The Frog-Motive among the South American Indians.

Ornamental Studies.

By Henry Wassén, Gothenburg.

Summary.

I. The Frog-Motive in the Amazonas.
   1. Santarem.
   2. The Frog-Motive on Vessel Grips.
   3. Guiana and further about the Frog-Motive in the Amazonas.
   4. Frog-formed muirakitas.

II. The Diaguita-Calchaqui pottery.

III. Peru.

IV. Colombia.
   1. Earthenware Material.
   2. Portrayals in Gold.
   4. Various other materials.

Postscript.

Bibliography.

Text for the figures on the tables I—IV.

Preface.

The paper here presented is to be regarded as the first part of a larger such which I originally thought to entitle: "The Frog-Motive in the Art and Imaginative World of the South American Indian." The idea was, if possible, to place the appearance of the frog-motive in the ornamental art within a certain territory or culture in relation to the roll of the frog-motive in the Indian traditions and imaginative world of the corresponding territory or culture. For different reasons I have, however, found it better to divide the work in two parts; one descriptive, treating the appearance of the frog-motive in South American Indian ornamental art and one, in which I grouped accessible information about the frog in Indian mythology in order to discover its function in this. An absolute congruity between both lines of the investigation naturally cannot come into question, partly because of the simple fact that I here treat the frog-motive as it appears on archeological material and then often within territories, about the earlier inhabitants of which not the smallest tradition or even knowledge of the language is preserved.

A great deal of the material to this paper has been supplied by the collections in Gothenburg's museum, especially the archeological from the territory of Santarem where the frog-motive frequently appears, a fact which to some degree has given the impulse to this study. The fact is that I 1930 started my investigation of the roll of the frog-motive on the basis of the Santarem ceramics, commissioned thereto by the late intendant of this museum, Baron Erland Nordenställ. In this connection I should like to express my gratitude towards the deceased, that he always graciously placed his excellent library at my disposal and for the warm interest he has always bestowed on my investigation.

Anthropos XXIX. 1934.
I also wish to thank my friends, Dr. Sven Lovén, and Dr. Walter Kaudern for the valuable advice and information which they have given me. For the translation of my Swedish manuscript I am greatly indebted to Florence Ziegler-Ljunggren, and for the execution of the drawings to the artist Axel Hjelm.

The Ethnographical Museum of Gothenburg, June 1933.

Henry Wassén.

I. The Frog-Motive in the Amazonas.

1. Santarem.

In the summer of 1922 the city of Santarem, situated at the entrance of Rio Tapajoz into R. Amazonas, was overtaken by a tremendous cloudburst which appeared to have most interesting scientific consequences. Through the erosive power of the water remains of a former Indian culture which in many respects turned out to be remarkable were uncovered and saved thanks be to the able work of Curt Nimuendaju. (Comp. S. Linne: Les recherches archéologiques de Nimuendaju au Brésil.) The results of the diggings of Nimuendaju in the territory which I with a collective name have termed the Santarem territory (fig. 1) all went to the ethnographical museum in Gothenburg.

The numerous pottery fragments of which the Santarem collection mostly consists present an excellent field for the study of animal motives in the ceramics of this culture. To be sure the fragments are often quite small and the execution very primitiv so that a definite decision of the animal figures cannot be made, but this does not prevent that we in the collection have been able to pick out a great many forms representing animals common for the Amazon basin. Very characteristic are a sort of birds heads, displaying a beak with a curved beak, very likely the Urubú-rei (Sarcorhamphus papa), often mentioned in the Indian traditions — a bird which undoubtedly through its appearance must have caused great attention.

It is a well-known fact that one may not always be able to decide exactly which animal one has to do with, even though the ornamentation on a certain fragment be well preserved. The form may be highly conventionalized. If one then get in hand the final result of a far gone process of conventionalisation of a certain animal motive without having knowledge of the foregoing stages a definite decision as to the motive is impossible to make. In the material from Santarem at the museum of Gothenburg I have been able to collect in series the various stages of such processes of conventionalizing. The frog-motive which is treated here has from a naturalistic reproduction been the origin of a pure geometrical, lineal ornamentation. We shall in the following more closely study the development of conventionalism in these series.

2 P. Le Conte: L’Amazonie brésilienne, t. 2, p. 305. — “Grand vautour brésilien, ayant jusqu’à 1 m. 10 d’envergure, et un magnifique plumage diversément coloré. Parties nues de la tête et du cou peintes de jaune, d’orangé et du rouge, iris d’un blanc pur, collier gris, dos et dessous des ailes d’un rose pâle, bas du dos, pointe des ailes et queue bien noires et ventre blanc.”
Fig. 1. The Santarem Region. Map composed by the author from two maps made by NIMUENDAJU in 1924/1925 over Indian settlements along the lower Amazonas, the distance Santarem—Obidos in the scale 1:100,000, the distance Santarem—Cuçáry 1:200,000.
As regards a living frog or toad the most obvious parts of the body would be the head with the broad mouth and the outstanding eyes, and the limbs, especially the hind legs with their characteristic form (fig. 6 K). We shall see that just these details also play the most important roll in conventionalizing the motive, although the Santarem material also shows another type of frog for the execution of which the characteristic form of the limbs seem to have played no roll at all. The legs have entirely disappeared or have remained as apophysis which serve to hold the animal figure onto the sides of a clay vessel. In retribution the fluted or plain body has been powerfully executed, a technic which gives the frogs of this type the appearance of a beetle, or something similar. In the Santarem ceramics frogs of this “insect type” are very common. In “L’Archéologie du Bassin de l’Amazone” by NORDENSKJÖLD we find on pl. XXVI a series of this type from various places within the territory of Santarem. The author describes them as follows (op. cit., p. 49): “Grenouilles qui avaient dû être appliquées, comme décorations, sur des vases du genre de ceux qui ont été représentés sur la planche précédente. Certains de ces modelages ressemblent plutôt à de grands scarabées; la stylisation en est sans doute la cause.” In figs. 2 and 3 we can see how frogs of this “insect type” have been placed turned towards the mouth on the sides of clay vessels. We also find an exam pel of this frog type in fig. 4 A. Fig. 4 serves in general to present samples of varying types of frogs heads which are to be found in the Santarem material. We find that the broad frog head as a rule is easily recognized even though certain details change considerably. The eyes are portrayed in different ways; likewise the anterior of the mouth. In the aforementioned case we see two elevations at the mouth, similar to those
which mark the eyes. Other times the mouth section is marked merely by a slight elevation (fig. 4 B, D). The surface may also be entirely smooth except for two small, point-like impressions which mark the animals nostrils (fig. 4 C, E). If we look more closely at the fragment, fig. 4 C, we find that the section behind the eyes and the head are furnished with the same sort of point-like impressions as the two which serve for nostrils. Possibly the marking of the later has given rise to the idea of continued decoration of the animal figure in the same style. Fig. 4 F with a smooth mouth section has evidently when complete been a whistle. On the lower side of the head runs, as shown in the cross-section drawing, a channel which may have continued into a hollow body. According to what my friend, K. G. IZIKOWITZ, kindly has informed

Fig. 3. Vessel of clay, Santarem. Notice the frog which on its back has a peculiar decoration consisting of a snake. G. M. 24. 16. 43. 3/.
HENRY WASSÉN,

me out of his manuscript treating the musical instruments of the South American Indians, a whistle of this type is found, besides in Central America, precisely in the Amazon district.

Conventionalizing a certain motive is usually followed by disintegration of the figure. We see this plainly in fig. 5 where fragments of the Santarem ceramics with conventionalized frogs are portrayed. The conventionalizing has had the effect that head, body and limbs have been released from one another whereby gradually certain sections have disappeared entirely. All of the forms
The Frog-Motive among the South American Indians.

Fig. 6. Fragments with frog ornamentation showing the development of frog conventionalisation in the Santarem material at the museum in Gothenburg: A, 23.10.535. Açúzar; B, 24.16.66. Santarem; C, 24.16.52. Santarem; D, 24.16.63. Santarem; E, 25.14.36. Santarem Aldêa; F, 24.16.52. Santarem; G, 25.14.174. Cuçary; H, 23.10.162. Santarem; I, 24.16.3. São Benedicto; J, 24.16.33. Santarem; Fig. 6 K, after LeWIN.
The Frog-Motive among the South American Indians.

portrayed in fig. 5 may however quite easily be determined as frogs. More difficult is the question of the ornaments on such fragments as fig. 6 G, H. For those one must necessarily know the foregoing stages in order to decide that one has to do with the frog-motive.

I have already shown that the hind legs of the frog must play an important roll in conventionalizing this motive. The hind legs are characteristic to portray (fig. 6 K) as a broad figure somewhat like a question mark or an S. We also find this element characteristically portrayed on the fragment fig. 6 A, B from Açužal and Santarem. On 6 B the body as well as the head have been much reduced. Fig. 6 C shows us a stage further on with head and legs completely separated from one another and the body entirely absent. I would call the reader's attention to this fragment. Should we namely imagine the S-like figure which is formed by the hind legs dissolved in the joints we would reach a stage in which the hind legs gave origin to an angular, straight-lined ornamentation of the sort we can trace in fig. 6 D. This fragment has unfortunately suffered such damage that the ornament hardly appears. Even so we may get a clear conception of this sort of angular, straight-lined ornamentation in fig. 6 I, an edge fragment, on which the frog head with its characteristic eye remains as further criterion that the carved angular ornament traces its origin from the posture of the frog's legs. If we imagine the next stage with even the "headbud" absent from the fragment a pure lineal ornamental art should have developed. I dare not, however, in this connection maintain that the ornamentation on the fragment on fig. 6 I with absolute certainty should derive from the frog-motive. The ornamentation of this fragment naturally need not — individually considered — seek its origin in the frog-motive, as it certainly would be an exaggeration to say that all triangular ornamentation in the Santarem material should necessarily have to do with the frog-motive. I do, however, wish to point out that conventionalizing consistently carried through may lead to this pure triangular ornamentation.

As the figure shows, fig. 6 I may even be considered as a simplified form of 6 E where we plainly see the frog's head and the angular ornamentation. Fig. 6 F is a variation of the same theme. In fig. 6 G the conventionalizing process has gone further. The head has lost its differentiated form, though still quite recognizable through the ring-formed impression which marks the eye. Finally the head as a projecting section disappears entirely. The edge fragment has become smooth with the characteristic eyes scattered among the straight-lined, traced ornamentation which has developed from the posture of the frog's legs (fig. 6 H). The appearance of fragments 6 F, G might justify the assumption that even the proper edge-figure (5 G) is meant to impersonate a frog. Referring to the picture material and to what has been said in the foregoing, I thus repeat that in the Santarem pottery appears a conventionalizing of the frog-motive, leading to an ornamental art which deviates so much from the primary form that it is possible to prove the origin only through the assistance of an entire chain of evolution.

It is interesting that this ornamentation developed from the frog-motive is found again in the West Indies on the lower side of stamps which on the
upper side are furnished with grips in the form of frogs. De Booy 2 depicts such stamps from Salado Caves, Santo Domingo, but is not conscious of the fact that the ornamentation on the lower side has to do with the frog-motive. The animals on the upper side, “small animal figures with outspread legs, luted to the surface” he in one case, commenting on a stamp published by Fewkes, calls “an insect of the Coleoptera family” (op. cit., p. 95). Sven Loven is certain that it is a question of frog-handles on the stamps from Salado Caves. Through the courtesy of this investigator I am in a position to quote the following out of the manuscript of a newly revised and to a very great deal newly written work about the Tainos with the completion of which he is at the moment occupied: “Of great interest are the stamps with frog-handles which De Booy found in Salado Caves. They rattle when shaken, a fact which suggests that they have had a special magical use, perhaps that of invoking the good spirit before the stamping with the frog design occurs.” Loven, by the way, often occupies himself in his new work with the frog-motive and its roll in West Indian culture. Thus, for instance, he shows that “the labyrinth” on Antillean stamps is a conventionalized form of the frog-motive. I shall therefore not hereafter particularly concern myself with the frog-motive in the West Indies but refer to the above-named work by Loven.

It is of the greatest importance that with the find of a small clayurn with the aforesaid conventionalized Santarem frog-motive, in Guayabas, 30 km south of Santa Cruz de la Sierra in Bolivia, still another finding place has been added to the chain of archaeological discoveries which connect the Amazonas-with Argentine. The detail of ornamentation in question on the clay vessel just mentioned is reproduced in fig. 7. We clearly discern the frog’s outstanding eyes and the angular ornament. The vessel, which is of the face-urn type, belongs to the museum of Gothenburg, but as Dr. A. Metraux has been permitted to publish it I shall not here go into further details regarding it. I shall, however, although I have not yet treated the material from Argentine, touch upon a detail which strengthens the impression that

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2 De Booy: Pottery from certain caves in Eastern Santo Domingo, West Indies, pl. IX.
the frog-motive is one of the elements in the Arawak culture current which, via Mojos, found its way along the eastern slope of the Andes and further on to Calchaqui, a culture current first pointed out by Nordenskiöld. This detail is the frog-motive on earthenware handles.

2. The Frog-Motive on Vessel Grips.

In the Santarem material, are found two fragments of undisputable frogtype (fig. 8: A, B) which to judge from the breakage surface evidently have


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The Frog-Motive among the South American Indians.
been placed on clay vessels as a sort of grips or handle-like projections — an element which even appears with the frog-motive in Chiriqui (fig. 8 C).

Frog-figures serving as handles or placed as decoration on bow-shaped handles also occur in Peruvian pottery. Max Schmidt depicts a clay vessel with bow-shaped handle from Pachacamac. The plastic decoration on the bow consists of a human head flanked by two frogs, the later supplied with a sort of very characteristic rings or spots on the back to which I shall later return. From the museum in Gothenburg I furthermore know of a vessel in black earthenware from Pisco which on the upper side has two handle-grips, judging from everything in conventionalized frog-form (fig. 8 D). The similarity between these vessel grips and some published by Nordenskiöld from the valley of Rio San Francisco in north-western Argentine, which he takes to be frogs, is very striking (fig. 8 E, F). Without doubt these vessel grips are a Peruvian culture element in the valley of Rio San Francisco which was situated within the furthest limits of the sway of the Inca dominions. The fragment, fig. 8 G, also from the valley of San Francisco, are evidently of the same type. In fig. 8 H we see still another fragment from this valley which looks to me to represent a frog.

If we now continue to the valley of Mizque in Bolivia we know that the Andine influence here has been very pronounced. The polychrome pottery which Nordenskiöld found during his expedition, 1913-14, is of decided Tiahuanaco type. In Mizque valley Nordenskiöld at the same time found a sort of pottery which was not painted and obviously belonged to another people, an older culture. “Ich habe berichtet, daß wir im Mizquetale auch Wohnplätze eines Volkes gefunden haben, das die Tongefäße nicht bemalte, sondern mit einfachen eingeritzten Ornamenten verzierte. Es war vermutlich nicht dasselbe Volk, wie das mit den buntenmalten Gefäßen. Nach der Keramik zu urteilen, stand dieser Stamm auf einer bedeutend tieferen Kulturstufe als die Aymara- und Quichua-Indianer. Kulturell scheint es mir näher zu den Chiriguano-Indianern als zu den Gebirgsstammen zu gehören.” To this culture belongs the vesselgrip in fig. 8 I, found by Nordenskiöld at Holguin, at the foot of the mountain, La Copa, in the valley of Mizque. I would interpret this as a primitiv, degenerated frog-representation and place it in connection with the here earlier mentioned types, and even with a primitiv fragment from Waini River, British Guiana (fig. 8 J); this also a sort of clay-vessel grip with rough frog-portrayal.

Now it is so that as is known handles on earthenware in themselves are

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3 Kunst und Kultur von Peru, p. 275.
4 Prähistorische Wohn- und Begräbnisplätze an der Südwestgrenze von Chaco, pl. 3:1 (R.M.03.3.7197.), pl. 3:5 (R.M.03.3.7144.). P. 16. — “Nr. 1 ist ein Henkel eines kleineren schwarzen Topfes; es stellt offenbar einen Frosch dar und ist mit einem gewissen Kunstsinu geformt.” — “Auch Nr. 5 scheint mir ein Frosch zu sein, der an der Borte eines Topfes einen Henkel gebildet hat.”
5 Nordenskiöld: Die östliche Ausbreitung der Tiahuanaco-Kultur in Bolivien und ihr Verhältnis zur Aruak-Kultur in Mojos.
The Frog-Motive among the South American Indians. 331

a typical western culture-element in South America which is not found for instance in Mojos 7. Referring to above material I should, however, still identify frog-portrayals among zoomorphic projections on the handles of earthenware pottery as an Amazonian element in Argentine, whereby is to be noticed that the execution has become so degenerated that the distinctness of the motive has been lost, and we get handles with projecting bulbs, examples of which are mentioned for instance by Casanova 8. According to him the execution of the zoomorphic projections is simple and they have a special distribution. They are characteristic for the pottery one finds in Huiliche, Cata- marca, but which is not found anywhere else in Argentine 9. If it were a question of an Andine element the distribution would no doubt be considerably larger in Argentine as is the case with pottery handles as such.

3. Guiana and further about the frog-motive in the Amazonas.

Before I go on to the treatment of the particularly beautiful execution which the frog-motive receives in the so-called muirakitás I shall give some indication of the motive in Guiana and also somewhat more about its occurrence in the Amazonas.

As is known, a richly painted and adorned pottery is a conspicuous feature of the Arawak culture at the lower Amazonas, a pottery also represented in Santarem together with the archaic. The importance of the frog-motive in Santarem has already been emphasized and we may accordingly expect to find it represented in the pottery from the coastal territory, north of the mouth of the Amazonas. This also proves to be the case. Thus, the three pottery fragments which Torres portrays as fig. 23 in his paper "Cerámica de Marajó" under the description "macaco de noite" might well depict frog- and not monkey-heads. The likeness between these and the frog-heads in the Santarem material is obvious. From Cuanayá on the coast of Brazilian-Guiana and famous for several cave finds of burial urns Goeldi describes a beautiful painted clay vessel which on the outside is provided with two frog-figures 10. Goeldi assumes that it is a question of a sort of Hyla, "cumuara" which plays a great roll in the Indian concepts even today. He assumes further that the frog instead onomatopoetically should be called "cunha-aru", the frog woman, because of its croaking which sounds like cunha-cunha 11.

7 Nordenskiöld: An ethno-geographical analysis of the material culture of two Indian tribes in the Gran Chaco, p. 212 and fig. 39.
8 Eduardo Casanova: Hallazgos arqueológicos en el cementerio indígena de Huiliche, figs. 74—87.
9 Op. cit., p. 104. — "El emplear pequeños modelados para adornar vasos fue común en gran parte del país; los modelados formando el asa también. Pero las asas simples sobre las cuales como adorno se ha sobrepuesto un modelado, no las conocemos en otra zona argentina, y las consideramos como característica propia del tipo de alfarería que tratamos."
10 A. Goeldi: Excavaciones arqueológicas en 1895, pl. III: 2a—b.
Schomburgk, however, gives a far better explanation of the Carib name *konoboaru* for this rain-frog (*Hyla venulosa*). He thus writes: "Die Indianer bezeichneten mir den Frosch zugleich als den untrüglichsten Wetterpropheten, der seine Stimme nur dann erschallen lasse, wenn am nächsten Tage Regen zu erwarten; daher auch sein Name *Konobo Regen, aru* Frosch." According to Schomburgk *Hyla venulosa* further occurs in the trunk and leaves of a Tiliace, *Bodelschwingia macrophylla*, and has a cry not unlike the bellowing of a cow which it ejaculates with short, regular intervals and which is an


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unfailing sign of approaching rain. I shall later in connection with the association, frog—rain, in the Indian conceptions return to the important role this frog plays in legends from Guiana, of which Roth gives several examples.

Earlier and in another connection I have already spoken of a fragment from Waini River (Waima R.) in British Guiana (fig. 8 J). From the same finding place is in the Gothenburg museum yet another fragment on which the frog element in spite of a particularly primitiv modulation at once is disclosed by the outstanding eyes and the marking of the legs (fig. 9 A).

The material from Roth’s diggings in British Guiana on the border of Venezuela is now found at the museum of Gothenburg and we detect in this pottery a number of frog-portrayals, although the frog is not nearly as apparent as in the Santarem material. I reproduce the frog specimens here in fig. 9 B—I. Fig. 9 B from Issororo, west of the point of the uniting of the rivers, Aruka and Barima, shows a fragment with marked efforts at conventionalizing the motive; unfortunately, however, so much damaged that only a small detail of the depiction of the legs is seen. On the edge fragment, fig. 9 C from Mabaruma Hill, the bulb-formed projection on the upper half of the vessel’s bulging part represents a frog-head. The frog-likeness is more apparent, however, when the fragment is seen in profil. Roth has not reported the finding place for the three frog-figures, fig. 9 D, G, H, but they come from the same territory as the others on the figure.

Regarding the frog-motive on Indian pottery in the Amazonas finally remains to mention that frog- or toad-like earthenware vessels are found among those vessels with animal form which are made by the tribes in the region around the spring of the Xingú. Karl von den Steinen depicts such a vessel and considers the reason for the choice of motive to be that the animal is characteristic and easy to portray (op. cit., p. 289—290). According to von Den Steinen the bat-motive is otherwise the more common among these tribes.

An Arawak-speaking tribe in the Amazonas among whom the frog-motive seems to play an important roll is the Tucuna at the upper Marañon. Thus one finds in the Tucuna collection at the museum of Gothenburg a 150 cm long stick (fig. 10) made of a very light sort of wood (palo), on one side adorned with a frog together with an angular ornament — possibly the same ornament about which I have spoken in connection with the Santarem conventionalizing of the frog-motive — like the frog-image incised in the light wood. On the other side of the stick a fish is incised. Important in this connection is the function of these sticks. They are namely used at the puberty feasts for girls when they are carried over the left shoulder by the mask dancers. In the end of the stick a drum is hung. The fact that frog-pictures occur on a stick used for such a purpose I think is not a mere chance but is without doubt connected with the roll of the frog in Indian concepts of fertility. I shall, however, consider this later in another connection.

18 Unter den Naturvölkern Zentral-Brasiliens, pl. XXIV: 21.
The Frog-Motive among the South American Indians.

The Frog-Motive among the South American Indians.

he is supported by the statements of the Indians: "Nous avons cru nous-même, en examinant ces figures aux jambes et aux bras écartés, qu'il s'agissait de grenouilles, mais les Indiens nous ont tous dit que c'était leur manière de représenter l'homme." 16

I shall not here dwell on the statements by IM THURN and other authors about frogs on rock-carvings. It may, however, be worth mentioning that in rock-carving material from North-Western Brasil published by KOCH-GRUNBERG the frog-motive is found together with a number of animal motives. 17 From the same regions KOCH-GRUNBERG has also published a number of Indian autographs made upon his request, in which are also seen several frog pictures. 18 The value of such collections is dubious. Typical for the frog pictures in KOCH-GRUNBERG's collection is however that the artists have caught just what is characteristic for the animal, namely the broad head and the limbs.

Fig. 12. The frog-motive on basket in twilled work from the Patamona Indians. G. M. 12.1.285. ½.

Finally a few words about the frog-motive in basket-making. To the extent to which the frog-motive occurs as basket-pattern, the same which has formerly been said about the difficulty in discriminating between human-, frog-, and monkey-depiction is often true here.

At the museum of Gothenburg are three baskets with the frog-pattern in black from the Patamona Indians. As we see in fig. 12 where I have reproduced the frog-pattern from one side of the basket G. M. 12.1.285 the motive must become strongly conventionalized and stereotyped; evidently a consequence of the limited possibilities of the technic which has been used. We also find that the frog-motive on another basket (G. M. 12.1.349), like the former executed in twilled work, is identically alike this other. More conventionalized, but in the same technic, appears the motive on the third basket in the Gothenburg collections (G. M. 12.1.192). As is known, ROTH also portrays the frog-motive in his detailed description of basket-making in

17 Südamerikanische Felszeichnungen, pl. 11: d, Yakaré-Cachoeira, Rio Aiary. This figure the Indians also interpreted as a frog.
18 Anfänge der Kunst im Urwald. The drawings are made by Ipuriná-Kobéua-Umáua-Indians.

Anthropos XXIX. 1934.
4. Frog-formed muirakitas.

A particularly beautiful execution of the frog-motive in the Amazonian territory we get in the so-called muirakitas, about which we know that they belonged to the green stones which were immensely valued by the Indians and which through the Indian trade spread themselves over great territories. According to Heriarte the Indians called them buraquitas and they were made for instance in the shape of birds and frogs. I quote Nordenskiöld: "Des étrangers avaient coutume alors de remonter une partie du fleuve pour se procurer par le troc, du bois, des filets, de l'urucu et des pierres vertes que les Indiens appelaient suivant Heriarte, buraquitas. Ce sont les fameux muyraquitás taillés en forme d'animaux ou d'objets divers dans de la nephrite ou un autre genre de pierre, et qui retiennent tant l'intérêt de ceux qui étudient l'archéologie de ces contrées. Ces muyraquitás avaient, suivant Heriarte, la forme de perles rondes ou oblonges, de gobelets, d'oiseaux, de grenouilles, etc. L'auteur raconte encore que les Tapajos fabriquaient ces objets avec de l'argile verte, qu'ils leur donnaient une forme dans l'eau et que l'argile ensuite se transformait en une pierre verte très dure 21."

In the French summary of his work "Oudheden uit Suriname" de Goeje writes (p. 515) about muirakitas:

"En combinant toutes les informations, il semble bien certain que les Caraïbes (Galibis), les Aruans et peut-être des Indiens d'autres tribus, faisaient des voyages au fleuve des Amazones et le montaient une certaine distance, et puis arrivaient chez un peuple, probablement tribu tupi dont ils obtenaient les muyraquitás. C'est encore une question ouverte, si ce peuple fabriquait ces objets (peut-être le matériau leur venait d'une autre contrée), ou s'il les trouvait dans des tombeaux, ou dans des anciens lieux de sacrifice (——). — Peut-être les tribus de l'intérieur avaient des contacts par voie directe avec les tribus de l'Amazone; il est bien possible que tous les muyraquitás ne soient pas de la même origine; mais il semble assez bien établi qu'il y eu dans la région de l'Amazone entre le Yamunda et le Tapajos un centre de dispersion de ces objets 22."

Heriarte has another statement about "pedras verdes" which is of the greatest interest in this connection. He relates that the Indians bought wives for muirakitas. He says this: "... tem inenitas superstíções, e agouros em os animaes: quando se cazão compram as mulheres por pedras verdes, a quem chamam Baraquitas (e as estimão em muito) ou por escravos, ou por caens de caça que criam em caza: e se a mulher se faz adulterio contra sua vontade, as podem vender por escravas 23."
A particularly interesting parallel to this quotation we get from Palo­mino in Preuss’ Kagaba-work. It is a Kagaba-tradition about the powerful medicine man, Sintana, whose daughter is desired by the sun. Preuss 24 says:


The quotations from Heriarte and Preuss show that frogs played the roll of bargain for women. I shall return thereto in another connection.

We shall now in the following partake of the circumstances of the finds, &c., of the frog-formed muirakitās in jade portrayed in fig. 13.

In his valuable commentaries to the Santarem discoveries Nimuendajú writes in the original catalogue at the museum of Gothenburg about the finds from Lago do Sapuquá among other things the following: “Am Lago Uaimy, einem kleinen Nebensee des Lago do Sapuquá, hörte ich von einem froschförmigen Muirakitā, der sich im Besitz eines jungen Mädchens namens Catita Arara befand. Ich fuhr sofort dorthin und es gelang mir, ihr das seltene Stück abzukaufen. Sie hatte es selbst am Strand des eigentlichen Lago do Sapuquá an einer ‘Os Pereiras’ genannten Stelle gefunden, wo die das Ufer bildende schwarze Erde durch die Brandung des Sees abgespült wurde. Das Material dieses vorzüglich gearbeiteten und erhaltenen Muirakitā ist sandig und von weißgrüner Farbe.”

This muirakitā mentioned by Nimuendajú is depicted here in fig. 13 A. On the under-side it is furnished with sideways-bored holes for cords in which to hang.

From the northern coast of Lago do Sapuquá comes also the fragment of a frog-muirakitā in red colour-tone shown in fig. 13 C. By means of the dotted line I have attempted to reconstruct the probable appearance of the figure when complete. From the fragment it is evident that the piece has been very beautifully executed. Nimuendajú mentions the muirakitā in the original catalogue with the following words: “Außerdem erhielt ich auf der Fazenda dos Anjos am Lago do Sapuquá von der Gattin des Besitzers ein Bruchstück eines froschförmigen Muirakitā, bestehend aus den Hinterbeinen und einem Stück des Leibes, aus einem sehr schlechten, rothbraunen Material.”

25 It is known that muirakitās are made of a rather hard kind of rock, usually green, which in literature is called alternately nefrit, jade or jadeit often without any definite conception of the correct term for the material. Concerning the frog-muirakitās here published in fig. 13 it seems as though jade were the most correct term. As is known it is impossible macroscopically to distinguish between nefrit and jade.
A third frog-formed muirakitā, also in the museum of Gothenburg, is from Santarem (fig. 13 B). This muirakitā is bored through so that it may

Fig. 13. Frog-formed muirakitās: A, G.M. 24.16.88. Lago do Sapuquá; B, G.M. 25.14.2. Santarem; C, 24.16.90. Fazenda dos Anjos, Lago do Sapuquá; D, finding-place unknown, drawing by Nímuendaí; E, Peixe-boi, east of Para; F, the region of Obidos, after Rodríguez; G, no finding-place indicated, after Netto. 1/2.
be carried in a cord. From the drawing it appears that it is considerably more conventionalized than the one previously described.

In the catalogue formerly spoken of Nimuendaú mentions still two frog-formed muirakitãs from the Santarem territory which he however did not succeed in getting. From the region around the mouth of Rio Nhamundã — Rio Trombetas he writes: "Schließlich besichtigte ich noch, etwas unterhalb von Obidos, an dem oberen Ende der Ilha Orando do Mamahuru einen Platz, wo die Strömung das Ufer abgerissen und früher zahlreiche Indianerspuren ausgewaschen hatte. Vor einigen Jahren wurde hier ein kleiner, froschförmiger Muirakitã aus blaugrümem Material gefunden. Er befindet sich jetzt im Besitz des Postagenten von Santarem, der ihn mir um keinen Preis verkaufen wollte. Ich fand an Ort und Stelle nur ganz unbedeutende Scherben; offenbar hatte die Strömung die alte Siedlungsstelle schon vollständig zerstört."

The other frog-formed muirakitã which Nimuendaú did not succeed in procuring he has however sketched in his original catalogue, and I have reproduced it here as fig. 13 D. According to a statement by Nimuendaú this frog is of nefrit and weighs 50 gram. It is owned by Dr. Alfredo Ladislaus in Santarem.

In a letter to the author from Barra do Corda, Brasil, June 30, 1931, Nimuendaú mentioned that Dr. Carlos Estevão De Oliveira at Museu Goeldi in Belém do Pará had succeeded in getting a very thin, even, much conventionalized frog-formed muirakitã of a bluish-green colour from Peixeboi, a place east of Pará on the railroad to Bragança. On a plate which Dr. Estevão has been good enough to place at my disposal this muirakitã is also found and I have reproduced it here in skeleton-drawing as fig. 13 E. On the same plate were furthermore three, obviously frog-formed, muirakitãs portrayed, of which two, however, were newly published by de Goeje in his before this mentioned interesting comparison about "the amazon-stones".

The third is reported as found in Municipio de Obidos. Besides the two mentioned specimens from Estevão's collection de Goeje published a frog-formed muirakitã from Surinam.

Through the works of Rodrigues and Netto some beautiful examples of frog-formed muirakitãs are known. The former depicts the specimen here reproduced in fig. 13 F, which he himself describes with the words: "the best, the most beautiful and most perfect muirakitã I have ever seen." The finding-place should be in the environs of Obidos. In the same work

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26 Oudheden uit Suriname, pl. II: 4, 6.
27 Op. cit., pl. I, and p. 514. — "Objet en pierre en forme de grenouille, trouvé dans le sol dans la zone aurifère du Surinam. Matériau probablement porphyre pétro-siliceux, dureté 5 à 6, couleur grise un peu verdâtre (vert d'olives), légèrement mêlée de brun, poids spécifique 2'66; surface lisse; le poli s'il y en a eu, a disparu. Il a été percé des deux côtés, les trous se rencontrant sous un angle de 160°; évidemment l'objet a été fabriqué pour pouvoir le porter en collier. Sans doute cet objet est un muyrakytã, pierre des Amazonas ou pierre verte."
28 Barboza Rodrigues: O muyrakytã e os ídolos symbolicos, vol. 1, pl. III: 1 a—b, and p. 261. — "E'o maior, e mais bello e o mais perfeito muyrakytã do Amazonas que tenho visto. Sobre este raro exemplar dei uma noticia circumstanciada no
RODRIGUES depicts still another frog-formed muirakitã which he found at Lago Yacu-urarú, Rio Yamundã. This muirakitã, as well as the one mentioned before, are twice perforated for cords in which to hang them 29.

For a very beautiful frog-muirakitã published by NETTO 30 no other information outside of the specific weight is given except "amuleto batrachiiforme de neprite. Amazonas".

All of the muirakitas which have been discussed here are from fairly circumscribed territory which we may call the lower Amazonas. There cannot be any doubt that the frog-formed muirakitã which is portrayed by FEWKES 31 with the information that it is from the West Indies in reality is Amazonian. As FEWKES mentions (op. cit., p. 234) this muirakitã is perforated on the underside for cords in which to hang.

It is also most probable that a muirakitã published by FISCHER 32 (fig. 14 D) is amazonian and not, as this author, who has carefully studied the object, believes, from the West Indies. According to FISCHER, whose theories about the so to speak ethnographical side of the nefrit problem are completely without critic and now antiquated and abandoned, this muirakitã should belong to the collections of the museum in Genève, but in Genève no information is to be had about it. Upon my request about a photograph of the object professor EUGÈNE PITTARD answered that the museum in Genève does not own any stone figures from the Antilles.

I am most inclined to consider the last-named muirakitã a frog, as I also consider to be a frog the muirakitã in greenstone depicted in fig. 14 C, from the lake-dwelling culture in Cajary in the district of Rio Pindaré in Maranhão 33. Fig. 14 D on the other hand might well appear to be a feminine figure. A comparison between the obviously feminine figurines in
fig. 14 A, B from Santo Domingo certainly gives points of comparison, for instance the posture of the legs 34.

In connection with the earlier mentioned muirakitä in the museum in Prague FEWSES discusses the manner in which to carry these. They were worn on the forehead. I shall not here go further into the question of how muirakiläs were worn but wish to refer to chapter XII under the heading

![Fig. 14. A, B, feminine figurines from Santo Domingo, after FEWSES; C, frog-formed muirakitä from Cajary, Rio Pindaré, after LOPES; D, after FISCHER, unknown district.](image)

Figurines in the newly named work about the Tainos by Dr. SVEN LOVEN, in which this author discusses the manner in which to carry zemies. LOVEN shows among other things that in the case the zemies have concave underside they should sit well on the forehead, but not on the breast if they were carried in a cord around the neck 35. Any general way of wearing cannot well be

34 Fig. 14 A, B, after FEWSES: *Precolombian West Indian Amulets*, pl. LII: 1, 3.
35 I should add that NIMUENDAJÚ, who during his activity as investigator in Brasil has had occasion to see many muirakiläs, from the worn appearance of the holes of those specimens he has seen judges that they have been carried on the forehead and not on the breast. In the earlier mentioned letter from Barra do Corda he writes to me: "Ist es Ihnen übrigens schon aufgefallen, daß sowohl die Anlage als die Abnutzung der Ränder der Löcher bei den froschförmigen Muirakiläs darauf hindeutet, daß sie nicht um den Hals hängend getragen wurden, sondern daß die Schnur senkrecht zum Rückgrat des Frosches gespannt gewesen sein muß? Sollten sie etwa um die Stirn gebunden getragen worden sein?"
definitely given. Hamy’s excavation on Guadeloupe of an “amulette en jade, en forme de grenouille, trouvée au cou d’un anthropolithe”\textsuperscript{36}, as well as Du Tertre’s description of “pièces vertes” from the same island\textsuperscript{37} for its part throws light upon the custom of wearing these figurines around the neck. The later description is interesting also for its information that “ce sont les Sauvages qui nous les apportent de la terre ferme” (op. cit., p. 77) and we should thus get confirmation that Indian trading connections between the continent and the West Indies existed even at so late a date. From Montserrat, north of Guadeloupe, Harrington speaks of “remarkable series of beads and pendants”\textsuperscript{38}; among these a number of frog\textsuperscript{39}, probably even they carried to the island through trade\textsuperscript{40}.

As has been shown frog-formed muirakitas take a special part at the fashioning of the frog-motive in the Amazonas. One may question oneself where otherwise in America frog pictures of this type are found, and we find then that it is mostly in Venezuela and in Central America that parallels may be sought.

As far as Venezuela is concerned the material which is known from there is far too inconsiderable in comparison with the great interest the country presents in its character of connecting link between the cultures in Central America and the Amazonas. To keep to the frog-motive it seems to have played a considerable roll for the settlers in the district around Valencia lake. Already in Marcano’s description of the finds at the south-eastern part of the lake we read: “Parmi les images des animaux qui se portaient suspendus, celles des grenouilles sont les plus communes. Les Indiens les reproduisaient volontiers et en variaient les attitudes…”\textsuperscript{41} and “Parmi les animaux dé-

\textsuperscript{36} E. T. Hamy: Decades Americanae, fig. 182-184, and p. 518. — “..., je pus tirer de la gangue une amulette en jade de 20 mm de longueur sur 17 de largeur et 9 d’épaisseur, reproduisant grossièrement la figure d’un batracien. La tête et les membres antérieurs sont séparés du reste du corps par une rainure transversale, chacune des saillies que représent les pattes de devant est adroitement percée de deux trous, l’un sur la face externe et l’autre sur la face inférieure, à l’aide desquels la grenouille de jade était suspendue au cou du jeune sujet.”

\textsuperscript{37} Du Tertre: Histoire générale des Antilles habitées par les Francais, vol. 2, p. 77. — “Ce qui me fait adjouter foy à ces personnes, est que j’ay veu une de ces pierres qui avoit la forme d’une grenouille: Or il est tres certain que les Sauvages n’ont ny l’industrie, ny les outils pour tailler une telle figure dans une pierre si dure; si bien qu’il faut qu’ils ayent pris la matiere de cette pierre dans le temps qu’elle estoit mole, maniable, et capable de recevoir la figure qu’ils luy vouloient donner. Ces pierres pendues au col empesches de tomar du haut mal, j’en ay fait l’expérience sur plusieurs personnes tournées de ce mal, avec un assez heurieux successe.”

\textsuperscript{38} Harrington: A West Indian Gem Center, p. 184.

\textsuperscript{39} Op. cit., p. 186. — “For some reason the frog must have been a very popular animal in Montserrat, for the collection contains a number of little pendants, mostly of nephrit (jade) or of similar materials, carved to represent this creature. In some cases the frog is quite lifelike and easily recognized; in others, it is conventionalized to such an extent that without the more realistic specimens to serve as a guide, it would be impossible to guess what animal was intended.”

\textsuperscript{40} Compare ibid., p. 185.

\textsuperscript{41} G. Marcano: Ethnographie précolumbienne du Venezuela, p. 53.
coratifs, le plus commun est la grenouille; elle est si incorrectement rendue dans certains cas qu'il est impossible d'assurer si c'est bien elle qu'on a voulu reproduire" 42.

From El Zamuro von den Steinen depicts a necklace with nephrite plates in the form of animal figures, among these frogs 43 and from Camburito a frog-figure in shell (ibid., fig. 28). As well this author as later Spinden show the agreement between the pottery in the "cerrito"-culture at Valencia lake and Colombia 44. In order to return to muirakitā-like figures, however, I have kindly been permitted by Musée d'Ethnographie in Genève to publish the steatite figures here reproduced in fig. 15 (table I), representing a find made 1921 in excavations by a Swiss, Mr. de Lyos, in Páramos de Apartaderos, south-east of Lago de Maracaibo in the Sierras (Estado Trujillo). I am inclined to consider these figures primitiv frog-portrayals of muirakitā type. I have not yet secured any further information about other discoveries from Mr. de Lyos' excavations, wherefore it is unknown to me whether at the same time possibly other frog-finds were made, for instance pottery with frog portrayals.

In this connection I should wish to point out the existence of small stone frogs among the Ijca Indians in Colombia, the function of which, as pointed out by Bolinder who publishes such a frog, existing at the museum of Gothenburg, is wholly magical 45. They are used by the medicine-men, mamas, as strength-giving medicine in curing the sick, &c.

From Central America the stone figures from Las Guacas, the Nicoya peninsula, published by Hartman, are those which must be mentioned and which certainly most fitingly may be called muirakitās, even they 46. Hartman calls them "amulets" and writes (op. cit., p. 60): "Under this term are included a large number of small, polished ornamented stones of various shapes and colors, all pierced by holes, indicating that they were worn suspended on the body."

43 von den Steinen: Ausgrabungen am Valenciasse, fig. 27.
44 Spinden: New Data on the Archaeology of Venezuela, p. 326. — "The shores and islands of Lake Valencia are rich in archaeological remains. — In this region collars of carved shell beads are often unearthed as well as stone pendants in the form of frogs. Pottery is decorated by modeled designs among which the highly conventionalized bat with outstretched wings is prominent. Figurines that represent human beings, jaguars, frogs, &c., are common and often finely executed. Connection with the Andean region is evident in pottery shapes as well as in the styles of decoration."
45 Gustaf Bolinder: Die Indianer der tropischen Schneegebirge, pl. 39, fig. 3 b, and p. 136. — "Die Mamas besitzen ferner verschiedene kleine Steinskulpturen, die im allgemeinen Tiere vorstellen, Frösche oder anderes. Diese findet man auch in Indianergräbern. Von den hier abgebildeten Skulpturen ist der Frosch von einem Mama verwandt worden, während die übrigen, schlecht erhaltenen Funde, aus einem Mama-Grab der neueren Zeit sind. — Diese Skulpturen sind natürlich keine 'Götzenbilder'. Sie vertraten kein bestimmtes Wesen. Ihre Kraft ist von derselben Art wie die der Steine und des magischen Stabes. Daß z. B. ein Froschbild sich für die Regenmagie eignet, ist ganz natürlich."
46 C. V. Hartman: Archaeological Researches on the Pacific Coast of Costa Rica, pl. XLI, figs. 11, 12, 13, 14, 17, 19, 20, and 23.
From South America may possibly also the stone frogs, to which Bandelier and Forbes refer from the Indians of the Titicaca region in connection with rain-magic, be included in the group here treated. The connection between Bandelier's information about "frogs of stone" and rain magic is confirmed by Forbes' observations from the Aymara Indians. Thus this later author writes: "The Indian fishers, before commencing operations, drink a little of the water with reverence, and mutter a prayer. When rain is desired, it is said that they often make little images of frogs and other aquatic animals, and place them on the top of the hills, as a means of bringing down rain by propitiating their deities." I shall however somewhat later discuss the religious ideas which are associated with the frog wherefore I shall not take up this subject now.

II. The Diaguita-Calchaqui pottery.

The frog-motive undoubtedly constitutes one of the main elements in the painted pottery from the territory, Diaguita-Calchaqui. As one in the Santarem pottery can establish a process of successive conventionalizing of the frog-motive it is possible on the Diaguita-Calchaqui urns to follow that conventionalizing which the painted frog ornamentation undergoes. This conventionalizing does not, however, follow the same scheme as in the Santarem material which of course is a consequence of the technic used. In Santarem, by conventionalizing the figures which are either freely executed or incised in clay has been created more simple and easily executed forms. In the painted Calchaqui ornamentation the final result is of a more complicated sort than the former which is more naturalistic.

When I wrote the first draft to this paper we unfortunately did not at the museum of Gothenburg have any knowledge of Odilla Bregante's interesting comparison "Ensayo de Clasificación de la Cerámica del Noroeste Argentino". In this work Bregante in fig. 114 reproduces from Debenedetti a series of conventionalisation of the painted frog-motive in this pottery (fig. 16 A) which as one will see leads to quite differentiated forms. Independent of Debenedetti's work, which was unknown to me, I had come to the same result in the series here reproduced in fig. 16 B, composed from Outes'...
handsome work "Alfarerías del Noreste Argentino". I have thought it best to include also my own series, as it and that of DEBENEDETTI amplify one another. On the other hand I have cut out certain parts of my text which became superfluous after having become acquainted with DEBENEDETTI's conventionalizing series. In describing this pottery-ornamentation OUTES has not understood the conventionalizing of the frog-motive. When he describes the ornamentation of a vessel which was found in a child's grave in Loma Rica 50 he speaks of "elementos alargados, rectos hacia un lado y ondulados del otro" 51. We find these elements in fig. 16 B: 4, 5 and they are, as one will see, nothing else but the hindlegs, changed and liberated from the frog-body.

As is already noticeable from the two mentioned series of conventionalizing a number of variations of the different stages may be found by studying the Calchaqui pottery. Almost certainly the side ornamentation of an urn published by BRUCH 52 may also be referred to the conventionalized frog-motive (fig. 17 D).

A variation of the frog-motive is the frog with the cloven head, "cabeza bipartita", which is a common occurrence in this pottery (see reproduction in fig. 17). Also the snake with the cloven head is a common occurrence (fig. 17 D). This cloven frog- or snake-head is however not specific for the Calchaqui pottery. The motive also occurs in Peru in the painted ornamentation on clay vessels from Trujillo 53 and also carved in wood on the so-called "ceremony-paddles" from lca 54.

As regards the frog-motive one finds other similarities between the art in Peru and that in north-western Argentina. Thus, for instance, there is at the museum of Gothenburg a box of wood (dimensions 34'5 × 12'7 × 12 cm) from the coast of Peru (G. M. 30. 11. 1. A). As seen in the reproduction in fig. 18 (table II) the long sides have frogs carved in the wood, the one in the middle section being relatively well conserved. Characteristic are the rings on the back of this frog. Such frogs with rings are found in different material in Peru. We find them on a clay vessel with animal figures in high relief published by BAESSLER 55. On a necklace from Ancon is found a mother-of-pearl frog with the same rings on the back 56. Parallels with north-western Argentine are had in a black vessel from La Cienega published by DEBENEDETTI, on which this frog appears in the incised ornament (fig. 19) 57. The similarity between the frog on the vessel from La Ciénega and the one on the wooden box from Peru is considerable.

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50 OUTES: Alfarerías del Noroeste Argentino, fig. 12.
52 BRUCH: Exploraciones arqueológicas en las provincias de Tucumán y Catamarca, fig. 90.
54 Ibid., p. 433.
55 Altperuanische Kunst, Vol. III, pl. 126, fig. 358.
56 Reiss und Stübel: Das Totenfeld von Ancon in Peru, Vol. III, pl. 79, fig. 9 b.
57 DEBENEDETTI: L'Anicenne Civilisation des Barreales du Nord-Ouest Argentin, pl. XXXIX, a, b.
The Frog-Motive among the South American Indians.

Fig. 17. The frog-motive on the painted Calchaqui pottery. A, B, D, E, from Bruch, Exploraciones arqueológicas etc. figs. 47, 104, 90, 36; C, from Lafone Quevedo, Tipos de Alfarería, fig. 26; F, G, from Ambrosetti, Notas de arqueología etc., figs. 252, 253; H, from Outes, Alfarerías etc., fig. 12; I, from Ambrosetti, Exploraciones arqueológicas etc., fig. 210.

Fig. 19. Detail of engraved ornamentation on earthenware vessel from La Ciénega. From Debenedetti.
Possibly these figures represent portrayals of one and same kind of frog, perhaps the females of a species which take care of their brood. The backs of the females of these species have a particularly warty appearance during the period of fertility. Lehmann-Doering depict from Valle de Chicama a clay vessel in the form of a toad or frog, on the back of which are several wart-like swellings. The authors write: "Rücken mit Fruchtzweigen bedeckt". On a clay vessel on feet from Chancay a frog-figure with similar bulb-formed swellings sits in jumping position on the edge. There is of course also a possibility that the rings mark the color spots on some of the highly colored frog species which are found not least in Peru.

In the text to the described frog with rings from the La Ciénega vessel Debenedetti reports that painted frogs never occur in the painted pottery from La Ciénega and La Aguada. This is however contradicted by the fact that one in the same work on a vessel from La Ciénega finds a frog, to be sure very conventionalized but fully recognizable through the cloven head and the rhomboid body.

In the conventionalizing series in this material (fig. 16 B) which I have formerly called attention to, the frog-head disappeared. I wish to call attention to the occurrence of other conventionalized, very strange types with the cloven frog-head. This in fig. 20 A we may study a burial urn from Santa Maria published by Outes. The animal, which is found by itself in fig. 20 B, gives me the impression of being a conventionalized frog. Outes speaks of "ofidios de cuerpo quebrado". On the figure one may notice a detail, reminiscent of a hand, which according to my opinion should be one of the later stages of the conventionalized frog hindlegs. The same detail is seen again in the ornamentation on a burial urn from San José (fig. 20 C), first published by Adán Quiroga. Whether one has to do with the conventionalized forms of the snake with the cloven head (plain snake heads are also found in the ornamentation on the urn) or whether the ornament may be derived from the frog-motive is at first sight impossible to decide. To me, however, the snake-like

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58 Kunstgeschichte des alten Peru, pl. 62.
59 Max Schmidt, op. cit., p. 251.
60 Debenedetti: L'Ancienne Civilisation etc., p. 25. — "Finalmente, en la cerámica de la Ciénega et de La Aguada, nous rencontrons comme autre élément constitutif principal, bien que moins fréquemment, quelques représentations de crapauds, depuis celles des formes réelles de l'animal jusqu'à ses transformations complètes par stylisation graduelle. Notons, en passant, que le crapaud, si répandu dans les céramiques peintes de style proprement appelé 'calchaqui' par beaucoup d'auteurs autorisés et 'diaguite' par d'autres, ne l'est pas autant dans les poteries de La Ciénega et de La Aguada, et jamais on ne l'oublie peint."
61 Op. cit., pl. XVI. — "Vase élevé, avec anse latérale. La décoration peinte en noir sur le fond rougâtre de la pièce est de caractère zoomorphe très stylisé et comprend des éléments géométriques."
62 Alfarerías del Noroeste Argentino, fig. 30, and p. 41. — "El cuello, en sus dos mitades, se halla dividido en tres registros horizontales por lado, ocupados por climanistrones en composición d por interesantes representaciones de ofidios de cuerpo quebrado, cabeza bipartita d cuyos lados se desprenden líneas onduladas."
63 La Cruz en América, p. 140, fig. 52.
The frog-Motive among the South American Indians.

The frog with the cloven head? A, Santa Maria, from Outes, Alfarerias etc., fig. 30. B, San José, from Quiroga, La Cruz en América, fig. 52.

seems secondary in comparison with the frog-like. With the point of departure in the cloven frog-head and a frogs hindlegs such a conventionalized form could easily develop from the frog-motive. I refer to fig. 20 D in which the origin of such a ornament has been schematically indicated. As appears from the figure, one may, by imagining a change of those angles which are formed by the depiction of a frogs leg-posture from acute to right, immediately arrive at the ornament on the earlier mentioned urn.
The detail of ornamentation on a burial urn from Lomas Coloradas between Santa Maria and Fuerte Quemado (G. M. 30.39.3.a.) which is reproduced in fig. 21 might be counted as one of these crossings between frog- and snake-portrayals.

On the same vessel, as on the vessel in fig. 17 F, one may notice a detail of ornamentation with a swelling in one end which might possibly be interpreted as the depiction of a tadpole at an early stage. Leaving out the difference in execution it reminds one strikingly of a clay cord with a swelling in one end which MAC CURDY discovered on a Chiriqui vessel and which he interprets as “representing frog in tadpole stage” (A Study of Chiriquian Antiquities, fig. 101). In the case here discussed we must however abandon the interpretation of the ornament-detail being a tadpole after having seen two burial urns reproduced by BOMAN from the Yocavil valley (KRICKEBERG: Amerika, fig. 85). The fact is that on these urns we see plainly that it is the ostrich head with the ostrich neck which is portrayed by itself and which, when the head is not clearly marked, takes on the appearance of a bent line with a swelling in one end.

Depictions of tadpoles are however not absent in the pottery from the territory here treated. In the “La Paya” material published by AMBROSETTI we find a depiction of a tadpole in the stage when the forelegs begin to develop (fig. 22 D). It is part of the ornamentation on the insides of a vessel and is, as one sees, furnished with the odd cloven head 64.

From America I know of no other cases than that from Chiriqui except the depictions of the tadpole in the polychrome Nasca pottery and from Zuñi in North America; as regards the later together with frogs, dragonflies, and the like, on those clay baskets which are used to keep flour in at their ceremonial dances to ensure fertility. According to STEVENSON who portrays such

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64 JUAN B. AMBROSETTI: Exploraciones arqueológicas en la ciudad prehistórica de “La Paya”, t. 1, fig. 112, and p. 243.
The frog-Motive among the South American Indians. 351

vessels from Zuñi 65 it should however, not be a question of tadpoles but larvas of a water insect 66. In the Nasca pottery it is, however, plainly a case of tadpole-depictions. Seler 67 has reproduced a vessel, now at the museum of Gothenburg, from Nasca (G. M. 29.26.23.). On this vessel, which is reproduced in fig. 22 A, we find as well tadpoles as full-grown frogs. In the same work Seler gives an example of still more tadpole-depictions in the painted

![Fig. 22. Depictions of frog-larvas. A, B, C, Nasca, from Seler. D, "La Paya", from Ambrosetti. A now belongs to the Gothenburg museum, 29.26.23.]

Nasca pottery (see fig. 22 B, C) 68. At the museum of Gothenburg, furthermore, the Nasca vessel 32.2.44. has tadpole ornamentation. In another connection I shall return to these subjects.

65 James Stevenson: Illustrated Catalogue of the collections obtained from the Indians of New Mexico and Arizona in 1879, figs. 448-453.
66 Op. cit., p. 360. — "The figures most common, and in fact almost exclusively used, are those resembling tadpoles, but which, as I learned, are intended to represent a small crustacean or the larva of an insect common in the water-pools and streams of the Zuñi country; and the somewhat grotesque figures of the horned toad (Phrynosoma)."
67 Eduard Seler: Die buntemalten Gefäße von Nasca im südlichen Peru und die Hauptelemente ihrer Verzierung, fig. 134 a.
68 Ibid., figs. 318, 319 and p. 313.

Anthropos XXIX. 1934.
Although the painted frog-motive dominates the Calchaqui pottery there is no lack of frogs, freely executed or in relief. In his “Notas de Arqueología Calchaqui” AMBROSETTI writes about frog portrayals: “Las representaciones de este animal son comunes en los objetos arqueológicos del valle Calchaqui. La Collección Zavaleta poseía varios vasos con sapitos aplicados en sus bordes, como queriendo penetrar en ellos, y en un fragmento de puco negro se veía también la imagen de un gran zapo de relieve, modelado con lujo de detalles, y hasta con el cuero verrucoso, etc., cuyo dibujo no pude conseguir.”

DEBENEDETTI portrays a vessel from La Ciéñega, one side furnished with a partly conventionalized frog-figure which is turned towards the mouth of the vessel. Also from La Ciéñega, BREGANTE reports a vessel, now at the ethnographical museum in Berlin, “cuya decoración fundamental la constituyen seis batracios en relieve, colocados en la parte ventral y mirando hacia el borde”.

This detail, that the frogs are placed so that they look towards the mouth of the vessel is particularly characteristic for frog depiction in the Colombia pottery and I shall return thereto in a later chapter. Finally, there remains only to call attention to a couple of frog-vessels, taken from AMBROSETTI, the execution of which is of great interest for the understanding of the roll of the frog in the Indian world of imagination, and to which I shall later return in connection with the roll of the frog in the concepts of fertility among the Indians. It is partly a question of a frog-like squatting figure in clay from Tafí in the Province of Tucumán, which is furnished with an “órgano genital masculino de tamaño exajerado”, partly of a vessel which AMBROSETTI describes in the following manner: “El Museo Nacional posee también un pequeño vaso votivo que lo forman dos sapos, uno sobre otro, en el acto del coito, y lo curioso es que el macho está modelado de menor tamaño que la hembra.” As will be discussed later, clay frogs depicted in a posture of coition are known also from Colombia.

III. Peru.

I have already in the foregoing in a couple of instances touched upon the occurrence of the frog-motive in Peru but now I wish to call attention to some other cases.

As one may expect from Peruvian high culture, even the frog-motive is perfectly executed. Consider for instance the vessel in fig. 23 (table III) in the form of a toad from Valle Virú (G. M. 28. 18. 18.) with red decoration on a white foundation. A toad, not quite as elegant but unusually realistic and:

69 Boletin del Instituto Geográfico Argentino, t. XVII, p. 555.
70 L’Ancienne Civilisation etc., pl. XV a–b. — “Vase noir avec une anse latérale sur laquelle a été modelé un petit crapaud. La décoration gravée, de caractère simple, est constituée par des losanges isolés.”
71 BREGANTE: Ensayo de clasificación etc., p. 123, cit. DEBENEDETTI, Coll. UHLE. Nr. 1686.
72 Boletin del Instituto Geográfico Argentino, t. XVII, fig. 50–50 a, and p. 554.
73 Boletin etc., t. XVII, p. 555.
distinctly executed, is found on a vessel from Chimbote deposited at the museum of Gothenburg (G. M. 1920, Dickson).

Kroeber has published a clay vessel in the form of a squatting frog- or toad-figure from Moche 74. This vessel seems to impersonate a mythological frog shape. Still more is this the case with a vessel from Chimbote, published by Max Schmidt, which represents a ‘frog-woman’ who holds a ‘frog-child’ in her arms 75. Unfortunately I cannot get any guidance from mythological material as the Peruvian mythology is so little known in its details. That the frog is associated with rain- and fertility-ideas is beyond doubt. I have earlier spoken of the vessel in fig. 22 A upon which Seler has commented 76. We see on this one together with the frogs and tadpoles what are clearly demons of vegetation which hold plants in their hands. Then men who wander in a long line through the middle of the figure carry a sort of sticks in their hands, perhaps digging-sticks; presumably a ritual sowing procession or something in that way is here portrayed. One finds other vessels in the Peruvian pottery which strengthen the impression one has of the frog as an animal of fertility. Thus plain corn-cobs appear on a frog-formed vessel from Chimbote which is published by Max Schmidt 77. To this might even mortars of stone decorated with frogs be counted. Schmidt portrays one such from the highlands 78, and at the museum of Gothenburg is found a frog-formed grind-stone from the valley of Rio Uchiza at Rio Huallaga, south of Tarapato, Peru (fig. 24) 79. From the Cuzco territory Max Schmidt depicts stone bowls with frog-handles 80.

Among vessels with frog-portrayals at the museum of Gothenburg is a very interesting one from Valle Chicama (G. M. 30. 28. 3.) of that type of pottery which portrays human beings with pathological defects and which in Peruvian pottery artistically stands so high. As one sees in fig. 25 (table III),

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74 A. L. Kroeber: The Ulhe Pottery Collections from Moche, pl. 55, fig. 1.
75 Kunst und Kultur von Peru, p. 173.
76 Die buntemalten Gefässe etc., p. 313–314.
77 Kunst und Kultur von Peru, p. 178.
78 Ibid., p. 457.
with the detailed drawing of the face, the artist has portrayed a man whose nose cartilage and lips have been eaten away. What is most interesting in this connection is, however, that a black painted frog is placed on either cheek. Among Montell's schematic drawings showing incised ornaments in the face on figural vessels from the northern coastland, one finds three faces with frog pictures. Montell associates the occurrence of these and other animal figures on the facial pottery in Peru with tattooing, which, as a matter of fact, existed on the coast of the middle part of the country. He writes further: "A matter of fact which seems strange is that this engraved facial decoration on the clay-vessels is so irregular and unsymmetrical. It frequently occurs that figures of animals are placed on the site of the eyebrows, at the corners of the mouth, or on the cheeks or the chin. What their significance may be is impossible to say, but it is conceivable that they represent totem marks, or such like."

Lehmann-Nitsche has published a clay vessel from Moche, also portraying a man without nose-tip. The man has on the chin the picture of an animal, according to the author a "chinchi" which he thinks might possibly represent the sickness which has eaten away the nose. This, however, does not seem very likely. On the facial vessels published by Montell there are frogs on such faces which do not seem defect.

Regarding frog-portrayals on earthenware from Peru there remains to mention vessels with frogs which sit in a jumping position on the edges of the vessels. As will be evident later, this is typical for the Colombia pottery. From Ancon in Peru I know of one open clay-bowl with the frog placed in this typical position. At the ethnographical State museum in Stockholm are two Peruvian vessels with frog-portrayals, from respectively Chimbote and Guadelupe. I reproduce the Chimbote vessel (R. M. 16. 107.) here in fig. 26 (table IV). The pose of the frogs turned towards the center and towards one another is the one which is typical for the Chibcha pottery, although the vessel itself in this case is Peruvian in type. On a house-urn from Trujillo one may notice two frogs which have crept up on the roof and are turned towards one another. They are interesting also because of those spots on the backs about which I have spoken before.

We meet frog-portrayals from Peru also in other materials than earthenware. I have in another connection mentioned a mother-of-pearl frog from Ancon with rings on the back. In Peru also exist frogs made of white shell. There is a striking similarity between the frogs on a necklace from Cuzco.

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81 Gösta Montell: Dress and Ornaments in Ancient Peru, fig. 38, E, F, H.
83 R. Lehmann-Nitsche: Lepra precoombina?, figs. 8, 9.
85 This vessel is depicted by Erland Nordenskiöld in his work "De Sydamerikanska Indianernas Kulturhistorie", fig. 123. The vessel from Guadelupe (R. M. 16. 8.) is depicted in the same work as fig. 124.
The Frog-Motive among the South American Indians.

In the earlier mentioned wooden-box from the coast of Peru we have an example of the use of the frog-motive in the art of wood-carving. In his rapport to de Montes Claros regarding his father's, MARTIN SANCHEZ DE ALCAYAGA, conquista in the present Santa Cruz de la Sierra territory, Padre DE ALCAYA gives the information that in the temple in Cuzco were idols for "common people" in palo-wood with carved toads and other animal figures, as monkeys, snakes, and birds. COBO also counts idols in the form of toads among those of different material and form which he mentions. That the frog played a religious roll we get confirmed also by GARCILASSO DE LA VEGA. According to TSCHUDI toads were found among the other larger and smaller animals which were offered in Peru. It is interesting that toads also play an important part in the samiri-concept among the Aymara-, Uro-, and Chipaya Indians. The samiri-concept, which has been thoroughly studied by Dr. A. METRAUX during an expedition to the Bolivian highlands in 1930 is of a complicated nature and difficult to define. METRAUX has been kind enough to place his notes on this subject at my disposal but there is not here occasion to discuss any details, particularly as the collector of the information has explained that he is going to publish this interesting material. Here I shall merely point out that toads may be samiri. Offers are brought them through the samiri-concept.

87 Max Uhle: Pachacamac, fig. 113, and p. 95. — "A frog carved in white shell, with one green and one red eye, is suspended from the chain."


89 Mujia: Exposicion de los títulos que consagran el derecho territorial de Bolivia, etc. Anexos, t. I, Epoca Colonial, p. 162 (Relacion del Padre DE ALCAYA, cura de Mataca): "La calcada es de diez brazas de ancho y de largo veynte y sale á otra plaça, así como la de la ciudad del Cuzco donde está un templo grandioso y muy grande, que dá temor entrar en él, porque ya tantos pulpitos de una parte y otra, puestos y arrimados á los lados del templo, que cosa maravilla quan sujetos les tiene el demonio con esta diabólica orden. Los pulpitos son hasta la cinta á modo de una caxa de guerra rredondos y gruesos que un hombre no los puede abarcar, y encima su ídolo de plomo y están: esto es de los caciques y de la gente noble; y los de la ordinaria son de palo, todos pequeños; unos con figura de leones y otros de monos y otros de culebras, sapos, pajares, y otros animales que produce y cria aquella tierra que no la pongan puesta en aquel tiemplo."

90 Bernabé Cobo: Historia del Nuevo Mundo, t. III, p. 345. — "... una infinidad que tenían de imágenes y estatuas, que todas eran ídolos muy venerados por sí mismos, sin que pasase este simple gente adelante con la imaginación á buscar lo que representaban. Déstas, unas eran pintadas y otras entalladas de diferentes materias, formas y grandeza; unas eran de plata, otras de oro, palo, piedra, barro y de otras cosas; unas tenían forma de humana y otras de diversos animales, peces, aves y legumbres, como de Cárneros, Culebras, Sapos, Guacamayas; de mazorca de maíz, y otras semillas y legumbres, muy bien contrahechas."...

91 Comentarios reales, que tratan del origen de los yncas, etc., Libro I, Cap. IX. — "... Tábien tenía por dioses á otras culebras menores dóde no las ausía tás grandes como los Antis, a las lagartijas, sapos y escuerzos adoravan."

92 J. J. von Tschudi: Kulturhistorische und sprachliche Beiträge zur Kenntnis des alten Peru, p. 42. — "Von Amphibien waren Gegenstände der Verehrung und des Opfers Schlangen, viele Arten von Eidechsen und Kröten."
and they are kept in small glass vessels. Mountains may be samiri. Thus Cerro de Potosi is a samiri, and Métraux was told that there was a stone-toad on its top. Cerro de Oruro is also a samiri. Samiri are the protectors of villages and herds. From all this it is evident that the samiri-concept is connected with concepts of fertility and one may without hesitation take for granted that the prime factor in that line of thought which makes the toad a samiri, the bringer of good luck, the protector of the herds, is ideas about a relation between the frog and the rain.

But we return to the appearance of the frog-motive in Peruvian art-forms. Regarding this motive in textile-ornamentation I must say that it is not common with frog-portrayals; I have at least not succeeded in finding the frog represented frequently in the material and literature which has been accessible to me. As an example of beautiful naturalistic depiction I shall however refer to fig. 27 A, which shows a detail of an unusually handsome knitted piece at the museum of Gothenburg. The finding-place is not known with certainty but may be Paracas. Fig. 27 B shows the frog-motive on a woven belt from the coast (G. M. 32. 2. 84.). On this belt are rows of such frogs alternating with the conventionalized forms which we notice at the lower edge of the drawing. This later conventionalized four-armed ornament is reminiscent of a four-armed ornament which occurs on a woven piece from Arica, now belonging to the museum of Gothenburg, and published by Skottsberg. As far as Arica is concerned the four-armed element may, however be traced back to human portrayals and need therefore not at all have anything to do with frog-portrayals.

Concerning frog-portrayals in metal, finally, they do not either seem to be numerous from this territory. From Tiahuanaco I know of only one specimen. It is a very small frog-figure of solid metal, bored through in the head so that it may be worn as a pendant (G. M. 31. 15. 244, Posnansky). In the ethnographical museum in Berlin is a frog in silverplate from Peru (Mus. f. Völkerkunde, V A 41266). The golden ear pendants furnished with hanging frog-figures which are published by Rivet and Verneau should also be mentioned here. In particular one of them may easily be recognized as a

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93 Compare M. Rigoberto Paredes: Mitos, supersticiones y supervivencias populares de Bolivia, p. 67. — "Sienten aún gran predilección por los penascos o ciertas piedras que tienen la figura de gente o animal. Cerca a la ciudad de Oruro, existía un pedrejón en forma de sapo, el que era considerado por el pueblo como una huaca milagrosa y, en consecuencia, se la reverenciaba cubriéndola constantemente de flores, mixtura y derramando encima de ella chicha, vino y aguardiente. La piedra contenía en su base un hueco, por donde pasaban arrastrándose las personas que deseaban saber sobre el término de su vida. La que se atracaba y no podía franquear el paso suponía que iba a morir pronto, o por lo menos, no ser larga la existencia que le quedaba; la que salvaba sin dificultad alguna, creía que viviría mucho, y que su muerte estaba muy distante. Un militar despreocupado y torpe, redujo a pedazos la piedra sagrada con un tiro de dinamita, causando el hecho, general y profundo sentimiento en el pueblo, que se vio privado de su preciada huaca."

94 Carl Skottsberg: Notes on the old Indian necropolis of Arica, fig. 44 (G. M. 19. 1. 218.), fig. 47 (G. M. 19. 1. 179.).

95 Ibid., p. 48 (G. M. 19. 1. 202.).
frog through its outhammered large eyes. From the body-and leg-posture only one cannot decide whether the figure is zoomorph or antropomorph.

From the coastal cultures in present Ecuador the material at the museum of Gothenburg permits me to state only one occurrence of the frog-motive. It is an edge fragment of a jar from Manta. (G. M. 24. 17. 59.) on which the frog-motive is expressed in profile (fig. 28). In Saville's great work about the archaeology from Manabi appears a problematic frog-figure among a great number of animal figures, such as fishes and birds.

From the tribes in the highlands the frog-motive is represented in grave finds from the Quillacingas in the north. According to Joyce "the Quillacinga graves have yielded vases of good paste mixed with sand, moulded in a variety of shapes, human and animal, and sometimes ornamented with painted designs. Ornament in relief, in the form of monkeys, frogs, snakes, birds, and lizards, is common, the first of these animals predominating...". Joyce also points out that "the vases of the region near the boundary bear a resemblance to those of Colombia". The use of the frog-motive is not the least important part of this resemblance. As we shall see from the following, the frog-motive has, to judge from the frequency of finds, played an exceptional roll within the Colombian cultural district.

IV. Colombia.

It is in earthenware and as independent figures of gold that one before all meets frog-portrayals from the Colombian cultural district. To what degree the frog-motive has been used also at the decoration of other material it is here, as elsewhere where the climatic conditions prevent


Fig. 27. The frog-motive in textiles from the coastal territory of Peru. A, detail of knitted piece. B (G. M. 32. 2. 84.), detail of woven belt.
the conservation for a longer time of easily spoiled grave goods and other archaeological material, difficult to express any opinion about. The material which is found in clay and gold does however throw sufficient light upon the intensive use of this motive among the culture people in Colombia.

I. Earthenware Material.

What is most characteristic for the treatment of the frog-motive in Colombian pottery is that the plastically portrayed frog-figures are turned inwards towards the mouth of the vessel. This is true as well of Cauca- as of Chibcha-pottery. As an example of this a great number of reproductions of vessels from Colombia should serve. A beautiful specimen is the fragment of a vessel from Manizales, Antioquia (fig. 29, table II) which is published by Uhle.

Fig. 28. Pottery fragment from Manta, Ecuador, representing a frog or toad with bulging nose. G.M. 24. 17. 59. 6/7.

by Uhle. In Uhle's work are reproduced several clay-vessels with frog-portrayals on the edges; also a complete frog-figure in black clay to which I wish to refer. This is also the case with the pottery published by Seler from the Tolima- and Cauca-tribes.

Lovén considers the motive with frogs looking in over the edges as an archaic feature in the Chibcha pottery, which it has in common with the valley of Cauca and Chiriqui. He names the following characteristics for

99 Max Uhle: Kultur und Industrie südamerikanischer Völker, Vol. 1, pl. 4, fig. 18.
100 Op. cit., pl. 1, fig. 2, Anserma vieja, Cauca; pl. 3, fig. 3, Funza, Cundinamarca.
101 Op. cit., pl. 4, fig. 17, Pueblo de Pucaré, Cauca.— "Kleiner Frosch. Körper ringsum und hohl; die Beine in Relief, am Bauche bezeichnet, als wären sie gegeneinander gelegt. Der flache, an einem Mauleinschnitt kenntliche Kopf ist der Bauchseite zugekehrt. Querdurchbohrungen am Bauche und im Kopfe."
102 Seler: Peruanische Altertümer, pl. 57, figs. 6, 15, 16, 17, and 20; pl. 58, fig. 2.
103 Sven Lovén: Über die Wurzeln der Täinischen Kultur, p. 200.— "Die Keramik des andinen Colombians hatte hohe Entwicklungsstufen sowohl in der Gefäßform als in der Bemalung erreicht. In keiner Gegend Südamerikas hat man so schöne gestempelte Ornamente hervorgebracht. Man kann ja die Stempelung als eine fabriksmäßige Fort-
archaic pottery in South America: As a rule rough material with engraving instead of painting. The bowls are open or "globular with a constricted neck" without real pot-ears, but instead with lugs or often with inward-looking modelled heads or faces\textsuperscript{104}.

As regards the occurrence in Chiriqui of the frog-motive in pottery as plastically formed figures which are turned inwards, examples thereon are well known through the works about this culture by Holmes, MacCurdy, and other authors\textsuperscript{105}. To give any example in reproductions should therefore be unnecessary. I do, however, wish to point out that there are details which Chiriqui and Colombia do not seem to have in common as regards the use of the frog-motive in earthenware. Thus in Chiriqui one finds frogs as feet on tripods. I refer partly to Holmes\textsuperscript{106}, partly to fig. 30 where we see a detailed drawing of a tripod vessel from Volcan, Chiriqui (G. M. 27. 21. 3.). The feet seem to depict a being, at once frog- and human-like. Aside from the fact that tripod pottery is relatively uncommon in Colombia I have not in the material from there discovered this placing of the frog on the vessels.

\textbf{Fig. 30.} Small tripod-vessel from Volcan, Chiriqui. The feet seem to represent a being, both frog- and human-like. G. M. 27. 21. 3. \(\frac{7}{14}\) and \(\frac{7}{2}\).

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\textsuperscript{104} LOVE\textit{EN}, \textit{op. cit.}, p. 201.

\textsuperscript{105} See MAC\textit{CURDY}: \textit{A study of Chiriquian Antiquities}, pl. XIV. — "Series of vases in which the frog is employed as shoulder ornaments.”

\textsuperscript{106} WILLIAM H. HOLMES: \textit{Ancient art of the province of Chiriqui}, fig. 98, and p. 76.
As a link in the connections between Central America and Colombia I suppose we may interpret LINNÉ's find from one and same grave in La Gloria at the harbour place for Santa Maria la Antigua at the bay of Urabá of two almost identical clay-vessels with four plastically formed frogs of an earlier discussed type (G. M. 27, 21. 854.). One of these vessels has been published by LINNÉ 107. According to him "the conventionalization is intentional and these little figures bear evidence of much capacity for observation and a sharp eye for nature" (op. cit., p. 13).

We have also clay-vessels with frogs in jumping position on the edge of the vessel and turned towards the mouth recorded from Chiriqui, Colombia, Peru, lower Amazonas, and the territory of Calchaqui.

The connection between Colombia and Chiriqui with Colombia as the giving part is at once clear. The occurrence of these frog-vessels in Peru seems to be sporadic. The earlier mentioned vessel from Ancon gives one the impression of being Chibchan. The influence may have come to northern Peru from north-east via the trade-ways from Chibchas, passing by the present Ecuador. In Peru, the inward-looking frogs have later so to speak been applicated upon their own types of vessels, as for instance is the case with the house-urn from Trujillo. As regards the occurrence in lower Amazonas, the frog element must be very old there and have to do with its occurrence in the Diaguita-Calchaqui culture through the formerly mentioned Arawak culture current, via Mojos from Amazonas. In north-western Argentine the frog-motive has later been particularly cherished and specialized within the painted pottery by which the discussed conventionalizations have developed.

Since material from Venezuela is so little known I have not succeeded in discovering from there any vessel with frogs in jumping position. As has been said earlier, frogs are nevertheless mentioned in the literature but without any clear information about how they have been placed on the vessels. It may be added that ERNST 108 has described a figural vessel with frog-eyes from Niquivao in the state of Trujillo. ERNST does not, however, consider the vessel to be a frog-portrayal, but is of the opinion that they through the frog-eyes have meant to suggest a deity which had to do with the fertilizing power of the water; he even suggests that an association with Chibchas' Bachue-goddess perhaps were not beyond possibility 109. As one sees from

107 S. LINNÉ: Darien in the Past, fig. 2 B.
108 A. ERNST: Venezuelanische Tongefäße und Tonfiguren aus alter und neuer Zeit, pl. XIII, fig. 19.
109 Op. cit., p. 174. — "... Das Auffallendste an der Figur sind die Augen, die infolge ihrer Stellung mit den halbgeschlossenen Augen eines Frosches die größte Ähnlichkeit haben. Daß dieser Stellung eine bestimmte Absicht zugrunde liegt, geht aus anderen Tonfiguren hervor, die bei vollkommen gleicher Behandlung und Verzierung des Gesichtes quergestellte Augen haben, wie dies z. B. der in Fig. 20 abgebildete Kopf beweist, der ebenfalls bei Niquivao gefunden wurde. In den Höhlen jener Gegend findet man auch häufig aus Serpentin geschnitzte Nachbildungen von Fröschen, und da bekanntlich bei den Stämmen Neugranadas und ihren Nachbarn der Frosch das Symbol des befruchtenden Wassers war, so kann uns die spezielle Augenform vielleicht zu einer
the quotation from ERNST he also reports finds of frog-figures in serpentine from the same territory.

2. Portrayals in Gold.

The wealth of gold among the Colombian culture peoples is famous and the number of finds of wrought gold objects which have been made in the graves within the Colombian culture district is considerable. Among other animals such as snakes, birds, &c., the frog often occurs among those figures which are hammered out from thin gold-plate on model-blocks of stone or cast à cire perdue. I shall here in connection with the depictions in fig. 31 (table IV) give some examples from the literature to throw light upon the frequency of the motive 110.

RESTREPO, who considers the animal figures to be material cult-offers 111, quotes CASTELLANOS:

"Por los jeques se presentan las ofrendas
Que trae cada cual al santuario,
Que son varias figuras hechas de oro,
Hasta culebras, ranas, lagartijas,
Mosquitos y hormigas y gusanos.
Casquetes, brazaletes, diademas,
Vasos de diferentes composturas,
Leones, tigres, monos y raposas,
Aves de todas suertes y maneras,
Y el jeque hace tal ofrecimiento
Ante los falsos ídolos que tienen 112."

In the archaeological atlas belonging to RESTREPO'S work a golden frog from Chirajara (pl. XIX, fig. 53) is portrayed, and also both sides of a model-block in stone for the execution of various figures, among these a very beautiful frog (fig. 31 D) 113. Such model-blocks have also been published

Erklärung der vorliegenden Figur führen. Sie soll sicherlich keinen Frosch darstellen; aber es wäre denkbar, daß man durch die Froschauge eine mit der befruchtenden Kraft des Wassers in Verbindung gedachte Gottheit andeuten wollte, um so mehr als auch bei anderen Völkern Beispiele bekannt sind, daß gewisse Götter nur durch ein einziges Attribut bezeichnet wurden. Und da so manches in den Altertümern der Cordillere von Trujillo und Mérida auf Einfluß aus Neugranada hinweist, glaube ich, es wäre nicht gerade ungereimt, unsere Figur auf die Göttin Bachue zu beziehen, die von den Chibchas als Spenderin der Früchte des Feldes mit Räucherwerk aller Art verehrt wurde (——)."

110 The frogs need not have been made from pure gold. They have also been made in tumbaga which is shown by CREQUI-MONTFORT and RIVET: Contribution à l'étude de l'archéologie et de la métallurgie Colombiennes, pl. VII, figs. 5 and 9 and p. 536. Still it must have been easier to hammer out the figures in pure gold than in the tumbaga alloy, especially if this contained a larger percentage cooper.

111 VICENTE RESTREPO: Los Chibchas antes de la Conquista Española, p. 150. — "No era, pues, á los animales á quienes se dirigía el culto de los Chibchas: las figuras que de ellos hacían eran la ofrenda material que presentaban á sus dioses y á sus santuarios."


113 Los Chibchas etc. Atlas arqueológico, pl. XLI, fig. 130.
by UHLE 114 (fig. 31 B). He has made some figures in plate from these model-blocks and these figures have the typical look of the Chibcha frogs 115. As is known there have been authors who have considered these model-blocks to be signs of an unknown Chibcha calendar, or something like that. There is however no cause to discuss such absurdities here.

The use of model-blocks for the execution of golden figures in Colombia explains of course the often almost identical finds which have been made.

The golden frog in fig. 31 G from the District of Pácora, Antioquia, is reproduced from BRYCE-WRIGHT’s description of a collection of gold ornaments from Colombia, now at Hastings, England 116. According to the work here quoted it is cast, whereafter the legs have been hammered out to their present length.

The curious depiction in fig. 31 A is from ZERDA 117 and is meant to represent a tablet of clay which was found at an underground cult place at Loma del Pajarito near Yarumal with figures of an eagle together with human beings and frogs of gold.

ZERDA places the appearance of the frog among the Chibchas in association with the rain, which, however, for the part of Antioquia, does not seem creditable to URIBE ANGEL 118, who depicts the pendant here reproduced in fig. 31 E and who tries to make the frog a symbol for war and hunting. This he accounts for by saying that from the frog was had “un licor venenoso que usaban y usan en la caza y en el combate”. It is obvious from Colombian literature that much discussion has arisen on the subject of the meaning of the frog. TRIANA’s explanation of the frog in Chibcha art as a symbol of the human soul may be added as a curiosity 119.

In the cult place described by ZERDA were found fourteen frogs in gold on the clay tablet alone. This number is little, however, compared with some information which ARANGO gives in his memoirs. Thus he speaks of a grave find where the body was buried with one hundred handsomely

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114 M. UHLE: Ausgewählte Stücke des K. Museums für Völkerkunde zur Archäologie Amerikas, pl. VIII: 2–2 a, 8.
116 Description of the collection of Gold Ornaments from the “Huacas” or graves etc. fig. 16.
117 LIBORIO ZERDA: El Dorado, estudio histórico, etnográfico y arqueológico de de los Chibchas, fig. 27, and p. 46. — “En la loma llamada del Pajarito, cerca de Yarumal, se encontró un templo indígena, subterráneo, con entrada al Oriente, formado en el centro de una gran sala llena de nichos de diversas dimensiones. En él había grandes vasos de oro, lámparas, incensarios, figuras de animales, principalmente águilas ó ranas, sapos y figuras que representan al hombre.”
118 MANUEL URIBE ANGEL: Geografía General y Compendio Histórico del Estado de Antioquia en Colombia, pl. XIII, fig. 1. — “Escudo estampado en lámina de oro fino, con la imagen de una rana al centro. Horadado como condecoración”, and p. 513.
119 MIGUEL TRIANA: La Civilización Chibcha, p. 205. — “Muchos otros ejemplos se podrían aducir para demostrar que la rana desempeña el papel de símbolo del alma humana en los jeroglíficos chibchas.”
wrought golden frogs. He also mentions other finds of golden frogs. Interesting is the report of a clay frog-pair in a posture of coition from a grave in Blendonia. It reminds one of CASTELLANOS' words:

"Tenían los Chibchas, ídolos,
Unos de oro y otros de madera,
Otros de hilo, grandes y pequeños,
Todos con cabelleras, mal tallados;
Y también hacen ídolos de cera,
Y otros de barro blanco, pero todos
Están de dos en dos, macho con hembra,
Adornados con mantas que les ponen
Dentro de los infames santuarios."

The elegantly conventionalized frogs portrayed in fig. 31 F are from Popayan, Cauca, and have been published by UHLE.

In his "Ethnographic and linguistic notes on the Paez Indians of Tierra Adentro, Cauca, Columbia" PITTIER DE FABREGA writes (p. 310): "The high peaks of the most rugged districts of Tierra Adentro are often crowned by isolated huacas, which are especially sought by treasure-hunters. At Tacueyó we had the opportunity of admiring a set of gold objects found in such graves and of which we made the photograph reproduced in plate II, 2. The frogs are of a type quite distinct from those with which I became familiar in Costa Rica." The frogs mentioned by this author are of the usual type and hang on a necklace together with a human figure and thirteen other figures in gold.

That the Indians in Colombia wore necklaces with golden frogs is known and recorded, for instance from Quimbayas by SELER. From Chibcha tribes in Central America such necklaces are mentioned as grave finds already in PINEIDA'S "Noticias de los Indios Guaimies", where one reads the following: "Creen la inmortalidad del alma, y que esta luego que muere va con el cuerpo a la otra vida; este viaje no lo consideran muy distante, y por á los que mueren cuidan de ponerles comida para algunos días, y todas las..."
alajas que tienen; por cuía razón en Guacas, ó sepulturas se encuentran siempre varias vasijas de barro, y el animal favorito hecho de oro que trahía al cuello el difunto. Entre estos he visto zapos, culebras, ranas, monitos, y murciélagos regularmente trabajados que sacan de las escabaciones 126."  

I have formerly spoken of the influence of Colombia upon Chiriqui as far as depictions of frogs in clay is concerned. It is particularly the Cauca who have influenced the Chiriqui, and this appears clearly when it is a question of gold depictions.

Golden frogs occur frequently in Chiriqui. As well Holmes as MacCurdy have shown that the metal frog-type with plate-like, flattened hindlegs (fig. 32) 127 differs from the type most frequently occurring in earthenware, with short, rounded body and insignificant hindlegs. As MacCurdy however points out, loans may occur in earthenware of the metal frog-type and vice versa 128. According to the last-named author the flattened hind-legs "originally from the webfoot of the frog" have the two-fold purpose of calling attention to the golden adornment and of preventing the object from dangling when the wearer moves about 129.

The golden frogs from Chiriqui may be united in pairs 130, or combined with other animal depictions 131.

Early information about golden frogs from the Mexican coast north of Yucatan we get through Las Casas' description of Juan de Grijalva's expedition. Las Casas reports how Grijalva after the disembarkation held a

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126 Breve Noticia ó apuntes de los usos y costumbres de los habitantes del Ystmo de Panamá etc. Copy of the original manuscript in Bancroft Library, Berkeley, California.
127 Holmes: Ancient art etc., fig. 37.
128 MacCurdy: A Study of Chiriquian antiquities, p. 68.
130 MacCurdy, op. cit., figs. 345, 346.
131 Ibid., fig. 329, and p. 198.
mass whereafter the chief of the Indians in return had food given to them. Thereafter the description continues: "Acabada la comida, mandó traer el Cacique algunas joyas de oro en granos grandes, aunque parecía estar fundido; algunos zarcillos para las orejas y narices, ciertas sartas de cuentas gruesas y menudas, que debían ser la sustancia de madera, pero muy bien doradas; otras 15 ó 20 cuentas grandes, doradas, y al cabo una rana de oro muy sutilmente labrada; un ajorca de oro, muy rica, de cuatro dedos en ancho, otra sarta de cuentas doradas, con un cabeza de león de puro oro, y otras sartas con muchas cuentas, y alguna que tenía 70 y más delas doradas, y al cabo una rana de oro al propio hecha...

The information about the golden frogs is affirmed by GOMARA. In his list of the objects which JUAN DE GRIJALVA received is mentioned among others "una sarta de cuentas de oro huecas, y con una rana dello bien hecha".


If we finally pass on to frog-portrayals in Colombian territory in other materials than those already discussed there remains to mention the motive partly in rock-carvings and partly as independent stone sculptures. As far as the former are concerned the motive is a common occurrence. RESTREPO, for instance, portrays in his archaeological atlas (pl. XLIV) a large rock-carving with a number of figures which are obviously frogs. LAZARO M. GIRON has portrayed rock-carvings with frogs from the Fusagasugá district.

As regards the independent stone sculptures in frog-form I allude to the large, roughly-sculptured toad-figure from Matanzas which is known from PREUSS' excavation in the territory about the springs of Rio Magdalena. According to PREUSS the natural appearance of the stone gave the sculptor the idea of more definite shaping. In a stone-setting at Rio Lavapatas PREUSS also discovered a large frog sculpture in stone.

4. Various other materials.

To what extent the frog-motive has been used among the culture people in Colombia in other materials than those which have been mentioned is, as has been pointed out before, difficult to say. From the tribes now living in Colombia we find the frog-motive painted on wood and as gourd-ornament among the Choco Indians which, however, cannot be referred to the formerly treated Colombian tribes. NORDENSKJOLD has reproduced one of the painted wooden figures which the Chocó Indians hang around the hut in which a sick lies.

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133 GOMARA: Conquista de México, p. 298. GOMARA says that the objects originated from los indios de Potonchan, de Sant Joan de Ulúa y de otros lugares de aquella costa.
134 Las piedras grabadas de Chinuata y Anacudá, pl. 1, and p. 5—6.
136 PREUSS: Reisebrief aus Kolumbien, p. 113.
137 NORDENSKJOLD: Indianerna på Panamanäset, fig. 75, and p. 97. G. M. 27. 27. 750.
during the incantations of the medicine-man. A center-figure painted in black
may well be interpreted as a frog. A collection of gourds from Chocó at
Rio Sambú, at the museum of Gothenburg, are furnished with frog-figures. These
gourds have been used at incantations and drinking-bouts.

Postscript.

I do not here concern myself with the roll of the frog-motive in Central
and North America where it, as is known, plays a frequently occurring roll.
One needs only to think of records in the literature about scattered finds of
frog-figures in clay which have been made in the Central American states, its
appearance as u i n a l - glyph among the Mayas, its great use on effigy-vessels
in the Teotihuacan culture, its appearance in the Mexican Mss, its occurrence
among the Pueblo Indians, and in the south-eastern states in North America,
&c. For the West Indies I have referred to Loven's treatise.

Again, as far as South America and the roll of the frog as muirakitá-
motive is concerned I have unfortunately first at the time when this paper
went to press heard of Heger's article "Muyrakitiás" in the transactions of the
Americanist Congress in Rio de Janeiro, 1922. This author suggests re-
stricting the term muirakitá to include only the "small, pierced, often zoomor-
phic pendants in nefrit which are found in a rather circumscribed area around
Obidos at Amazonas." According to the same author the place of origin
for the material is not yet known but may be situated in the un-investigated
territory round the upper course of the rivers Yamundá and Trombetas which
have their origin on the southern slopes of Sierra Acarayh (op. cit., p. 259).
Heger further asserts the significance of the muirakitás to be quite unknown,
wherefore I consider the information from Heriarte and from the Kágaba
mythology about frog-shaped muirakitás used as purchase money for women,
of which I have earlier spoken, to be of great interest. I shall consider it in
detail in a later paper treating the frog in the Indian mythology and imagina-
tive world.

Bibliography.

Alcayá Diego Felipe: Relación del Padre de Alcayá, cura de Mataca, see Mujía.
Ambrosetti Juan B.: Exploraciones arqueológicas en la ciudad prehistórica de "La Paya"
(Valle Calchaquí, Provincia de Salta), Campañas de 1906 y 1907. Buenos Aires 1908.
— Notas de Arqueología Calchaquí. Boletín del Instituto Geográfico Argentino,
Bregante Odilla: Ensayo de clasificación de la cerámica del Noroeste Argentino. Buenos Aires
1926.

138 G. M. 27. 27. 88.; 27. 27. 100.; 27. 27. 104.
Rio de Janeiro 1924.
HENRY WASSÉN,

LEHMAIER N.: Lepra precolombiana? Revista del Museo de La Plata, t. IX. La Plata 1898.
MONTELL GÖSTA: Dress and ornaments in Ancient Peru. Göteborg 1929.
— De sydamerikanska indianernas kulturhistoria. Stockholm 1912.
PAREDES M. RIGOSERTO: Mitos, Supersticiones y Supervivencias populares de Bolivia. La Paz 1920.
PINEDA: Breve Noticia o apuntes de los usos y costumbres de los habitantes del Yshmo de Panamá, y de sus Producciones para la expedición de las Corvetas alrededor del Mundo, por encargo que hizo el Fh. Coronel de Guardias Dn. ANTO. PINEDA al Presbytero D. JUAN FRANCO. Copy of the Original manuscript in BANCROFT's Library. Berkeley, Calif.
The Frog-Motive among the South American Indians. 369


RESTREPO VICENTE: Los Chibchas antes de la Conquista Española. Bogotá 1895.


TRIANA MIGUEL: La civilizacion Chibcha. Bogotá 1922.


URIBE ANGEL MANUEL: Geografía General y Compendio Histórico del Estado de Antioquia en Colombia. Paris 1883.

ZERDA LIBORIO: El Dorado, estudio histórico, etnográfico y arqueológico de los Chibchas. Bogotá 1883.
Text for the figures on the tables I—IV.

Table I.

Fig. 11: Necklace with carved frogs from the Tucuna Indians. G. M. 30.40.115. ½.
Fig. 15: Muirakita-like steatite figures from Páramos de Apartaderos, Venezuela. The ethnographical museum of Genève. Collection-numbers: 8495 (upper left), 8496, 8492, 8494, 8491 (lower right). Photo museum in Genève. ½.

Table II.

Fig. 18: Wooden box from the coastal territory of Peru; the ornamentation on one long-side with the frog-motive G. M. 30.11.1 a. ½.
Fig. 29: Edge fragment with frog, turned inwards towards the mouth of the vessel. Manizales. Antioquia, Colombia, from Uhle. ½.

Table III.

Fig. 23: Toad from Valle Virú, Peru. G. M. 28.18.18.
Fig. 25: Figural vessel representing a man, the nose-point and lips of whom are lost. In the face he has two painted frogs. Valle Chicama, Peru. G. M. 30.28.3. ½.

Table IV.

Fig. 26: Clay vessel from Chimbote with two plastically formed frogs looking towards the mouth of the vessel. R. M. 16.107. ½.
Fig. 31: A, clay-tablet with golden figures, among others frogs, from Loma del Pajarito, after Zerda. The genuineness is questionable; B, D, model-stones for the hammering of golden frogs, after Uhle and Restrepo; C, frogs in tumbaga-alloy, after Créqui-Montfort and Rivet; E, after Uribe Angel; F, golden frogs from Popayan, Cauca, after Uhle; G, golden frog from Pácora, after Bryce-Wright.

Abbreviations used: