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HAD WEST INDIAN ROCK CARVINGS A RELIGIOUS SIGNIFICANCE

*An Investigation partly based upon Archæological Material in the
Ethnographical Department of the National Museum.*

By

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I.

Rock carvings occur in many places in America. They have attracted a good deal of attention and led to many attempts at interpretation as well as to many hypotheses. Nevertheless, these American rock carvings have provided few scientific results of any real value. Prehistoric remains of this kind have particular problems associated with them. First of all there is the matter of dating; it is scarcely ever possible to associate rock carvings with finds at sites or in graves. Secondly the understanding of the figures; it is true that in many cases these are identifiable as faces, human forms, birds, quadrupeds, sun images and so on, but so far no one has succeeded in demonstrating any irrefutable connection between the figures and the ancient American conceptions as we know them from myths and legends.

Were the two ever connected at all? What was the original intention of these rock carvings — the purpose of these striking representations?

The opinions advanced in answer to these questions have been many and various. One theory is that the carvings are a form of pictorial writing that records the passing of certain events. Another is that they illustrate the local mythology. Still other workers have rejected both theories and read them as the result of the more or less extemporaneous drawing of primitive people similar to what occurs nowadays on rock surfaces, hoardings and house walls, especially in places where uncultured people are wont to gather.

The natural course to take would be to inquire as to what the Indians themselves think; and as regards rock carvings in the West Indian Islands, where the aboriginal population died out soon after the beginning of the European colonization, it would be reasonable to find out what is known of the genesis and meaning of similar pictures in the north South America, whence the West Indies received their Arawakan and Caribbean population.

In some accounts of travels in South America we are told that local Indians assume the rock carvings to be of great age, and sometimes that they have some form of connection with the spirit world. At the Warrapoota Falls in the Essequibo R. H. Schomburgk found numbers of figures cut into the rocks, similar to those

he had seen on the Danish West Indian island of St. Jan. His Indian companions refused to help him to cut a piece out of the rock with some of the carvings. »Sie schrieben sie dem grossen Geist zu, und ihre Existenz war allen Indianern, mit denen ich zusammentraf, bekannt. Meine Verwogenheit rief die grösste Seelenangst unter der armen Mannschaft hervor. Hier in der Wohnung der Geister selbst, erwarteten sie jeden Augenblick Feuer vom Himmel herabfallen zu sehen, um unsere Tollkühnheit zu bestrafen.«¹.

On sandstone bluffs in the Roraima mountains in British Guiana Richard Schomburgk found a series of rock carvings. »Es waren meistentheils rohe Darstellungen menschlicher Figuren, Kaimans und Schlangen, wodurch sie wesentlich von den Hieroglyphen des Waraputa-Falles abwichen.« On the impression made by these figures on his Indian companions he says: »Als die Indianer dieselben bemerkten, riefen sie mit gedämpfter Stimme: 'Makunaima, Makunaima' (Gott, Gott)!«².

To their enquiries of the Indians as to the origin of these carvings the brothers Schomburgk elicited only vague replies. For instance the Taruma of the Cuyuwine, a tributary of the Essequibo, when Robert Schomburgk asked them who had made the carvings near that river, answered that women had done it long, long ago³.

Charles B. Brown, who published descriptions of a considerable number of rock carvings in British Guiana⁴, put the same question to the Indians and states that the natives know little about their origin. He adds: »They scout the idea of their having been made by the hand of man, and ascribe them to the handiwork of the Makunaima, their great spirit. Nevertheless, they do not regard them with any superstitious feelings, looking upon them merely as curiosities, which is the more extraordinary as there are numbers of large rocks without any markings on some rivers, which they will not even look at in passing, lest some calamity should overtake them. Their Peaimen or sorcerers always squeeze tobacco juice into their eyes on approaching these, but pay no regard to the sculptured rocks.«

Richard Schomburgk⁵ has a similar story to tell about the fearful reluctance of the Indians to look at two prominent rocks in the Comuti mountains by the Essequibo; in this case one of the rocks is carved; but it is C. B. Brown's experience that the natives' awe is of the rock, not the carvings. To prove their lack of respect for these relics Brown mentions that in the Pacaraima mountains there is a circle of stones set on end, one of them with a carving, and that the Indians had overturned and broken some of them. From this Brown draws the conclusion that the Indians have no traditions about these carvings. Nevertheless he himself credits them with religious significance originally. »As these figures were evidently cut with great care and at much labour by a former race of men, I conclude that they were made for some great purpose, probably a religious one, as some of the figures give indication of Phallic worship.«

In northeastern Brazil, in the interior of the province of Ceará, the present-day descendants of the Indians are just as ignorant of the origin and meaning of the



Fig. 1. Stone with rock carvings at Manabao.

rock carvings in their country. »The native population attribute all the 'Letreiros' (inscriptions), as they do everything else of which they have no information, to the Dutch, as records of hidden wealth.«⁶.

Alfred R. Wallace saw rock carvings in many parts of the Amazon area and credited them with great age, i. a. because the Indians then knew nothing of them. »Whether they had any signification to those who executed them, or were merely the first attempts at a rude art guided only by fancy, it is impossible now to say. It is however beyond a doubt that they are of antiquity and are never executed by the present race of Indians. Even among the most uncivilized tribes, where these figures are found, they have no idea whatever of their origin; and if asked, they will say they do not know, or that they suppose the spirits did them.«⁷.

Another of the famous South American travellers, von Martius, considered that the cultural state evidenced by the rock carvings was just the same as that prevailing among present-day Indians in the same regions. His opinion is further that the carving of the figures may have proceeded over a long period and so was the work of many generations. However, this traveller too was unable to trace any positive knowledge among the natives. »Auf die Frage: von wem sie stammen, erhält man keine, auf die, ob sie ihren Vorfahren angehören, erhält man die, bei allen zweifelhaften Dingen gewöhnliche Antwort: ipo, 'vielleicht, es ist möglich'.«⁸. Martius advances the assumption that these carvings are so often to be found near waterfalls because the Indians used to assemble there at certain times to fish, and

they amused themselves by making these pictures on the cliff sides. Nevertheless Martius had the same experience as Schomburgk, that the present natives hold the carvings in a certain awe. Accordingly he considers it probable that the pictures originally had a religious or magic purpose, »etwa zur Beschwörung des Fischer- und Jagd-Glückes«; and the human figures cut in the rock at such places where nature inculcates fear into the mind of the Indians may be »Reste eines untergangenen Naturcultus«⁹.

Im Thurn, who made a study of the rock carvings in Guiana and showed that there are two kinds, one with deep lines, the other more superficial, attaches but little value to what the Indians say about these ancient monuments. »The Indians of the present day know nothing of them; and if they ever speak of them, tell some such story as that 'women made them', or that they are the work of Makenaima Moomoo (God's Son), who, when he wandered about on earth, drew with the point of his finger on the rock. It is hardly necessary to point out that the latter quasi-tradition has not even the merit of antiquity; for it must have originated after white missionaries came into South America and there first told the story of Christ. On the Orinoco Humboldt was told by the Indians that their fathers made them long ago, when the water was higher and they could reach these now inaccessible places in canoes. These and similar explanations may, however, be disregarded as merely due to the inveterate Indian habit of having an answer, indifferently true or invented, for every question.«¹⁰.

Still, im Thurn differs with Richard Andree's opinion that rock carvings all over the world are the result of the purposeless pastime of idle hands¹¹. According to im Thurn the falsity of this assumption is clear from the fact that the carvings must have required long and hard work. What is more, im Thurn contradicts Andree's statement that no superstition attaches to rock carvings; at any rate this does not apply to Guiana, »for almost the only superstitious rite practised by the Indians – the rubbing of red-pepper juice into the eyes – is practised especially in the presence of engraved rocks«¹².

It is true that this strange rite is not confined to rock carvings alone. Roth's researches show that it is a matter of warding off inimical influences from awe-inspiring mountains or rocks or other scenic phenomena, especially when seen for the first time. The eyes are rubbed with tobacco or Spanish pepper to cause temporary blindness and thus blot out the dangerous object from view¹³. However, im Thurn's description of how all his Indians rubbed their eyes with pepper while he was busy drawing the carvings on the so-called Timehri rock near the Corentyn river, shows at any rate that this carved rock is one of those ominous objects whose malevolent power the Indians seek to avoid by not seeing them.

Theodor Koch-Grünberg is the investigator who has devoted most labour to the South American rock carvings. On his travels he amassed a large quantity of first-hand material¹⁴, and on the basis of his own observations as well as the travel



Fig. 2. Rock carvings at Manabao.

literature he built up his monograph on these sculptures¹⁵. Koch-Grünberg's view of these rock carvings is briefly expressed in the following words: »dass es sich lediglich um spielende Äusserungen eines naiven Kunstempfindens handelt, und selten oder niemals den Bildern ursprünglich eine tiefere Bedeutung innewohnte«. This naive feeling for art has also found expression in the Indian drawings, which are strongly reminiscent of children's drawings, collected by Koch-Grünberg on his journeys in Brazil¹⁶. Rock carvings cannot be regarded as picture-writing. They were not intended to communicate anything. They are comparable with the drawings that the Indians place on their house walls with a piece of charcoal. They are carved as a kind of game in leisure hours. These naive pictures are abundant on particularly suitable rock faces, because the Indians amused themselves by deepening the lines by rubbing them with a stone, and because they imitated those who had been there before them by cutting new figures. Thus Koch-Grünberg subscribes fully to the views of Richard Andree. True, he admits that the Indians often connect the carvings with tribal myths¹⁷; but such interpretations, he considers, are the result of later reflection, in the course of which the old rock carvings, like many other remarkable phenomena, including freaks of nature, are given a place among the myths and legends dealing with the culture heroes.

In actual fact Koch-Grünberg was able to show that rock carvings are still being made in South America¹⁸. He also found that the lines of rock carvings are sometimes deepened in recent times by rubbing with a stone, the result being that the



figures are occasionally altered in shape. On the other hand he has produced no evidence to show, nor advanced acceptable arguments, that the carvings originally were devoid of all religious or mythological significance. He himself states that South American Indians nowadays sometimes interpret them as pictures of mythological figures¹⁹, and others as representations of mask dancers wearing costumes which the Indians recognize and have names for²⁰. These facts make it hard to see why the carvings may not have been connected with ideas of a religious, magical or ritual kind. However valuable the material may be that Koch-Grünberg got together, his denial of any »tiefere Bedeutung« in the pictures seems very hazarded²¹.

At any rate, his opinion could hardly be upheld as far as the North American rock carvings are concerned, for among many Indian tribes in North America a genuine pictography has been demonstrated, pictures employed in the service of the communication of thought²². And as regards the West Indies, whose inhabitants emanated from South America, it is possible to adduce reasons for the assumption that rock carvings were connected with religious and mythological ideas.

Before I proceed to consider West Indian rock carvings it will be necessary to describe some of the main features in the religious ideas and picture cult of the Taino, as recorded by the writers of the era of discovery.

II.

Ramon Pane, of the Hieronymite Order, accompanied Columbus to Santo Domingo and learned the Indian language that was spoken in the province of Maçorix de abajo, in the northeast of the island. He is the chief source of our knowledge of the Taino religion and mythology. The admiral commanded him to write down what he knew about these things, and his extremely terse and somewhat confused notes are incorporated in Ferdinand Columbus' book on his father; on them is based the most of what was written by las Casas, Peter Martyr and others regarding the myths and rites of the Taino. In Ramon Pane's Cap. XI there is reference to a cave from which the sun and the moon were supposed to have emerged. This cave was a holy place. In it stood two stone figures, *cemis*, with which the Indians interceded for rain; in addition, the cave was »painted according to their fashion, without any figure, but with much leaf-work and the like«²³. No doubt this means that on the walls of the cave there were rock paintings, and perhaps carvings too. On Santo Domingo, and on several other West Indian islands, rock carvings have been found in caves. Rock paintings have also been discovered; at any rate, in caves on Santo Domingo, at Pannier, Schomburgk saw coloured drawings which he considered to be of Indian origin²⁴, and Herbert Krieger found both carvings and paintings in northeastern Santo Domingo²⁵. Charlevoix believed he had identified the cave described by Ramon Pane with a certain locality in northern Santo Domingo, at Dondon near Cabo Francés, where there were no statues any longer »mais on y aperçoit par tout des Zemés gravés dans le roc«²⁶.



Fig. 3. Rock carvings at Congo Cay, seen from the North.

It must be admitted, however, that Ramon Pane did not include the rock carvings among the various kinds of *cemis* to which he refers. The *cemi* cult first and foremost was a kind of ancestral worship associated with the bones of the dead, the skull in particular. »All or most of the people on the island of Hispaniola have many *cemis* of various kinds. Some have the bones of their father and of their mother and relatives and of their ancestors, and some are made of stone or of wood.«²⁷. The use of the bones of the departed as *cemis* is repeatedly mentioned by narrators of the time of the discoveries²⁸. One instance of a connection between the bone cult and other *cemis* is the fact that human bones were sometimes enclosed in wood figures which were treated as fetishes and called by the name of the person whose bones they contained²⁹. The circumstance that the figure containing the bones might sometimes be of cotton appears i. a. from the find of one of these figures in a cave near Manel, west of the capital city of Santo Domingo; the head of this figure was a human skull with artificial eyes³⁰. On the other hand, quantities of *cemis* were found that had nothing to do with bones. Ramon Pane tells of *cemis* of stone and of wood and relates curious stories of particularly prominent *cemis*, some of which wielded their power over the elements, others over the growth of cultivated plants, whereas some aided women in childbirth, and others again excelled by their erotic adventures among mankind. Las Casas writes that occasionally he asked the Indians: »Who is this *cemi* you speak of?« and the answer was:

»It is he who makes it rain and makes the sun shine, and who gives us children and the other blessings we wish for.«³¹. To all appearances a cemi might be more than the spirit of an ancestor; at any rate some of them were also the expression of cosmic forces which governed life and happiness. At the same time they lived a very personal life of their own, a life demoniacal in nature. In Ramon Pane's narratives there is no clear distinction between the individual, locally conditioned cemi and the universal force of which he or she was the manifestation. For example, the female cemi Guabancex exerted great power over wind and water, and yet she was associated with the territory of a certain chief and was carved in stone from that region³². On the whole, cemi worship was closely bound up with the institution of chiefdom. Powerful chiefs had powerful cemís. The high development of stone and wood sculpture in the Greater Antilles, especially on Santo Domingo and Puerto Rico, was connected with cemi worship and with the power of the tribal nobles³³.

It is tempting to look for impulses towards this development on the adjacent Central American mainland, the Maya-Mexican region. In point of style, however, the peculiar development of the art of the Greater Antilles reveals much closer association with northern South America. What is more, the religion of the Taino also had its roots in South America, as we see in the close relationship between the mythological world of the Taino and the legends of Arawakan tribes on the mainland³⁴.

It would seem, however, that in art and probably in religious thought the Taino were more advanced than their kinsmen on the South American mainland. Perhaps under technical influences from the Maya-Mexican area they had evolved a curious sculpture in stone, with entirely characteristic forms such as the stone rings and the so-called three-pointers. And even if Lovén may be right in characterizing their religion as polydemonistic and not polytheistic, it is possible to glimpse the beginnings of a world of gods in Tainan mythology as we know it from Ramon Pane's incoherent account.

Paul Ehrenreich demonstrated a connection between the conditions of agriculture and the inception of the gods. It is best presented in his own words: »Eine Ausbildung höherer Kultusformen und damit ein schärferes Hervortreten individuell wirksamer, an festen Funktionen gebundener Wesen göttlichen Charakters aus der Schar unbestimmt konzipierter Naturgeister ist fast überall und besonders in Amerika von den Verhältnissen der Agrikultur abhängig, wenn diese nämlich unter Naturbedingungen betrieben wird, die unter Umständen den Erfolg der menschlichen Tätigkeit in Frage stellen. Solche sind in erster Linie Unregelmässigkeit der Niederschläge, überhaupt meteorologische Störungen und Wechselfälle.

»Überall sind auch in der alten Welt die ersten wirklichen Kulte Feldkulte, Wachstums- und Fruchtbarkeitsdämonen, Regenspender die ersten deutlich hervortretenden Göttergestalten, die natürlich immer wieder in Beziehung zu Sonne,

Mond und Gestirnen gebracht werden.«³⁵.

The climate on the Greater Antilles and the Virgin Islands is just of that nature, with irregular precipitation and meteorological disturbances such as hurricanes, which at times must have meant serious danger to the results of the activities of the people. Accordingly we find that a group of growth and weather demons asserted themselves in the religious life of the Taino so that they assumed almost the character of gods. Indeed, in Ramon Pane's narrative it is possible to discern a mythological explanation of the world, a picture of its evolution like an organic drama, in which the Universal Mother is delivered of the world at a birth.

Las Casas maintains that the Taino had a knowledge of the one true God. »The people of this island of Española had a firm belief and knowledge of a true and only God, who was immortal and invisible, so that none could see him, who had no beginning, whose home and dwelling is the sky, and they called him Yocahu Vagua Maorocoti; I do not know what they intended to signify by this name, because I paid no attention to it when I might have got to know. But in this absolute and general knowledge of the true God were mingled these misconceptions, that God had a mother, whose name was Atabex, and a brother Guaca, and others of that kind.«³⁶.

His information on the immortal and invisible sky god is derived at any rate partially from Ramon Pane's work, which opens with a reference to this god and his mother, though the brother Guaca is not mentioned. In Pane the divine mother has several names, such as Atabei, Jermaoguacar, Apito and Zuimaco³⁷. Unfortunately, nothing is said as to the meaning of these names.

Yocahu, the first name of the sky god, has been associated with the principal culture plant of the Taino, the *yuca* or manioc. It may be that Yocahu was the



Fig. 4. Rock carvings at Congo Cay, seen from the West.

yuca-god himself who gave mankind the plant which meant its daily bread³⁸. Another of this sky god's names, Maorocoti, or Maorocon as it is spelt in the reproduction of Ramon Pane's work contained in Ferdinand Columbus's book, was connected by Fewkes with Maroio, the name of one of the two cemís in the cave from which the sun and moon were supposed to ascend, as related by Ramon Pane in Cap. XI³⁹.

The sun and the moon having emanated from this cave, there is some reason for assuming that the two cemís in the cave were representatives of a kind for them. Pane says that they were half an ell long, with tied hands, that they looked as if they were perspiring, and that the Indians came to them when they desired rain, which they got immediately. The close association between the sun and the moon might suggest that they were brothers⁴⁰; perhaps they were identical with Las Casas' two divine brothers Yocahu and Guaca, born of the divine mother whom Las Casas calls Atabex, while Ramon Pane indicates five different names.

And seeing that the Tainan myths tell of how the sun and moon came out of a cave, and that mankind also originated in a cave, it might be tempting to regard the Great God Mother as the earth itself. Ramon Pane does not make this identification, however. Nor do any of the other writers who knew the Taino give sufficient support for the assumption that Tainan mythology contained the idea of such an all-begetting earth goddess. The idea of the emergence of mankind from a cave is widespread in South and North America, but this mythical event does not seem generally to be understood as an act of birth. In one case, however, the analogy is evident. Among the Paressí in Matto Grosso, a people linguistically related to the Taino, the legend of man's coming from a cave has undergone an anthropomorphous change; here it is a stone-woman, Maisö, from whose womb all things, living beings, rivers etc. come.⁴¹

In the literature there are many examples of how Europeans have credited the Indians with the thought that the sky and the earth were the father and mother of mankind or all living things⁴². The idea has also been associated with the aboriginal population of the West Indies. For example, Rochefort writes on the Carib: »Ils disent que la Terre est la bonne Mère, qui leur donne toutes les choses nécessaires à la vie.«⁴³. General statements of this kind are scarcely of much value, however. The idea of female deities who give birth to gods, people, animals and plants is widespread; but it is hazardous to make a simple identification of such god-mothers with the earth. The mother-goddesses were not necessarily earth-goddesses; they may be associated with other symbols⁴⁴.

Archaeologists like Fewkes and Joyce assume that the idea of an earth goddess and a sky god lay behind the religious belief of the Indians in the West Indies⁴⁵. But to me it seems that Lovén is right in saying that »we have no justification for identifying *Atabex* as goddess of the earth«⁴⁶. Ramon Pane calls her the mother of the uncreated and invisible sky god. She was apparently the universal mother,

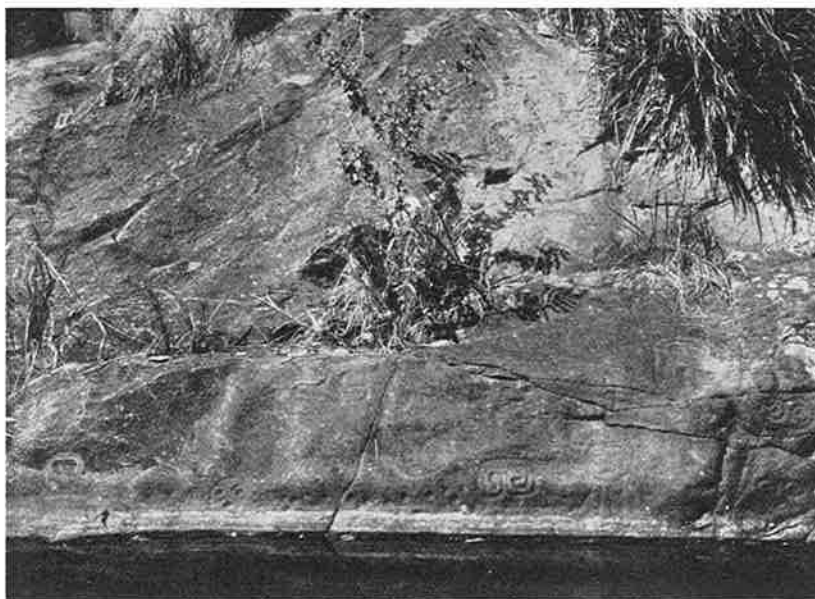


Fig. 5. Rock carvings at Reef Bay. The northern group.

the origin of all things. That, however, does not necessarily mean that she was identical with the earth.

To a primitive mind it is probably easy to see the sun and the moon as persons, whereas the simple intelligence will have difficulty in comprehending the earth, with its changing multiformity and immense interminability, as one whole. It must have been particularly hard for the Antilleans, whose world consisted of a number of distinctly separated islands and an ocean that was essentially different from the land.

The sky was therefore easier than the earth for the human mind seeking for unity and collectiveness. Is not the sky itself the clearest and most direct expression of the unity of existence? »They think that in the sky there is, as it were, an immortal whom no one can see, and who has a mother, and who has no beginning.« In this manner Ramon Pane records what the Taino taught him about the most profound origins of existence. This is practically all he has to say about these two world gods. It may also be that his informants, the cazique Guarionex and other Tainan nobles, had not much more to tell about these most exalted subjects. In the myths told thereafter about the origin of men, of the abduction of all women by an amorous hero, and of how the men procured women for themselves, the sky god and his mother have no part. Nor does Pane mention any particular cult of them, though he writes a good deal about cemi worship. Reading Ramon Pane is

likely to leave the impression that the two primary gods were philosophic abstractions of a kind, and that the true religion of the Indians, cemi worship, was not concerned with these two sublime beings, but with a large and varied spirit world, populated by ghosts and and nature demons.

This view, however, is perhaps not quite correct. In his Cap. XXV Pane tells of a great chief, Caizihu, who during a religious fast had conversed with the sky god himself and from him received a prophecy that a clothed people should come who would oppress and kill the Indians. It appears from this story that the chiefs communicated with the invisible god himself in the sky. And as the religious fast was part of the cemi cult and observed »in honour of the cemis which they have«, it seems clear that the sky god was among the cemis that were worshipped.

It may be that the sky god was manifold in his being. Perhaps he was not only the sky god but the most important of the harvest gods. For the connection between the sky and plant life is obvious. Do not the sun and the rain govern all growth?

If Coll y Toste was right in his above-mentioned interpretation of the name of Yocahu, the sky god, that god was connected with the very fundament of the Tainan bread of life, the manioc plant. In Cap. XIX Ramon Pane says that certain cemis with three points were supposed to make the manioc grow. Joyce identified these cemis with the so-called »three-pointed stones«⁴⁷, of which large numbers are found in Puerto Rico, eastern Santo Domingo and the Virgin Islands. One separately developed group of »three-pointers«⁴⁸ has a head at one end and legs at the other and represents a man lying or crawling on his belly. If this is the manioc deity, and if he is identical with Yocahu the god of the sky, there must have been a great profusion of his images – as of crucifixes in catholic countries.

The large quantity of »three-pointers«, in stone, coral and shell, mostly of Fewkes' Type 4, without head and limbs, suggests that these cemis were employed as fertilizing amulets on the cultivated field itself, perhaps in the same way as the Indians used the sacred pictures which Ramon Pane had left behind him in a shrine when he moved from Guarionex to another caziq: in scandalized tones Pane (Cap. XXVI) tells of how the incorrigable heathens buried the stolen pictures in a tilled field, saying »Now your fruits will be great and good!«.

Incidentally it is probable that the sky god had other forms just as he had other names. As already stated, Fewkes sought to identify him with one of the cemis in the cave from which the sun and the moon once emerged.

Benzoni, who by the way did not go to America until half a century after colonization began, relates how a caziq in Hispaniola held great festivities for his principal god, who was worshipped in the form of an idol in a temple⁴⁹. Ramon Pane, too, speaks of separate houses having been erected for some cemis. Christopher Columbus himself says that each of the caziques had a house, outside the village, in which there were carved wooden images, cemis, which were worshipped with ceremonies and prayers. Columbus considered cemi worship as mainly a form

of ancestor cult and believed that the wooden images were named after the fathers and ancestors of the caziques. On the other hand he also mentions *cemis* made of stone; most caziques, he wrote, have three stones which they and their people regard with great awe. One, he says, helps the corn and podding grain, the other helps women to a painless delivery, and the third procures rain or sunshine when they need it⁵⁰.

Image worship inculcated Tainan art with a meaning. The rich development of Tainan sculpture in wood, clay, shell, and especially in stone, is closely bound up with *cemiism*. H. Ling Roth utters a warning against calling all Tainan figures *cemis*; many are ornaments on household utensils such as chairs and pestles⁵¹. The great number of clay figures, for example, which served as handles on pottery, of course were not worshipped as *cemis*. Nevertheless it is natural to regard the rich figure decoration of pottery and other domestic artefacts as a radiation from *cemiism*. In all probability this embellishment imbued the objects with a spiritual substance – animated them as it were⁵².



Fig. 6. Rock carvings at Reef Bay.
The two southern groups.

III.

ROCK carving is an ancient and primitive form of art, but in the Tainan region it lived side by side with more advanced sculpture. The distance may seem great between the art which produced the stone rings, «three-pointers» of Fewkes' Types I, II and III, vigorously carved stone heads and entire human and animal figures in stone and wood⁵³, and the rock carvings, in which the lines often bear witness of naive awkwardness. But when we consider the many less decorative sculptures in the Taino culture sites, the distance is diminished.

In many cases the simple technique of the rock carvings was applied to these

sculptures. A stone became a head by having three depressions pecked in it, two of them being the eyes, the third the mouth⁵⁴. In some cases the potter had no more difficulty in placing a face on the side or the handle of his vessel⁵⁵. Figures on shell, too, are sometimes so simple that they recall rock-carving technique. The so-called »pillar-stones« in Puerto Rico and Santo Domingo are often natural stones with a face incised in the manner of a rock carving⁵⁶. And standing in the culture deposit of the settlement at salt River were a row of flat stones, four of them incised⁵⁷. There can be no doubt but that rock carvings were an element in the Tainan culture.

Rock carvings are nothing but a primitive, simple form of stone sculpture, which required no special qualifications; anybody could practise it. And if the people of a village had no sculptor capable of producing beautiful and artistic work, they had to rest content with carvings in the primitive style inherited from their forefathers. In the letter quoted above, Christopher Columbus writes that the caziques among themselves boasted of having the best cemís. Presumably their appraisal was proportionate to the supposed power of their cemís, but the artistic execution would scarcely be left out of consideration. The cleverest sculptors would doubtless dispose of their products to the most powerful chiefs.

In all probability the highly developed and the poorer, more primitive arts really served the same purpose. And the carving of images, whether artistic or less so, was of a religious character. This is not saying that every image was a cemí. In the

Fig. 7. Sacred cake strings from the Huichol.
(After C. Lumholtz).

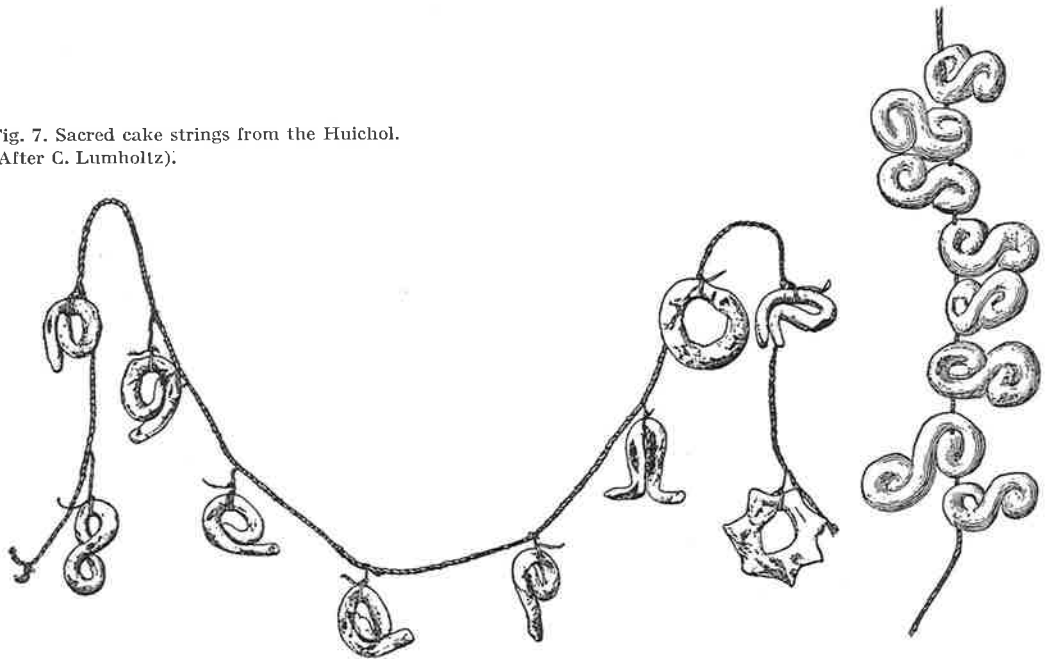




Fig. 8. Stone disc, with figures, dedicated to «Father Sun», from the Huichol.
(After C. Lumholtz).

settlement at Salt River, St. Croix, I found two small clay figures which may have been dolls, i.e. playthings. In the Constanza valley in the Cibao mountains, Santo Domingo, I acquired the torso of a small female clay figure which may also have been a doll. I have already remarked that the figured pottery handles of course were not worshipped as *cemis*. Nevertheless, all this multiplicity of figure representation bore the stamp of *cemiistic* ideas. I mentioned above that the bones of the dead, especially the skull, were commonly used as *cemis*. This cranium cult was reflected in pottery. Most of the figured handles are heads whose grotesque forms, especially the large eye sockets, are often reminiscent of skulls. A clay vessel from La Vacama, near Rio Maimón in eastern Santo Domingo, has most of the skeleton represented in high relief, on one side the skull, the divided lower jaw and three limb bones, on the other side the backbone and two limb bones⁵⁸.

It may perhaps also be that the cranium cult is the reason why the face became the favourite motif in West Indian rock carvings. The eyes are the principal feature of these faces, the mouth the next in importance.

A rock carving of particularly crude character is to be seen on a large stone lying on the left bank of a tributary of the Rio Yaque del Norte, opposite the village of Manabao, about 15 km. west of Jarobacoa, in the western part of Provincia de la

Vega, Santo Domingo. The stone measures 5 by $3\frac{1}{2}$ by $2\frac{1}{2}$ m., is of dark granite, and on the surface has a larger number of concavities of various sizes, up to 6 or 7 cm. in diameter, though most of them are much smaller. Many of these depressions are in pairs and may represent eyes. In some cases a pair of eyes is surrounded by an incised line, whereby each eye stands out as an elevated ring about a depression. In some cases again there are three depressions together, possibly to represent eyes and mouth. On the other hand, many of them are single. Fig. 1 is a photograph of this carved stone, seen from the southeast. Fig. 2 is a close-up picture of an area on the southwest part of the top of the stone. The hollows and lines are whitened to assist photographic reproduction.

A slightly more advanced stage of development is represented by the carvings on the east end of the small island of Congo Cay, which lies to the north in the strait between St. Thomas and St. Jan. Incised in a horizontal rock surface, some metres above sea level, are six faces. The most easterly figure and the most northerly one have been carried farthest in execution; eyes and mouth are in the form of pits, and each is framed by ringed grooves; each pair of eyes is also surrounded by another groove, and on the easterly figure the top of the head is shown as if pointed. The length of the latter figure is 24 cm., of the former 22 cm. They have a distinct likeness to many of the faces on figured handles on pottery from the settlements of the Taino culture, especially those with the ring-shaped eyes and the pointed head decoration. The other four faces scarcely seem to have been properly finished. One of them has three small pits, apparently eyes and mouth, framed by two concentric grooves which, however, do not continue all the way round. The two westerly faces are of a similar kind but lack the mouth, and one of them consists of two eye pits only, each surrounded by a groove. Fig. 3 illustrates this carved rock seen from the north, fig. 4 its western aspect. The figures are whitened for photographic clarity.⁵⁹

The northern part of the waters between St. Thomas and St. Jan abound with fish. It is said that there is particularly good fishing around Congo Cay. The many coastal settlements on the northwest of St. Jan bear witness that the Indians exploited these possibilities. On the west coast of that island I succeeded in finding three settlements, one in Little Cruz Bay and two in Long Bay; in addition, I observed culture deposits on the small Durloo Cay near the coast, and on the western part of St. Jan's north coast were two more settlements: in Cinnamon Bay and Francis Bay, south of St. Mary's Point. On the other hand I was unable to find the traces of Indian settlement on the little island of Lovango mentioned by de Booy.

Landing in Congo Cay is a rather difficult undertaking. Indeed it is said to be impossible in a heavy sea, which is no uncommon occurrence. Nor is there any culture deposit there. It may be that the rock carvings after all are connected in some way with the Indian fishery. Nowadays the rocks at the east end of Congo

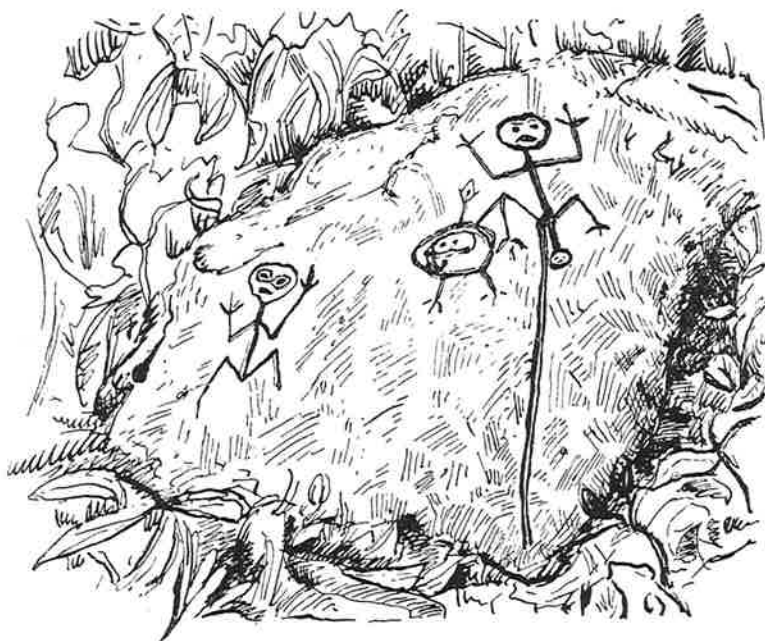


Fig. 9. Rock carving at Boca del Arroyo, Santo Domingo.

Cay are frequented by fishermen; Th. Mortensen described how fishing is carried on there⁶⁰. The sea is several fathoms deep right up to the vertical cliffs. The fishermen sit on the rocks and catch fish on fish-hooks after first enticing them with ground bait. There is good reason for believing that the Indians also fished from these rocks. They were familiar with fish-hooks; we found a hook made of shell at the Longford site in St. Croix. The faces may therefore have been carved by the Indians who came here for the fishing. On the other hand the faces perhaps were not made for pastime alone; perhaps this rock jutting into the sea was looked upon as the seat of some power over the fishing grounds; in that case the carvings may have expressed the belief in the presence of that power.

The rock carvings in Reef Bay, on the south side of St. Jan, are frequently referred to in the literature⁶¹. They are placed on sloping rock sides by a small watercourse below a waterfall, which, however, is dry for a long season every year. There are three groups of carvings. One is shown in fig. 5, just above a deep pool in the otherwise dry river bed. There are several faces, similar in character to those at Congo Cay but of better workmanship on the whole. Here too, however, some of the faces are indicated merely by pit-shaped eyes with a mouth of the same kind. From one of the faces four lines run downwards, no doubt to represent the body. A double spiral may also be intended for a face⁶². The hour-glass shaped figure above is more problematic.

On the left of this long group are two others, shown in fig. 6. The lines are accentuated in white for photographing. The lower group includes a cross. There is no reason for presuming this to be a later Christian addition; there is a similar cross, but of which all four arms are almost of equal length, on Mount Rich in Grenada⁶³, and another cross is to be seen among the petroglyphic figures at the Warrapoota falls in British Guiana⁶⁴. In pre-Columbian America the cross was associated with the cardinal points. A myth recounted by Ramon Pane shows that the sacred figure four was also known to the Taino⁶⁵. Beside the cross are some winding lines which strongly recall some rock carvings on St. Vincent⁶⁶. In these twining flourishes we encounter a special style, quite different from the primitive and comparatively intelligible figure-work prevailing in most of the West Indian carvings. Four of the figures in the upper group on fig. 6 are of the same flourishing style. The others are faces, some with a suggestion of a body. One particularly large and elaborate figure is to be seen above the cross; it has a face and body and some round additions like over-developed ears, or perhaps more likely wings. This figure too should be compared with certain figures on St. Vincent⁶⁷.

There is a stylistic difference between the long group, fig. 5, and the two groups in fig. 6. The flourishing style is absent in fig. 5, but this is not all; whereas the faces in fig. 5 have ring-shaped eyes like those in Congo Cay, the eyes of almost all the faces in fig. 6 are small punctiform pits, with no encircling ring.

The style represented in fig. 6 is associated with St. Vincent. The pottery in the excavated sites in St. Jan likewise agrees very well with finds in the Lesser Antilles. On a former occasion⁶⁸ I drew attention to the fact that in the Virgin Islands it is possible to distinguish between two ceramic styles, one ruling in the settlements in St. Jan and some of those in St. Croix (Coral Bay - Longford style), the other dominating in the settlements on Salt River, St. Croix, and at Magens Bay, St. Thomas, especially in the upper deposits. The Coral Bay - Longford group, which seems to be most closely connected with the Lesser Antilles, cannot be regarded as Carib, as it asserts itself at Salt River and Magens Bay too, in the earlier deposits of those settlements. On the other hand the group may be placed to the early Arawak (Ignierian) culture in the Lesser Antilles. The influence of the Greater Antilles was particularly strong in St. Croix and St. Thomas towards the close of the pre-Columbian era, for it was most prevalent in the upper deposits at Salt River and Magens Bay.

As far as the two groups on fig 6 are concerned, the rock carvings at Reef Bay must be placed to the Ignierian culture. The long group on fig. 5 may also be Ignierian. Ring-shaped eyes are also to be seen on many rock carvings in St. Vincent and Grenada, but it is a type of eye that is equally common on carvings in Puerto Rico and Santo Domingo, and it is very reminiscent of ring-shaped eyes on figured handles on Tainan pottery.

There need hardly be any doubt as to the contemporaneity of the Reef Bay

carvings with the Igerian settlements of the island. It is misleading to call them Carib, as the Carib invasion was the very last phase in the history of the pre-Columbian population.

The Reef Bay carvings may perhaps be placed to what Fewkes calls »river pictographs«⁶⁹. I have already quoted Martius' assumption of the reason why so many rock carvings in northern South America are to be found at waterfalls – that they are associated with the fact that the Indians gathered there at certain times to fish. This explanation is inapplicable to St. Jan; there would scarcely be any fishing in the little stream at Reef Bay. On the other hand the excellent drinking water would certainly be an attraction to the Indians.

Strangely enough there was no Indian settlement discernible in the vicinity. On St. Jan I found and examined a total of six settlements: one at Coral Bay on the east coast in addition to the five on the northwest coast already referred to. I made a particular search for Indian sites at Reef Bay, but found nothing but scattered potsherds of Indian origin, lying at various depths in the deposits by the stream in the wider valley below the waterfall.

Why did the Indians choose the cliffs at this waterfall for their carvings? No doubt because the waterfall was a natural phenomenon of great curiosity to them – a conspicuous manifestation of one of the fundamental values of life, good water. Then as now drought spelt disaster to the agricultural inhabitants of St. Jan. (When I was at Reef Bay in the beginning of March 1923 the waterfall had been dry for a long time.) But when the waterfall was in full activity the whole island had water enough. At Congo Cay it was the abundance of fish, at Reef Bay the water, that animated the religious feelings and provided impulses for the primitive art of the people.

Any attempt at finding a meaning in the Reef Bay rock carvings should begin with the cruciform figure, because in many parts of America the cross is known to be the symbol of the cardinal points. In this sense the cross is used particularly often in Mexican picture writing. It is a feature peculiar to the Reef Bay cross that its lower arm is the longest and widest, and provided with a separate outer contour.

The reason that this arm is so long and thick may perhaps be that the man who carved the figure wished the arm to signify an especially important direction of



Fig. 10. Pillar stone found near the Constanza Valley. $\frac{1}{5}$.

the wind, i.e. east. The trade-wind blows from east-north-east for nine months of the year. From August to October alone it decreases in strength, when it is often displaced by southerly winds. Rain falls mostly in the summer, but the rainy season is not a very pronounced one. Most times of the year are liable to spells of drought.

In the north-easterly square of the cross, touching the long arm, is the aforementioned flourish figure, consisting of six lengths of winding lines arranged about a straight line. What can be the meaning of this figure? It would be tempting to regard it as a cloud. Curved or winding lines may represent snakes, and in many parts of ancient America snakes are symbols of water, rain and clouds. On paintings in the Maya ruins in Chich'en Itzá, Yucatán, clouds are sometimes portrayed by means of a kind of spiral, according to Seler's interpretation⁷⁰. And at festivals for rain gods and mountain gods the ancient Mexicans ate peculiar, hard-baked cakes in the shape of snakes, twisted rings and the letter S⁷¹. A very similar custom is preserved among the Huichol in Sierra de Nayarit in western Mexico. There they make small, hard-baked cakes of maize, fashioned like snakes, snails, rings and especially S-shapes, which are strung and offered to the gods at the festivals held to pray for rain. Fig. 7 is an illustration of such cakes, taken from Lumholtz's book on the symbolism of the Huichol Indians⁷². The strings of cakes are twined about arrows that are consecrated to various gods and stuck into the ground.

The Huichol are a relatively primitive, soil-tilling tribe of Indians who, when Lumholtz visited them, still had a great many of the customs and ideas that prevailed in Mexico centuries ago. Naturally we cannot assume that the customs and symbols of the Huichol are the same as those that once existed in the Antilles. Nevertheless there may have been certain common, elementary features concerned in the views of the universe and its fundamental forces, especially those so vital to every primitive agricultural people – the weather gods.

What Lumholtz says about the principle of the Huichol religion would most likely apply to the inhabitants of the Antilles, except that to them manioc was more important than maize. »The moving principle in the religion of the Huichols is the desire of producing rain, and thus of successfully raising corn, their principal food. I take this to be common to most of the agricultural tribes of this continent. Water first, and water last, is the consideration in all their ceremonies, the centre of their thoughts.«⁷³.

If I have singled out the Huichol, it is because their symbolism contains features that seem capable of throwing light on the cross and the associated figures in Reef Bay. Fig. 8, a reproduction of fig. 17 in Lumholtz's work, is the underside of a round disc of volcanic tuff, dedicated to »Father Sun«; it is placed in the temple of the sun god. The figures are painted on the stone and most of them incised as well. The cross designates the cardinal points and the various positions of the sun. The central circle, a, is the sun as it appears at mid-day; b, c, d, e represent the sun in the east, south, north and west. Two scorpions, i and j, symbolize the sun's



Fig. 11. Pillar stone in Corral de los Indios, Santo Domingo.

darts. There are also pictures of various birds which are associated with the sun and play a part in the sun myths. The snake figures are of particular interest. When the sun rose for the first time some snakes followed him; on the stone disc they are pictured as the crawling snakes t and v. But there were other snakes which did not follow him, viz. the coiled snakes, u. The most interesting one of these snakes is t, in the south-east quarter; it is described by the Huichol as an especially handsome and non-poisonous snake which made its appearance as a consequence of the great heat that arose in the world when the sun first appeared. And when this snake came there was a violent rainstorm; for this reason the south-east quarter is partly occupied by the symbols for rain and lightning (s and r)⁷⁴. Snakes play a great part in the Huichol idea of the world. There are rain snakes and fire snakes. The clouds and the wind, the rain and the lightning are snakes. There are flying snakes, with plumage⁷⁵. The birds, too, are prominent in the mythology, as fig. 8 shows.

The symbolical connection of the snake with rain must once have existed in the Antilles too. It is to be found among the Indians in Guiana. True, rain is also associated with certain birds and with frogs; on the upper Mazaruni river it is a great eagle and a boa constrictor that can make the rain fall, but frogs can do the same⁷⁶. At several places in Guiana the snake is used in rain magic. For natural reasons, however, the desire to produce rain must have been much less urgent in

rainy Guiana than in the dry Virgin Islands. To me it is not unreasonable to regard some of the winding lines, the flourish style, which is so characteristic of some of the St. Vincent rock carvings, as snake images; and those at Reef Bay on St. Jan, especially the flourish figure in conjunction with the cross, may have served as a rain symbol in ceremonies held with the object of procuring rain.

As already stated, the large figure above the cross in fig. 6 has two large additions above, possibly to be apprehended as wings. Furthermore, it differs from all the other figures by its oblique posture, which gives the impression of flying. This flying figure was perhaps intended to represent a wind demon.

The group of carvings higher up on fig. 6 would scarcely be connected with the cross, no more than the long group on fig. 5. It would seem futile to attempt any detailed interpretation of these figures, knowing so little as we do – a few fragments – of the myths and rites of the Indians of the West Indies. I ventured to tackle the group with the cross because in America the significance of that symbol is fairly well established and provides a point to work on.

It is presumable that the rock carvings at Reef Bay were executed successively, partly because they form three well separated groups, partly because there are so many of them. It may be that the incision of figures formed part of the rites that were held, just as the so-called sand paintings are a feature of rites among the Navaho and other Indians in the southwestern United States.

If this is so, it is also possible that some of the figures are repetitions. On the other hand it is not improbable that a very large number of demons could be called upon at rain-invoking ceremonies. That would agree with what Ramon Pane narrates in his Cap. XXIII concerning the female cemi Guabancex, who raises wind and water when she is angry; she has two helpers, one of whom collects water in the mountain valleys and causes floods, whilst the other summons all the other cemis in the neighbourhood, i.e. all the local spirits, to help to raise the wind and cause the rain. At Reef Bay the Indians probably tried to engage a horde of demons when rain was wanted, so that the creek might again overflow and form its waterfall – and manioc, batata and maize again thrive in the Indian *conucos*.

Fig. 9 is a rock carving at Boca del Arroyo near the village of Bui, which lies about 25 km. east of San Juan de Maguana, Santo Domingo. On a large stone are two incised human figures with raised knees and uplifted hands, elbows and knees close together. On both the body is represented by a simple line. The lines are thin and of little depth. The figure on the right is prolonged downwards in a double line 72 cm. long, and a shorter line, starting from the junction between body and legs, concludes with a small oval in which three small pits may possibly indicate eyes and mouth. Is this a phallic figure? Or is it perhaps an attempt at illustrating a birth? Between the two human figures is a problematic design, an oval with two lines running down from it, perhaps intended for legs.

These two human figures are very similar to one of the rock-carving types found

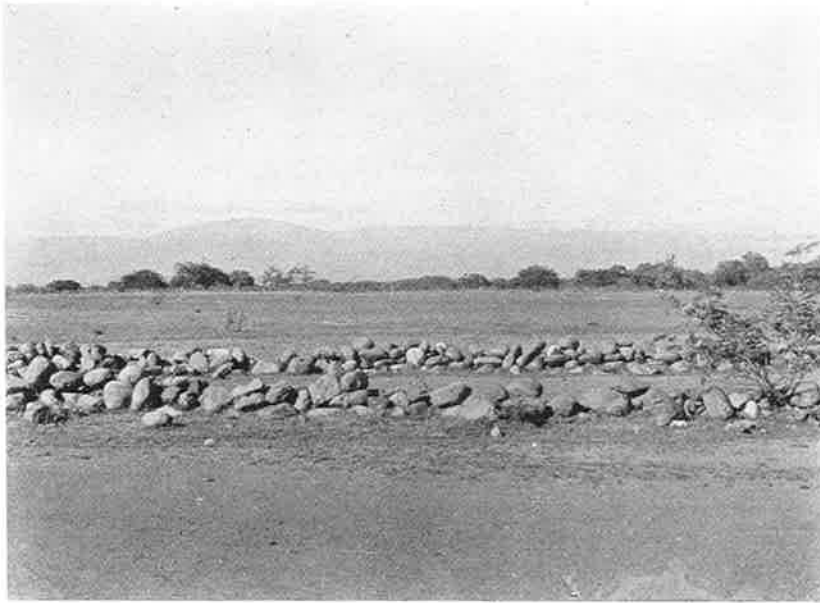


Fig. 12. View of Corral de los Indios, with part of the stone walls in the foreground.

by Herbert W. Krieger in some caves in the province of Samaná, in northeastern Santo Domingo ⁷⁷.

Cave pictures are particularly frequent in Santo Domingo, though I have not had the opportunity to see any of them. The most complete account of them must be credited to Krieger in his work from Samaná. He found both rock paintings and rock carvings. As a whole they are realistic. Besides human figures there are numbers of birds, insects, fishes and mammals. In a cave on the south side of Samaná bay Krieger found a figure pecked in the top of a stalagmite, and he believes that the two *cemis* which according to Ramon Pane Cap. XI were found in the cave of the sun and moon were also carved out of stalagmites. This is exceedingly probable, and it would conform very well to Pane's account that these *cemis* looked »as if they were sweating«. What is more, the Indians of Cuba also have used stalagmites when carving figures ⁷⁸.

It is quite evident from Ramon Pane's narrative that the caves were important features in the religious life of the Taino, at any rate in the northern part of Santo Domingo where he lived. For this reason Krieger's find of cave pictures is most interesting. A detailed publication of this material would undoubtedly dispel some of the obscurity surrounding the Tainan religion.

Stalagmite *cemis* may doubtless be regarded as a kind of transitional form between rock carving and higher figure sculpture. They may also be regarded as a

separate type of the so-called pillar-stones, i. e. natural, elongated stone blocks with a face pecked or incised at one end. Pillar-stones seem to be especially common in Puerto Rico; Fewkes describes and illustrates a considerable number and connects them with the Indian dance arenas or ball-grounds, the so-called *cercados de los Indios* or *juegos de bola*⁷⁹. In Santo Domingo I saw two pillar-stones, which I shall describe here because their faces were fashioned by exactly the same technique as the rock carvings.

Fig. 10 is a pillar-stone, now in the National Museum, Copenhagen, which we found near the Constanza valley in the Cibao mountains; it had recently been employed for building purposes and was in the bottom of the wall of a hen-house. It is a natural piece of basalt, 64 cm. high, with a crudely pecked face at one end – eye holes, mouth groove and a semi-circular groove enclosing the face at the top. A vertical groove divides the face lengthwise, and a transversal groove limits it below.

Fig. 11 is one of the most famous pillar-stones in the West Indies. It stands almost at the centre of the so-called *Corral de los Indios* or *Cercado de los Indios*, which is 6 km. north of San Juan de Maguana. The place was first mentioned and described by R. Schomburgk⁸⁰. When he was there the large stone lay on the ground, partly below the surface. He measured it to 5 feet 7 inches (170 cm.) in length. In 1923 it had not long before been raised upright by Americans and stood embedded in cement. It reached about 150 cm. above the ground. The stone is a natural granite block; it looks as if it had lain in a river bed. The face consists of ring-grooves; two of them form the eyes, one the mouth, and a ring-groove encircles it all.

This pillar-stone is placed at about the centre of an almost circular space surrounded by two low concentric walls of natural granite boulders, up to half a metre in height. We stepped off the space and found the diameter to be about 215 metres from north to south, but only about 203 metres from east to west. Schomburgk thought that the stones had been fetched from the banks of the river Maguana, and their rounded, worn contours may well suggest that they once lay on a river bed. In Schomburgk's time the stone walls seem to have been flattened out to form »a paved road«. The Americans who erected the central monolith also stacked the edge stones in the two walls, but pigs, horses and boys were already well on the way to scatter them again. The distance between the two walls is three or four metres. On fig. 12 they are seen in the foreground, and in the middle background, in the centre of the picture, is a glimpse of the central pillar-stone.

Corral de los Indios lies on the flat top of a low hill. The ground was levelled off a little when it was made, and the earth thus removed was carried out to the margin, so that the double stone circle lies about half a metre higher than the space inside. At the middle, where the central pillar-stone stands, the ground again rises a little.



Fig. 13. Southwestern part of the stone row at Salt River, seen from the Southeast.

I have seen several other »dance arenas« or »ball grounds« in Santo Domingo. In the Constanza valley we found seven of them, six in pairs. They were all much smaller than Corral de los Indios and of another shape, rectangular, and fenced only on the two long sides with low mounds of earth. At Bui, southwest of the Constanza valley, we found another rectangular space, but this one had stone walls on the long sides (east and west). Alongside these oblong spaces there were always many relics of Indian settlements: potsherds, pounders, stone axes; small elevations – »montones« – still bore witness of Indian manioc growing in the vicinity. But we found no pillar-stones with hewn faces *in situ*.

Schomburgk considered Corral de los Indios to be such a splendid memorial that it must have belonged to a race »far superior in intellect to the one Columbus met in Hispaniola«. The inaccuracy of that conclusion is obvious. The Corral de los Indios and its pillar-stone are a very good match for the stage of culture evidenced by the other remains of Tainan culture. I mention this particular memorial here because it may be taken as evidence that the primitive art of rock carving was capable of serving great purposes. For, whatever the Corral de los Indios may have been used for, the round face on the central stone was its focus and must have expressed the fundamental idea of this large arena.

Our investigations of the Salt River settlement in St. Croix prove that rock carving could express ideas of a religious nature.

In my preliminary report on these investigations⁸¹ I have already stated that within the village area there was a flat space where hardly any settlement material was deposited. This space, which measured a little more than 30 metres from northeast to southwest and about 25 metres northwest to southeast, was fringed on the northwest by an elevation consisting of shell-heap material, containing quantities of oyster and snail shells, crab claws, potsherds, etc. At the foot of this mount, covered by the soil, we found a row of flat stones standing on edge. This row was 8 metres long, running northeast-southwest, and the height of the stones varied between 29 and 42 cm. At two places there was a break in the row, possibly owing to stones having been removed at some time previously. But we found nine stones in position, and four of them had carvings facing the open space. These four are now in the National Museum, Copenhagen.

The elevation behind the stone row contained a large quantity of human bones, most of them scattered among the rest of the refuse. Only four of the skeletons represented interments. Of these, two were close behind the southwestern end of the stone row, at a slightly lower level than the lower edge of the stones, in a layer of clayey soil which formed a kind of platform behind the row, 4 metres wide from southeast to northwest and somewhat longer than the stone row itself. This clayey stratum may have been the floor of a house; but as no post holes could be found, it is impossible to decide this question. Several intact specimens of pottery were found above this clay, as well as several crudely carved heads of coral, which can scarcely be understood as anything but *cemis*. If the clay platform was a house floor, two bodies had been buried in it. Afterwards layers of ashes and shells had been deposited on top of the floor, covering the pottery and the coral heads. Another skeleton lay relatively high up in this ash and shell layer. A fourth skeleton also lay fairly high in the shell, 5 metres north of the stone row where the strata in the refuse heap dipped to the northwest. It was evident that refuse from meals repeatedly had been thrown out from the open space just behind the stone row towards the northwest, where a lagoon formed the boundary of the settlement. And these deposits, besides shells of mangrove oysters, snails and crabs, bones of fishes and manatee, contained large quantities of scattered and broken human bones. The four whole skeletons referred to may be taken to be burials; three of them lay on the left side with the knees drawn up, the fourth was in a somewhat irregular position, half on the back, half on the left side. But the other skeletal remains can hardly be regarded as other than remains of cannibalistic meals.

We made several excavations in the Salt River settlement, unearthing a few burials; but the only evidence of cannibalism was found in the refuse heap behind the row of stones. This fact, together with the finding of several carved coral heads behind the stones, suggests that this row bounded a sacral ground. If the aforesaid clay layer was a house floor, that house must have had some special significance, furnished with *cemis* carved out of coral; and its southeast side, facing



Fig. 14. Face on the back of one of the stones from the stone row at Salt River. $\frac{1}{4}$.

the village clearing, had at the bottom a row of flat stones, most of a reddish-grey sandstone, four of which were embellished with carvings. As already stated, only nine of these stones remained in position, so that some of the missing ones may also have been carved. In the rubbish heap northwest of the stone row we found fragments of three rock carvings.

Some of the carvings were quite crude, consisting merely of faces. On fig. 13, which shows the southwestern part of the stone row seen from the southeast, one can on the third stone from the left discern a face consisting of two eye pits and a mouth groove. The second stone from the left has a more complicated figure, but unfortunately it is defective; there is the face of a figure in the lying position, and on the right of it the eyes of another face. This same stone has a face – in the lying position – incised on the back facing the rubbish-heap. This face is shown in fig. 14. It is round like a celestial body, recalling to some extent the face on the monolith in the Corral de los Indios, but differing from it in that the eyes and mouth are formed like pits. A small face is indicated above to the left of the large one, consisting of eye pits and mouth groove.

More interest attaches to the stone terminating the row on the southwest, seen farthest left in fig. 13 and in larger size in fig. 15. Here too the figure is in the

horizontal position. The round face has eyes and mouth of the pit shape. But within the body of the figure is another figure with the head the opposite way. This carving may probably be interpreted as representing a pregnant woman. The idea of drawing the child inside the woman's body must be natural to the primitive mind. I have not seen it on other rock carvings, but it is used in the picture writing of the Dakota⁸².

What was the idea of this carving of a pregnant woman? In Cap. XVI Ramon Pane tells of certain *cemis* that were supposed to help women in labour; these, however, must have been very small, as the medicine men were thought to have sucked them out of the bodies of sick people and thus had them in their mouths. I think it more reasonable to imagine that this carving is a representation of the mother of the sky god. It is true that Ramon Pane says nothing of her cult or function; but just as the sky god may be supposed to have been closely related to the most important culture plant, the manioc, it is not improbable that the god-mother was a goddess of fertility. The woman who had given birth to the highest deity would presumably be regarded as the universal mother.

There is also an interesting carving on the most north-easterly stone in the row, seen in position in fig. 16. The stone seems to have been molested already in Indian times. A piece has been knocked off at the top left side, and part seems to be missing below. The carving is best seen in fig. 17. It has a face below, represented only by pit-shaped eyes and mouth. The lower fracture runs across the mouth. Over the eyes are five vertical incised lines, like rays. On the right of this figure is a circular surface surrounded by a groove 10 cm. in diameter. In the middle of this circle are three places close together where a drill has been used. Two of the holes are of slight depth, but the third one, on the left, is a very thin channel, about 1 mm. in diameter, passing deep into the stone and no doubt once connected with a funnel-shaped hole bored into the stone from the back, as shown in fig. 18. A short length of the passage is now closed, as the result of lime precipitation. On the wall of the funnel in the back is a fine reticulation of precipitated lime, the result of lime-saturated rainwater percolating from the shell mound in the course of the centuries.

The funnel-shaped hole, opening in the form of a fine pore on the front of the stone, no doubt served some priestly purpose. For example, it would be possible to pour water through from the back so that it trickled down the front. With a trick of this sort the medicine men would be able to impress the crowd which presumably was assembled on the open space south of the row of stones. Devices of this kind were not foreign to West Indian medicine men, as will be seen from what Ramon Pane has to tell in Caps. XV and XVI about the so-called *Buhuitihu*, and particularly from Christopher Columbus' own narrative, reproduced in Ferdinand Columbus' Cap. LXI, of how some Spaniards discovered the secret of a »talking« *cemi*. A pipe led from the image to a dark corner of the house, where there was a concealed man who spoke into the pipe so that it sounded as if the



Fig. 15. Southwestern stone in the stone row at Salt River. $\frac{1}{4}$.

words came from the image. There is no account of a water trick such as the one I believe was performed at the Salt River settlement; but Ramon Pane's story in Cap.XI of the rain-producing *cemis* in the cave of the sun and moon, who looked as if they were perspiring – a natural appearance for a stalagmite – suggests that rain-*cemis* were preferably wet.

In the foregoing (p. 174) I expressed the supposition that the two *cemis* in the cave of the sun and moon in fact represented these two heavenly bodies. If this is correct, the sun and moon were regarded as rain-bringing powers. The two figures on the front of the stone, fig. 17, may be interpreted as primitively realistic representations of the beaming sun and the clear moon. This carved stone may perhaps have had a function corresponding to that of the two *cemis* in the cave of the sun and moon⁸³.

Among the Aztec and the Maya the moon was closely connected with rain. Seler describes the moon as »das wässerige Gestirn, das immer und überall mit dem feuchten Elemente, mit Vegetation und Wachstum in Verbindung gebracht wird«⁸⁴. Among the Huichol, too, the moon influenced the rainfall. Lumholtz writes that the symbols of the moon on the wax and wane were suspended in a Huichol temple in order to call down rain⁸⁵.

It was stated above that we found three fragments of rock carvings in the rubbish





Fig. 16. Northeastern part of the stone row at Salt River, seen from the South.

heap behind the row of stones. One of these, now in the National Museum, Copenhagen, is shown in fig. 19. This unusually well-executed carving, which may almost be called a relief, is 26 cm. high and apparently intended to represent a frog with a human face. The frog was a very popular motif in St. Croix. Frog figures carved in shell have been found in several settlements. They are very naturalistic, presenting no anthropomorphic features. From a site in Prosperity, western St. Croix, come some very handsome, diminutive frog figures of green, yellowish-brown or blue stone belonging to the important collection of West Indian antiquities presented by G. Nordby to the Danish National Museum in 1923. These figures too are very naturalistic. Much care has been taken to make a faithful representation of the back of the animals. The anthropomorphic rock carving on fig. 19, however, represents the underside. This semi-human frog-being is shown squatting with a thin, slightly curved and forked rod in its right hand. The mouth is surrounded by a roll. The navel is very prominent.

Without doubt this anthropomorphic frog is a mythical figure. Ramon Pane tells a frog myth in Cap. IV. The hero Guagugiana, who carried all women away, left their children at a brook where, driven by hunger, they cried of their mothers: Toa! Toa! They were turned into frogs. In Peter Martyr's version of the tale he adds: »That is why frogs still emit the same sound in spring«. (De Orbe Novo, I decade).

Incomplete as our information on the mythology of the Taino is, there can be



Fig. 17. Northeastern stone in the stone row at Salt River. $\frac{1}{4}$.

no doubt that the frog had some part in it. And as the frog almost everywhere in America is connected with rain and fertility⁸⁶, it seems reasonable to assume that this connection existed in the Antilles. De Hostos may therefore be right in saying: »The frog sometimes carved on the *zemi* should be regarded as a rain-charm.«⁸¹. He states too that the natives in Santo Domingo and Puerto Rico used to keep live frogs in their huts for the same purpose. Unfortunately he does not quote the source of this interesting observation. But similar customs are known among the Indians on the Orinoco⁸⁸.

The role of the frog as a rain and fertility demon in North and South America, both among the primitive peoples and the higher agricultural tribes, is a chapter so large that it would be impossible to go into it here. I shall merely quote a passage from Seler, who gives a natural and obvious explanation of the function of the frog as a rain demon in Mexico – and elsewhere:

»Die Frösche und die Kröten, die in der Regenzeit sich hören lassen, waren eben deshalb Diener oder Vertreter der Regengottheiten und wurden, durch eine natür-

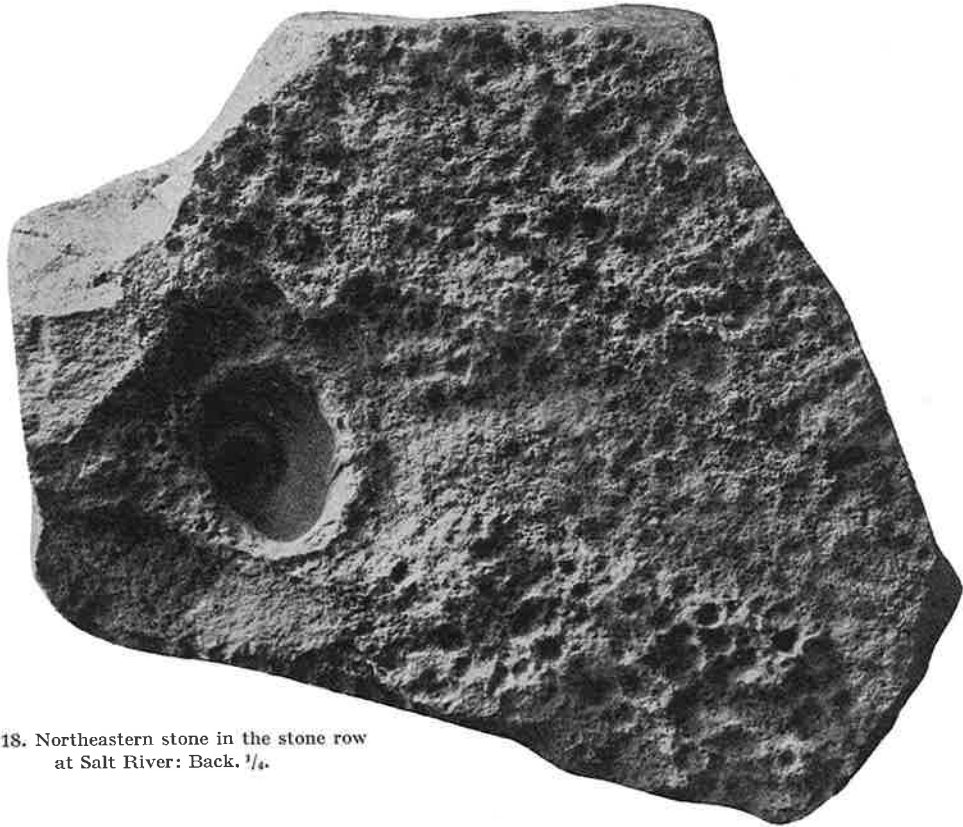


Fig. 18. Northeastern stone in the stone row
at Salt River: Back, $\frac{1}{4}$.

lich eintretende Verkehrung der Vorstellungen, auch als Regenbringer gedacht.«⁸⁹. In other words, the close association of frogs with water and rain, and especially their loud croaking on the coming of the rainy season, which may recall the whimpering of a child or religious invocations accompanied by drum beats, have made these amphibia into rain demons.

IV.

THE question I have placed above this article must be answered in the affirmative. West Indian rock carvings, or at any rate some of them, had religious significance. The strongest evidence is contained in those at the Salt River settlement, which must be regarded as *cemis* and whose association with mythical ideas can be demonstrated, just because these images are so primitive, so elementary, and therefore directly comprehensible. But in addition, ancient American religious ideas are reflected in other West Indian rock carvings too, especially in the Reef Bay specimens.

It is admitted that most of the West Indian rock carvings have not been interpreted. A larger material, particularly a comprehensive and careful publication of the cave rock-carvings, would probably lead to a more profound and extensive understanding of these prehistoric monuments and at the same time throw more light on Tainan religion.

Many of the West Indian rock carvings, perhaps all, were cemís or at any rate images of cemiistic character. There is no vital difference between rock carvings and higher sculpture; the lower and higher stages of development in the art served the same purposes.

This being so, it seems improbable that those authors are right who would deprive the South American rock carvings of all religious significance.



Fig. 19. Fragment of rock carving from Salt River: Frog with human head. $\frac{1}{4}$.

NOTES

- 1) Robert Hermann Schomburgk's Reisen in Guiana und am Orinoko während der Jahre 1835–1839, Leipzig 1841, p. 147.
An illustration of the rock carvings at the Warrapoota falls is in E. F. im Thurn: Among the Indians of Guiana, London 1883, plate IX.
- 2) Richard Schomburgk: Reisen in Britisch-Guiana in den Jahren 1840–1844, II, Leipzig 1848, pp. 224–225.
- 3) R. H. Schomburgk, op. cit., p. 310. The fact that rock carvings were also made in later times, however, appears from the same author's reference to two pictures of European ships in Ilha de Pedra in Rio Negro. Op. cit. pp. 499–500.
- 4) Charles B. Brown: Indian Picture Writing in British Guiana. Journal of the Anthropological Institute of Great Britain and Ireland, vol. II, London 1873, pp. 254–57, pl. XV–XVIII.
- 5) Op. cit. I, pp. 328–29.
- 6) J. Whitfield: Rock Inscriptions in Brazil. The Journal of the Anthropological Institute of Great Britain and Ireland, III, 1874, p. 114.
- 7) Alfred R. Wallace: A Narrative of Travels on the Amazon and Rio Negro, London 1853, pp. 524–25.
- 8) Carl Friedrich Phil. von Martius: Beiträge zur Ethnographie und Sprachenkunde Amerikas, zumal Brasiliens, I, Leipzig 1867, p. 576.
- 9) Op. cit. p. 574.
- 10) Everard F. im Thurn: Among the Indians of Guiana, London 1883, p. 402.
- 11) Richard Andree: Ethnographische Parallelen und Vergleiche, Stuttgart 1878, pp. 258–299.
- 12) Im Thurn, op. cit., p. 409. Cf. pp. 368–69.
- 13) Walter E. Roth: An Inquiry into the Animism and Folk-Lore of the Guiana Indians, XXX Annual Report of the Bureau of American Ethnology, Washington 1915, pp. 298–301.
- 14) Many observations on rock carvings and their genesis are presented in Koch-Grünberg's work »Zwei Jahre unter den Indianern«, I–II, Stuttgart 1909–10.
- 15) Theodor Koch-Grünberg: Südamerikanische Felszeichnungen, Berlin 1907.
- 16) Theodor Koch-Grünberg: Anfänge der Kunst im Urwald, Berlin 1905.
- 17) Examples are to be found e.g. in Zwei Jahre unter den Indianern, I, p. 113, II, p. 55.
- 18) Op. cit., I, p. 225, II, p. 70.
- 19) Op. cit., I, p. 113.
- 20) Op. cit., II, p. 70.
- 21) The Saliva Indians on the upper Orinoco seem to have had a cult associated with rock carving of a sort. In Ribero's work: Historia de las Misiones de los Llanos de Casanare y los rios Orinoco y Meta, Bogotá 1883, written in 1736, it is stated that the Saliva had painted figures, hewn in the rock, on a mountain top that was difficult of access, and that their »priests« climbed up to these figures in order to consult the oracle. I take this quotation from Sven Lovén's Origins of the Tainan Culture, p. 590. The figures mentioned can hardly have been other than rock carvings and rock paintings.
- 22) It will suffice here to refer to Garrick Mallery: Picture-Writing of the American Indians. X Annual Report of the Bureau of Ethnology, Washington 1893.

- ²³⁾ «...l'hanno tutta dipinta al modo loro senza alcuna figura, con molti fogliami, et altre cose simili.» Historie del S. D. Fernando Colombo. In Venetia MDLXXI, p. 132.
- ²⁴⁾ Journ. Ethn. Soc. 1854, vol. III, p. 121. Cit. by H. Ling Roth in »The Aborigines of Hispaniola«, Journ. Anthr. Institute, XVI, 1886-87, p. 264.
- ²⁵⁾ Herbert W. Krieger: Archaeological and Historical Investigations in Samaná, Dominican Republic. Smithsonian Institution, U. S. Nat. Mus. Bulletin 147, Washington 1929, pp. 87-91.
- ²⁶⁾ Pierre-François-Xavier de Charlevoix: Histoire de l'Isle Espagnole ou de S. Domingue, I, Amsterdam 1733, pp. 78-79.
- ²⁷⁾ Roman Pane, Cap. XV. Fernando Colombo, op. cit., p. 134.
- ²⁸⁾ Cf. e. g. the physician Chanca's reference to the fact that human heads, carefully wrapped and sewn into small baskets, were found in Indian huts in Hispaniola. R. H. Major: Select Letters of Christopher Columbus with other Original Documents. Works issued by the Hakluyt Society, London 1847, pp. 50-51.
- ²⁹⁾ Bartolomé de las Casas: Apologética Historia de las Indias, Cap. CXX.
- ³⁰⁾ J. W. Fewkes: The Aborigines of Porto Rico and Neighboring Islands. XXV Ann. Rep. of the Bureau of Ethnology, Wash. 1907, pp. 213-14. The find was mentioned for the first time in Rudolf Cronau: Amerika, die Geschichte seiner Entdeckung, Leipzig 1892.
- ³¹⁾ Las Casas: Historia de las Indias, Apendice, cap. CLXVI. Colección de documentos inéditos para la historia de Espana, Tomo LXVI, Madrid 1876, p. 468.
- ³²⁾ Ramon Pane, cap. XXIII.
- ³³⁾ Cf. Sven Lovén: Origins of the Tainan Culture, West Indies, Göteborg 1935, pp. 562, 655.
- ³⁴⁾ Sven Lovén, op. cit., cap. XII.
- ³⁵⁾ Paul Ehrenreich: Die Mythen und Legenden der südamerikanischen Urvölker. Supplement to Zeitschrift für Ethnologie. Berlin 1905, p. 26.
- ³⁶⁾ Historia de las Indias. Apendice, cap. CXX.
- ³⁷⁾ In Pane's text as reproduced in Ferdinand Columbus, we find only these four names, though he says that she has five. Peter Martyr, who made use of Pane's narrative, gives five names, though they agree but badly with the four in F. C.: Attabeira, Mamona, Guacarapita, Iella, Guimazoa (Peter Martyr: De Orbe Novo. I Decade, cap. IX). The transcribers of Ramon Pane's work were apparently rather careless with the Indian names.
- ³⁸⁾ This idea was presented by Coll y Toste: Prehistoria de Puerto Rico, San Juan 1907, pp. 115-116; and J. Walter Fewkes endorses it in »An Antillean Statuette, with Notes on West Indian Religious Beliefs« (American Anthropologist, N. S., vol. XI, 1909, p. 355).
- ³⁹⁾ J. W. Fewkes: A Prehistoric Island Culture Area of America. XXXIV Ann. Rep. of the Bureau of American Ethnology, 1922, p. 264.
- ⁴⁰⁾ Among the Indians in Guiana both the sun and the moon are male. Cf. Walter E. Roth, op. cit. pp. 254 and 256.
- ⁴¹⁾ Paul Ehrenreich op. cit., p. 33.
- ⁴²⁾ Cf. many quotations in J. G. Müller: Geschichte der amerikanischen Urreligionen. Basel 1855.
- ⁴³⁾ De Rochefort: Histoire naturelle et morale des Iles Antilles de l'Amérique. Sec. ed., Rotterdam 1665, p. 469.
- ⁴⁴⁾ Among the Kágaba Indians on the north side of Sierra Nevada de Santa Marta in Colombia it was the fire goddess who gave birth to the world and everything contained in it, both man and all natural phenomena, for example the sun, the Milky Way, the mountains, the rivers and the thunder. Her dwelling is the inside of a mountain, but she is not particularly connected with either the earth or the sky, but personified in fire. K. Th. Preuss: Die oberste Gottheit bei den Naturvölkern. Zeitschrift f. Ethnologie, 54. Jahrg. Berlin 1922, pp. 128-29.

- ⁴⁵) Fewkes presents his view in the following words: »From the available historical material it may be supposed that the ancient Antilleans believed in two great supernatural beings, called *zemis*, that were parents of all others. These may be known as earth goddess and sky god, or personifications of the magic power of earth and sky. One was male, the other female, and from them originated all minor gods, men, and animals; but neither of these parents created the universe, which was supposed always to have existed. These two first parents were symbolized by idols, made of stone, wood, or clay, to which the Indians addressed prayers and in the presence of which they performed rites for the well-being of the human race.« J. W. Fewkes: *The Aborigines of Porto Rico and Neighbouring Islands*, p. 53. Cf. Th. A. Joyce: *Central American and West Indian Archaeology*, London 1916, p. 181.
- ⁴⁶) Sven Lovén, *op. cit.*, p. 564.
- ⁴⁷) Th. A. Joyce, *op. cit.*, p. 186.
- ⁴⁸) Cf. Fewkes: *The Aborigines of Porto Rico*, pp. 111 f., Type 1.
- ⁴⁹) Girolamo Benzoni: *History of the New World*. Works issued by the Hakluyt Society. London 1857, p. 79.
- ⁵⁰) Letter by Christopher Columbus, quoted by Fernando Colombo, *op. cit.* cap. LXI.
- ⁵¹) H. Ling Roth: *The Aborigines of Hispaniola*. *Journal of the Anthropological Institute of Great Britain and Ireland*, vol. XVI, London 1887, p. 264.
- ⁵²) Oviedo apparently thought of the figures ornamenting part of the dwelling and the chairs as *cemis*. Gonzalo Fernandez de Oviedo y Valdés: *Historia general y natural de las Indias*, I, Madrid 1851, p. 125. There is nothing to show that these figures were the objects of a cult. But to regard them as ornaments, of purely esthetic value, is wrong too.
- ⁵³) Cf. e.g. many illustrations in Fewkes in his two large monographs: »*The Aborigines of Porto Rico and Neighbouring Islands*« and »*A Prehistoric Island Culture Area of America*«, 25th and 34th Ann. Rep. of the Bureau of Am. Ethnology, Washington 1907 and 1922, and T. A. Joyce: *Prehistoric Antiquities from the Antilles*, in the British Museum, *Journal of the Anthropol. Inst. of Gt. Brit. and Irel.*, vol. XXXVII, 1907, pp. 402–419.
- ⁵⁴) Gudmund Hatt: *Notes on the Archaeology of Santo Domingo*, *Geografisk Tidsskrift*, Bind 35, 1932, fig. 14.
- ⁵⁵) Gudmund Hatt: *Archaeology of the Virgin Islands*, *Proceedings of the XXI Int. Cong. of Americanists*, I, The Hague 1924, fig. 4, f. g. h.
- ⁵⁶) Fewkes: *The Aborigines of Porto Rico* pl. LXX and LXXI. Hatt: *Notes on the Archaeology of Santo Domingo*, fig. 7.
- ⁵⁷) Hatt: *Archaeology of the Virgin Islands*, figs. 12–13.
- ⁵⁸) Hatt: *Notes on the Archaeology of Santo Domingo*, fig. 6.
- ⁵⁹) The rock carvings in Congo Cay were previously illustrated and described by Theodor de Booy in »*Archeology of the Virgin Islands*«, *Indian Notes and Monographs*, vol. I, 1, New York 1919, pp. 56–59. De Booy's photographs differ slightly from mine; he took a slightly different view of the lines and whitened them accordingly.
- ⁶⁰) Th. Mortensen: *Om Fiskerierne paa vore vestindiske Øer*. Reprint from »*Atlanten*«, 4. Aar-gang, 1907, pp. 18–20.
- ⁶¹) Cf. e.g. H. West: *Bidrag til Beskrivelse over St Croix med en kort Udsigt over St. Thomas, St. Jean, Tortola, Spanishtown og Crabeneiland*, København 1793, p. 337; John P. Knox: *A Historical Account of St. Thomas, W. I. and Incidental Notices of St. Croix and St. Johns*, New York 1852, p. 17, and Theodor de Booy, *op. cit.*, pp. 48–55.
- ⁶²) Cf. Fewkes: *The Aborigines of Porto Rico and Neighbouring Islands*, pl. LX, o and m.
- ⁶³) Thomas Huckerby: *Petroglyphs of Grenada and a Recently Discovered Petroglyph in St. Vincent*. *Indian Notes and Monographs*, I, 3, New York 1921, pl. III.
- ⁶⁴) Im Thurn, *op. cit.*, pl. IX.

- ⁶⁵⁾ In Ramon Pane's cap. VII he tells of four volatile human-like beings which were caught by four men who had rough hands owing to an eruption and therefore were able to hold firmly.
- ⁶⁶⁾ Cf. Thomas Huckerby, op. cit., pl. VIII, «The Colonarie Petroglyphs», and Huckerby: Petroglyphs of St. Vincent, American Anthropologist, N. S. vol. 16, pl. XXIX, the rock carvings in Buccament cave.
- ⁶⁷⁾ Cf. the article cited by Huckerby in Am. Anthr. vol. 16, pl. XXVIII A, faces with over-developed ears. On pl. XXVIII B in the middle there is a large figure which also has large out-growths on the side of the head. — Below on the same plate XXVIII B is a rock carving, a very realistic design of an axe with ears in the style characteristic of St. Vincent and neighbouring islands. Two other carvings on the same stone seem to represent wooden clubs with carved heads. I venture these interpretations, because Huckerby himself expresses no opinion on the meaning of these figures.
- ⁶⁸⁾ Hatt: Archaeology of the Virgin Islands.
- ⁶⁹⁾ Fewkes: The Aborigines of Porto Rico and Neighboring Islands, pp. 150f.
- ⁷⁰⁾ Cf. E. Seler: Gesammelte Abhandlungen, Bd. V, Berlin 1915, pp. 340–41 and 345–46.
- ⁷¹⁾ Eduard Seler: Gesammelte Abhandlungen, Bd. III, Berlin 1908, p. 39.
- ⁷²⁾ Carl Lumholtz: Symbolism of the Huichol Indians. Memoirs of the American Museum of Natural History, vol. III, 1900, pp. 179–80.
- ⁷³⁾ Lumholtz, op. cit., p. 22.
- ⁷⁴⁾ Lumholtz, op. cit., pp. 37–40.
- ⁷⁵⁾ Lumholtz, op. cit., p. 20.
- ⁷⁶⁾ Walter E. Roth, op. cit., p. 267.
- ⁷⁷⁾ Herbert W. Krieger: Archaeological and Historical Investigations in Samaná, Dominican Republic. U.S. National Museum, Bulletin 147, pl. 6, fig. 10. The problematical figure between the two human figures on fig. 9 is somewhat reminiscent of the one Krieger gives, op. cit. pl. 6, fig. 5.
- ⁷⁸⁾ M. R. Harrington: Cuba before Columbus. Indian Notes and Monographs. Vol. II, New York 1921, pp. 268–271.
- ⁷⁹⁾ Fewkes: The Aborigines of Porto Rico, p. 175.
- ⁸⁰⁾ R. Schomburgk: Ethnological Researches in Santo Domingo. Report of the British Association for the Advancement of Science, 1851, London 1852, pp. 90–92.
- ⁸¹⁾ Hatt: The Archaeology of the Virgin Islands, XXI Int. Congr. of Americanists, The Hague 1924.
- ⁸²⁾ Cf. Garrick Mallery: Picture-Writing of the American Indians, X Ann. Rep. of the B. of Ethnology, Washington 1893, p. 312, fig. 355.
- ⁸³⁾ The rock carving fig. 17 is not the only example from Salt River of one stone accommodating two figures. Among the carved coral heads found behind the row of stones the largest — illustrated in my article «Archaeology of the Virgin Islands», pl. VII, fig. 17a — has a face on both sides, as on a «Janus head».

Dr. Kaj Birket-Smith has called my attention to an article by James Hornell, 'The Archaic Sculptured Rocks and Stone Implements of Gorgona Island, South America', in *Man* XXV, 1925, p. 81–84 and 104–107. On the eastern shore of Gorgona Island, 17 miles off the Pacific coast of Colómbia, James Hornell discovered some very interesting rock carvings. On a large boulder was found «the representation of a pair of rude ungainly human figures, male and female, each with a number of rays disposed around the head, forming a halo. These figures stand side by side, the man on the left, the woman on the right as one looks at the stone. They are graven upon a great conchoidal fracture which measures roughly 2 feet high by 2 feet 10 inches wide; it is almost entirely filled by the two figures.» The male figure has a large penis. In the 'female' figure no sexual characters

are indicated. James Hornell suggests that these two figures may represent the sun god and the moon goddess. On another boulder he found a pictograph, evidently representing a stepped pyramid, recalling the pyramid temples of Maya and Aztec culture. Therefore he is tempted to regard this anthropomorphic pair as the Aztec god Tonatiuh, the Sun, and his wife or sister Metztli, the Moon.

There is a long way from Gorgona to St. Croix. Still, a certain parallelism is apparent between the astral divinities on the boulder in Gorgona and the rude representation on the northeastern stone in the stone row at Salt River. In both cases, probably, the heavenly pair, Sun and Moon, were represented by the primitive art of the rock-engravers.

⁸⁴⁾ Eduard Seler: *Gesammelte Abhandlungen*, Bd. V, Berlin 1915, p. 324.

⁸⁵⁾ Carl Lumholtz: *Symbolism of the Huichol Indians*, p. 131.

⁸⁶⁾ Cf. Henry Wassén's comprehensive treatment of this subject in »The Frog in Indian Mythology and Imaginative World«, *Anthropos*, vol. XXIX, 1934, pp. 613-658.

⁸⁷⁾ Adolfo de Hostos: *Antillean Fertility Idols and Primitive Ideas of Plant Fertilization Elsewhere*. XXI Int. Congr. of Americanists, The Hague 1924, p. 252.

⁸⁸⁾ Henry Wassén, *op. cit.*, pp. 633-34.

⁸⁹⁾ Eduard Seler: *Gesammelte Abhandlungen*, II, p. 793.