters within a distance of half a mile."

on the lower Amazon. In Surinam, when meat and fish are scarce, the Trio eat toad eggs raw³."

ROTH has also published an Arawak tale, "the Bush Spirit tricked while hunting frogs"⁴. A young girl encountered *Yawahu*, an evil spirit, who came to her in the shape of a girl friend. They went out together to catch frogs to eat, whereby *Yawahu* gave himself away when he told that he ate the frogs raw as he caught them. This surprised the girl greatly and she understood who it was who visited her. By tricking him she succeeded in getting away.

From the West Indies OVIEDO points out that the Indians on Isla Española did not eat frogs while on the other hand toads were common food on the continent and the islands along the coast. He had a female servant from the continent who ate one of the toads on Española but sickened immediately after. "She must have thought that the toads on this island were no more dangerous than those from her neighborhood which were eaten by the inhabitants." OVIEDO was laughed at when he on the continent felt ill on seeing the Indians eating these animals⁵. DU TERTRE mentions that the inhabitants of Martinique ate toads⁶.

To return to South America SOARES DE SOUZA in chapter CXV of his "Description of Brazil" mentions several times that frogs were eaten by the Indians on the east coast. He mentions various species which when skinned had white flesh and tasted excellently. A dish which was very popular with the Indians consisted of frogs which were squeezed between the fingers till the intestines were pressed out when the frogs were rolled in leaves and baked in hot ashes. SOARES DE SOUZA also speaks of the breeding of frogs in marshes⁷.

³ ROTH: *An introductory study etc.*, sect. 218.

⁴ *An Inquiry into the Animism and Folk-Lore of the Guiana Indians*, sect. 120.

⁵ OVIEDO: *Historia General etc.*, t. I, p. 437.

⁶ *Histoire generale etc.*, t. II, p. 327. — "Quelques uns les non voulu faire passer pour des crapaux, mais sans fondement: car elles ont toute la forme de grenouilles, et fautent quelquefois de la hauteur d'un homme, tous les habitants en mangent, et ci les ay trouvées tres-excellentes."

⁷ *Tratado descriptivo do Brazil em 1587*, capitulo CXV, p. 267—268. — "E porque as rãs são de diferentes feições e costumes, digamos logo de umas a que os indios chamam juiponga, que são grandes, e quando cantam parecem caldeireiros que malham nas caldeiras; e estas são pardas, e criam-se nos rios onde desovam cada lua; as quaes se comem, e são muito alvas e gostosas. ... Enquanto são bichinhos lhes chamam os indios juins, do que ha sempre infinidade d'elles, assim nas lagoas como no remanso dos rios; do que se encham balaies quando os tomam, e para os alimparem apertam-nos entre os dedos, e lançam-lhes as tripas fóra, e embrulham-nos ás mãos cheias em folhas, e assam-nos no borralho; o qual manjar gabam muito os linguas que tratam com o gentio, e os mistigos. — Juigiá é outra casta de rãs, ... e são muito alvas e gostosas. — Ha outra casta de rãs, a que os indios chamam juihi; ... — Cria-se na agua outra casta de rãs, a que os indios chamam juiperega, ... e esfoladas comem-se como as outras. — Ha outra casta de rãs, a que os indios chamam juigoaraigaraí, ... estos são verdes, e desovam na agua que corre entre junco ou rama, e tambem esfoladas se comem e são muito boas."

JEAN DE LERY mentions toads as food for Tupinamba. "Semblablement, nos *Tououpinambaults* ont certains gros crapaux, lesquels *Boucanez* avec la peau, les tripes et les boyaux leur servent de nourriture ⁸."

According to KOCH-GRÜNBERG the Tukáno at Rio Tiquié eat a great deal of frogs and consider them good food ⁹.

Ijca in Columbia eat the legs of a species of frog called *Dyemingueuo* ¹⁰.

In the Cerro de Pasco district in the highlands of Peru the inhabitants at Laguna Chinchay-cocha eat a big species of frog which they consider a great delicacy ¹¹.

According to CARDÚS Guarayús eat only one species of frog: "Las ranas no son muy numerosas, por ser demasiado perseguidas de varias clases de peces y culebras que las buscan con afán. Las pocas que hay, raras veces se oyen cantar en el agua; y cuando se oyen, regularmente están sobre los árboles, ó sobre los techos de las casas. Las de hay de varios colores, llamando la atención las amarillas y coloradas, por la viveza de su color. Hay otra de color negro por encima, grande, pero con la boca larga y tan angosta, que parece un pico; y sus ojos son como perdigones muy pequeños, que ni parecen ojos: esta es la única clase que los guarayos comen, y dicen que es buena, á pesar de su repugnante aspecto ¹²."

From Chaco we have as well positive as negative information. Chiriguano do not eat frogs, "they are eaten only by Toba and other barbarians" ¹³.

Chamacocos do not either eat frogs but insult the neighboring tribes by saying that these do it ¹⁴. Kaskihá explained to BALDUS that they did not eat toads, snakes, or horses, but that on the other hand Lenguas did this ¹⁵.

There may be plenty of frogs without the Indians using them for food. In DOBRIZHOFFER's description of the land of the Abipones he says for instance: "At the end of the amphibious crew come frogs and toads, which swarm in all the rivers, lakes, and marshes, and even the very plains of Paraguay. But what is their use, what their occupation? They go on singing their old complaint in the mud, though in Paraguay they have nothing to complain of; for not being reckoned amongst the number of eatables, and being entirely excluded from the kitchen, they are neither desired nor attacked, and consequently live in the completest security. To destroy the race of frogs, I had long wished that the voracious Indians would take it into their heads

⁸ *Histoire d'un voyage etc.*, t. I, p. 163.

⁹ *Zwei Jahre unter den Indianern*, t. I, p. 251. — "Zum erstenmal aß ich hier (Urubú-Lago) Froschschenkel. Die Indianer, die große Liebhaber von Fröschen sind, fangen sie in Menge, spießen sie lebend auf einen Stock und legen sie wenige Minuten in das Feuer, bis alles Schleimige der Haut verkohlt ist. Auch werden sie so, wie sie sind, gekocht. Die Suppe sieht etwas grün aus, schmeckt aber recht kräftig."

¹⁰ G. BOLINDER: *Die Indianer der tropischen Schneegebirge*, p. 44.

¹¹ E. W. MIDDENDORF: *Peru*, t. III, p. 147.

¹² *Las Misiones Franciscanas etc.*, p. 395.

¹³ B. DE NINO: *Etnografía Chiriguana*, p. 42.

¹⁴ BALDUS: *Indianerstudien im nordöstlichen Chaco*, p. 36.

¹⁵ *Ibid.*, p. 40.

to eat them, for whenever we slept in the open air by the side of a river or lake, we were exceedingly annoyed by their croaking¹⁶."

I do not know of any prohibition against eating frogs at any particular occasion among the South American tribes. On the other hand we find in North America an example of this among the Cherokee who eat a number of smaller species of frogs and now and again even the bullfrog, "but the meat is tabooed to ball players while in training, for fear that the brittleness of the frog's bones would be imported to those of the player"¹⁷.

Similar ideas may of course also in South America be the reason why in a certain tribe frogs are not eaten although they are found in great numbers. Naturally all species are not suitable as food for human beings.

II. Use of the poisonous exudate of the frog, and the conception of the animal as venomous, for instance in magic.

A. For arrow poison and good luck in hunting.

In Indian folk-lore frogs are often held to be most venomous animals. As to the frogs of South America there is good reason for this belief, since certain species possess a venomous exudate secreted by the skin. The Indians understand how to make use of it for instance for poisonous arrows. In South America arrow-poison made of frog secretion seems to be centred in the Chocó district of Colombia. According to LEWIN this territory extends west of the province of Antioquia from the point of the western Cordillera de los Andes to the Pacific between 4° and 9° n. lat., a district inhabited by Chocó and Cuna Indians¹⁸.

The frog species in question is *Phyllobates bicolor* var. *toxicaria*, also called *Phyllobates chocóensis*¹⁹. It is a comparatively small form having a length of 98—100 mm by a breadth of 12—15 mm and living in the warm valleys of the Cordillera. When the Indians have caught a frog, which by no means is an easy task, they hold it close to a fire. The heat makes a milky, slightly yellow secretion flow, sufficient for the poisoning of 50 arrows. The Indians do not know of any antidote to the *Phyllobates* poison²⁰.

It may be of interest to compare LEWIN's statements with those of the literature treating of this region. As early as in 1607 the "Descripción de Panamá y Su Provincia sacada de la Relación que por Mandado del Consejo hizo y embió Aquella Audiencia" says: "Hay muchos y muy grandes sapos; no muerden, pero golpeados sudan por cima el cuero un çumo blanco como leche, que venido o comido es mortal"²¹. HERRERA gives an account of the

¹⁶ DOBRIZHOFFER: *An account of the Abipones*, vol. I, p. 307.

¹⁷ MOONEY: *Myths of the Cherokee*, p. 306.

¹⁸ L. LEWIN: *Die Pfeilgijte*, p. 426.

¹⁹ KRICKBERG: *Amerika*, p. 342, says the poisonous batrachian used by the Chocó Indians is *Bufo marinus*.

²⁰ LEWIN, *op. cit.*, p. 428—431.

²¹ *Colección de libros y documentos referentes á la Historia de América*, t. VIII, p. 158, Madrid 1908.

preparation of poison in a chapter treating of the Indians on the Urabá. There are many more ingredients beside frogs in the poison:

"Sus Arcos los sacaban de Palmas negras, madera durisima, de vna braça de largo, i otras maiores, con grandes, i agudas Flechas, vntadas con veneno, que era imposible no morir, al que hacia sangre, aunque no fuese mas de como vna picadura de Alfiler; de manera, que pocos, ò ningunos de los heridos con esta lerva, dexaban de morir.

Hacian los Indios la lerva, de ciertas raices de mal olor, pardas, que se hallaban en la Costa de la Mar, i quemadas en vnas Caçuelas de barro, hacian pasta con Hormigas mui negras, de el tamaño de Escarabajos, tan ponçoñosas, que de vna picada dñan tan gran dolor, que privan à vn Hombre de sentido. Hechaban Arañas grandes, i Gusanos peludos, largos como medio dedo, que picando, dñan el mismo dolor que las Hormigas; i las alas del Murcielago, i la cabeça, i cola de vn Pescado de la Mar, dicho Taborino, mui ponçoñoso: Sapos, i colas de Culebras, i las Mançanillas de los Arboles, que parecen à los de Castilla. Hechadas estas cosas, con mucha lumbré, en el Campo, apartado de las Poblaciones, hacian cocer la pasta en ollas, por mano de algun Esclavo, ò Esclava, hasta ponerla en la perfeccion que havia de tener, i de el bao, i olor de aquellas cosas ponçoñas, moria el que lo perfeccionaba ²²."

In his report from the province of Caracas, the Governor JUAN PEMINTEL says "bivoros sapos" are used in making a dangerous arrow-poison, another ingredient of which is mançanilla. "But he (sc. PEMINTEL) states that the poison prepared from mançanilla alone is not very dangerous, the dangerous effects being attributed in his opinion to the admixture of other ingredients, such as snakes, frogs, spiders, and the menstruation of women ²³."

Later statements confirm the use of frogs for preparing arrow-poison in Colombia. The Swede VON GREIFF in his diary written during a journey in Colombia at the beginning of the nineteenth century, partly published in Sweden, states that the bears living in the hills were shot by the Indians with blow-guns and arrows smeared with a vegetable poison as well as with the poison of a frog. The preparation of both kinds of poison was a secret. Their effects were instantaneous ²⁴.

FELIPE PEREZ speaks of two kinds of arrow-poison from Chocó, curare and a frog poison ²⁵. Also ARANGO C. in his memoirs of the grave robberies at La Hoya del Quindío treats of frog poison. He begins by telling us that in the neighbourhood of El Espejo he found 30 "flechas de macana" tied up in a bundle with a string of agave. The Indians used poisoned arrows in hunting as well as in war. "Los indios acostumbraban sacarle el pellejo a

²² ANTONIO DE HERRERA: *Historia General etc.*, decada primera, t. I, p. 202.

²³ NORDENSKIÖLD: *Comp. Ethnographical Studies*, vol. 3, p. 56, *cit.* PEMINTEL.

²⁴ *Lunds Veckoblad*, No. 22, Lund 1827. — "Björnar finnas äfwen uppåt bergen, och skjutas ofta av indianer med deras blåsrör, hwilka äro gjorda på wanliga sättet och lindade med bast, hålla vanligen 4 à 5 Varås i längd (6 svenska alnar) och pilar, som de dels överstryka med ett vegetabiliskt gift, dels med giffet af en groda. Beredningen av båda sorterna hålles hemlig och deras werkan är ögonblicklig."

²⁵ FELIPE PEREZ: *Jerografía física i política del Estado de Antioquia*, p. 95. — "...Las flechas o virotos de la bodoquera son de un palo blanco, bien pulido i delgado, cuya punta empapan en veneno i cuya cabeza envuelven en algodón a fin de llenar el calibre de la bodoquera. El veneno que usan es de dos clases: el *curare*, o zumo de un bejuco que se encuentra en abundancia cerca de Anzá i Quinua; el segundo lo sacan de una rana pequeña i amarilla."

algunas ranas, estando vivo el animal, sacándole la piel por encima de la garganta; después de esta operación tan bárbara largaban al pobre animal para que se fuera a echar nueva piel para luego volverlo a desollar o para que procreara ²⁶." The skin of the frog was put in the vessel in which the poison was mixed, but evidently ARANGO is not positive about the skin of a frog alone having those fatal effects since he adds "y quién sabe qué otro veneno lo echaban". Furthermore ARANGO states that when a game was struck by a poisoned arrow, the poison spread throughout its body, but when the animal died and the body was cold it returned to the wound, thus allowing the Indians to use the meat when they had removed the piece surrounding the wound (*op. cit.*, p. 155).

The importance of the frog as a provider of poison to the Cuna Indians may also be gathered from the picture writings of this tribe. We have for instance the "*Náybe-ina*", a medicine song against snake-bite, in which the secretion of the toad, "*la glandula del sapo*", repeatedly is mentioned. A frog or a toad is drawn in the picture writing ²⁷. The Cuna Indian RUBÉN PÉREZ KANTULE has explained the meaning of what is said in the song about the exudate of the frog. According to PÉREZ the Cunas hold the belief that the venomous snakes receive their venom from a certain toad called *nō*, and a snake having just swallowed such a toad is believed to possess plenty of venom, but gradually its power decreases after the repast.

For the present I was unable to make sure if there are other Indian tribes than those mentioned above who use arrows poisoned with frog secretion. Certainly LEWIN describes an arrow-poison from the Pah-Ute Indians of western Nevada for which a horned frog crushed by stamping is used, but this animal is not poisonous and may be added for magical purposes only ²⁸.

The meaning of a statement made by SOARES DE SOUZA referring to the Bahia district of the Brazils is not clear. He says: "The Indians call the toads of Spain which do not differ from the others, '*cururús*'. They do not bite and are harmless, but when dead they are dangerous, since their gall together with their liver and their hide make a terrible poison which the heathens use when they wish to kill somebody ²⁹." To me it seems likely that in this case the arrow-poison is not derived from frogs. I rather think that the use of the frog has a magical purpose here.

From various statements found in tales we know that the Indians of South America believe in venomous toads and frogs, and always it is their secretion which is considered to possess poisonous qualities. NIMUENDAJÚ

²⁶ ARANGO C.: *Recuerdos de la guaquería en el Quindío*, p. 155.

²⁷ NORDENSKIÖLD: *Picture-Writings etc.*, Comp. Ethnogr. Studies, vol. VII: 1, p. 25—48, pl. 1—2.

²⁸ *Op. cit.*, p. 411.

²⁹ *Tratado descriptivo do Brazil em 1587*, p. 266. — "Chamam os indios cururús aos sapos de Hespanha, do que não tem nenhuma differença mas não mordem, nem fazem mal, estando vivos, mortos sim, porque o seu fel é peçonha mui cruel, e os figados e a pelle, da qual o gentio usa quando quer matar alguem."

for instance quotes the following tale from the Sipáia Indians about a jaguar, a toad, and a woman:

A jaguar attacked and killed some Cutia women who had gone into the forest to eat fruit. A single woman escaped with her child and arrived to a high tree where the toad *Ari* lived in a hole. He received the woman. Later the jaguar appeared claiming the woman. The toad advised him to mount and take her himself. "*Ari* ging unterdessen zu seiner Frau hinein und ließ sich von ihr etwas Milch in seiner Cuia geben." When the jaguar came near the entrance the toad pored the liquid over his head. It burnt his eyes, he let go his hold, fell to the ground and died. The Cutia woman then wanted to leave but was invited to stay on. Every day *Ari* went to the shore of a lake bringing a bowl with milk with which he killed several kinds of waders by squirting the liquid into their eyes ³⁰.

NIMUENDAJÚ also states that the Tucuna Indians believe that the ashes from a toad are poisonous. *Dyoi*, the first ancestor of the Tucunas and his brother *Ipi* meet in the forest the *Ukai* demons who have just returned home to eat. "Die beiden warten, bis sie wieder in den Wald gegangen sind und vergiften dann das Trinkwasser in dem Topf der *Ukai* mit der Asche einer Kröte. Gegen Abend kommen die *Ukai* durstig zurück, trinken von dem vergifteten Wasser und fallen einer nach dem anderen tot nieder. Nur der letzte wird mißtrauisch und entflieht ³¹."

In Guiana we also trace among the natives the conception of the frog secretion being poisonous. Here it is believed to have the power of making a man a lucky hunter. ROTH quotes several authors who state that the Guiana Indians used to make a wound into their own chest and rub it with the back of a toad ³². Furthermore he quotes an Arawak tale about a woman who taught her husband how to become a lucky hunter by means of an *akura* frog, "and when they had found the nest she introduced some of the spawn into his ears, eyes, nose and mouth. This burned him terribly, and made him vomit, so much so that he was obliged to roll about in the sand to ease the pain" ³³. In another Arawak tale it is *Adaba*, a frog living in trees, who gives a man luck in hunting by teaching him a special trick in using his bow and arrows ³⁴. In Warrau tales it is the rain frog *Wau-uta*, who teaches a man how to become a lucky hunter ³⁵.

In the excellent collection made by THULIN in the Roroima district, now kept in the Gothenburg Museum, there are some so called "nose cleaners" from the Patamona, the Arecuna, and the Macusi Indians (G. M. 12. 1. 256., 381). These are used to make a man a lucky hunter, and it is interesting to learn that certain frogs are used for these nose cleaners. With the kind permission of the collector I shall quote his diary from 1912 which has not yet been published in full. The statements were made by the Arecuna

³⁰ NIMUENDAJÚ: *Bruchstücke aus Religion und Überlieferung der Sipáia-Indianer*, p. 388.

³¹ NIMUENDAJÚ: *Besuch bei den Tukuna-Indianern*, p. 190.

³² ROTH: *An Inquiry into the Animism etc.*, sect. 228.

³³ *Ibid.*, sect. 229.

³⁴ *Ibid.*, sect. 145.

³⁵ *Ibid.*, sect. 144.

medicine man *Jeremiah* of Kamaivajeuang on the 4th of July 1912. "Sometimes an Indian before going out shooting will use some strange means, so-called '*bina*', to secure good luck in hunting. A string of fibre, '*unakisi*', here and there provided with small tufts of the same material, is entered into the nose and pulled through the throat and the mouth. To make the nose cleaning more efficient the *unakisi* is dipped in the sap of certain leaves, '*moulang*', or in the blood of the following frogs: *tut-ue*, small, brown; *kono-pási*, small, black with red spots; *kúna-ua*, somewhat greater, green; *pa-ku-ku*, small, green; *uělei*, small, brown; *arũko(k)* small, green. The skin of the following frogs will be pulled through the nose with a string of iteh bast: *pa*, small, yellow with black spots; *ambak*, small, brown. This kind of nose cleaning is considered as an excellent cure for indispositions in general, 'when having a sour stomach' ³⁶."

THULIN tells me that if he remembers rightly he has a note from his expedition to the Caribs of the British Guianas about the use of the frog for arrow-poison, but unfortunately he was unable to find it again, thus it can hardly be accepted as a fact. It would have been very interesting to have such a record since ROTH says: "It is difficult to understand the relationship, if any, between the frog or toad, and success in the chase except on a basis of some original belief in the divinity of these batrachians, as we know to have existed in other parts of the Guianas ³⁷." This refers to the belief in the frog as a rain animal. We might perhaps simply assume that the tribes of the Guianas who are known to belief that frogs are able to give to a man luck in hunting somehow have been acquainted with the art of making arrow-poison from the frog's exudate. This may simply have been superseded by the more effective *curare*, or possibly suitable frog species were missing in the districts in question and the method had to be abandoned. It should be noticed that it is the frog secretion which gives luck in hunting, and poisoned arrows used with blow-guns must necessarily considerably increase the efficiency of this weapon.

Also among the Uitoto there seems to be a relation between frogs and luck in hunting ³⁸.

According to two Bolivian gentlemen, Mr. JOSÉ and Mr. HUMBERTO VÁZQUEZ-MACHICADO, whom I had the pleasure of meeting in the summer 1931 the Mestees also believe in the poisonous effects of toads. In the gentlemen's home at Santa Cruz de La Sierra, the Mestees had told them that toads would make a circle of their secretion round a venomous snake when the reptile was asleep. The circle prevented him from moving from the spot and he was

³⁶ Compare OTTO THULIN: *Jakt och fiske hos Indianerna*. Göteborgs-Posten, 18th of January 1930, Gothenburg. E. A. V. ABRAHAM in his article *Materia Medica Guiana Brit.*, Timehri, Vol. II, No. 1, does not mention frog medicines.

³⁷ *An Inquiry etc.*, sect. 228.

³⁸ K. TH. PREUSS: *Religion und Mythologie der Uitoto*, Bd. 1, p. 43. — "Nofuyetoma ergrieff Seelen (*homeke*) der *higinyo*-Kröten und nahm sie als Hilfsgeister (*aigadi-geina ote*)." Weiter heisst es dann noch einmal: "Bei seiner Rückkehr nahm er *higinyo*-Kröten und dann kam er nicht ohne Beute heim."

starved to death. The same idea AMBROSETTI found among the Mestees of the Pampa Central where people used a live toad against snake bite, cutting a cross in the hip of the animal and placing it on the wound. "La fe en la eficacia de este expediente se fundadose a la antipatía que media entre los sapos y los reptiles, cuenta que cuando uno de aquellos encuentra una víbora dormida, traza a su alrededor un circulo de babas, luego se pone a cantar para despertarla, pero ésta, no pudiendo franquear el misterioso cerco, se pone rabiosa, matándose a golpes contra el suelo ³⁹."

An illustration of the North American Indians belief in the poisonous character of the frog is a tale found among the Diegueños in California, who believe that the moon is a frog wanting to swallow its own venom and die since its creator, *Tu-chai-pai*, made it so ugly that everybody laughs at it. Then *Tu-chai-pai* dies and all men must die too ⁴⁰. "The slime exuding from a frog's skin", is considered by the Tlingit Indians "to be very poisonous and fatal to smaller creatures" ⁴¹, and is used for imitative-magical purposes, "to bewitch a person so that his eyes and mouth would bulge out like those of a frog" ⁴².

B) Tapirage.

MÉTRAUX in his paper "La décoloration artificielle des plumes sur les oiseaux vivants", gives a detailed account of the geographical distribution of *tapirage* in South America and states it to be an element of Arawak origin. The part which the frog plays in this strange process, the result of which is a change of colour in the plumage of live parrots, is that its blood or exudate is rubbed into the skin where feathers have been plucked out. The new feathers coming out are different in colour from the original ones. In most cases green will change into yellow. MÉTRAUX has references of frogs being used for *tapirage* from the Tupinamba at Bahia, the Achaguas on the Rio Meta, the Uaupés, the Indians on the Rio Aiary, the Indians on the Rio Oyapock, the Galibis in the French Guianas, and Mundrukú. Earlier NORDENSKIÖLD has quoted EDER's description of *tapirage* by the Mojos who used frogs for this process ⁴³. NORDENSKIÖLD quotes a statement made by the zoologist W. MARSHALL, and is of the opinion that a change of food is the cause of the phenomenon and the frog secretion of no consequence ⁴⁴. MÉTRAUX writes the

³⁹ AMBROSETTI: *Supersticiones y Leyendas*, p. 201.

⁴⁰ GODDARD DU BOIS: *The Mythology of the Diegueños*, p. 183.

⁴¹ JOHN R. SWANTON: *Social Condition, Beliefs, and linguistic relationship of the Tlingit Indians*, p. 457.

⁴² *Ibid.*, p. 470.

⁴³ NORDENSKIÖLD: *The Ethnography of South-America seen from Mojos in Bolivia*, p. 207.

⁴⁴ *Op. cit.*, p. 208: "Zoologists, however, seem to think that it is by giving the birds a certain food that the colours of the feathers are changed, and that rubbing the skin with the secretion of frogs is of no importance. It is of course quite possible that the Indians, after rubbing the skin with the secretion, give the birds suitable food, and that the latter is the real cause of the change of colour. The matter should be investigated on the spot, for there are still probably a good many Indians who have the art of altering the colour of parrots feathers."

following in this connection: "La manière de voir de NORDENSKIÖLD aurait sa confirmation dans plusieurs faits dont j'ai trouvé la mention dans la littérature. Ainsi IM THURN rapporte que les Makuš plument certaines parties du corps des oiseaux et les frottent avec du roucou, puis ils leur font boire de l'eau dans laquelle ils ont dissous un peu de cette substance colorante. On remarque qu'au bout de quelque temps des plumes jaunes repoussent sur les régions qui ont été ainsi traitées ⁴⁵." He has also consulted biological experts to learn their opinion on the matter. "Faut-il donc généraliser ces cas et assurer comme NORDENSKIÖLD que seul dans cette opération le régime alimentaire a une importance, ou devons-nous considérer les deux traitements comme également efficaces indépendamment l'un de l'autre? J'ai consulté à ce sujet l'éminent biologiste, M. le Professeur RABAUD. Il croit qu'il n'y a pas lieu de douter de nos sources. Ce qui importe, c'est de faire absorber par le tissu de la substance décolorante. Qu'on y parvienne par voie interne ou externe, le résultat est le même. Une injection sous-cutanée aurait produit un effet identique ⁴⁶."

It would thus seem as if the frog exudate had the power of altering the colour of feathers. From the statements made by other authors about *tapiage* we learn, however, that other animals also may be used for this purpose. A typical example referring to the Indians living on the Rio Aiary is furnished by KOCH-GRÖNBERG. When the feathers have been pulled out the wound is rubbed either with the fat of the *pirarara*-fish, or with a certain toad ⁴⁷. In the literature the sap of certain trees as well as some vegetable dying matters are stated to be on the same effect as the frogs which the natives use for *tapiage*. The kind of frog chiefly employed is *Rana tinctoria*, which is found all over the tropical part of America. It is for instance common in the Guianas, Venezuela, and the Brazils.

If it is a question of decolourisation or recolouring of the feathers may have been settled in the physiological literature, here the physiological interpretation is of no immediate interest. I have used the term *recolour* for the change in colour to which the feathers are subject by means of the process we call *tapiage*.

C) The frog in Indian Magic.

We are bound to admit that there is a correlation between the belief that frogs are venomous and their use in magical performances.

In his book "Indianlif", p. 98, NORDENSKIÖLD provides an example of homoeopathic or imitative magic in which the frog plays an important part. He says: "Dr. L. TRIGO, the Bolivian Governor of Chaco, told me that the Mataco bewitch an enemy in the following manner. They collect small pieces of faeces, urine, saliva, hair, and nails of their victim and put it all into the mouth of a frog. Then the animal's mouth, nostrils, ears, as well as other orifices are sewn up and the frog is hung near a fire where it will swell and

⁴⁵ *Op. cit.*, p. 189.

⁴⁶ *Op. cit.*, p. 190.

⁴⁷ *Zwei Jahre unter den Indianern*, Bd. 1, p. 84.

finally die. The person to be bewitched is believed to suffer the same painful death as the frog. The magic can only be removed by a medicine-man of greater power than the author of the magic."

Whether this ceremony is original with the Mataco is difficult to decide. In olden times frogs as well as toads played an important part in the popular belief of Europe, and the Indians have as we know adopted numerous European elements. There is a particular difficulty in severing genuinely Indian elements of this kind from the foreign ones when found among the Mestees. AMBROSETTI⁴⁸ points this out after having given numerous examples of the use of frogs and toads in the popular medicine of the inhabitants of the Pampa Central. He says: "Supongo que estas creencias no son genuinamente indígenas, en razón de existir en España otras semejantes de las que sin duda provienen, por haberlas recibido los nuestros de los inmigrantes primitivos y aun de los modernos. A mi me han contado, con la mayor buena fe, un paisano español de Pontevedra (Galicia) que en su pueblo se curan las verrugas frotándolas con la barriga de un sapo vivo, que es ensartado luego en una caña hasta secarse, desapareciendo, entonces, las verrugas."

Certain practices may be of Indian origin but in the course of time there has been an admixture of Christian ideas.

In his above quoted work AMBROSETTI tells us that the Mestees cure a skin disease by rubbing the skin with a toad. In case such an animal cannot be procured it will do to write on the pimples the following names; JESUS, MARIA, JOSEPH. The rubbing of the skin with a toad is recorded from the Chiriguano as well. BERNARDINO DE NINO states that these natives manage to cure "la erisipela", a skin inflammation, by placing toads on the sore place⁴⁹. Also CARDÚS, referring to the Guaraní, states that toads are used to cure this skin disease⁵⁰.

Further examples of frogs used in magic are provided by PAREDES and refer to Bolivia. In order to make two persons hate one another or divorce, two small birds are tied together with the hair of a cat and buried together with a live toad, or the body of a live toad is pierced and wrapped in a piece of cloth, with hair, &c. from the person who is to be bewitched, and then the animal is buried. The belief is that the person in question will feel pain in the same part of his body as the toad, and that he will die if the animal does not recover its freedom⁵¹.

⁴⁸ *Supersticiones y Leyendas*, p. 200—205, "Supersticiones populares acerca del sapo y sus numerosas aplicaciones terapéuticas".

⁴⁹ *Etnografía Chiriguana*, p. 43. — "El sapo es medicinal, se prenden vivos uno a dos de esos más grandes, con suavidad, uno tras de otro se aplican en las partes del cuerpo infectas por la erisipela y cura con toda eficacia, quedando muerto el animal, sin duda porque con su vientre frío absorbe todo el calor que el enfermo contiene en dichas partes doloridas, más de una vez he visto curar así la erisipela."

⁵⁰ *Las Misiones franciscanas etc.*, p. 396. — "Dicen que los sapos, agarrándolos y haciéndolos pasar suavemente y varias veces por encima de la inflamación, hacen desaparecer la erisipela."

⁵¹ RIGOBERTO PAREDES: *Mitos, etc.*, p. 91.

During his expedition 1904—1905 to the boundary districts of Peru and Bolivia NORDENSKIÖLD near the surface of an Indian grave at Ollachea, Peru, found a crucified frog⁵² as well as some human hair which were placed in the grave with the view of inflicting illness and death upon the owner of the hair.

Even if the Indians of our days use frogs for magical purposes after European fashion, it seems quite likely that this form of bewitching was known to them in olden times also. As early as in COBO's list of objects used in magic by the Indians of Peru, dead as well as live toads are mentioned⁵³.

In the foregoing we have seen that the skin, the exudate, &c. of frogs will be employed to cure for instance skin diseases and that the Caribs of the Guianas used it as a stimulating medicine. The conception of the frog as a medicine-woman, commonly met with in North America, does not seem to be found in South America. Of the Klamath Indians of North America, among which the belief in the frog as a medicine-woman is very strong, SPIER writes as follows: "The Frog spirit is interesting on its own account. It is conceived as a big woman and so closely associated with pond-lily seeds (*wo'kas*) as to lead to the suspicion that these are interchangeable concepts in the Klamath mind. It should be noted that the preparation of this staple is peculiarly woman's work among these people. In their mythology too, Frog figures as woman. The last association is so widespread, perhaps universal, in North America, that the only special Klamath elements in the triple association are with *wo'kas*"⁵⁴.

Another example of the belief in the frog being a medicine-woman we meet in the *Manabozho* cycle in a tale of a river from the Ojibwa Indians. "A froglike old lady" has "a rattle which she used in doctoring". "The old medicine-frog-lady told *Manabozho* all about her doctoring and medicine songs"⁵⁵.

Finally I want to mention in this chapter various Indian conceptions of the magical power of the frog.

A frog's croaking foreshows death. — PREUSS tells us that the Kágaba chase toads which enter their huts. Where the croak of a toad is heard, somebody is sure to die. The same will be the fate of the owner of a stool on which a toad has left its faeces⁵⁶.

Toads in a house were held to be foreboding evil in Peru also. "Comúnmente, cuando vían Culebras, ó solas ó trabadas, Serpientes, Víboras, Lagartijas, Arañas, Sapos, Guáanos grandes, Mariposas, Zorras y otras cosas seme-

⁵² R. M. 06. 1. 533.

⁵³ BERNABÉ COBO: *Historia del Nuevo Mundo*, t. IV, p. 138. — "Los instrumentos y materiales que de ordinario tenían para sus hechicerías, eran muelas, dientes, cabellos, uñas, conchas de diferentes maneras y colores, figuras de animales hechas de diferentes cosas, sapos vivos y muertos, cabezas de varios animales, animalejos pequeños secos, arañas vivas de las grandes y peludas, guardadas en ollas tapadas con barro; ..."

⁵⁴ Klamath *Ethnography*, p. 104.

⁵⁵ P. RADIN and A. B. REAGAN: *Ojibwa myths and tales*, p. 74.

⁵⁶ *Forschungsreise zu den Kágaba etc.*, p. 28.

jantes, creían que era mal agüero y que había de venir mal por ello á quien los vía, particularmente si topaban algunas destas cosas en su casa ⁵⁷."

Also among the Guaraní toads were believed to pretend death. RUIZ DE MONTROYA writes as follows: "Tienen por cierta observancia de experiencia, que en entrando algun venado en el lugar y no matándolo, ha de morir alguno de aquel barrio por donde escapa, y el demonio ha concurrido á veces con estas supersticiones: . . . Lo mismo tienen de los sapos, que si entre en alguna embarcacion, alguno de ella ha de morir. Yendo yo en una embarcacion con más de 20 personas, oimos todos dias arreo ruido de estos sabandijas, yo ya avisado de esta supersticion, atendí con cuidado á las acciones de los indios, los cuales se turbaron, buscaron con cuidado estos animalejos, y no se pudieran encubrir si *de facto* los hubiera, pero fué invención diabólica que por dos dias nos dió música de sapos, sin que en ninguna manera los hubiera ⁵⁸."

A parallel is found in North America. In Indian tales the frog forebodes death. MOONEY tells us that a Cherokee girl was married to a bullfrog, but her parents would not hear of such a son in law. "She told him and he went away, but when they next went down to the spring they heard a voice: *Ste'tsi táya'hust*, *Ste'tsi táya'hust*. 'Your daughter will die, Your daughter will die', and so it happened soon after ⁵⁹."

The frog as an omen to pregnant women. — "There is a frog with a spotted back which jumps well, and is known to the Pomerons Arawaks as sorukara. A pregnant woman will tickle it to make it jump, and according as it lands on its back or its belly, so will her child prove to be a girl or a boy ⁶⁰."

The frog keeps watch on treasures. — "The sculptured hill at Samaipata calls me. The strangest figures are said to be carved in the rock and great treasures to be hidden in the interior of the hill. There is a deep hole, 'una boca de mina', into which nobody dares to descend, since a frog with glowing eyes as big as plates is keeping watch over the treasure ⁶¹."

Children are named after a frog. — The Guaranis of Paraguay called a boy who was in the habit of crying, a frog ⁶². According to BERTONIO it was considered polite with the Aymara to call a girl with a diminutive of sapo, toad ⁶³.

⁵⁷ COBO, *op. cit.*, t. IV, p. 149.

⁵⁸ *Conquista Espiritual etc.*, p. 52—53.

⁵⁹ MOONEY: *Myths of the Cherokee*, p. 310.

⁶⁰ ROTH: *An Inquiry etc.*, sect. 222.

⁶¹ NORDENSKIÖLD: *Indianer och Hvita*, p. 5. No doubt this is not an Indian conception.

⁶² NICOLÁS DEL TECHO: *Historia de la Provincia del Paraguay de la Compañía de Jesús*, t. 2, p. 338. — "A sus hijos ponen nombres acomodados á las buenas ó malas cualidades que tienen: si es demasiado moreno, le llaman cuervo, y rana cuando llora con demasiado vehemencia."

⁶³ BERTONIO: *Vocabulario de la Lengua Aymara*, t. I, p. 426. — "Sapillo que suelen llamar a las niñas por donayre: *Hamppatu*, *Kayra*."

The frog is fatal to infants. — The Cuna Indian RUBÉN PEREZ KANTULE told me that his fellow-contrymen believe that if a baby who has not yet teethed should see a frog the child will not cut any teeth at all.

Navel-amulets in the shape of a frog. — In his work on the Arapaho KROEBER writes the following: "The navel-strings of Arapaho girls are preserved and sewed into small pouches stuffed with grass. These pouches are usually diamond-shaped and covered on both sides with beads. The child wears this amulet, which contains its navel-string, on its belt until it is worn out. Such amulets are found among many tribes. Among some they are worn by boys as well as girls, or two are worn by one child. Among the Sioux these amulets sometimes have the shape of horned toads. Among the Assiniboiné they are generally diamond-shaped, but less elongated than among the Arapaho. Among the Gros Ventres they are often diamond-shaped; they sometimes represent a person, but more usually a horned toad, and sometimes have the figure of this animal⁶⁴." To the Arapaho the horned toad is a good animal which they do not kill⁶⁵.

III. Conceptions based on the frog's croaking.

In fig. 1 are shown two paddle shaped objects in the collections of the Gothenburg Museum. NIMUENDAJÚ in 1927 found them in the ground at Sant' Anna on the lower Rio Içána in the north-western part of the Brazils. The natives believe these objects to originate from a frog people, "arú". In his original catalogue NIMUENDAJÚ states as follows: "Bei niedrigem Wasserstand findet man bisweilen am Ufer derartige Ruder, über deren Herkunft die heutigen Içána-Bewohner nichts Positives wissen. Da die Zeit, in der man sie findet, mit dem Auftreten dichter Flußnebel und einer gewissen Froschart (beides in der Lingua Geral 'arú' genannt) zusammenhängt, so schreiben sie sie dem sagenhaften Froschvolk der 'Arú'⁶⁶ zu, von dem sie annehmen, daß es in diesen Nebeln fluchtartig flußaufwärts ziehe. Eine ähnliche Sage über ähnliche Bodenfunde besteht auch am oberen Rio Negro." A natural sketch by IM THURN provides us with an explanation of the myth of the frog people. Describing a night in the forest he says: "One by one the Indians fell asleep. Various kinds of frogs kept up an almost deafening concert of marvellously varied croaks, some musical, some most unmusical. One imitated the beat of paddles striking in regular time against the side of a canoe after the Indian custom; and the likeness was the more deceitful because the sound alternately rose and fell gradually as though a canoe came up the river, passed the camp, and was then paddled up the stream out of ear-reach. Often and often I have lain long in doubt whether the sound heard

⁶⁴ A. L. KROEBER: *The Arapaho*, p. 54. Comp. *ibid.*, pl. VIII, figs. 5–6.

⁶⁵ KROEBER, *op. cit.*, p. 56.

⁶⁶ Compare ROTH: *An introductory study of the arts, crafts and customs of the Guiana Indians*, p. 722 (Index and Glossary): "Arawak, ... On the Pomeroon it is said that their name is from *aru*, the word for cassava, for which they are believed to have such a reputation." *Ibid.*, "Aru, Warráu name for its starch or cassava."

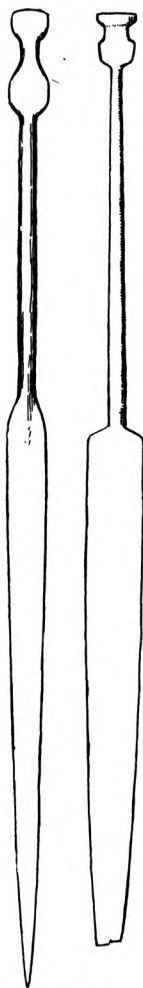


Fig. 1. G. M. 28. 1.
306. (to the left), and
28. 1. 305. 1: 7-5.

was caused by paddles or by frogs⁶⁷.” Evidently the frogs’ croaking has given birth to the idea of the “*arú*” people. DANCE who also points out the puzzling likeness of the croaking of frogs and the sound of paddles when in action, even calls the animal the *paddle-frog*. “It was about eight o’clock when we arrived at the lower grant, and the report of the riot at Buruhaar soon spread among the people, with the intimation that the men were coming down to wreak vengeance on their traitorous companion. At nine o’clock, dark night, while in my hammock, I heard with drepitation the sound of approaching paddles, fearing the probable result. The noise of paddles continued for a long time, yet the sound did not seem to approach nearer. Astonished at this, to me, remarkable occurrence, I mentioned it to one of the men, who told me that it was a croaking frog, the paddle-frog, called — from the sound it emits — *bura buraro*, of a whitish colour, and with little black spots, and eaten as food by some Indians⁶⁸.”

Some other examples of the importance attached to the frog’s croaking will be mentioned here. NORDENSKIÖLD tells the following story originating from the Chiriguano: “The Chiriguano Indians say that the frogs in the river are persons who were drowned when trying to cross the river on some stocks. The rushing stream carried the stocks away. Those who were behind began calling to those in front: ‘How are you getting along?’ At first there was an answer, but as the front party grew more and more frozen there was but an *ā* for an answer. Finally those who were behind could not cry but *ā* themselves. They were all turned into frogs and are still heard crying *ā, ā, ā*⁶⁹.”

NIMUENDAJÚ tells a flood-tradition from the Tembé Indians, of which I want to quote the end because the similarity of this tale of men calling out like frogs with that of the Chiriguano quoted above is unmistakable: “Die ganze folgende Nacht hindurch regnete es, und das Wasser stieg so hoch, daß viele Leute ertranken. Eine Anzahl Personen rettete sich auf Oaçaí-Palmen. Da sie in der Dunkelheit nichts unter sich erkennen konnten, so warfen sie von Zeit zu Zeit Früchte der Oaçaí herunter, um am Aufschlagen zu erkennen, ob der Boden trocken sei oder unter Wasser stände. Es klang aber nur immer pluk-pluk, wenn die Früchte ins Wasser fielen. Da begannen sie sich in der Dunkelheit gegen-

⁶⁷ *Among the Indians of Guiana*, p. 12.

⁶⁸ CHARLES DANIEL DANCE: *Chapters from a Guianese Log-Book*, p. 126.

⁶⁹ NORDENSKIÖLD: *Forskning och äventyr etc.*, p. 56.

seitig wie Kröten anzurufen, und das taten sie solange, bis sie selbst zu Kröten wurden ⁷⁰."

In RAMON PANE's priceless account of the folk-lore of Española there is a legend telling "how the men were divided from the women" ⁷¹, in which human beings are turned into frogs. Since the versions of PANE's text differ (his original manuscript written in the Catalan language being lost as we know), I shall here with the kind permission of Dr. SVEN LOVEN quote his manuscript "Origin of the Tainan culture", in which he shows that the Arawak islanders believe the frog to be a woman. LOVEN says: "Also in Española the frog was thought to be a woman. PANE tells us that the women in the country of 'Guanin' happened to be separated from their children by a brook, the children when 'asking for the breast' cried *Toa Toa* and were immediately turned into frogs. 'It is for this reason that in the springtime the frogs make these sounds.' ULLOA may have misunderstood PANE's text and gives *nane*, 'dwarfs', instead of *rane*, 'frogs'. The Haiti form of the word was according to him *Tona*. BRASSEUR DE BOURBOURG conjectures that in both cases the word was *Toa*, in which case it is a pun, indicating that to the natives of Haiti there is a close connection between the conceptions woman and frog. MARTYR has the word *Toa* only, which on one side should mean 'mamma', on the other be the sound that the frogs make 'in the springtime' (MARTYR-MAC NUTT, vol. I, p. 169)."

In this connection I wish to call attention to a tradition among the Arawaks in Suriname telling us that toads were turned into men: "In the beginning there was a large iron basin full of toads. They all still had tails, like the fishes. God then commanded that these toads should be turned into men, and men they became. Arawaks, of course, for no other kind of people existed at the earliest phase of the world ^{71a}."

We have seen that the sound characteristic of the frog has strongly influenced the Indians' fancy. In the foregoing I have pointed out the strong impression which this sound has made on white travellers. In the literature the frog's croaking is often compared to the roaring of calves and cows, and toads are stated to emit terrible sounds at night, &c. CARDUS describes from Mojos how he was convinced of the fact that toads are able to utter sounds similar to those of a calf, when he was staying at the missionary station at Urubichá. In a old narrative of a journey he had read about frogs bellowing like calves but he did not believe it. "Pocos dias despues de semejante lectura, sali un rato á pasear por los alrededores de la Mision; cuando cerca de una pampita oí un fuerte berrido, que por de pronto creí era de algun ternero

⁷⁰ NIMUENDAJÚ: *Sagen der Tembé-Indianer*, p. 293.

⁷¹ EDWARD GAYLORD BOURNE: *Columbus, Ramon Pane and the Beginning of American Anthropology*, p. 320—321.

^{71a} C. VAN COLL: *Gegevens over land en volk van Suriname*, p. 512. — "Aanvankelijk bestond er een groot ijzeren bekken, vol met padden. Die padden hadden allemaal nog staarten evenals de visschen. Toen zeide God, dat die padden menschen moesten worden en zij werden menschen. Natuurlijk Arrowakken, want andere menschen dan die zijn er in de eerste wereld niet geweest."

que llamaba á su madre. Siguiendo un poco más adelante, oí hácia el mismo lugar otro berrido fuerte que, sin saber por qué, me llamó la atención, por no ver vaca ninguna en dicha pampa, viniéndome la sospecha, de que tal vez el tigre estaba agarrando algun ternero. Con esta sospecha, me puse á mirar con más atención, y me fui acercando poco á poco hácia el punto de donde me pareció que había salido el berrido que yo creí muy de veras era de ternero. Me acerque, y había sido . . . un ridículo sapo⁷²."

The frog's croaking is often a characteristic element in certain Indian tales. In the same way the slow movements of the frog have given birth to miscellaneous tales of races between a frog and some other fast animal in which the slow part wins thanks to some ruse. This is a well known motive in the Old World, and tales of this type no doubt have been adopted several times by the Indians from the White, the Indians, however, having changed the foreign animals into forms well known to them and living in their own country. With the Araukans it is the ostrich, in Mexico and in North America the coyote which are the frog's antagonist, &c. Also in thoroughly Indian tales the tardiness of the frog is plainly observed, as in the Ute tale of "the transformation of animals", taken down by LOWIE. According to this tale the buffalo originally were transformed cottontails, but they were too fast to the natives who wished that frogs instead were turned into buffalo, and so it happened. "The Ute sent out a scout, who reported that the buffalo were round the spring, drinking water. The people went there. The buffalo ran away, but since they were very slow they could be killed. Now people thought it was as it should be⁷³."

IV. The frog in rain- and fertility concepts.

Among Indian tribes at varying culture stages and living under varying climatic conditions we find ideas, alike in their fundamental aspects, concerning frogs as those animals which directly or indirectly cause the rain and as a result thereof are of the greatest importance to mankind. The following composition will show that it is among agricultural tribes that the conception of the frog as a rain animal is most marked and in consequence among those Indians who live in territories with little rainfall and whose culture of course altogether depends upon the rainfall.

South America.

The most southern appearance in South America of the relation between the frog and the rain is among the Araukans⁷⁴. HAVESTADT writes: "*Marepu antù*, ranulae quas superstiosae colunt⁷⁵" and MOLINA adds the

⁷² CARDÚS: *Las Misiones franciscanas etc.*, p. 396.

⁷³ H. LOWIE: *Shoshonean Tales*, p. 14. In the same work, p. 54, there is a tale of the common type of a race between a wolf and a frog, which the frog wins by placing other frogs in the course.

⁷⁴ Compare R. E. LATCHAM: *La organización social y las creencias religiosas de los antiguos araucanos*, the chapt. "El totemismo de los araucanos".

⁷⁵ *Chilidugu sive tractatus linguae chilensis*, vol. 2, p. 712.

following to a description of a frog called *Rana arunco*: „Die Araukaner nennen ihn *Genco*, d. i. Herr des Wassers, weil sie glauben, er Sorge für die Erhaltung und Salubrität des Wassers ⁷⁶.“ In Padre DE AUGUSTA's dictionary we get still more information about the connection between the frog and the water ⁷⁷. The same author describes a feast during which clearly appears in a song that the toad is associated with the rain, which is for the moment not desired. „Go outside, toad. It is raining in the house ⁷⁸.“

The question concerning the frog's roll as a rain animal naturally becomes more complicated when we consider the Diaguita-Calchaqui territory because of the lack of mythological information from those Indians who lived within the territory at the time of the discovery. Here I do, however, wish to call attention to their agricultural culture, and also — as discussed in another connection — the earthen-ware objects from the territory portraying frogs in a posture of coition, a detail which suggests that the animal was associated with certain fertility concepts ⁷⁹. As far as QUIROGA is concerned he is convinced about the frog's roll as a rain animal among those Indians ⁸⁰. Among the mestees population one finds belief in the frog as a rain producer ⁸¹.

As regards information touching upon the use of frogs or toads among the Indians within the boundaries of the high-culture areas in the West such seems to be rather scarce. As I have pointed out at an earlier date SELER has published a Nasca jar, now at the museum of Gothenburg, with frogs, tadpoles, and demons of vegetation in the painted ornament ⁸². SELER comments upon this jar as follows:

„In der Regenzeit erwachen die Frösche, die Kröten und die anderen Lurche und machen sich durch mehr oder minder lautes Geschrei bemerkbar. Für den Menschen, der das post hoc, sed non propter hoc nicht kennt, heißt das, daß diese Tiere den Regen und damit auch Mais und die anderen Lebensmitteln bringen. Das spricht sich in zahlreichen Zeremonien und Feiern der Völker aus. So sehen wir denn auch oben in der Abbildung die Vegetationsboten vereint mit in ganzen Reihen aufmarschierten Kaulquappen, erwachsenen Fröschen und den immer noch etwas rätselhaften 'Nachtschwalben', deren Beziehungen zum Wasser und zum Regen auch in anderen Bildern sich ausspricht ⁸³.“

⁷⁶ *Versuch einer Naturgeschichte von Chili*, p. 190.

⁷⁷ *Diccionario Araucano-Español y Español-Araucano*, t. I, p. 11. — „Aremko, s. c., cierto sapo verde, rayado, a que miraban los antiguos como cuidador o señor del agua de los pozos, donde vive.“ P. 228. — „*pikei*, El sapo arrero canta, anuncia que bajará lluvia.“

⁷⁸ *Lecturas Araucanas*, p. 46, „la fiesta de las máscaras“:

„Sal fuera, sapo!
Se llueve la casa.
Un atado le falta
Para que quede techada.
(Y) ya no se llueve.“

⁷⁹ WASSÉN: *The Frog-Motive, &c.*, p. 352.

⁸⁰ ADÁN QUIROGA: *La cruz en America*, p. 222.

⁸¹ Comp. AMBROSETTI: *Supersticiones y Leyendas*, p. 205.

⁸² WASSÉN, *op. cit.*, p. 351.

⁸³ *Die buntbemalten Gefäße von Nasca etc.*, p. 313–314.

I have also in my afore-mentioned study of the frog ornamentation among the Indians of South America quoted FORBES' and BANDELIER's observations regarding rain magic among the Aymara Indians in the Lago Titicaca region⁸⁴. During this, small frog figures in stone are used. They were placed "on the top of the hills, as a means of bringing down rain by propitiating their deities". It would seem as though we have here to do with ancient rain magic at which the frog plays the roll of connecting link between mankind and the powers of rain. As we shall later see this conception is characteristic for the Pima-Nahua peoples and is strongly pronounced for instance among the Cora Indians in Sierra del Nayarit on the pacific coast of Mexico.

From CÉSAR A. MUNIZ, LATCHAM gives an example of the use among Incas of large toads for the purpose of warding off rain. The toads were threaded upon a string and then pulled through a water ditch to put off the rain⁸⁵.

When GARCILASSO DE LA VEGA, COBO, and others mention frogs among animals which in Peru played a religious roll and were offered it seems most logical to consider the frog's roll as a rain-producing animal to be the cause of its religious position⁸⁶.

Ideas about a relation between the frog and the rain may also be the reason why toads play such a distinguished roll in the *samiri* concept among the Aymara and Chipaya Indians, which was studied by MÉTRAUX during an expedition in 1930. Dr. MÉTRAUX has been kind enough to place at my disposal extracts of his original annotations about the *samiri* concept from Oruro. To illustrate how the *samiri* concept is associated with concepts of fertility I shall here quote some extracts out of these interesting notes:

"Les *samiri* sont des animaux que l'on garde chez soi et qui vous donnent de la chance. Ce sont des crapauds, des lézards que l'on tient dans de petites boîtes de verre. On les attrappe dans les champs et on les ramène vivants. On leur donne des bonbons à manger... Le *samiri* est le protecteur du village, si on le vole le village est voué au malheur. Le *samiri* protège également les troupeaux. Pour que l'assistance du *samiri* soit plus efficace, on dépose sur l'endroit consacré des amulettes représentant des bœufs, des moutons, etc... Une montagne à elle seule peut être un *samiri*. Le cerro de Potosi est un *samiri* et l'on dit qu'à son sommet il y a un crapaud... En plus des montagnes, les points d'eau, les cavernes peuvent être *samiri*. Ces *samiri*-là sont redoutables et il convient de ne pas s'en approcher, on se contente de leur faire des offrandes de loin, le yatiri lui même n'ose pas s'en approcher..."

In the notes here quoted one will notice that the word rain is not mentioned, but I repeat that it might well be the concept of the frog as a

⁸⁴ WASSÉN, *op. cit.*, p. 344, *cit.* FORBES and BANDELIER.

⁸⁵ LATCHAM: *Las creencias religiosas de los antiguos Peruanos*, p. 186, *cit.* MUNIZ: *Folklore Indígena*, Revista Universitaria. Cuzco 1926. — "Los yncas cuando hay abundancia de lluvias que ya perjudica sus sembríos reúnen a los *llactayoc* (sapos de gran tamaño) los ensartan y los arrastran por una acequia; pero la mayor parte de las veces desentierren un cadáver, ni muy antiguo ni muy reciente, y cuyo cráneo exhiben a la intemperie, con lo cual creen que cesan las lluvias."

⁸⁶ WASSÉN, *op. cit.*, p. 355, *cit.* GARCILASSO DE LA VEGA, COBO, v. TSCHUDI and others.

rain animal which entitles it to become a *samiri*, the bringer of good luck, the protector of the herds. ↑

Dr. SVEN LOVÉN, at the museum of Gothenburg, has mentioned for me that he for certain reasons, among these the fact that the Arawaks have asserted themselves also in the western highland considers the constituent *sami* of the word *samiri* to be the same as the Tainan *zemí*. For me this should be of interest in this connection as the Tainan *zemles* brought down rain. LOVÉN has however, in discussing this, stressed that the concepts about *zemí* have reached this development among the Tainos on Westindian soil and that they among True Arawaks have not developed nearly as far.

I shall however leave this to continue northwards, as far as the Kágaba Indians in Sierra Nevada de Santa Marta in Colombia, among whom we find numerous supports for the roll of the frog as a rain animal in PREUSS' voluminous collection of texts. A couple of quotations from PREUSS will serve to illustrate this: "Die Töchter der Seen werden die kleinen schwarzen Frösche genannt. Wenn diese beginnen, den Regen zu rufen, dann muß man der Mutter des Regens singen, damit es regne." Ebenso wird von den weißen Fröschen gesungen, daß sie "quaken, damit es regne"⁸⁷. The frogs are then daughters of the lakes. PREUSS remarks in this work on page 331 that the mother of rain is the lakes, "die sich angeblich mit Wasser zu füllen beginnen, bevor die Regenzeit eingesetzt hat". When the frogs begin to cry for rain one must sing to the mother of rain in order that it may fall. The songs to the frogs, in which the quaking is imitated by the singers, are only sung when rain is needed. "Im September besteht der überwiegende Teil der Gesänge direkt oder indirekt in der Fürsorge für genügenden Regen. Dazu gehört die Bitte um Regen an die Allmutter und sämtliche Gesänge an die Frösche, die Töchter der Seen, die den Regen rufen"⁸⁸.

The Kágaba also think of the frogs as living on the mountains. Thus PREUSS' translation of a Kágaba song to the little black frogs runs: "Meinem (schwarzen) Fröschchen singe ich, das oben auf meinem Tempelberge ist, des Tempelberges Hoheit"⁸⁹.

We shall now leave the Andine South America and go to the east to find out what proofs there may be for a relation between the frog and the rain, and discover that this time it is among the Carib tribes that the frog plays the roll of rain animal. "It is known that for the Chaimas, Cumanagotos, Tamanacs, and other original tribes of the Caribs, the frog was the god of the waters", ROTH writes⁹⁰. As far as Cumanagotos are concerned we turn to the statement by the Franciscan RUIZ BLANCO: "Al sapo tienen por Dios de las aguas, y por eso no le matan y suelen tener en sus casas un sapo debajo de una olla, y lo castigan y riñen cuando no llueve"⁹¹. Possibly a statement by DEPONS about Indians "sur les bords de l'Orenoque" who had

⁸⁷ PREUSS: *Forschungsreise zu den Kágaba etc.*, p. 85.

⁸⁸ *Op. cit.*, p. 110.

⁸⁹ *Op. cit.*, p. 281.

⁹⁰ *An Inquiry into the Animism etc.*, sect. 46.

⁹¹ *Conversión en Piritú (Colombia) de indios Cumanagotos y Palenques*, p. 65.

toads in clay vessels in order to secure from them suitable weather conditions may be traced to the same source place⁹². As no source is mentioned I have not been able to check DE HOSTOS' statement that similar conditions existed in the West Indies⁹³. Evidently a mistake has occurred.

In another connection I have touched upon the Carib appellation "*kono-boardu*" for the rain frog, *Hyla venulosa*. Among Warrau this frog appears as an old frog-woman, "*Wau-uta*"⁹⁴, also found in a Carib version⁹⁵. It is no doubt well-known how the Warrau version tells that *Wau-uta* through magic causes the hero, *Haburi*, a small boy, to grow fast in order to have him as her lover. *Haburi* succeeds in fleeing by tricking *Wau-uta* into a hollow tree. Thus we have the explanation why this rain frog is to be found in hollow tree trunks, &c.

In section 130 of "An Inquiry" ROTH tells the Warrau tale about the rain frog *ho-ha'ra* who was married to a hunter but returned to her people because the man's relations kept on making fun of her appearance. The man never found her again, but at the beginning of the rainy season one can always hear her.

It may prove dangerous to come into contact with the rain-frog spirits. ROTH refers to a Warrau tale about two brothers who in the wood heard voices from a drinking bout. The younger brother would not continue and declined to drink with the revellers when they in spite of this did advance. Later, when the brothers had left the place the elder brother did not notice that his legs came too near the fire. They were charred. He was forced to lie helpless in his hammock. He sharpened the shinbones and whenever a bird or smaller animal came near he stuck out his leg and pinned it on the sharp bone fragment. The brothers had happened unto *Warekki*, or the big rainfrog. About this ROTH says in a note: "These Rain-frogs are peculiar in that they make an especially loud noise at the time of the first rainy season, after which they cease"⁹⁶.

Central America, Mexico; North America.

From the Mayas in British Honduras it is known that *Chacs*, the thundergods, were associated with the rain and the frog. "The *Chacs* among

⁹² F. DEPOS: *Voyage de la Terre-Ferme, dans L'Amerique Méridionale etc.*, t. I, p. 289. — "Il y avoit aussi, sur les bords de l'Orenoque, des Indiens qui rendoient aux crapauds les hommes de la divinité. Loin de leur faire du mal, ils les gardoient soigneusement sous des pots, pour en obtenir de la pluie ou du beau temps, selon leurs besoins: et ils étoient tellement persuadés qu'il dépendoit des crapaud de l'accorder, qu'on les fouettoit chaque fois que la prière n'étoit promptement exaucée."

⁹³ *Antillean fertility idols and primitive ideas of plants fertilization elsewhere*, p. 254. — "The belief that frogs attracted rain was so firmly established in the mind of the aborigines of Santo Domingo and Porto Rico that they were in the habit of keeping frogs in their huts as rain charms. Whenever it was thought that the little creatures had failed to procure rain they were harshly beaten with sticks, in punishment."

⁹⁴ ROTH: *An Inquiry etc.*, sects. 9—17, "The Story of *Haburi*".

⁹⁵ ROTH, *op. cit.*, sect. 35.

⁹⁶ ROTH, *op. cit.*, sects. 126—128.

both ancient and modern Mayas were lords of thunder and lightning and the rains", THOMPSON writes⁹⁷; and in another connection, "the frog is intimately associated with the *Chacs*. In the *Chachac* ceremony in northern British Honduras small boys are tied to the altar, and made to croak like frogs"⁹⁸.

From San Antonio THOMPSON tells the story of a man who took service with a *Chac*:

"One day *Chac* told him to clean the house, the table and the *qaantse* (wooden benches), as he was going to make a feast and was expecting guests. The man thoroughly cleaned the house, but returning later found many frogs (*mutš*) seated on the benches. Annoyed that they had come in to dirty the place after he had cleaned it, he began to drive them out with his broom. Later *Chac* inquired if the guests and the musicians had arrived, as it was past the time for the feast. The man answered. 'No, no guests have arrived yet. The only thing was that a big crowd of frogs came into the house just after I got it all clean and tidy.' 'Well', said *Chac*, 'those were my musicians and guests'⁹⁹."

The tale shows in what connection the rain god is thought to stand to the frogs. In it we find the term *mutš* for frog. SELER writes *much*, pointing out that the same name also indicates the female sex organs¹⁰⁰. If this is true it is tempting to make a comparison with the Middle European custom that women, suffering from uterus disease and hysterical affections, as votive offerings hung up in the churches small toad figures made of iron or wax. E. BLIND, who has made a study on this subject, points out the distribution of this custom in Oberbayern, Tyrol, Kärnten, and Elsaß¹⁰¹. In Tyrol and Oberbayern the votive toads were hung in the chapel which was hallowed St. Leonhard, the saint of fertility¹⁰². Popular belief in these districts held uterus to be a living being, capable of leaving the woman's body during sleep, &c. BLIND cites quotations from classical authors, such as ARISTOTELES, HIPPOKRATES, &c. in whom the same ideas appear. In his study he further tries to find an explanation of this strange custom, for instance in the similarity between the appearance of a toad and uterus, or the odd habit in the family, *Alytes obstetricans*, the midwife frog, where the male assists at the egg-laying by winding up the strings of eggs around his hind legs. To me another explanation seems more plausible. I should rather consider the use of votive frogs as a survival of a wide-spread belief in the capacity of the frogs to produce rain, that is fertility, through their quaking¹⁰³. It would not be too bold to assume that fertility concepts have

⁹⁷ *Ethnology of the Mayas of Southern and Central British Honduras*, p. 61.

⁹⁸ *Ibid.*, p. 150.

⁹⁹ *Ibid.*, p. 146.

¹⁰⁰ SELER: *Die Tierbilder der mexikanischen und der Maya-Handschriften*, p. 696.

— "In den Maya-Sprachen von Guatemala heißt der Frosch *ixtutz*, die Kröte *xpek*. In Yucatan haben wir den Generalnamen *much*, der für Kröten und Frösche gebraucht wird und auch die weiblichen Geschlechtsteile bezeichnet."

¹⁰¹ *Gynäkologisch interessante "Ex-voto"*. Globus, Bd. 82, Braunschweig 1902. Compare also G. THILENIUS: *Kröte und Gebärmutter*, Globus, Bd. 87, 1905.

¹⁰² BLIND, *op. cit.*, p. 72.

¹⁰³ There is much in European folklore which associates the frog with sexual life. Thus, for instance, in the well-known tale by the brothers GRIMM about "Dornröschen"

formed the background for the Mayan custom of using the generic word for frog also as an appellation for the female sex organs.

The roll of the frog as rain animal among the Mayas is also treated in the manuscript material and on the monuments. For this I wish to refer to SELER's work ¹⁰⁴.

In old Mexico we again find the frog associated with rites of fertility. At the feasts for *Chicome couatl*, the maize goddess, the third and fourth yearly festival, *Toçoztontli* and *Ueiloçoztli* respectively, which occurred at the time of the sowing, the frog was used at an offering ceremony. Thus SELER writes: "Die Darbringungen geschahen in der Zahl von Fünf. Vielleicht deshalb, weil den Mexikanern die Zahl Fünf das über das Maß, d. h. über die Vierzahl, Hinausgehende, Überreichliche, Überschüssige bezeichnete. Und die Darbringungen wurden symbolisch überbracht von einem Frosch, dem Wasser-tier, der Wasserreichtum, also ebenfalls Fülle, bezeichnete. Man briet oder dörnte einen Frosch, malte ihn oben blau an, band ihm einen kleinen Weiber-rock um die Hinterschenkel und legte ihm Rohrstücke auf die Schultern, die mit kleinen Mengen der verschiedenen Arten von Lebensmitteln, die man darbrachte, gefüllt waren. In dieser Weise wurden die als Maisgottheit aufgerichteten Maisstengel in jedem Hause, in den Palästen der Fürsten ebenso wie in den Hütten der Ärmsten und Gemeinsten, gefeiert. Und darum nannte man diese Zeremonie *calonouac*, d. h. 'es liegen in allen Häusern (Darbringen)' ¹⁰⁵."

Indisputably the roll of the frog in the above described fertility ceremony is based upon the belief in it as a rain and water animal. The Aztecs thought of *Tlaltecuitli*, the earth goddess, in the form of a huge toad, even this supposedly a concept which may be traced back to definite complexes about the frogs and toads as the givers of rain and life. It is clear that we among the Nahua people as a whole may expect to find statements about the frog as a rain animal, which also proves to be the case. I suppose that the Nahua peoples brought these ideas along with them from the north and that they had them even while they were nomadic hunting tribes.

From the Cora PREUSS presents considerable material which throws light upon rain conceptions. The frog is the animal which calls upon the rain gods who live in the east, on the other side of the world ¹⁰⁶. At the sowing ceremony appeared a song about the frog, *takú*, who lives in *Tšëvintše* on the rain stone and who brings the rain gods from east to west by guile ¹⁰⁷. The tadpoles also play a roll in Cora's mythology. PREUSS includes a note from the Cora village, San Francisco. It is a song about the tadpole which is the dancing place and the whole world on which even the gods dance ¹⁰⁸.

it is described how a frog creeps up out of the water and promises the queen that she shall have a child before the close of the year, which also happens.

¹⁰⁴ *Die Tierbilder etc.*, figs. 851—857, and p. 700.

¹⁰⁵ SELER: *Die achtzehn Jahresfeste der Mexikaner*, p. 111.

¹⁰⁶ PREUSS, *Die Nayarit-Expedition*, Bd. 1, *Die Religion der Cora-Indianer*, p. LII.

¹⁰⁷ P. LXXX, and p. 226.

¹⁰⁸ P. 226.

"Die Kaulquappe (*husuxnikai*) gilt als der Tanzplatz, die Welt, auf dem auch die Götter tanzen. Daher ist sie auch für etwaigen Mangel an Essen und Trinken verantwortlich ¹⁰⁹."

The idea that the frogs sit on rain mountains in the east appears in Pima Indian songs. In "Gila Monster Song" it says:

"On the summit of white *āgiwolik*
There the green frogs are singing.
Lying near the blue storm clouds
There many frogs are singing ¹¹⁰."

and in a medicine-song:

"Blue Frog-woman met and carried me
To the cloud land in the East.
Blue Frog-woman met and carried me
To where the clouds are standing ¹¹¹."

The Pima procure rain by the help of the notched rattle. "The Pima call the notched rattle a 'rainstick' for rubbing it brings rain ¹¹²." SPIER does not tell whether the Pima associate the sound from this instrument with the frog. This is however the case among the Havasupai Indians. "The Havasupai associate this rasping sound with the frog and the production of rain. They have also a mythical reference to tearing a frog apart and thus causing a flood ¹¹³."

With the Havasupai we have come to several tribes particularly in the South-West of North America which associate the frog and the rain. A few examples may be given.

As is known, the frog-motive plays an important roll in the pottery ornamentation of the pueblo tribes. CUSHING ¹¹⁴ and other authors speak of tadpoles in the ornamentation while STEVENSON, as I have pointed out in another connection, considers them to be larvas of a water insect. That the Indians have not been unaware of the connection between frogs and their larvas is shown by the fact that a marked pueblo tribe such as Hopi have a tale about the frog in which she dies at the birth of the tadpoles. She bursts "and it was found that she was full of little tadpoles which were swarming around him" ¹¹⁵.

"The Northern Shoshoni believe that killing a frog and placing it on its back will cause rain... There is also a connection of the frog with fog and thunder suggested in a Southern Ute myth, the frog and a flood in one of the Luiseño ¹¹⁶." Among Hopi a frog in

¹⁰⁹ P. LXXX.

¹¹⁰ FRANK RUSSEL: *The Pima Indians*, p. 308.

¹¹¹ *Op. cit.*, p. 304.

¹¹² LESLIE SPIER: *Havasupai Ethnography*, p. 291.

¹¹³ SPIER, *op. cit.*, p. 291.

¹¹⁴ CUSHING: *A study of Pueblo Pottery as illustrative of Zuñi Culture Growth*, p. 518.

¹¹⁵ H. R. VOTH: *The traditions of the Hopi*, p. 189.

¹¹⁶ SPIER: *Havasupai Ethnography*, p. 291.

stone is used at the typical fertility ceremonies which these agriculturalists hold at winter-and summer-solstice. "The only fetish employed is a rude stone frog, over which is stretched a string extended along a line of meal on the floor, symbolic of the pathway of blessings ¹¹⁷." The *Maidu* hunt the frogs to procure rain ¹¹⁸. In that world which the *Navaho* imagined to be the first, *Tcal*, the frog, sat in a house of blue fog in south and a water monster lay at the door opening ¹¹⁹. Among the *Nez-Percé* or *Sahaptin* a tale portrays the frog as a widow who is badly treated and in revenge drains the river for mankind by laying down on its source and preventing the water from running forth. Coyote, however, succeeds by quile in securing the water for mankind again ¹²⁰. To a certain degree this tale reminds one of an *Irokes* myth in which *Ioskeha*, the good culture hero, secures water for mankind by punching hole in the side of a giant frog the which his evil brother, *Tawiscara*, had created and which had swallowed all the water from mankind ¹²¹. In a myth about the toad and the moon from *Cœur d'Alènes* is told how the moon got the spots in his face. It was the toad who could make the "heavy rain, which penetrated everything" to fall, who jumped up into his face ¹²². *Klamath*, in south-western Oregon, who live in a land of marshes and small lakes, according to *SPIER* associate the frog and the rain ¹²³.

V. The Frog-Motive in Indian astral mythology.

Of the conception of a frog or a toad in the moon which is universal in North America and not unfamiliar in the Old World, there is as far as I am aware but a single reference from South America, viz. Carayá on the Rio Araguaya, EHRENREICH stating that here "die Mondflecken sind 'Kröten' (*kräu*)" ¹²⁴.

In his well-known work on the South American myths and legends this author interprets the Carib and Warrau tale of the rain frog *Wau-uta*, mentioned in chapter IV of this paper, as an astral myth in which the contrast between the full and the new moon is illustrated by the flight of the culture hero *Haburi* or *Aboré* from the old frog woman. "Wowte nimmt später wieder Froschgestalt an, d. h. erscheint wieder als Vollmondscheibe. Der schnell wachsende und auf dem Himmelssozan zu Schiff (Sichel des Neumonds) dahinsiegelnde *Aboré* repräsentiert dagegen die Reihe der Phasengestalten ¹²⁵." It may be questioned if EHRENREICH's interpretation is correct. At all events I think it would be too rash to use it to prove that the above mentioned tribes see a frog in the moon.

¹¹⁷ FEWKES: *Hopi Kacinas drawn by native artists*, p. 31.

¹¹⁸ SPIER: *Havasupai Ethnography*, p. 291.

¹¹⁹ MINDELEFF: *Navaho-Houses*, p. 488.

¹²⁰ SPINDEN: *Nez Percé Tales*, p. 187.

¹²¹ BRINTON: *American Hero-Myths*, p. 55.

¹²² JAMES A. TEIT: *Cœur d'Alène Tales*, p. 123.

¹²³ *Havasupai Ethnography*, p. 291.

¹²⁴ EHRENREICH: *Beiträge zur Völkerkunde Brasiliens*, p. 45.

¹²⁵ *Mythen und Legenden etc.*, p. 36.

Nor does KUNIKE prove that in Peru and among the Quimbayas the frog is connected with the moon. He says: "In Südamerika finden wir gleichfalls Frosch oder Kröte in Verbindung mit dem Monde gedacht. Die zweiköpfige Kröte der *Huaro-chiri*-Legende in Peru ist hier zu nennen, ebenso die Kröte im Monde bei den Karajá. Die Quimbaya Kolumbiens sahen nach Ausweis von Altertümern offenbar auch ein solches Tier im Monde. Bei einem ihrer goldenen Schmuckstücke ist eine Kröte mit einer Mondsichel verbunden ¹²⁶." He does not state how the frog is connected with the moon, nor does he mention which *Huaro-chiri* legend he refers to. Possibly he means the myth of the two antagonists *Uallallo* and *Pariacaca* ¹²⁷ which according to Tschudi are identical with two volcanos in the Coast Cordillera. In this myth there is a two headed toad under a grind stone. This was lifted off and "eine Kröte mit zwei Köpfen sprang darunter hervor; sie hüpfte nach einer Quelle, die nahe Anchicoacha entspringt, wo sie noch heute leben soll und bewirkt, daß diejenigen, die nach der Quelle gehen, den Weg verlieren, in Wahnsinn verfallen und sterben" ¹²⁸. If the golden piece of jewelry of the Quimbayas rightly should be interpreted as a new moon I cannot decide.

Among the Uitoto Indians we meet with a tale of the moon and the *hanai*, the common word for supernatural beings in general. The moon is a woman. The *hanai* may be frogs, and every night they eat of the moonwoman but in day time they put her together again ¹²⁹.

There is not much to be added about the frog in the astral mythology of South America. Seldom it is associated with the stars. As far as I am aware the Kobéua idea of the Milky Way being a frog is unique not only in South American astral mythology but in Indian mythology in general. A Kobéua Indian on the Rio Cuduiarý who drew various constellations to Koch-GRÜNBERG drew the Milky Way in the shape of a big frog ¹³⁰.

TESCHAUER reproduces a tale from the Macuchi on the Rio Branco in which the frog is connected with the constellation of *Epepim*, vic. Orion:

"Ein Mann mit Namen *Peschiosso* heiratete eine Frau Frosch, genannt *Ueré*. Eines Tages wurde der Mann sehr aufgebracht gegen seine Frau, da sie immer schrie: 'Qua! Qua! Qua!' Er wurde ihrer überdrüssig. Darauf, erzählt man, schnitt er ihr ein Bein ab, das mit Genipapo bemalt war, und er nahm es und warf es in den Fluß. Sogleich verwandelte es sich in den Fisch *Surubim*, und der Körper stieg auf zum Himmel, um sich mit ihrem Bruder *Epepim* zu vereinigen ¹³¹."

I know but a single example from South America of the frog being connected with the sun. It is an Ahuaruno (Awahun) tale of the sun having

¹²⁶ HUGO KUNIKE: *Zur Astralmythologie der nordamerikanischen Indianer*, p. 72.

¹²⁷ KRICKEBERG: *Märchen der Azteken und Inkaperuaner etc.*, p. 257.

¹²⁸ KRICKEBERG, *op. cit.*, p. 261.

¹²⁹ PREUSS: *Religion und Mythologie der Uitoto*, t. 1, p. 37.

¹³⁰ KOCH-GRÜNBERG: *Anfänge der Kunst im Urwald*, pl. 56, fig. g, p. 62. — "Die Kobéua nennen die Milchstraße '*máuma*' ('Froschweg'; *umáua* = Frosch, *má* = Weg) und vergleichen sie mit einem dichten Zug kleiner Frösche, wenn diese von dem Ort ihrer Entstehung in Masse auswandern, um sich eine andere Heimat zu suchen."

¹³¹ TESCHAUER: *Mythen und alte Volkssagen aus Brasilien*, p. 737.

several frogs for his wives¹³². Later on examples from North America of the idea of the sun having a frog wife will be given.

In an Arecuna myth published by KOCH-GRÜNBERG the sun makes its appearance when the frog has played its part. The myth explains the reason why all men must grow old and ugly: their forefather broke his word to the sun¹³³. The motive in the beginning of the tale, a man insulting a frog after which he was brought to an island, recurs in BRETT's "Bahmoo and the frog" (*Legends and myths etc.*, p. 167). The man could not return from the island, and thus different races arose¹³⁴.

The frog the cause of eclipses. — It is a common belief among the primitive races that an eclipse of the sun or the moon is caused by some animal, or monster which swallows the celestial body. Several Indian tribes attribute an eclipse to the frog. It would seem that in South America the frog does not play this part, if not the Uitoto tale of the *hanai*-frogs which eat the woman-moon is a legend of this kind. The southernmost place from which this motive seems to be recorded is the Isthmus of Panama. The Cuna Indians have special miniature arrows and bows which are used by albinos to shoot at the dark celestial body in order to frighten the animal which attacks it. The Cuna Indian RUBÉN PÉREZ KANTULE in his comments to the Cuna collection in the Gothenburg museum says the following of this kind of arrow (G. M. 27. 27. 1335): "Flechita '*siku*' que usan los indios blancos o blancas en tiempo de eclipse de la luna ó del sol. Según dicen que el eclipse es la causa de la devorada de la luna ó sol por el dragón ó una rana enorme. Y para ahuyentarlos los blancos tiran esas flechitas a la dirección del eclipse y así el eclipse se desaparece. Es construido por unos indios que saben hacer flechas. Usan solo los blancos y blancas. Así todos los blancos poseen estas clases de flechitas; pero ahora por la entrada de cambio de costumbres algunos dejaron de usarlas."

The idea that a frog is trying to swallow the eclipsed sun or moon we meet in North America among the Cherokee as well as other tribes. "When the sun or moon is eclipsed it is because a great frog up in the sky is trying to swallow it. Everybody knows this, even the Creeks and other tribes, and in the olden times, eighty or a hundred years ago, before the great medicine men were all dead, whenever they saw the sun grow dark the people would come together and fire guns and beat the drums, and in a little while this would frighten off the great frog and the sun would be all right again¹³⁵."

¹³² Le Marquis DE WAVRIN: *Folk-Lore du Haut-Amazone*, p. 123. — "Le soleil est un homme. Il avait des nombreuses femmes, de la famille des grenouilles (quant à leur aspect). Il vivait avec elles en bonne harmonie. Tandis qu'il était à la chasse, l'une d'elles, en voulant sauter, se blessa et se rompit la jambe en tombant d'un tronc qui bascula. Elle cria: 'How'. Elle voulut rire et dire: 'Ha, ha, Aau', comme rient les femmes; mais ne put que dire: 'How, how', comme la grenouille qui se fait entendre lorsqu'il va pleuvoir..."

¹³³ *Indianermärchen aus Südamerika*, p. 93.

¹³⁴ Compare ROTH: *An Inquiry etc.*, sect. 149, where BRETT's version is rendered.

¹³⁵ MOONEY: *Myths of the Cherokee*, p. 257.

The Maidu in California have a myth based on this motive. The sun lives in a house of ice in the North. The sun steals the children of the frog, and the frog gives chase to the sun and swallows it ¹³⁶.

The idea of the frog swallowing the sun is interesting, and my friend Dr. SVEN LOVEN has pointed out to me that possibly the same idea is found in Mexico, although not in connection with eclipses. *Tlaltecuctli*, the "earth-toad" (fig. 2), is according to SELER the symbol of the sunrise who gives up his knife of sacrifice, viz. the morning light ¹³⁷. The bowls in which the blood of



Fig. 2. The underside of a Mexican sacrificial case with a figure of the "earth-toad".
After SELER.

sacrifice is pored are adorned with toad as well as sun figures, since the soles of the sacrifices are believed to become the servants of the sun in the eastern sky ¹³⁸. To the west is the region where the sun enters into a cave, is swallowed by the mountain of *Colhuacan* or *Colhuatepec*, the mountain with the open mouth, the earliest home in the west ¹³⁹. The latter explanation SELER gives in a description of a stone monument with a relief, originating from Huitzuc in the state of Guerrero, now kept in the Museo Nacional de México. According to SELER the monument denotes the existence of a death cult. The relief on the western side of the stone ¹⁴⁰ shows the above mentioned *Colhuacan* as well as a large demon's face with wide open mouth, according to SELER a night demon. Could not this demon be a representation of *Tlaltecuctli*, the earth-toad, opening its mouth to swallow the sun? In the next

¹³⁶ ROLAND B. DIXON: *Maidu myths*, p. 76.

¹³⁷ SELER: *Ein anderes Quauhxicalli*, p. 715–716.

¹³⁸ SELER: *Quauhxicalli, die Opferblutschale der Mexikaner*, p. 709.

¹³⁹ SELER: *Über Steinkisten, Tepetlacalli, mit Opferdarstellungen*, p. 757.

¹⁴⁰ *Ibid.*, fig. 41 a.

chapter, treating of Indian fire tales, we shall see that the motive of the frog as a fire-eater has so wide a distribution that in all probability this a very old motive with the Indians.

I have already pointed out that a great number of tribes in North America connect the frog with the moon. KUNIKE in his "Zur Astralmythologie der nordamerikanischen Indianer" mentions several examples to which I direct the reader. Here I am only going to offer some points of view.

The tales try to explain the origin of the figures on the moon, the frog on the moon. A common explanation is that when the frog jumps into the face of the moon, it sticks to it, for ever. This is what we are told in the tale of the rain frog from the Cœur d'Alènes. The same explanation we meet in the following little tale from the Klamath:

"Moon had two sisters. When frog went to visit, she went into Moon's house. Moon told his sisters, 'You had better let her sleep with you'. But they said, 'No, you had better to take her'. Frog was angry at this and jumping on Moon, clung fast. Moon tried to cut Frog loose with a knife but he could not. So she is stuck fast, part of him, today. He said, 'Well, I will keep her as my wife, so that whenever Bear eats me Frog can exercise her shamanistic power to drive him away'. So they are living together today ¹⁴¹."

Other tales say that the frog was thrown into the moon's face. An example is found in KROEBER's tales from the Gros Ventre in which the moon's character of rain giver shows as well. Below I shall in a few words give the beginning of the tale:

The sun and the moon (they are looked upon as two brothers) are engaged in a dispute which woman is the prettiest. The sun takes a frog for a wife, the moon a ordinary woman. The sun and the moon are sitting in the tent with their mother. The mother-in-law as well as the moon scoff at the frog because of her clumsy gait and her habit of leaving spots of urine where she has been seated. The sun flies into a rage and flings the frog into the moon's face where it sticks. "Because you do not like her, the Frog shall always stick to your face ¹⁴²."

There is for instance among the Arapaho a tradition that the sun took a frog for his wife ¹⁴³. The motive is also found with the Nez Percé as well as an other motive, a bargain, which provides another explanation of the frog in the moon. The sun becomes a moon and the moon a sun. The former sun had asked his wife the frog to place herself on his eye, and there she is still to be seen in the moon ¹⁴⁴.

The Uinal glyph and the moon with the Mayas. — As is well known we meet on the so-called Leyden Plate, a solitary find of a jade plaque near the boundary between British Honduras and Guatemala,

¹⁴¹ SPIER: *Klamath Ethnography*, p. 141. The Klamath call an eclips "grizzly bear eats", and the Indians according to SPIER appeal to the frog, the moon's wife, to use her power against the grizzly bear.

¹⁴² KROEBER: *Gros Ventre myths and tales*, p. 90. Prince MAX ZU NEUWIED also states that the Gros Ventre saw a frog in the moon. They said she was very old and could not be killed (SELER: *Die Tierbilder etc.*, p. 699, cit. MAX ZU NEUWIED).

¹⁴³ KUNIKE, *op. cit.*, cit. DORSEY and KROEBER: *Traditions of the Arapaho*.

¹⁴⁴ H. J. SPINDEN: *Nez Percé tales*, p. 195.

the frog as a calendar sign for the 20-day period called *uinal* ¹⁴⁵. Still better than on the Leyden Plate the frog is seen in a hieroglyph for *O uinal* on Stela *D* at Copan (fig. 3) ¹⁴⁶. MORLEY represents a full-figure variant of *uinal* sign from Quirigua ¹⁴⁷ and he writes as follows: "Mr. BOWDITCH has pointed out in this connection an interesting phonetic coincidence, which can hardly be other than intentional. The Maya word for frog is *uo*, which is a fairly close phonetic approximation of *u*, the Maya word for 'moon' or 'month'. Consequently, the Maya may have selected the figure of the frog on phonetic grounds to represent their 20-day period. If this point could be established it would indicate an unmistakable use of the rebus form of writing employed by the Aztec. That is, the figure of a frog in the *uinal*-period glyph would not recall the object which it pictures, but the sound of that object's name,



Fig. 3. The frog in a hieroglyph for *O uinal* on stela *D* at Copan.
After MAUDSLAY.

uo, approximating the sound of *u*, which in turn expressed the intended idea, namely, the 20-day period ¹⁴⁸."

It remains, however, as MORLEY points out to explain the connection of the moon with the 20-day period. As far as I can see there is no such connection and to me BOWDITCH's suggestion is more acceptable that *uinal* is derived from *uini*, the Maya word for a man as well as for mankind, all the more as the vigesimal system predominates in the Maya calendar, and with a great number of primitive peoples "man" or "mankind" is the sign for 20 ¹⁴⁹. Thus it would seem that the name of *uinal* for the 20-day period and its sign, a frog, do not allow the conclusion that the Mayas saw a frog in the moon, a conclusion else not far fetched considering the likeness of the word *uo*, frog, with *u*, moon ¹⁵⁰.

¹⁴⁵ MORLEY: *The inscriptions at Copan*, fig. 65, and p. 411; GANN: *Maya Jades*, p. 276.

¹⁴⁶ MAUDSLAY: *Archaeology*, pl. 48.

¹⁴⁷ MORLEY: *An introduction to the study etc.*, fig. 32.

¹⁴⁸ *Op. cit.*, p. 71. Compare SELER: *Die Tierbilder etc.*, p. 696.

¹⁴⁹ Compare MORLEY: *An introduction etc.*, p. 41.

¹⁵⁰ Compare SELER: *Über die Bedeutung des Zahlzeichens 20 in der Maya-Schrift*, Ges. Abh. 1, Berlin 1902, p. 400-406. — P. 402, "Der Zeitraum von '20 Tagen' da-

VI. The Frog in Indian fire-myths.

In NORDENSKIÖLD's "De sydamerikanska indianernas kulturhistoria" he says on p. 36: "In the culture myths of the Indians we get acquainted with their idea of how they originally received the fire. It is always through theft. It is usually certain animals, culture heroes, who have aided them in this. The Guaráyú say that the frogs stole the fire from the vultures. For the Mataco the guinea pig stole the fire. Chané, at Rio Parapiti, relate that two boys stole the fire from an old man, the sun; and Chané, at Rio Itiyuro, say that the frog stole the fire from a wader, 'tosté'. Among the Kaingang the hero changes himself into a magpie-like bird who steals the fire from the sun. The Bakairi tell that their culture hero struck the fire out of the fox's eye."

We shall now somewhat more closely study those Indian fire-myths in which the frog plays a roll.

In South America the ideas about the frog as the assistant in procuring fire is before all common among the Tupi-Guarani tribes. It is common for this motive that men are in want of fire which is owned by some animal — usually the black vultures, "urubú". Either the frog decides by herself to help men get fire or she is urged thereto by a culture hero. Through guile the frog succeeds in getting the fire scattered for the owner and she then takes care to hide some burning coals in her mouth of which men later take advantage. Sometimes the frog owns the fire from the beginning and men get burning coals through guile.

I shall first render one of NORDENSKIÖLD's tales about the fire-robbery from the Guaráyú Indians:

"There was a man who did not have fire. The black vultures had fire.

The man bathed in stinking water and lay down with a cudgel in his hand and pretended to be dead. The vultures came and made up fire in order to eat him. He then jumped up and flung out the burning coals in the direction of the frog. The frog took a small coal in her mouth and swallowed it.

The vultures came back but the fire was dead. They then found the frog whom they suspected had stolen the fire and forced her to vomit up the fire.

The man bathed again in stinking water and lay down with a cudgel in his hand and pretended to be dead. The vultures came and made up fire in the direction of the frog. The frog took a small coal in her mouth and swallowed it. The vultures came back but all the fire was dead. This time the frog had hidden so well that the vultures could not get hold of her. Since then the Guaráyú had fire¹⁵¹."

The motive is typical for the Guaraní people. We have it from the Chiriguano where the toad before the great flood hides a burning coal in her mouth¹⁵², and among the Guaranized Chané¹⁵³. We also find this motive among the Tapiete who speak Mataco but are influenced by the Chiri-

gegen heißt in der Maya-Sprache *uinal*. Und dies Wort geht auf dieselbe Wurzel zurück, wie das gleich zu erwähnende Wort für '20', nämlich auf die Wurzel 'Mann'. LANDA unterscheidet bestimmt das Wort *u*, den Monat von 30 Tagen, und *uinal*, den Zeitraum von 20 Tagen."

¹⁵¹ NORDENSKIÖLD: *Indianer och hvita*, p. 170.

¹⁵² BERNARDINO DE NINO: *Etnografía Chiriguana*, p. 133.

¹⁵³ NORDENSKIÖLD: *Indianer i El Gran Chaco*, p. 234.

guano¹⁵⁴. That even the Chamacoco consider a toad to be the original owner of the fire most likely should be ascribed to the neighboring Guarani tribes¹⁵⁵.

Other Tupí-Guarani people who have this fire-robbery motive are the Apapocúva and the Guajajára. The Apapocúva myth is in one detail identical with the Guarani tale. The culture hero, *ñanderyquey*, makes himself ill-smelling in order to attract the vultures after having arranged with the frog, *cururú*, that she shall catch the fire in her mouth¹⁵⁶.

From the Guajajára I have no tale about the frog's fire-robbery but SNETHLAGE describes a frog dance which is of great interest in this connection since in it a pantomime is given which portrays the frog's fire-swallowing. To quote SNETHLAGE:

"Von den Tänzen möchte ich den der Kröte *Cururú* näher beschreiben, den ich in einem Dorfe der Guajajaras am Rio Grajahú sah:

Plaudernd saßen der Häuptling und ich auf einem Baumstamme vor einer Hütte. Um uns her standen Männer, Frauen, Kinder der kleinen Ansiedlung. Es war sternklare Nacht; eben warf der aufgehende Mond seinen Silberschein auf uns. Da begann mein Nachbar zu singen und mit dem Fuße den Takt dazu zu schlagen; andere Stimmen fielen ein, der Gesang schwoll an, ebte wieder ab. Pause. Wieder begann der Gesang; als er lauter wurde, erhob sich der Häuptling, tanzte einige Schritte und setzte sich wieder. Eine Riesenzigarre wurde dann gebracht, aus der er einige Züge tat. Temperamentvoller wiederholte er danach seinen Tanz, während ich die Gelegenheit benutzte, die Zigarre zu versuchen. Nicht sonderlich bekam sie mir, die Nerven der Mundhöhle wurden gleich betäubt. Doch der Häuptling benutzte jede Pause des immer wilder werdenden Tanzes zum intensiven Rauchen. Er hatte es nötig, das sollte die Folge lehren. Ein Feuer wurde entfacht, um das die rotbraunen Gesellen in völliger Berausung hupsten. Plötzlich sank der Häuptling in Hockstellung, und mit dem nachgeahmten hu, hu, hu einer Kröte hüpfte er im Feuer umher. Dann nahm er Glut, und sie im Munde anfangend, verschluckte er sie langsam. Es war aber nicht der Höhepunkt des Tanzes, denn dieser dauerte fast ohne Unterbrechung die ganze Nacht hindurch an. Und immer wiederholte sich das Hinunterschlucken der Glut¹⁵⁷!"

From the mission station, Cavinás, at Rio Beni NORDENSKIÖLD has recorded a tale about a frog-demon, "*Bururúshauva*", who owned the fire. The tale was told by a Tacana Indian from Tumupasa. An old man and an

¹⁵⁴ *Ibid.*, p. 289.

¹⁵⁵ HERBERT BALDUS: *Notas complementares sobre os indios Chamacocos*, p. 525. — "A lenda da origem do fogo é igual entre todas as tribos Chamacocos. *Popeteab*, a filha do bufo, tinha a fogo. O caracará, *Armetérha* (*Polyporus tarus*) quer roubar-o. *Popetata*, a mãe dos bufos, atira-lhe a flecha ao peito. Depois de varias tentativas elle conseguiu roubar o fogo e o dá a seu irmão menor, o quiri-quiri *Krikered* (*Tinnunculus sparverius*). Este traz o fogo aos Chamacocos, quer dizer, mostra-lhes a maneira de o conseguir por meio de dois pauzinhos."

¹⁵⁶ NIMUENDAJÚ: *Die Sagen von der Erschaffung und Vernichtung der Welt als Grundlagen der Religion der Apapocúva-Guarani*, p. 396 (XXVI—XXVIII). NIMUENDAJÚ's note is from Araribá in São Paulo where the scattered Guarani people thanks be to the deserving work of this able investigator of Indian culture, have been gathered on a reservation. During a visit among these Guarani BALDUS learned that St. Petrus had received the fire from God but that he would not give it to them. Fortunately a toad swallowed a spark and thus the fire came to the Guarani. (BALDUS: *Indianer-Studien im nordöstlichen Chaco*, p. 213.)

¹⁵⁷ H. SNETHLAGE: *Reise durch Nordostbrasilien*, p. 468.

old woman who lived alone in the woods happened to go astray. Their fire-sticks were wet from the rain. They could not get any fire and they were very hungry:

"The went to the frog-demon, '*Burúruishauva*', who lived near by and asked her to give them fire. The frog would not give any fire. They said they were very hungry. At last the frog gave them a small coal after they had promised not to give fire to anybody else.

'If you give away any of the fire I will come and put out the fire with my urine', said the frog. Now they had fire. Over it they placed a big jar.

One day they went to the old man's brother-in-law. Then a couple of boys took the opportunity to steal some fire. When the frog saw that they had stolen of the fire she became very angry and jumped to the old man's and the old woman's cottage and put out their fire with her urine. When they came home they had no fire. The old man went to the frog and asked her to give them fire, but she would not give them any fire because they had not guarded that fire well which she had given them. He offered her the leg of a wild boar for the fire but she would not give any fire. Then the old man took a cudgel and killed the frog. He then went to find fire somewhere else and met a man.

'Why did you kill the frog? She will come back and avenge herself', said the man. Then he taught the old man to make fire with willow-leaves, bamboo, and cotton."

The tale then goes on to tell how the frog in the shape of a big woman comes back to eat the old man, but is killed anew. Thereafter the frog is caught in the shape of a big fish but changes back to frog-shape when the frying sets in. Finally she lets her water in the old man's *chicha* and both the old man and the old woman die when they drink thereof ¹⁵⁸.

Another Tumupasa Indian in Cavinasa told a similar story about the frog who kept the fire in a jar and would not share it with men. Two boys who were permitted to roast their corn cobs at her fire finally succeeded in stealing the fire for men by carrying along with them some coals hidden furthest back in the placenta. The frog tried to put out the fire with her urine ¹⁵⁹.

That the frog-woman owns the fire and guards it as her secret is a story-element which also appears in Warrau- and Carib-tales. ROTH tells about a culture-hero story "the Sun, the Frog, and the Firesticks", in three variants from Warrau, True Caribs and Macusi ¹⁶⁰. Interesting in this connection is that two twin-brothers, the culture heroes *Makunaima* and *Pia*, are brought up by *Nanyobo*, "a big kind of frog, a very old and very big woman". She takes good care of them, makes their food, &c., but the brothers cannot understand how the woman gets fire as they never see her make up any:

"As a matter of fact, she would vomit fire out of her mouth, do her cooking, and lick the fire up again before the lads' return; she apparently never had a fire burning for them to see. The repetition of this sort of thing day after day made the boys suspicious; they could not understand how the old lady made here fire, and accordingly determined to find out. On the next occasion that they were despatched to bring firewood, one of them, when at a safe distance from the house, changed himself into a lizard, and turning back, ran up into the roof whence he could get a good view of everything that

¹⁵⁸ NORDENSKIÖLD: *Forskningar och äventyr i Sydamerika 1913-1914*, p. 467-470.

¹⁵⁹ *Ibid.*, p. 502-504.

¹⁶⁰ ROTH: *An Inquiry into the Animism and Folk-Lore of the Guiana Indians*, sections 29-41.

was going on. What did he see? He not only saw the old woman vomit out fire, use it, and lick it up again, but he watched her scratch her neck, whence flowed something like *balata* (*Mimusops balata*) milk, out of which she prepared starch. Sufficiently satisfied with what he had witnessed, he came down, and ran after his brother. They discussed the matter carefully, the result of their deliberations being summarized in the somewhat terse expression, 'What old woman do, no good. Kill old woman'. This sentiment was carried into execution. Clearing a large field, they left in its very center a fine tree, to which they tied her; then, surrounding her on all sides with stacks of timber, the boys set them on fire. As the old woman gradually became consumed, the fire which used to be within her passed into the surrounding fagots. These fagots happened to be *hima-heru* wood, and whenever we rub together two sticks of this same timber we can get fire ¹⁶¹."

In the version from True Caribs nothing is said about the frog owning the fire, only the cassava. In the Macusi version which ROTH cites after DANCE we once more find the frog-woman as the owner of the fire.

In certain traits this fire-myth appears identical with the tale recorded by NORDENSKIÖLD in Cavinás from the Indians in Tumupasa. Common for them is that it is a frog-woman who has the fire, that two boys get hold of it, and that they burn up the frog-woman.

In a note attached to the Warrau version ROTH says: "I find it to be well known among the Indians that certain kinds of frogs, after dark, can be made to swallow glowing embers, which are them probably mistaken for various luminous insects ¹⁶²." The motive built over the frog's fire-eating should then be based on a nature-study which seems credible, considering the large number of luminous insects which exist in the tropics. Even EDER mentions this in his *Mojos* description. He writes that after rain innumerable toads (*Bufo*) appear, "but as they are not poisonous they cannot hurt anybody but are rather apt to be useful. During the night when the heat makes it impossible to keep the doors closed they come in in flocks and clean the house from insects by sniffing about in all angles and corners. During this hunt they now and again jump up against the wall as high as a yard to tear down the prey. But this useful occupation they couple with great disadvantages. Desirous of heat that they are they jump up into the beds of those who are sleeping and press themselves so close into their bodies that they are crushed by their weight. They also manage, with a truly extraordinary cleverness, to put out that fire which it is customary to have burning in the night to keep away mosquitoes or keep tigers off. For (something the author did not believe until he had seen it himself several times) with the same 'growling' sound which they usually utter when thrown into the water they lick off the burning coals".¹⁶³.

¹⁶¹ *An Inquiry &c.*, sect. 34.

¹⁶² *Op. cit.*, p. 133.

¹⁶³ FRANC. XAV. EDER: *Descriptio provinciae moxitarum in regno Peruano*, p. 196.
— "Cum pluvia serenae aliquot dies excepit, emergit innumerabilis Bufonum exercitus, tantaque coactione verberat aures, ut ea vel antiquiores regiones incolas in stuporem det. Sunt nostratibus plerique majores, ita ut interdum pileus unicum non capiat: cum tamen veneno careant, nocent nemini, immo profunt etiam. Nam cum aedium januae propter calorem claudi noctu haud possint, turmatim ingrediuntur, et eas ab insectis, angulos

EDER's information that the toads were supposed to eat burning coals may well be considered somewhat too fanciful. Nevertheless CARDÜS tells that when burning coals have been thrown to toads these have, by mistake of course, swallowed these, used as they are to catching luminous insects ¹⁶⁴.

It is interesting again to encounter the idea of the frog as that animal which swallows the fire among the primitive North American tribes, such as Karok and Eastern Pomo in California. "The Cahrocs hold that, when in the beginning the creator Chareya made fire, he gave it into the custody of two old hags, lest the Cahrocs should steal it", BANCROFT ¹⁶⁵ starts a tale about how the Karok received the fire. Coyote succeeded in stealing a firebrand after having placed various animals at varying distances from one another. When the female guardians of the fire pursue him he leaves the fire to the puma, this one leaves it to the bear, &c. till at last the frog gets it, swallows it, and, with the loss of her tail, saves herself — and the fire — in the water.

Among Eastern Pomo the motive is part of a creation-and flood-myth. The beaver and the otter, as well as the frog and the hawk, save themselves on a raft, at which occasion the frog carried the fire along in the stomach ¹⁶⁶.

The existence of this motive among tribes such as Karok and Pomo and its expansion in South America suggest that we have to do with a primitiv and ancient element which presumably was found also in Mexico and there formed a basis for the myth about the sun-swallowing frog, which was discussed in the chapter preceding this.

Finally remains to mention another type of fire-myth from the North West Coast Indians in which the frog plays the roll of the person who controls the fire and with it can burn everything. The story is from the Haida Indians and I shall shortly review the content as given by BOAS:

omnes perscrutando, repurgant, qua in venatione interdum subsiliunt contra parietem ad ulnae unius altitudinem, praedamque deripiunt. Verum hoc emolumentum magnis pensant incommotis; nam in lectos dormientium adrepunt, et ad corpus, caloris suapte adpetentes, ita se se adplicant, ut ejusdem pondere opprimantur. Sed et ignem, qui noctu ciniphibus abigendis, aut tigridibus arcendis foveri solet, mira sane arte exstinguunt. Nam carbonēs ardentes (quod Autor narrantis, antequam suismet oculis saepius vidisset, non credidit) carbonēs, inquam, ardentes eo fere cum stridore, quem injecti in aquam excitare solent, abliguriunt."

¹⁶⁴ JOSÉ CARDÜS: *Las Misiones Franciscanas etc.*, p. 395. — "Sapos. — Estos animales sí que son numerosas por aquellas partes, y de diferentes clases y tamaños. Los más grandes suelen estar dentro de las casas, no haciendo la gento caso de ellos, ó más bien tolerándoles con facilidad, porque se entretienen en comer cucarachas y otros insectos; aunque algunas veces nos hacen pasar mala noche por el ruido que meten brincando de un lugar á otro, ó saltando por encima de varios objetos, que hacen caer. Algunos creen que esta clase de sapos caseros se comen también las brasas encendidas; y realmente se ha hecho la prueba de echarles de noche alguna brasita de carbon encendido, y al momento se la han tragado. Esto empero tiene su natural explicación, y es, á mi modo de ver, que dicho animal, acostumbrado como está á comer luciérnagas y otros insectos lucíferos, creará que dichos brasitas son alguno de dichos insectos, y por esto se las traga."

¹⁶⁵ HERBERT HOWE BANCROFT: *The native races of the Pacific States of North America*, vol. III, p. 115—117.

¹⁶⁶ P. W. SCHMIDT: *Der Ursprung der Gottesidee*, II: 2, p. 211—214, cit. LOEB.

Ten young men sat and roasted salmon which they had caught. A frog jumped up to the fire but was driven away. At last the men flung the frog into the fire. The frog did not burn up but got quite red. When the men left in their boat they saw on the shore a completely red human being. It was the frog. They made fun of her and the frog threatened them that they would all die upon their arrival home. They did so and their relations were sorry and reproved the frog. The next day they saw the reflex of a mighty fire on the mountain. The light came nearer and the people called to the frog: Why do you not burn down our village? The sixth day a light of fire was seen on the sea. The water began to boil and soon everything was on fire. All were killed except a menstruating girl who sat in a hut apart and who succeeded in saving herself by digging herself down into a hole in the field. Later the frog appears as an old woman and helps the girl¹⁶⁷.

VII. The frog as a totem animal.

SCHOMBURGK came upon the remains of a Guiana tribe which with a Wapishana word was called *Maopityan* or Frog Indians, "from *Mao*, the frog and *Pityan*, the people or tribe"¹⁶⁸. At the time of SCHOMBURGK's encounter with these Indians they counted only thirty-nine individuals who lived together with about twenty Tarumas. Their chief was a Taruma. Nothing is said about the reason for these Indians being called Frog Indians. I have included them here because it is the only case to my knowledge of a South American tribe bearing name after frogs¹⁶⁹.

In North America among the North-West Coast Indians we find frog names on clans for totemic purposes. SWAN and MALLERY have published reproductions of Haida Indians belonging to a frog clan and tattooed with frogs¹⁷⁰. Among the Tlingit we find a rich material which throws light upon the important roll of the frog as a totem animal among the Indians, a roll which of course explains the use of the frog-motive among many other animal motives on totem poles, masks, &c. among the North-West Coast Indians. SWANTON who has published considerable material from the Tlingit writes for instance: "The frog was a special possession of the *Kiksa'di*, who claimed it from the fact that persons of their clan has special dealing with frogs, although the stories told about them at Sitka and Wrangell differ. The *Ganaxa'di* of Tongas tell the same story as the Wrangell *Kiksa'di* about the marriage of a woman of their clan to a frog, and probably claim the frog also. In recent years the *Qā'tcadi* at Wrangell and the *L'ük'naxa'di* at Sitka have tried to

¹⁶⁷ FRANZ BOAS: *Sagen der Indianer an der Nordwestküste Amerikas*, p. (221).

¹⁶⁸ R. SCHOMBURGK: *Travels in British Guiana during the years 1840—1844* (translated and edited by WALTER ROTH), vol. 2, p. 378.

¹⁶⁹ SCHOMBURGK describes the two large bee-hive houses in which the Indians lived. "The two houses lodged the last remnant of the once powerful tribe of the Maopityans or Frog Indians. The large of the houses with a height of 100 feet, and a diameter of 86, had as its centre a strong post which they called *Aiyukuba*: it was covered with a quantity of Indian figures and hieroglyphics." (*Op. cit.*, vol. 2, p. 377.) It would be interesting to know whether among the figures on *aiyukuba* were also found frogs?

¹⁷⁰ Reproduction from MALLERY in *Handbook of American Indians*, part. 2, the article "tattooing", p. 700.

adopt the frog, but in the latter case their attempt to put up the frog carving precipitated riot ¹⁷¹."

If we study the notes closer we find in them Indian explanations of the reason why the frog has become the particular animal for a certain clan, for instance *Kiksa'di*. Thus from Sitka SWANTON has a tale about a woman who was captured by the frog people:

"There was a large town in the Yukutat country not very far back of which lay a big lake very full of frogs. In the middle of the lake was a swampy patch on which many frogs used to sit.

One day the town-chief's daughter talked badly to the frogs. She took one up and made fun of it, saying, 'There are so many of these creatures, I wonder if they do things like human beings. I wonder if men and women cohabit among them'.

When she went out of doors that night, a young man came to her and said, 'May I marry you?' She had rejected very many men, but she wanted to marry this one right away. Pointing toward the lake he said, 'My father's house is right up here', and the girl replied, 'How fine it looks!' When they went up to it, it had been raised. They walked under. So many young people were there that she did not think of home again."

Those at home missed the girl. Next year a hunter discovered her sitting among the frogs in the middle of the pond. When the father heard of this he let the pond be ditched by the help of his friends so that "the water flowed out, carrying numbers of frogs which scattered in every direction". Thus the woman came back to her own people:

"When anyone spoke to this woman, she made a popping noise 'Hu', such as a frog makes, but after some time she came to her senses. She explained, 'It was the *Kikca*' (i. e. *Kiksa'di* women) that floated down with me', meaning that all the frog women and men had drifted away. The woman could not eat at all, though they tried everything. After a while they hung her over a pole, and the black mud she had eaten when she was among the frogs came out of her, but, as soon as it was all out, she died. Because this woman was taken away by the frog tribe at that place, the frogs there can understand human beings very well when they talk to them. It was a *Kiksa'di* woman who was taken off by the frogs, and so those people can almost understand them. They also have songs from the frogs, frog personal names, and the frog emblem. All the people know about them ¹⁷²."

In another record, like the former written in English at Sitka, there is mentioned — a curious incidence at totemic conceptions — a sort of offer to the frog at the cremation of a dead chief. "So they captured slaves and killed them for the dead man, and, when they put food into the fire for him, they also named the frog that it might receive some as well ¹⁷³."

The following is told in a version from Sitka about the origin of the frog crest among the *Kiksa'di*:

"A married couple went from Sitka into Gaya'bay, and camped at Ga'xguān. They were there for perhaps a month. One morning they started out hunting. Then they heard a song on Gaya'bay. They listened. They did not hear plainly. [The man's] wife

¹⁷¹ SWANTON: *Social condition, beliefs and linguistic relationship of the Tlingit Indians*, p. 416.

¹⁷² J. R. SWANTON: *Tlingit myths and texts*, p. 53, story 22, "The woman taken away by the frog people".

¹⁷³ SWANTON, *op. cit.*, p. 54, story 23, "How the frogs honored the dead".

said to him, 'Do you hear it?' He said, 'I hear the thing making a noise over there'. 'Turn toward it', they said. They went toward it and saw it. It was a little frog which the man let float down to his wife in the stern. He said, 'It is for you'. So they brought it to Sitka. This is how the little frog's song came to be known, and this is why the *Kikks'di* claim the frog¹⁷⁴."

It is typical for a totemic viewpoint that it is extremely inconvenient and certain of punishment to mistreat in any way an animal which belongs to the same clan as oneself. "A man belonging to the Stikine *Kikks'di* kicked a frog over on its back, but as soon as he had done so he lay motionsless unable to talk, and they carried his body into the house. This happened at Town-of-the-frogs (*Xixtc/-xā'yikAān*), so named because there are many frogs near by." The frogs had taken the man's soul. He was reprimanded by the frog chief but was later permitted to return¹⁷⁵.

Finally SWANTON in his "Social Condition, Beliefs and linguistic relationship of the Tlingit Indians" gives examples of Indian proper names interesting in this connection. Here are some of them: "Copper-green color of a frog" (p. 405), "Boneless frog" (p. 405), "Frog-sitting-in-the road" (p. 421), "Lively-frog-in-lake" (p. 421), "Moving of sides-of a frog" (p. 402).

Conclusion.

I wish to end this survey of the part played by the frog in the mythology and imaginative world of the Indians by making some references to an earlier paper of mine treating of the frog-motive in the art of the South-American Indians.

The following questions may be offered for consideration. Is there a connection between the frequent use of the frog-motive for instance in the pottery of a certain district and the frog-motive as found in the imaginative world of the Indians, and can such a conception be proved? If, for instance, we have made sure that with the Chibcha, who frequently use the frog-motive for their ceramics, the frog also played an important part in the Chibcha mythology, would we not be justified in inferring that its appearance in art is to be explained by its mythological character¹⁷⁶?

In our case the question is rather complicated, since there are no or

¹⁷⁴ *Tlingit myths and texts*, p. 294, story 95. For a similar version recorded in English at Wrangell see *ibid.* p. 224, myth 66.

¹⁷⁵ *Ibid.*, p. 232, story 73.

¹⁷⁶ On the other hand I want to point out that representations of animals in pottery have not necessarily a mythological or if I may say so a symbolic background. K. VON DEN STEINEN draws our attention to this lack of symbolism in animal representations made by the Indians living in the districts on the sources of the Rio Xingu. He writes (*Unter den Naturvölkern Zentral-Brasiliens*, p. 293): "Da liegt klar ein Gesetz ausgesprochen. Nicht symbolische Tüftelei lenkt den Kunsttrieb. Weder im Kleinen noch im Großen. Weder scheut die Künstlerin davor zurück, einen Krötentopf zu machen, weil die Kröte ein unappetitliches Vieh ist, noch wählt sie die Fledermaus, weil dieses Geschöpf auch in der Mythologie der Indianer vorkommt. Tiermotive überhaupt sind bei der Rolle, die das Tier in dem geistigen Leben des Indianers spielt, als selbstverständlich gegeben..."

scarce records of the frog as a mythological animal from the South American districts where this motive is frequently used for ceramic ornaments. Thus in the case of all the vast districts in South America where we meet the frog-motive in pottery: Colombia, Santarem, and the Diaguita-Calchaqui region. Here we have to look out for another explanation.

In this paper I have divided the material here treated into seven groups. If we put the question which of these is the most important one to the frog's appearance in Indian art we necessarily have to answer: the frog in rain and fertility concepts, treated in the foregoing in Chapt. IV.

I have pointed out that several tribes in South, Central, and North America associated the frog with rain, and I have referred to SELLE's commentaries on a Nasca jar in the Gothenburg Museum on which are seen frogs together with demons of vegetations with corn cobs in the painted ornament, showing that the conception of the rain animal accounts for its presence in this ornament. The frogs are dependant on humidity, and by instinct they croak when rain is approaching, and the primitive man naturally makes the false conclusion that the frog is the cause of rain, having the power of summoning the rain demons. The idea of the frog bringing about rain we meet with among numerous agricultural tribes, with slight variations and at some places combined with special ceremonies as the *Chachac* ceremony of the Mayas of British Honduras and the festivals celebrated in honour of the Corn Goddess in Mexico.

From the conception of the frog as a giver, or intermediary agent of rain the step is not long to the secondary idea of the frog being an animal with a favourable influence upon fecundity and crops. That the Mayas used the same words for frogs in general and the female genitals seems to me to be fully explained in this way, as well as the fact that the Tucunas use a staff with a frog ornament at the puberty feasts for girls.

The Indian tales often emphasize the frog's sexual desires. EHRENREICH renders a tale originating from the Carayá on the Rio Araguaya. Three brothers tried to kill two huge howlers that made the forest unsafe, killing and eating the natives. On their way to the forest two of the brothers met a frog who wanted them to make her their wife. Then she would tell them how to be able to kill the apes. They rejected her proposal and failed to kill the howlers. The third brother who later ventured into the forest was advised by a snake to listen to the toad-woman. "Tue als wenn du darauf eingehst und streiche sie mit deinem Gliede zwischen Fuß und Zehen." This he did with the result that he succeeded in killing the monsters¹⁷⁷. In a tale taken down by NORDENSKIÖLD during his sojourn at the missionary station Cavinás on the Rio Beni from an Indian of the name of Salvador, native of Tumupasa, the frog is a jealous woman who claims the man to whom the boa, "a beautiful and very clever woman", was married¹⁷⁸.

No doubt the idea of the frog as a giver of rain and connected with

¹⁷⁷ EHRENREICH: *Beiträge zur Völkerkunde Brasiliens*, p. 42, "Die Zauberpeile".

¹⁷⁸ NORDENSKIÖLD: *Forsknningar och äventyr i Sydamerika*, p. 493.

annual fertility concepts is of great importance¹⁷⁹. On these primary conceptions more complicated conceptions may be founded in which the frog plays an important part. In Chapt. IV I have already pointed out that the Aztec idea of the Earth Goddess *Tlaltecuctli* as a huge toad may be explained in this way. Out of the earth springs corn as well as other products. The frogs are the givers of all this, that is to say the giver of fertility—the Earth Goddess is represented as a giant toad. *Tlaltecuctli* has in Mexico become the symbol of sunrise as well. I have already pointed out in the foregoing, Chapt. V and VI, that there are very good reasons to suppose that the motive of the frog devouring the sun, met with at many places in North America, was known in Mexico also. The ground of this motive may be the myths of the frog being the animal that swallows living coals, thus giving man fire, a mythological element met with among primitive Californian tribes, and above all among the Tupí-Guarani tribes in South America, and most likely a result of the observation of the fact that the frogs eat insects that give out light.

Let us now return to the fertility complex. In the first part of this frog essay I have described frog-shaped *muirakitās* and called the attention to HERIARTE's interesting statement that these *muirakitās* were used to pay a bride price, a statement which is corroborated by a Kágaba myth, published by HERIARTE, about the medicine man *Sintana* whose daughter is desired by the sun. The girl's father asks for frogs of green and red stone in exchange for his daughter, and these the sun is obliged to give him to have the girl. The idea of the frog as a bearer of fertility explains the use of frog-shaped *muirakitās* as a bride price. Possibly the *muirakitās* are connected with the zemistic stones, a special kind of which were used by the Tainan caciques to help a woman in childbed¹⁸⁰. LOVÉN, however, points out that the original texts do not state that these stones are but raw stones.

It seems an important fact that the idea of the frog as a giver of rain and fertility is combined with the conception of the frog being female. Stamps with frog ornaments are women's attributes. LOVÉN who kindly permitted me to quote his great new manuscript on the origin of the Tainan culture, is of the opinion that the Antillean flat stamps with frog ornaments are used by the women of the Island Arawak to apply the ornament on their own skin. Furthermore LOVÉN emphasizes the fact that in Haiti the frog was believed to be a female, as well as "on the coast of British Guiana frogs with divine functions are of the female sex". He is of the opinion "that the Island Arawak

¹⁷⁹ Compare L. C. VAN PANHUY: *A propos de similitudes remarquables entre ornements d'origine différente*, p. 143. — "M. MORDINI, comme il me l'a écrit dans la suite, s'est déjà demandé, à propos des grenouilles, lors de son séjour en 1926—1927 sur le haut Oyapock, si les Indiens ne les considéraient pas comme un élément fécondateur, c'est-à-dire comme élément de fécondité et mâle. Il rattache l'origine de cette croyance à la particularité qu'offre le crapaud pipa bien connu qui porte ses nouveaux-nés sur le dos." For the rest I regret to state that the article of Mr. PANHUY came to my notice too late for my studies of frogs.

¹⁸⁰ With kind permission cit. LOVÉN's MS., Chapt. XII, Religion, in which he quotes PANE and the Admiral's *carta* in BOURNE's transl.

have brought with them from the continent of South America their ideas of the frogs as a woman and connected with a woman's functions"¹⁸¹.

Has the frog played the part of rain bringing animal also with other tribes, for instance the Diaguitas, who use the frog-motive in their art although we do not possess any frog myths from this people? It seems to me that without hesitation we could answer this question in the affirmative. As to the Diaguita culture we have the finds representing frogs in a posture of coitus, as well as a frog-like figure with a penis in enlarged size, which I take to indicate that this animal had played perhaps a very important part in their sexual ideas.

But how do we explain the frog-motive in the Santarem ceramics where it is extremely frequent? Can it not to a certain degree be due to the prominence of the frog in the fauna of this area? This is a matter of fact that should not be overlooked, although no doubt there are other factors of importance, very likely fertility conceptions, since it must have been a people of permanent, residing tillers of rather high culture who made this multitude of strange ceramics.

In the Santarem ceramics for instance, I was able to make a special study of the frog-motive and establish series of its conventionalization. The question why the frog is so frequently used cannot be examined separately, it must be seen as part of the whole cultural complex of agricultural-sexual nature. My intention with this investigation was to examine the frog-motive in the ornamental art in the light of mythology, but unfortunately the mythological and folkloristic facts are too insufficient to allow a solution of the problem of the frog-motive only by means of its appearance in art and mythology.

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¹⁸¹ Cit. LOVÉN'S MS., Chapt. XII, Religion.

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