PAPUAN PETROGRAPHS.

[With Plates, VII–XVI.]

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CONTENTS.

This paper deals with the rock-paintings and rock-carvings of Papua. The sites hitherto discovered are not very numerous and the paintings and carvings are crude in the extreme, nevertheless, they deserve more attention than they have received; and while we may look for a much greater accumulation of evidence in the future, it should not be amiss at present to attempt a provisional survey.

We are indebted to Dr. W. M. Strong for the discovery of prehistoric rock-paintings in the Central Division and for two short descriptive articles on them published in *Man*.[1] Jenness and Ballantyne refer to certain painting and carvings in the d'Entrecasteaux Group in their *Northern d'Entrecasteaux*[2]; Sir Hubert Murray has a note on the Boianai carved stones in the Annual Report, 1924–5[3]; and Seligman a paragraph on those of the Wedau District in the *Melanesians of British New Guinea*.[4]

Following J. H. Steward[5] I shall use the word "petrographs" to include both rock-carvings and rock-paintings. It is impossible to treat them separately

[1] December, 1923, No. 119; July, 1924, No. 74.

[2] Pp. 198–99.

[3] P. 15, and Appendix I.

[4] P. 466.

[5] *Petroglyphs of California and Adjoining States*, University of California Press, 1929.

throughout, owing to their frequent existence together on the same sites, to the fact that the same design sometimes appears in both media, and to the probability that the carvers and the painters were of one and the same people.

General Location.

The sites in which these petrographs occur—or in which they have been hitherto discovered—are limited to two main regions, viz. : (1) the Sogeri district and the hinterland of Port Moresby in the Central Division ; and (2) the d'Entrecasteaux Islands, together with Boianai and Wedau on the more or less adjacent mainland of the Eastern Division. One other important site, not included in either of the above, is the village of Lohomunidabu. Though situated close to the eastern border of the first (or Sogeri) region, this site seems to possess peculiar affinities with the second, viz., Boianai-d'Entrecasteaux. I shall speak of it as the Intermediate Site.

It will be seen that there is a wide stretch of country between the two main regions, in which hitherto no petrographs have been recorded. If there is any connection between the two, or if, as at least seems probable, there is some connection between the second region and Lohomunidabu, then we should expect *a priori* that in this wide area some petrograph sites remain to be discovered. I have heard rumours of rock-paintings as far west as the Gulf Division ; and of rock-carvings in other parts of the Koiari-speaking country, of which the Sogeri region is only a small part. These I hope to follow up at some future date.

There is no doubt that the natives do sometimes conceal the existence of these ancient sites—a difficulty of which I have had personal experience. A sufficient motive is found perhaps in their desire to avoid the troublesome expedition which is likely to ensue if they reveal the existence of a petrograph site to an ethnographer. But, beyond this there is occasional evidence of a reluctance to tamper, or to allow others to tamper, with these ancient and mysterious remains. I would not lay stress on this point, for the prevailing attitude of the present-day native toward the petrograph is, as I shall show later, one of sheer indifference. Nevertheless this reluctance, in so far as it exists, no doubt provides an additional motive for concealment. There is little doubt, then, that other sites remain to be discovered, and the present may only be regarded as a preliminary survey.

Region I : Sogeri.

I shall first speak of the petrographs of the Sogeri region, which have a more primitive appearance than the others. In 1922, Dr. Strong described the paintings of Bomana in the plain country about 13 mm. distant from Port Moresby ; and in the following year three others in the hills of the Sogeri district proper. I have examined altogether nine sites, all of them in the hill country, and including the above-mentioned three, which, with a view to completeness, I have dealt with again

in the present survey. Illustrations of the Bomana paintings are to be found in *Man*, Dec., 1923, No. 119.

The following are the sites considered in this paper. After the first three, previously described by Dr. Strong, they are enumerated in order as approached from Port Moresby. They have been given their local names.

1. Wagava[1] .. On central one of three bluffs, about half-mile distant from left bank of Laloki River, Aghoberi district.
2. Isakerikeri[1] .. Low down on right bank of Laloki River, Aghoberi district.
3. Serinumu[1] .. High up on left bank and overlooking the Laloki River, Magibiri district.
4. Yoiworo I .. On hill-side, right of road approaching Rouna, and about 2 mm. below Rouna Rest-house.
5. Yoiworo II .. Do., do., close to above.
6. Rouna .. .. Just behind Government Rest-house, Rouna.
7. Wureva Yani .. On scarp, right bank of Laloki River, about half-mile below Falls; approached from Manurinumu village.
8. Wakuia Wai .. Overlooking small stream Huima Koru, which finds the Laloki at Magibiri village. The nearest village to Wakuia Wai is the small one of Waianumu.
9. Yaritari .. The actual place-name is Owanibetana; close to present village of Yaritari on upper reaches of Musgrave creek.

The country is partly covered with sparse timber or savannah, but as one advances further into the hills this yields place to the characteristic rain forest. The majority of hitherto discovered sites are found in the savannah.

All over the countryside there appear outcrops of rock, mainly conglomerate, which are in many instances shelving or undercut. Natural rock shelters are thus very numerous, and it is on occasional more or less flat surfaces protected by the overhanging mass that the petrographs appear. Obviously we can only speak of those we see. It may be that others were made in the open and have since weathered away; though this seems unlikely in the case of the carvings at any rate, for in the Second Region and at the Intermediate Site the carved designs have survived in the most exposed situations. We can say with safety, however, that all the petrographs hitherto found in the Sogeri region are found under the same conditions, viz., under rock shelters. In this they differ from those of the Second region and Lohomunidabu, which are in nearly all cases made on exposed rocks.

The rock shelters are still put to practical use as temporary resorts for hunters or for gardeners during the heat of the day. One for instance was to my knowledge

[1] Wagava is Dr. Strong's Station I; Isakerikeri, II; Serinumu, III. *Man.*, July, 1924 No. 74.

occupied by some thirty people while I was for several days camped in the neighbourhood. It would not be time well spent to describe the formation of each site in particular, but from a general survey of those which I have seen I should judge that they were in very few instances fitted for permanent habitation. Only one (Yaritari) had a complete roof, *i.e.* an elevated mass of rock supported at each side by masses and entered at either end. In all the rest the protection from rain, wind, and sun, is rather inadequate ; and in one which, as a gallery of primitive paintings, is the best of all, the floor slopes down at an almost insecure angle. Moreover they are frequently found in rather inaccessible positions, though this in itself does not argue unfitness for habitation among a people who may have lived as the Sogeri natives did, in constant fear of the raiding party. On the whole, however, it seems unlikely that the rock shelters were regular habitations, though they were evidently resorts of some kind or other. They were probably used, then as now, for the temporary shelter of hunters and gardeners ; or it may be that former villages were placed close at hand, when the adjacent shelter may have been a favourite place or rendezvous, and its bare walls an invitation to the mural artist ; or again (to make another of the guesses that we so blandly allow ourselves in this study of prehistoric " art ") the shelter may have been remote and sequestered for ceremonial or magical reasons.

Paintings.

All of the nine sites examined had rock-paintings, though the general character of the painting as well as the individual designs varied from place to place.

Wagava. (Pl. VIII, Figs. 3 and 4, and Pl. XI, Fig. 1.)

The finest individual paintings were those of Wagava, some in red only, some in red and yellow, some in red, yellow and white. (The white has not stood so well as the other pigments, and is in places hardly distinguishable.) The most striking designs were " curved zigzags," in all three colours, a " foliate " design in red and yellow, and a distinctive " Y " design in red with a yellow border. The best of them were concentrated on one or two facets of rock, and were remarkable for their relatively good execution, and perhaps for a general similarity of touch ; so that the idea suggests itself that they are all possibly the work of one man, some Koiari Leonardo who had left his own kind of masterpiece for ensuing generations to disregard. The other paintings at Wagava are of rougher workmanship.

A large slab of rock, bearing a portion of this superior painting, was dislodged from the face of Wagava shelter and added to the official Papuan Collection some years ago. It is not likely that native sentiment was injured by the loss, for those who live in the neighbourhood of Wagava have shown themselves sufficiently indifferent to its existence. Nevertheless the fact remains that one of our best rock-paintings sites, easily accessible to visitors and only some 30 miles from Port Moresby, has had its looks rather badly marred.

Isakerikeri.

The paintings at Isakerikeri were of a somewhat distinctive kind, though some of the designs reappear in the other sites. They were small and comparatively neat ; and, some of them being repeated a number of times, they had the appearance of symbols or even letters, though there is no necessity to assume that they possessed

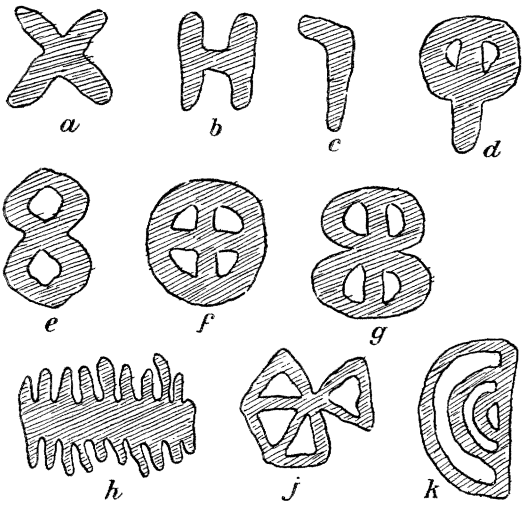


FIG. 1.—PAINTED DESIGNS. ISAKERIKERI.

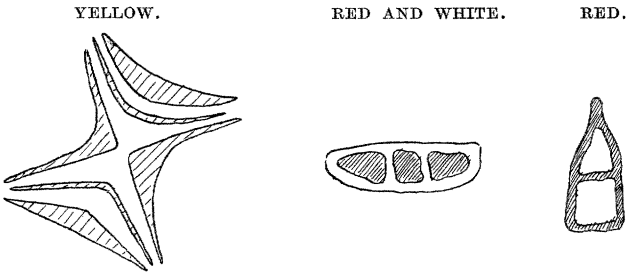
any meaning whatever. They were thickly sprinkled over the vertical surfaces of the shelter. All were done in plain pink-red, averaging 3 or 4 inches in maximum diameter. Most of the designs have been reproduced more or less diagrammatically in Text-fig. 1, and the number of times each recurs is indicated on page 147. Besides these the engravings of Isakerikeri, presently to be described, were in the great majority of cases painted in with red.

Serinumu. (Text-fig. 2, Pl. IX, Figs. 3, and 4, and Pl. XI, Fig. 2.)

The most varied and striking collection of rock-paintings is found at Serinumu, called also *Ifa Kuruku Yani*, which means " Red-Painting-Rock Shelter." Here there is a perfect medley of designs covering almost every available foot of the vertical wall of the shelter. In some cases they have been superimposed.

The pigments are predominantly a fairly light reddish-brown and white. Some splotches of puce red and a few figures in a more vivid red appeared to be later in execution. Only two figures in yellow were seen, both of unusually good workmanship but very faint and evidently among the most ancient, as was indicated by the partial superimposition upon one of them of a typical red-and-white painting. Two very crude and faint designs appeared in black.

Only some of the designs are shown on a large scale. The general appearance of the paintings may be seen in Pl. IX, Fig. 3, or better in the photo, published by Dr. Strong. For the most striking, which is several times repeated, I have ventured the name " Nest-of-' U 's."



a (7 in.) *b* (8 in.) *c.*

FIG. 2.—PAINTED DESIGNS. SERINUMU.

Yoiworo I and II. (Pl. IX, Figs. 1 and 2.)

These are two small shelters with paintings in monochrome red. In the first the predominant design is the " lizard," some examples having supernumerary limbs. There are also two hands imprinted (not stencilled); and a curious design which bears some resemblance to the " Y " of Wagava.

From Yoiworo II, I have recorded two interesting designs which defy description, though one of them may be a strong temptation to the imaginative.

Rouna. (Pl. XIII, Fig. 1, *c*.)

The Rouna Rest-house shelter has very meagre paintings in red, and very faint remains of white and yellow. Here alone appeared two traces of green pigment, one a streak of bright colour, the other a " U " figure, rather faded.

Wureva Yani. (Pl. XIII, Fig. 1, *a* and *b*.)

In Wureva Yani the paintings were few and in some cases time-worn beyond recognition. One " Herring-bone " pattern, however, done in red was fairly well preserved; also another in red and yellow. The only other design I have recorded was an irregular yellow rhomboid enclosing three yellow spots.

Wakuia Wai. (Pl. XII, Figs. 1 and 2.)

Wakuia Wai paintings were mainly in plain red. There were some red and yellow and one stencilled hand on a yellow ground. Here there appeared some " lizards " as well as the only well-developed painted anthropomorph. One of the lizards was about 7 feet long and rather skilfully fitted into a long narrow facet of rock, though part of the reptile's anatomy encroached on another facet at right angles to the first.

A number of other interesting designs are distinctive of this site. They include a " fish-like " and a " beetle-like " design, a series of more or less parallel zigzags, a " spoked-wheel " with curious additions, and another design for which no name can safely be suggested. There are numerous remains of other paintings in red or yellow which, having faded or otherwise partially disappeared, are no longer recognizable.

A number of inferior black scrawls and drawings are to be seen here also, including some rather sketchy little anthropomorphs. The black drawings have every appearance of being more recent than the other paintings, and the anthropomorphs in particular were superimposed over certain indistinguishable paintings in red.

Yaritari. (Pl. XII, Figs. 3 and 4, and Pl. XIII, Figs. 2–4.)

Yaritari, the roofed shelter, presents the strangest spectacle of all these sites. The roof is fairly plastered with rude paintings in a brick-red colour. There must be hundreds of them, ranging in size from 3 inches to 3 feet. They show no sign of any orderly grouping, except perhaps in a series of three large boomerang-shaped designs in red.

The commonest design is this " boomerang," or, as it may more safely be called, " crescent." " Lizards " were numerous ; also rough circles. One or two suggested anthropomorphs, but these were so straggly and indistinct that I did not attempt to copy them. There are numerous other individual designs of which some are illustrated.

The best of the paintings are quite out of reach from the ground, being some 10 feet above the present floor-level. This curious elevation is to be noted in several other sites, the paintings being in some cases at a height of 20 feet and more. Judging from the existing formation of Yaritari and these other sites it seems to be quite unreasonable to account for this strange position of some of the paintings by assuming an alteration of the floor-level ; and we may conclude accordingly that some of these early painters worked from a staging.

Carvings.

Side by side or coincident with the paintings at Isakerikeri appeared an even greater number of shallow carvings or engravings. Both paintings and carvings were scattered indiscriminately over the convenient rock surfaces, most of the carvings being painted in with red.

Nearly all the carvings were of one general type, viz., an oval enclosing a bar or stroke down the greater part of its longer axis. This design, which is found to be common in the Sogeri region, I shall refer to as the " barred oval." (Pl. IX, Fig. 5, and Pl. XIV, Figs. 1 and 2.) Sometimes the oval seems to degenerate into a more or less circular form, and the bar into a small circular depression or cup. But the typical form is certainly the oval enclosing a bar. I counted at Isakerikeri upwards of 100 " barred ovals " in a small space.

Carvings of one sort or another were found in seven of the nine sites examined (being apparently absent only from Rouna and Yaritari); and "barred ovals" were found in five of these (viz., Wagava, Isakerikeri, Serinumu, Wureva Yani, and Wakuia Wai). Informants also assured me they are to be seen in other sites which have not been visited. They obviously represent the mode of the Sogeri region carvings.

Of the next typical design we have already seen an example at Isakerikeri. This in its simplest form may be represented thus— ⋀ or ⋁; and I shall refer to it as the "closed M." With some of its variants or amplifications it is illustrated. This "closed M" was observed in four different sites, Isakerikeri, Serinumu, Yoiworo I, and Wureva Yani. At Yoiworo I there was but one example, lightly incised; at Serinumu it was the predominant design. (Pl. IX, Fig. 6, and Pl. XIV, Figs. 6–10.)

There is only one other carved device which I have observed to be repeated a number of times in the Sogeri region; it is that of the well-known "parallel scratchings." I observed these in three different sites—Wagava (where they were numerous), Yoiworo II, and Wakuia Wai. (Pl. IX, Fig. 5.) They range in length from about

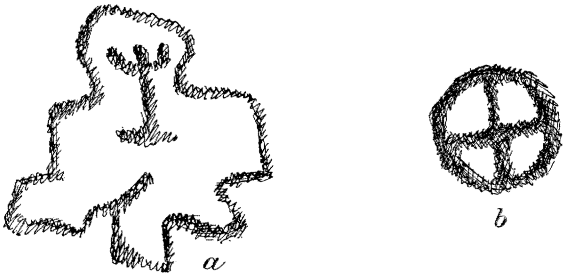


FIG. 3.—CARVED DESIGNS (COPIED FREEHAND). SERINUMU.

2 inches to about 6 inches, and appear in little groups of six or seven at a time. Sometimes they are considerably weathered, and might be taken as natural were it not that in some cases they run transversely rather than vertically, while in a few the scratches are made in both directions so as to form cross-hatching. At Wagava they were placed in a somewhat inaccessible position, on the face of the cliff at one side of the shelter.

Except in two sites, Serinumu and Wakuia Wai, the rock-carvings of the Sogeri region are, as far as my knowledge goes, limited to these three very primitive designs, viz., the "barred oval," the "closed M" (with variants), and the "parallel scratchings." At Serinumu there appear also the two designs shown in Text-fig. 3. Both of them are comparatively late, to judge from the absence of patina and their more or less sharp edges. It is also noteworthy that they are on the upper part of the decorated wall, not at the base of it among the other carvings.

At Wakuia Wai are to be seen, in addition to the three typical designs, the carvings shown in Pl. XIV, Figs. 3–5. The anthropomorph is also evidently among

the more recent. In the case of the lizard or anthropomorph which appears among the " barred-ovals " I have omitted to record whether the " barred oval " is superimposed on the " lizard " or *vice versa*. The " Nest of ' U 's " is to be seen among the painted designs at Serinumu. (Pl. XI, Fig. 2, *a*.)

The Intermediate Site : Lohomunidabu.

(Pl. VIII, Figs. 1 and 2, and Pl. XV.)

The rock-carvings of Lohomunidabu, the Intermediate Site (*see* p. 122) are of a very different kind. Lohomunidabu is situated on the headwaters of the Musgrave, a tributary of the Kemp Welch, but it is only a day's march from Yaritari where one of the typical Sogeri region sites is found.

There are no paintings here, and the carvings, unlike those of the Sogeri region, are found in exposed positions, viz., on two large granite boulders in the centre of the village and on one detached fragment. Furthermore they are for the most part well-developed anthropomorphs, characterized by ornamental extensions to the head which are said to represent feather head-dresses.

The village is situated half way up the hill Wagira-numu whose summit is crowned by an imposing outcrop of granite. The story has it that a man named Wagira was anxious to raise this summit still higher toward the sky and that he enlisted the aid of one Kobua. Together these two hauled a number of rocks up the slope of the hill, but two, named " Soroputa " and " Isoropu," escaped, and rolling down lodged at the present site of Lohomunidabu. Wagira abandoned his ambitious scheme and bade his friend remain at Lohomunidabu, there to look after these rocks. Kobua accordingly established his village and lived here until an affront from his brother-in-law caused him to leave. It appears that Kobua used a hollow stone (still *in situ*) as a mirror, filling it with water in the primitive Papuan style ; and as he bent over this, arranging his coiffure, the sweat dripped from his brow into the water. Later on, the brother-in-law, seeing signs of " grease " on the surface of the water put his finger in and tasted it. He was so attracted by the flavour that he drank the stone mirror dry, an insult which caused Kobua in high dudgeon to leave his home and his two wives and migrate to the east. After a certain time, however, he returned with two more wives, and reconciliation was effected all round. It was in celebration of this happy ending that a feast was made and attended by many befeathered visitors. The rock-carvings of Lohomunidabu with their " head-dresses " represent the guests at Kobua's party.

This is certainly not a very helpful legend. We might seize upon the point that the carvings were made on Kobua's return, and that he returned from the east ; for other legends do indicate a migration from the east toward the Sogeri region. But perhaps it is not legitimate to select any meaning from a legend which is generally so little to the point. Nevertheless, its very existence reveals a contrast to the conditions of the Sogeri region proper, where present-day natives profess, apparently

with truth, to know nothing whatever of the old sites. At present the two rocks have their respective *biagua* or " owners," whose office is hereditary in the paternal line ; and the names Kobua and Wagira are still perpetuated, being handed on in the two families who respectively own " Soroputa " and " Isoropu." Needless to say the office of the *biagua* is a sinecure, and nothing is done to safeguard the two great boulders. Both of them, in fact, threaten to topple over, as the clay soil on which they rest is gradually being scored away by heavy rains. I have no explanation of the two names, or of their common element, *soropu*.

Some carvings on the two rocks are to be seen on Pl. XV. As before stated the most striking are anthropomorphic figures with head-dresses. (Figs. 2, 3, 7 and 8 ?) But there are also two crocodiles or lizards, one a fine one about 4 feet 6 inches long. (Figs. 1 and 4.) There is one series of concentric circles. (Fig. 6.) In one instance a ring has been made around a small hole in the rock which gives a result resembling a degenerate form of " barred oval " (Fig. 5), though there are no true examples of the " barred oval " or the " closed M."

The carvings are all obviously ancient. They are smooth and weather-worn and of the same colour as the general surface of the rock. In some places they are a quarter of an inch deep ; in others much shallower, so that they are not always easily visible.

REGION II : BOIANAI–D'ENTRECASTEAUX.

We may now leave the Central Division and cross to the other side of the Papuan peninsula where, in the d'Entrecasteaux Island and at Boianai and Wedau, we shall find the second main region of petrographs.

Paintings.

Jenness and Ballantyne report a site on Goodenough Island with a number of rock-paintings which they illustrate.[1] These are in black and white only. I have not visited the site.

While on Fergusson Island in 1929 I was told of a rock-painting site called Koko-weo-weola, in the Ebadidi district. It appeared that the rock which bore these paintings had within more or less recent years fallen on its face. As it was further said to be " as big as a house " and irremovable, and as my time was limited, I did not pay the place a visit.

Informants assured me that it had marks in red, blue, and white. (I have no doubt that " blue " means black, for natives commonly fail to make a distinction, and Reckitt's Blue, which nowadays, alas ! enters into many native colour schemes, was probably unknown when Koko-weo-weola was painted.) The site was presumably more or less in the form of a rock-shelter, for it is said that when two boys stole fire from the legendary woman Wine Wai'ea, it was here, under Koko-weo-weola, that they took shelter and found a hiding-place.

[1] *The Northern d'Entrecasteaux*, p. 199 and facing p. 198.

The only other rock-paintings which I know of in the d'Entrecasteaux are two or three very small designs in red at Mapamoiwa, near the south-western corner of Fergusson. These were seen on low coral cliffs at the water's edge. I was introduced to a certain old man who was said to know all about them, but all he could say was that they were made by one Apau Ogo, who subsequently left for Goodenough Island.

This is all that can be said at present about rock-paintings in the d'Entrecasteaux. There is, I believe, no record of their appearance in Boianai or Wedau. Such evidence as we have altogether, then, does not seem sufficient to connect this region with that of Sogeri in respect of the paintings, though it does not, of course, preclude any such connection.

Carvings.

The rock-carving sites of the Boianai-d'Entrecasteaux region dealt with here are four in number.

1. Bisiai .. .. Approached from village of Kebusue, just north of Sewa Bay, Normanby Island.
2. Sisiana .. .. A rock named Bureva Pouia, near the village of Nui-u-rau, Sisiana district, Normanby Island. About quarter mile above the village on the Ubuai track.
3. Boianai .. .. The large village in Goodenough Bay.
4. Wedau .. .. The village and district just south of Boianai.

Bisiai. (Text-fig. 4 and Pl. XVI, Figs. 1–4.)

The carved rocks, called Nawaia'waia, of Bisiai are found some little distance inland. Proceeding up the bed of an exceedingly stony creek, which at the time of my visit had no more water than a succession of pools, one comes at last upon certain very large rock masses in the middle of the stream.

The first has two large and deeply carved anthropomorphic figures, the depth of the carving being in some places as deep as half an inch, but usually a quarter inch or less.

The second is in its way rather a romantic place. Approaching a very large mass of rock one finds on the left what is virtually a short tunnel, formed by overhanging rocks which lean against the main mass. The floor of this tunnel is water of quite doubtful depth. It is very dim, but one can distinguish on the wall of the tunnel one of the best carvings of Bisiai. I made an attempt to sketch this design, but as my position, bent down and balanced on a bridge of saplings over the water, felt so precarious, I do not trust the accuracy of my drawing enough to reproduce it. I cannot think that the positions of the rock and the water were what they now are when these carvings in the tunnel were made. The bed of the stream is full of tumbled rocks and no doubt the stream has often coursed down among them with great violence. Moreover, there is clear evidence elsewhere that the ground-level has

altered. Besides the anthropomorph in the tunnel there were, on the main face of the rock, another anthropomorph and several series of concentric circles, one with spirals attached.

The third mass of rock, somewhat further upstream, had several good anthropomorphic figures, two of them right at the base of the rock and nearly reaching to the

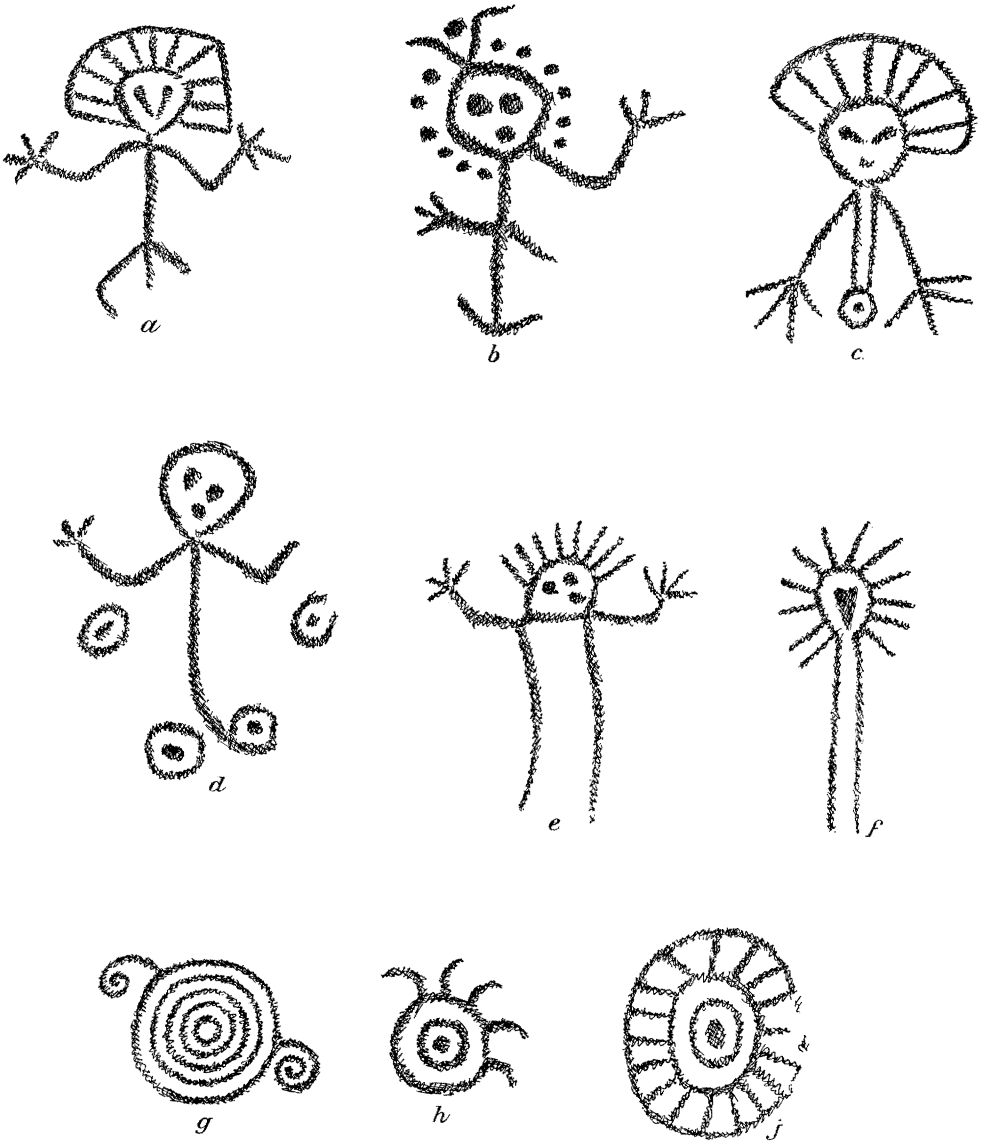


FIG. 4.—FIGURES ENGRAVED ON ROCKS. BISIAI, BOIANAI-D'ENTRECASTEAUX REGION.

present bed of shingle. They could not have been carved in such a position, so we must assume that the ground-level has been raised at this point. There were further series of concentric circles ; one of concentric ellipses ; one of concentric circles with spokes ; and one with hooks radiating from the outermost circumference.

Sisiana. (Pl. XVI, Figs. 5–8.)

The Sisiana carvings are, as far as I saw them, all on the top of the rock named Bureva Pouia. Dotted about irregularly, they number twenty or more. In addition to the actual carvings there are numerous pock-holes, about 1 inch to 1½ inches in diameter and ½ inch to 1 inch deep. (In one area about 3 feet square, there were fifty or more of these holes.)

This stone Bureva Pouia boasts a legendary connection, albeit to us a rather disappointing one. There is a local spirit of Sisiana named Burelala, who in some manner governs the success of the pig-hunt—an invisible being who is nevertheless heard flying through the bush ahead of the hunters, and who is imagined to toss live pigs and wallabies out of his bag as he goes for the hunters to catch. It is only indeed, because the dogs stop to catch these animals that they never overtake Burelala and tear him to pieces.

The rock-carvings are attributed to this local spirit. The many pock-holes are said to have been caused by cracking *mapwea* nuts on the rock. Burelala used to come down to the sea-shore to collect these very hard but edible nuts, and then repair to Bureva Pouia to sit down and crack them. (It is interesting to note that similar, though rather larger, holes do result from cracking *okari* nuts, and in many villages large stones are kept for this very purpose.)

The actual carvings, apart from the above-mentioned pock-holes, were rather faint, averaging perhaps hardly more than one-eighth inch in depth. They included (1) spirals; (2) concentric circles; (3) a spiral attached to what resembled a Melanesian reversed coil; and (4) a more primitive-looking oval with a lateral cross-bar and a little tail. This last-mentioned did not to my mind have any connection with the barred oval of the Sogeri region. The only feature which this site had apparently in common with that region was a series of parallel scratchings, which were, however, relatively large and coarse. Lastly there were some obviously modern markings, viz., some poorly incised native names in European characters.

Boianai. (Pl. X and Pl. XVI, Fig. 9.)

The carved stones of Boianai are already well known. The village is a large one and founded upon stones great and small. Embedded in the foundation of heavy grey pebbles on which it stands are numerous stones set more or less upright, and many of these are deeply carved.

There is of necessity no sort of secrecy about these carvings, as they stand in exposed places in the village for all to see; but as will appear later, they evidently possess a certain sacredness. Some of the upright stones (not necessarily all, or any of them, carved) are set in rough circles. I partially excavated one of these circles and discovered burials. But only one stone of the circle was carved, and the excavation does not suffice to show that the carved stones are necessarily in the nature

of headstones. As the villagers showed strong disapproval of the excavation it had to be stopped before it could be carried to a conclusive stage.

The stones are called *Riri* in Boianai. A mission boy translated this as " heritage " ; but since the Rev. Light of the Boianai Mission did not know the meaning of the word I doubt whether we should accept the boy's translation. Nobody was able, or perhaps nobody was willing, to give me a legend regarding the origin of the stones or the reason for carving them ; though it was said that the designs were imprinted on stones so that they might be " blackboards " for the women of to-day to consult when they wished to tattoo their cheeks.

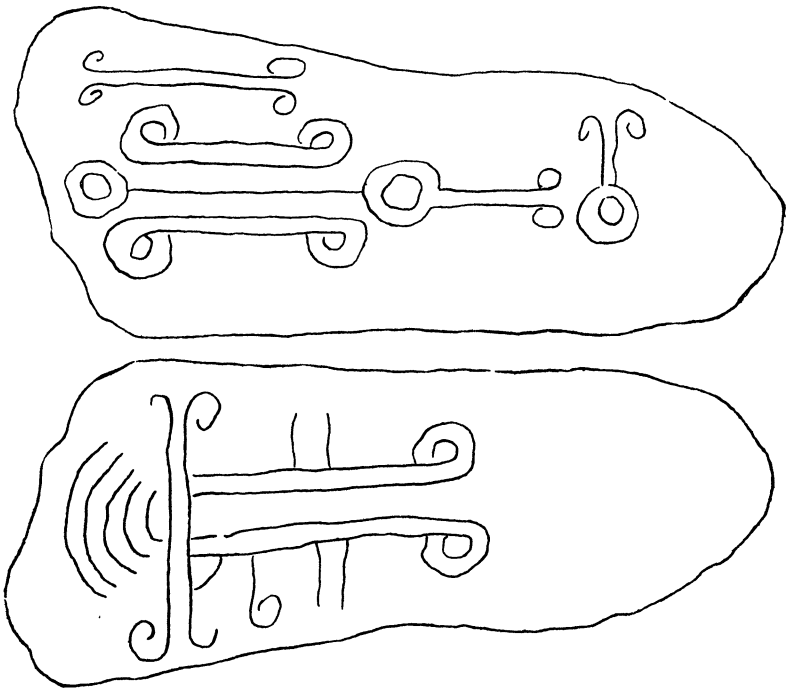


FIG. 5.—FLAT STONE, LIGHTLY INCISED, IN WEDAU VILLAGE. OBVERSE AND REVERSE. (LENGTH ABOUT 2 FT.)

The commonest design is the spiral ; but concentric circles are also found. Other stones, which were taken from Boianai by Mr. R. A. Vivian have concentric circles with hooks and sometimes with spokes.

Wedau.

Some incised stones are found in Wedau. The carvings are here faint and shallow and on the whole inferior. They do not appear so ancient as those of Boianai.

The Wedauans have a legend that certain stones were brought down to their coastal villages from the bush in a time of drought. They were there set upright in the ground, and appropriate spells were learnt from the bushmen who had brought

them. In conjunction with the spells the stones are now regarded as essential to the success of Wedauan horticulture.

I give a rough sketch of one of these Wedauan stones which is inscribed on both obverse and reverse sides. Professor Seligman describes other designs seen in the neighbourhood; and I was assured that more of the decorated stones are still to be found in the inland villages.

Technique of Petrography.

We have now completed a bare survey of the petrographs, both paintings and carvings, in their respective sites. In the matter of their technique we may speak of all the sites together.

The paintings are sometimes laid on broadly; sometimes they consist of narrow stripes. We must probably assume the use of some kind of brush or perhaps a bunch of fibre. Such brushes are nowadays sometimes made from a crushed betel-husk or the aerial root of a pandanus, the end being broken and frayed. In the small and comparatively neat paintings of Isakerikeri I suspect that the paint was laid on with the finger-tip.

Red ochre beds were shown me in the Sogeri region, though I neglected to ask about the source of yellow ochre. The white pigment of the rock-painting is probably lime, and the black charcoal. The last, however, does not seem to have entered into the scheme of the earlier paintings, or at least it has not remained.

The carvings appear mostly to have been "pecked" or "pounded," or "crumbled"—whichever term is used, the method being no doubt that of direct blows with a hard pointed stone. The modern native uses this method in the manufacture of stone clubs, some of which, *e.g.* the "pineapple," show a better technical standard than any of the petrographs. He keeps tapping his stone and blowing away the crumbled dust. There is no reason to suppose he used a hammer-stone and a chisel-stone.

There are, however, evidences of scraping as well as pounding, though only, I would suggest, as a subsidiary method in the case of the true carvings. Certain of the "barred-ovals," *e.g.* are obviously more recent than others, lacking the patina and still showing more or less rough edges. Some of these appear to have been scraped as well as pounded. The "parallel scratchings" have obviously been made by scraping.

Age of Petrographs.

It is futile to speculate except in the vaguest terms on the age of these petrographs. The majority of the carvings are obviously ancient. They are weathered to the same colour as the rocks on which they were made, and in some cases I did not as much as notice them till their presence was accidentally revealed in taking a rubbing of more recent examples close by.

It is also evident that the practice of making petrographs extended over a long period, to judge only from the many cases of superimposition and the relative appearance of antiquity of different examples of both painting and carving on the same sites. Some look comparatively fresh, and it would be hard to believe that they were not modern work were it not that the present-day natives deny all knowledge of them.

It is necessary here to make an important point. Notwithstanding that the native of to-day always declares that petrography is a bygone practice, we must not place absolute reliance on his declaration. At Isakerikeri it was suggested (though by no means confessed) by natives of the district that some of the newer-looking paintings were the work of modern children at play. And again, at Sisiana there are the very modern inscribed names. Both these sites are easily accessible, and it is not impossible that here, and elsewhere also, the fashion of petrography is still carried on in a desultory way. Indeed while these models remain almost indelibly painted or inscribed on the rock, in places which are from time to time visited by modern natives, we cannot safely assume that new examples are not occasionally added on the pattern of the old ones.

While then it is obvious that on the whole the petrographs are ancient, it is equally obvious that some are a great deal more ancient than others, *i.e.* that the practice of petrography has stretched over a very long period ; and it is furthermore conceivable that it is even yet not entirely extinct.

Here and there it is clear that the paintings are of later execution than the carvings. Many of the barred ovals have been coloured in with red, and one or two paintings were superimposed upon carvings. But there is no necessity to assume that the rock-carving and rock-painting of the Sogeri region were respectively the work of two cultures. The fact (and it is a fact, as far as my own observations go) that wherever the carvings are found we find also paintings, and that both show varying degrees of antiquity, ranging up to a suspicion of modernity, would be in keeping with the idea that they were both common to one culture which prevailed in the region throughout a long period. It is true that there does not seem much in common between the painted designs and the carved designs of this region, the former being far more pretentious than the latter. Nevertheless it must be remembered that painting is a much easier medium than carving ; and we may note one, perhaps, crucial instance of identity in the ancient carving at Wakuia Wai (Pl. XIV, Fig. 5) which strongly resembles the painted "Nest of 'U's" at Serinumu (Pl. XI, Fig. 2, *a*).

[NOTE ON PL. XIV. FIG. 1.—The carvings marked 1–5 are older than the rest, being covered with a white limy deposit. The others are clearly visible. FIG. 2.—The carvings marked 1, 2 and 3 are apparently much older than the rest; 3 was not seen till the rubbing was taken, being covered with mottled pink and gray deposit. The others show signs of having been scraped or rubbed rather than pounded out.]

Results of Excavation.

I have not had opportunity to excavate any of the sites in a very thorough-going manner.

Excavation in the Sogeri region.

At Wagava a promising cleft at one side of the sloping rock platform was cleaned out to a depth of about 18 inches and yielded a number of charred human bones, including fragments of calvaria, mandibles, and limb-bones—the remains of apparently five individuals. The rather thorough charring of the bones led me on to fancies of cannibal feasts on this lofty and romantic site ; but I fear we must accept the native explanation. It is the practice of the Koiari people, including of course those of the Sogeri region, to expose their dead in elevated and remote rock-clefts. The natives suggested that Wagava had been used for such a purpose (though not within living memory) and that the charring of the bones was the result of bush fires which occasionally reach the site.

A few fragments of pottery were also found. (The modern inhabitants do not actually make pottery, but constantly use pots from the Motuans.) The other interesting find was a small broken celt with squared edges, giving an oblong section, unlike the elliptical section which belonged to the stone axes of this region. (It appears, however, that the Sogeri, etc., did not make axes but imported them from the east.) A trench along the foot of the wall reached bed-rock at 9 inches, and revealed a few more fragments of pottery and a formless lump of flint. (Flint is not found in the locality but is characteristic of the coast.)

Rather hurried excavations were also made at Ifa Kuruku Yani, Wakuia Wai, Yaritari and Wureva Yani. The first two of these sites yielded nothing of interest. At Yaritari, however, in a shallow trench cut across the floor of the shelter, several ashy deposits were found indicating old hearths. (There are two depressions in the floor which are still used as hearths on the rare occasions when the shelter is made use of.) Among the stones found in the trench were numerous fragments more or less sharp and flat. Such fragments bear no sign of secondary work ; nor indeed did any of the fragments found in excavating other sites, with the exception of the broken celt above mentioned and another modern polished celt found at Wureva Yani. It is possible that these flat, unworked flakes, commonly of basalt, were used as temporary implements, to be thrown away after use.

At Wureva Yani such flakes, found in dusty dry soil, appeared disproportionately numerous. The excavation of this site, however, gave a more interesting result in the shape of a number of small flint chips. None of these showed secondary work, but, once more, the natives declared (what I take to be true) that flint is not found at all in the district, but belongs to the " Port Moresby side." These chips were found at depths between 9 and 20 inches. One modern celt (that previously mentioned)

was found quite near the surface. It was a partly polished pebble of the usual elliptical section.

To sum up, the excavation of these Sogeri region sites has so far been rather casual and the results mainly negative. It is only a tentative conclusion that the people who frequented the shelters made use of flat basalt chips of the kind that are discarded after serving their turn. They also appear to have used flint. Only two polished implements were found, one being of ordinary modern appearance, the other of a roughly oblong section not common to the district.

Excavation at Boianai.

I have only attempted one excavation in the Boianai-d'Entrecasteaux region (*see* p. 133). This was in the stone circle called " Wakeke's House " in Boianai itself (Pl. X, Figs. 1 and 4). The stones which constituted the circle were reputed to be the remains of the posts of the dwelling of Wakeke, the local hero. Thinking I had the full consent of the villagers I proceeded to excavate this site with all possible care, but at the end of the first day's work was informed by the missionary stationed at Boianai that the people were greatly perturbed in the matter. They thought that some dire results would follow the disturbance of these stones and the remains we had discovered, and they had asked the missionary to intervene. In accordance with the principles we follow in Papua I could do nothing but accede to the wishes of the people to whom these stones belonged, and the excavations were filled in on the following day.

The work done only sufficed to show that the stone circle was a place of burial. Partial remains of five individuals were found, three being covered by pots. It was impossible to determine whether these latter were merely skulls buried in pots, or whether they were sitting burials, in which a pot was used to cover the head. I make no guess as to the age of the remains, though they evidently varied in this respect to a considerable extent. The pots did not possess any characters to distinguish them from those seen in Boianai at the present time.

THE PETROGRAPHERS.

The evidence so far accumulated would not warrant any confident answer to the question of who made the petrographs. The most interesting fact is that the modern native denies all knowledge of their origin or purpose, and that he apparently makes no attempt to carve or paint the rocks himself.

The petrographs of the Sogeri region have, speaking broadly, a more primitive and ancient appearance than those of the Boianai-d'Entrecasteaux region ; and in considering this highly conjectural matter of origin I shall deal with them first.

There is nothing, I think, in the designs to suggest Melanesian influence, and one is inclined to adopt the hypothesis that they were carved or painted by a pre-Melanesian population. Yet there is no necessity to postulate some bygone vanished

people who have left nothing but these petrographs behind them. The present population appears in form and feature to be largely Melanesian ; but there are many individuals of typically Papuan cast, and some also of the rather ill-defined type of mountaineer. Altogether there is no doubt that we have here a mixed population, in which the immigrant Melanesian strain represents a strong factor.

The people speak of Papuan (Koiari) language, and their social structure is of the Koiari type, though there are certain Melanesian traits in their culture.

It is by no means impossible that the petrographs were made by the pre-Melanesian basis of the present population. Although the petrographs are in the

FIG. 6.—MODERN TATTOO PATTERN OF BOIANAI WOMAN.

main obviously ancient, and although they are said to be made no longer, there are examples (as before stated) which have a rather suspiciously recent reappearance. It may be indeed that the practice of petrography did not die out so very long ago ; and, further, it is even risky to say, while those copies remain painted or engraved on the rock, that it has died out at all. Rather, then, than postulate a vanished race of petrographers, I would attribute these primitive works to the direct forbears of a section of the present population.

With regard to the designs of the Boianai-d'Entrecasteaux region one cannot so confidently dissociate them from Melanesian culture. The most characteristic designs, viz., the series of concentric circles and the spiral, are common in the modern

art of the d'Entrecasteaux[1]; and in one example a conjunction of several spirals approximates to the Melanesian double coil. It is interesting to note that the spirals and the " hooks " (which are possibly degenerate spirals) enter largely into the tattoo pattern of the present-day Boianai woman (Text-fig. 6). So also do the Wedauan carvings bear a general similarity to modern tattoo marks.[2] It is plain, then, that the same designs have persisted in this region from ancient to modern times; and it is not improbable that the art of stone carving is one that was practised by former generations of the Boianai-d'Entrecasteaux population, but has virtually died out among their descendants.

Lohomunidabu, the Intermediate Site, presents special difficulties because of its isolation. Its carvings are more pretentious than those of the Sogeri region close by, and reveal a certain similarity to those of the Boianai-d'Entrecasteaux region far away to the east. But since we have not as yet discovered any connecting links in the wide intervening space it would perhaps be premature to assume that we have at Lohomunidabu the western limit of the Boianai-d'Entrecasteaux stone culture.

I do not feel that the above suggestions deserve the name of a theory; but the present amount of evidence does not justify anything more definite.

The Modern Native's Attitude.

The general attitude of the present-day native toward all the petrographs is, as I have mentioned previously, one of rather surprising indifference. Local natives are quite ready to join one's little expedition to visit a site, and they show no fear whatever. But they never bestir themselves to go and see the places on their own account. In fact a native can live his life within easy distance of a decorated rock-shelter and never take the trouble to see it. Thus, for example, when I first visited Wagava I was accompanied by the Aghoberi village constable named Kagira. Kagira is about 50 years of age. He has lived all his life within sight of Wagava, but had never gone up to see the paintings until, no doubt actuated by a sense of duty, he attached himself to my party. One could multiply instances of this apathy.

[1] Jenness and Ballantyne, *Op. cit.*, p. 198. " . . . the spiral, so typical of this region of Papua "; and (of painted concentric circles) " It is a very common pattern in this region."

[2] It is further of interest to note in this connection the recent discovery, reported by Mr. A. C. Rentoul, A.R.M., of ancient pottery in a coral cave at Omarakana, Trobriand Islands. Mr. Rentoul writes: " A new cave was entered last year by some intrepid people of Omarakana village, and therein was found a collection of earthenware pots of strange design, containing human relics (bones), and with decorative marks not recognized by any of the present generation, nor by any visitors who happened to be present from the d'Entrecasteaux Group . . . the pots in question are not Amphlett pots. Their origin is a mystery, even to Paramount Chief Toulu, who knows of no tribal legend that would account for the pots being stowed where they were found." Even if the d'Entrecasteaux visitors did not recognize it, one characteristic and significant feature of the decoration is the spiral of the Boianai-d'Entrecasteaux region petrographs.

To use Dr. Strong's phrase, " The natives showed no sign of fear or reverence for the paintings. Their attitude was rather that of quite mild and restrained curiosity." Their curiosity as I found it was certainly very restrained. It is only comparatively few men of the district who know the whereabouts of certain sites and can guide one to them, but these men have no prerogative ; merely that their fellows can't be bothered to go and see the places.

The likelihood that some sites are still concealed, partly from a reluctance to interfere with them, was mentioned at the beginning of this paper (p. 122) ; and it may be that such reluctance points to a latent religious or superstitious feeling toward these works of a bygone generation. Instances in my own experience, however, have been very few. The case of the abortive excavations at Boianai has already been mentioned. I can think of only one other. When returning to camp after a day at Wakuia Wai, during which we had done some ineffectual digging, we were overtaken by a tremendous storm. Even when we were in the shelter of our camp the rain, wind, and thunder continued with almost alarming fury. It was then that I saw a group of natives huddled together, while one in their midst sent up a babble of words toward the weather. It appeared that he was exhorting the local spirit, or *dirava*, to let up with the storm, explaining that it was only in deference to the white man's wishes that they had disturbed the ancient site.

It may be that such instances speak of a latent regard for the petrograph sites ; but they seldom occur, and the fact remains that the ordinary attitude is one of mere indifference.

Meaning and Purpose of Petrographs.

Naming of Designs.

Were the carving and painting of rocks a modern practice the task of discovering its meaning and purpose would be comparatively easy and comparatively profitable. But it is to all intents and purposes a forgotten practice, so that our task becomes hard, if not hopeless.

To seek help from the modern native is almost invariably to draw a blank ; nor have I been able to discover any significant parallels in modern native life from which the meaning of these ancient designs might safely be deduced. It will be apparent, then, that unless we treat this aspect of the subject of petrographs, viz., their meaning and purpose, with a great deal of caution, we shall soon find ourselves wallowing in the slough of conjecture. Notwithstanding, it is just this aspect that is the most interesting ; and I do not see why we should eschew it entirely for the mere reason that the available data are less than we should like. We need not, in the legal manner, dismiss the case entirely because there is not sufficient evidence to warrant a conclusion.

The first question is that of naming the various designs, and here at once we may stumble into a trap, because the very name we give may commit us to a false

interpretation. Nevertheless in a comparative study of petrographs one of the first essentials should be to name the designs. One may refer to the comprehensive survey of Californian Petroglyphs by J. H. Steward with its chart showing the distribution of various named designs. The significance of such a chart and the necessity for naming the designs is based on the sound conclusion that the rock-artist " must have followed a pattern of petrography which was in vogue in his area. He executed, not random drawings, but figures similar to those made in other parts of the same area." [1]

Although in the few Papuan sites which have so far been examined there does appear a somewhat remarkable diversity of design, so that one suspects that some of the designs have actually been made at random, yet there are examples of stock designs repeateed in different places, and there is little doubt that in an eventual wide survey the above generalization will be found in the main to hold good. It will be as necessary therefore to name the petrograph designs in Papua as it is elsewhere.

Now when we consider a collection of petrographs such as these Papuan examples with a view to naming them, we may divide them into several categories. (1) There are first of all those in which the meaning is perfectly plain. They are obviously pictorial, and we name them according to what they depict, *e.g.* " lizards," " anthropomorphs," " hands." (2) At the opposite extreme there are many which defy any sane interpretation of their meaning—defy even imagination. They may be simple designs which are adequately described in conventional or geometrical terms such as " spiral," " zigzag," " concentric circles," etc. ; or they may be more complicated and even completely baffling, in fact, as far as we are able to see, like nothing on earth ; in which case they cannot be named except by a more or less elaborate periphrasis. But (3) there is a wide intermediate class of designs which seem to invite explanation, and to which we are prone to attach names which imply this explanation. Their meaning is not clear enough for us to bank on it, but they nevertheless *suggest* a meaning.

This class can be divided into two. (*a*) There are the designs that suggest a meaning to our European minds by virtue of a chance resemblance to something or other, a creature, or object, or phenomenon, that belongs to our own culture, and was presumably quite unfamiliar to the native artist. We could, if we wished for instance, call (Pl. XI, Fig. 2, *e*) the " Ninepins," or (Pl. XII, Fig. 3, *f*) the " Rake," or (Pl. XII, Fig. 3, *e*) the " Fir tree," or (Pl. XII, Fig. 1, *b*) the " Velocipede." The practice of naming ancient designs on this principle is common enough, and the names have at least the advantage of avoiding any false assumption as to the real meaning intended by the artist. Thus it seems quite reasonable to refer to the symbol-like designs of Isakerikeri (Text-fig. 1) and Rouna (Pl. XIII, Fig. 1, *c*) as " H " designs, " X " designs, " E " designs and so on, with the presumption that they have nothing to do with the letters of our European alphabet. And, for

[1] *Op. cit.*, p. 225.

a further case in point, I have been driven to adopt a name on these lines for the device shown in (Pl. XI, Fig. 2, *a*) which occurs several times, calling it a " Nest of 'U's " on the kitchen-ware analogy of a " nest of pots." (*b*) More commonly, however, we see in this or that design a resemblance to something—creature, object, or phenomenon—that we assume belonged to the culture or environment of the early native. We name the design accordingly, and the name carries an implied explanation of the meaning. It is just here that we are likely to leave the narrow path, for we know practically nothing of the ancient culture of these petrographers or of what they thought and felt about their environment. It would be quite unwarrantable for instance to speak of (Pl. XI, Fig. 2, *b*) as a " Sun Disk " in the absence of any evidence that the early inhabitants of the Sogeri region were specially interested in the sun. It would be unwarrantable to speak of wavy lines (as in Pl. XII, Fig. 1, *c*) as " Snakes." It might be fairly safe to call (Pl. XII, Fig. 2, *b*) a " fish "; not quite so safe to call (Pl. XII, Fig. 2, *c*) a " frog " (it is more like a beetle at any rate).

In fine, while it is desirable in a comparative study of petrographs to give distinctive names to the designs, the names should be if possible unimaginative and certainly non-committal. We are not entitled to put, retrospectively, ideas into the head of the primitive rock-artist on the strength of vague resemblances that really do no more than stimulate our imagination.

In the following comments on various stock designs appearing among the petrographs illustrated I have endeavoured to avoid any false commitments.

Comments on Designs.

" *Lizards* " *or* " *Crocodiles.*"

Painted figures resembling lizards or crocodiles are found at Yoiworo, Wakuia Wai and Yaritari, though they are rather conspicuously absent from the other sites of the Sogeri region. At Lohomunidabu there is to be seen a fine carved " crocodile," 4 feet 6 inches in length, and with its body filled in with a rectangular pattern. (Pl. XV, Fig. 1.) Another, which is largely weathered away, has its body filled in with a " herring-bone " pattern[1] (Pl. XV, Fig. 4). (This filling of the body, also seen in one of the Lohomunidabu anthropomorphs, does not to my mind suggest that rendering of the internal anatomy which is found in certain Australian pictographs.)

As we do not know on what scale the native artist made his picture it is obviously impossible to say whether these figures are intended for crocodiles or lizards. Lizards of all sorts and sizes are common in the Sogeri region, as in all other parts of Papua; and the crocodile is found in the upper reaches of the Laloki River, above Rouna Falls, so that these bush-people no doubt had personal experience of it. We shall probably think of the biggest specimens, *e.g.* this carved example at Lohomunidabu and the painted 7-foot figure at Wakuia Wai as " crocodiles," and the numerous

[1] The chevrons of Pl. XV, Fig. 4, were called " hornbill beak." In favourable light it is seen to form the back of a crocodile.

smaller ones as " lizards " ; but the question is of course entirely unimportant. Neither lizard nor crocodile as far as I know bear any social or religious significance in the lives of the modern inhabitants of the Sogeri region.

In some cases it is difficult to decide whether a figure is meant for a " lizard " or an anthropomorph, *e.g.* the central figure on (Pl. XII, Fig. 4). At first glance, and in the absence of other paintings from the same site to compare it with, one might look on this figure as that of a man. Though since the anthropomorphs at Yaritari were hardly distinguishable, whereas the " lizards " were everywhere, I think this view would probably be wrong. Since the modern native at any rate appears to look on these petrographs as decorative rather than pictorial, it may be that the ancient rock-artist did the same. Both " lizard " and " man " make pleasing symmetrical figures, which could be made with a few easy strokes, and they were possibly treated as conventional decorative designs ; so that an artist may have painted one or other on the roof or wall of his shelter without the deliberate intention of making a picture. If this were so it is not unlikely that we should find intermediate forms between motifs that already had something in common.

The suggestion that the " lizard " at any rate was a decorative theme is perhaps borne out by the paintings at Yoiworo (Pl. IX, Fig. 2). Here the artist has added several legs to two of the reptiles, and has in some manner complicated the hind limbs of a third. Regardless of realism he has apparently set out to amplify and improve more or less fixed design.

Since there is no evidence that either lizard or crocodile has any significance in the social life or religion of the present-day Sogeri, we should be quite unjustified in assuming that these figures were " totemic." It is true that the lizard is a common article of diet, but it is never an important one—not for a moment to be compared with the wallaby or the pig, of which we apparently have no rock-pictures. It would be equally unjustifiable, therefore, to assume that these pictures were made with a magical intention, viz., to assist the hunter.

If any suggestion is called for, I would prefer to think that pictures of the lizard were made in the first place for decoration alone, especially because the lizard makes an easy symmetrical figure of pleasing outline ; and that they then became one of the conventional designs of the rock-painter's repertoire.

Anthropomorphs.

Painted anthropomorphs, or painted figures beyond doubt recognizable as such, are very rare in the Sogeri region. A good one is to be seen at Wakuia Wai and several doubtful ones at Yaritari. A human face and a small figure at Bomana have been illustrated by Dr. Strong,[1] Wakuia Wai also has a carved " man " (which is among the more recent petrographs of the site), as well as a small, rude figure which might be " man " or " lizard." These are the only anthropomorphs which I have seen in the Sogeri region.

[1] *Man*, December, 1923, No. 119.

Carved anthropomorphs were predominant at Lohomunidabu, the Intermediate Site; and at Bisiai on Normanby Island. It will be noted that the "men" of Lohomunidabu are so to speak full-bodied, whereas those of Bisiai are literally as thin as laths. Apart from this difference, however, it may be legitimate to say that there is a general resemblance between the anthropomorphs of the two sites; and they have one striking feature in common, viz., the rays from the head, which were plausibly interpreted by the people of Lohomunidabu as "head-dresses."

It is interesting to note the occurrence in connection with two Bisiai anthropomorphs of a design resembling the "barred oval" in a degenerate form, viz., that of a small circle enclosing a round depression (Pl. XVI, Fig. 4). As the barred oval, so common in the Sogeri region, is as far as my knowledge goes absent from the Boianai-d'Entrecasteaux region except for these examples, it is quite improbable that we have here more than a chance resemblance. We cannot assume therefore that the significant position of the design throws any light on its meaning as occurring in the Sogeri region. In regard to Text-fig. 4, *d*, where one of these circles with central depression appears on either side of the figure, a native made the very hesitating suggestion that they were meant to represent human breasts. This was a mere guess and does not carry any extra weight because it came from a native.

It is not unlikely that others of the designs illustrated in this article are highly conventionalized anthropomorphs; but in the absence of any reliable descending series it would be too risky to class them as such. Text-fig. 4, *f*, however, presents a good example. Being viewed alongside Text-fig. 4, *e*, from the same site, Bisiai, it appears to be a "man" with the "head-dress" rays but minus his arms.

Hands.

One good example of a stencilled hand was seen at Wakuia Wai surrounded by dull yellow paint. It was just out of my reach when I stood on a camp stool, but I could get close enough to it to see that the hand was noticeably small, probably that of a child. At Yoiworo were seen two red imprints of hands (Pl. IX, Fig. 2). The palm and fingers had possibly been traced and the outline filled in; or more likely the hand had been simply smeared with paint and then pressed on the rock. Dr. Strong also records a hand at Bomana. These, I believe, are the only petrographic examples recorded.

Natives, like amateur draughtsmen among ourselves, find the hand a very difficult subject. I have known a boy, drawing a small-scale human figure on the sand, to lay his outspread palms at the ends of the figure's arms and there trace them, with a most comically disproportionate result. Whatever the motive, there are three simple ways of leaving one's mark in the form of a hand without having to draw it. It may be stencilled, or traced, and the outline filled in; or simply smeared with pigment and dabbed on the rock in the manner of a stamp. The best example of the last method in Papua is to be seen on a certain Government Station, where some men

have left their marks in dozens on a white tank by the simple expedient of dipping their hands in tar and then applying them to the flat surface.

In speaking of " hands " one may make passing reference to the hands of the various anthropomorphic figures. They take the common form of so many strokes representing fingers radiating from the end of the arm. So frequently do we find only four of these strokes or fingers that we may be justified in seeking a reason for the absence of the fifth. This does not mean that the omission of this fifth finger is in any way obligatory, or even that it is a matter of intention ; and it is to be hoped that no one will fly to the magical interpretation and suggest that the hand is made one finger short in order to avert some evil influence. The fact that the artist has in some instances given the hand its full complement of digits is enough to throw such a theory out of court.

I think a sufficient explanation—if it is not too obvious to offer—is found in common sense. Anyone who in his youth has set out to carve his name on a garden seat will remember that he began with more enthusiasm than he finished, and that he incised the first letter more deeply than the last—if indeed he ever reached the last. Similarly in this business of rock-carving, which must have been a rather tedious one, the artist was perhaps inclined to slack on his job when it came to the last touches, viz., the extremities ; and by the time he had done four fingers, or even three, or two, he was probably quite ready to down tools and say, " That's good enough for a hand " In not a few cases the hand or the foot is entirely missing and no doubt for the same reason—tiredness.

Crescents.

Among the hundreds of red petrographs on the roof of Yaritari shelter the commonest design was a " crescent." These crescents were of all sizes and of somewhat varied shape. A number were distinctly on the lines of the " boomerang," and, being nearly 15 inches from tip to tip, they appeared strikingly like life-sized pictures of that weapon in a very typical form. Others, however, tended toward a thick crescent, like that of the moon well on in its second quarter. I have recorded one Yaritari crescent with a number of short lines bristling from the convex side, a design similar to those illustrated by Dr. Strong as occurring at Bomana.

Despite the close resemblance of some examples to the boomerang, the use of that name would be a good example of the indiscreet practice I have previously referred to. It is worth recording a native interpretation, however, which seems plausible enough. The crescent was said to represent a *mairi*, *i.e.* the crescent-shaped pearl-shell ornament which is nowadays widely used in the Sogeri region. But this of course is quite uncertain, and it is best to stick to the word " crescent " or " crescentic " and attempt no explanation of the frequent occurrence of this device in the one shelter at Yaritari. It is quite probable that successive painters

merely copied a design used previously at that site and without any thought as to its meaning, whatever that may have been.

Curved Zigzags.

Wagava had several examples of a design which may be called, not very satisfactorily, a " curved zigzag " (Pl. XI. Fig. 1, *a* and *c*); and what appears to be a small section of the same is figured by Dr. Strong as occurring also at Isakerikeri (where it escaped my notice). These curved zigzags at Wagava were perhaps the best-executed of all the painted petrographs. They consisted of alternate stripes of red, yellow and white paint, all conforming to the curved zigzag pattern.

Dr. Strong referred to this as " a wave-like design." It is useless to make any conjectures as to its meaning. It appears to me quite conceivable that this, as well as other designs may never have carried any meaning at all, but may have originated mechanically. That is to say, the painter may have moved his finger or his brush from left to right or *vice versa*, and up and down at the same time. If he were pleased with the result he might repeat it and amplify it with parallel stripes, and we should then have this form of multiple curved zigzags. Not only, then, is it unjustifiable to rake up out of our imaginations any particular meaning for this design ; we cannot even assume that it had in the first place any meaning at all.

The " Nest of ' U 's " (Pl. XI, Fig. 2, *a* ; Pl. XIV, Fig. 5).

This design is characteristic of Serinumu where at least four good examples are painted in red and white. The same design is carved at Wakuia Wai. The innermost U or V is more or less filled in with irregular chevrons or other marks which are difficult to distinguish. Two of the painted examples have short rays from the outermost U. Although this is a very distinctive design it is impossible to suggest any meaning for it.

Letter-like Designs (Text-fig. 1, p. 125).

In a number of different sites, but especially at Isakerikeri, there appear certain simple painted devices which look almost like symbols, and which happen in several instances to be practically identical with English letters or numerals. Referring to those at Isakerikeri, Dr. Strong observed that " The designs at times almost suggest early and crude attempts at writing, and recall the Azilian designs of Europe."

At this site I counted twelve " X " designs ; six " H " designs ; and two " 8 " designs. There were also seven of another like a rather obtuse-angled " 7," and four that resembled an incomplete Greek ϕ. Elsewhere (Rouna and Yaritari) are to be seen examples of Π ; and at Rouna there is an " E " facing backwards, which may be the same device differently orientated (Pl. XII, Fig. 3, *c* and Pl. XIII, Fig. 1, *c*).

The resemblance of some of these to English letters, etc., will immediately suggest Mission influence, especially as some of them at Isakerikeri are among the apparently more recent petrographs. Although the present-day natives are

commonly emphatic in declaring that they are not their work, one of them nevertheless, being pressed for an explanation, suggested that these more recent of the Isakerikeri paintings were done by small boys as " play-about."

On the whole, however, I am disinclined to entertain the idea of Mission influence. There has never been a school in the Sogeri region until of late years the Seventh Day Adventist Mission was established at Bisiatubu ; and I was assured that no child from the neighbourhood of these paintings had ever gone to that school with the exception of one youngster who is there at present.

We may conclude, I think, that the resemblance to English letters and numerals is not the result of a little schooling in English. We might almost as well argue that the rock-painter had a smattering of Greek. It seems more likely that it is an entirely fortuitous resemblance ; and one is tempted to ascribe these simple " letter-like " designs to a mechanical origin, without assuming that they ever conveyed any meaning.

The " Y " Design.

At Wagava there is an oft-repeated Y-shaped design done in red with a yellow border, the " stalk " of the " Y " being relatively thin. Dr. Strong noted these and wrote that they suggested " leaves." It looks as if they were intended to mean something, but I should be reluctant to hazard a guess. It is possibly the same motif which appears with quaint overlapping extremities, at Yoiworo (Pl. IX, Fig. 2).

The Cross-within-Circle.

Two examples of a circle containing a cross were painted at Isakerikeri ; I have recorded one from Yaritari. The same device was carved on a rather larger scale (7 inches diam.) at Serinumu (Text-fig. 1 and Pl. XII, Fig. 3, *b*).

The Barred Oval.

The commonest carved design in the Sogeri region is the crude device which I have called the " barred oval " (*see* p. 127). The very frequency of this design in a number of scattered sites invites a guess at its meaning, though it is not absolutely necessary to assume that it has one. However, it is worth recording that nearly all witnesses, European or native, who have seen the originals or their representation, agree in suggesting that it is a sexual symbol. One would perhaps be justified, therefore, in referring to it as the " vulva " design.

It is equally worth recording the extempore suggestion of one unusually bright native. When at Isakerikeri, where the " barred ovals " are especially in evidence, I was pressing my informants and meeting only with unanimity in favour of the " vulva " interpretation, this man suddenly declared that the design represented the half of a split *okari* nut, the edible part having been extracted. Now it does so very well, for the split *okari* is oval in outline with a groove running down the longer axis ; furthermore, *okari* nuts are common enough in the district and a regular article of

diet. But the man who made this unexpected suggestion had just caught sight of the object in question lying at his feet, and his interpretation was simply a brain wave. Nevertheless he stuck to it. Here is a good example of the habit (which belongs to natives as well as to ourselves) of naming designs according to what they happen to suggest. It is well known of course that one and the same design often goes under different names in different districts, and is taken as representing quite different things. The fact is that the name is, so to speak, superimposed; so that a native explanation can never be taken as a safe guide to the original meaning—supposing the latter to have existed.

If we follow what appears to be the very natural interpretation of this design, we may think of such a site as Isakerikeri, where there were scores and scores of " barred ovals " in a very limited area, as a place of love magic, or as a place where records of sexual conquests were recorded in monumental style, or perhaps as a place for some kind of female initiation. We might, indeed, by indulging our fancy devise still other explanations equally plausible and equally without evidence.

The " Closed M."

The " closed M " also occurs frequently enough (in four sites) to suggest that it did convey some meaning (*see* p. 128). The modern native, as usual, was quite ignorant of what this meaning was, and as usual again, unable or reluctant to hazard a guess. Only one native made a suggestion, viz., that the figure represented the human breasts, the apex of the V being the sternal notch.

It is remotely possible that the device represented the hoof-mark of some cloven-footed animal, though this resemblance, faint as it is, only suggests itself when we consider the simple typical form. With regard to what I have taken for variants of the " closed M " the question arises whether they are amplifications of the typical design, or whether they are nearer to an original from which the typical design has degenerated.

The indubitable " footprint " marks which are common in Australian petrographs do not, as far as our knowledge goes, appear among those of Papua.[1]

Parallel Scratchings.

In the Sogeri region " Parallel Scratchings " appeared at Wagava, Wakuia Wai and Yoiworo II; in the Boianai-d'Entrecasteaux region at Sisiana. The latter were of rather different character, being much longer (up to 9 inches).

It has been suggested in regard to the " parallel scratchings " found in Australia, that they resulted from the process of tool-sharpening. This was possibly the case also in Papua if we consider sharp-pointed bone tools. To judge from the appearance

[1] It is worth noting that in the Purari Delta it was the practice to incise footprint-marks on the large boards down the centre of the *ravi*. These might be of humans (records of cannibal feasts), or of specially large pigs. The only pig-foot I have recorded was of apparently conventionalized pattern. It was also a common practice to incise " broad-arrow " marks on trees. This was a purely native custom and the device was called " cassowary-foot."

of the markings, narrow and shallow as they are, they could not have been made by sharpening stone tools. To rub a stone tool up and down in such a manner as to cause these parallel scratchings would be better calculated to blunt it.

The tool-sharpening hypothesis does not, however, explain the comparative regularity of the design, if so it may be called; nor the fact that at Wagava the numerous little groups of parallel scratchings were placed in a more or less inaccessible position, so that to get near enough to attempt a rubbing I preferred to take my boots off for a better grip of the rock and for fear of falling down the cliff. Nor does it explain the fact that in some cases there are two sets of parallel lines running criss-cross so as to form a checker.[1]

It is conceivable, though perhaps only at a stretch, that the "parallel scratchings" are intended for decoration; but a more likely hypothesis is that they represent a form of tally-keeping, such as has been suggested for the Australian examples. It is nowadays a common practice in Papua to keep tallies in various forms mainly as records of debt in exchange; and in the d'Entrecasteaux love-tallies, or records of amatory victims, take the form of notches in a stick. I know of no modern instance, however, of tallies kept by grooving the rock, so that we can still do no more than guess at the purpose of the "parallel scratchings."

Concentric Circles.

Except for one example at Lohomunidabu the series of concentric circles appears to be characteristic of the Boianai-d'Entrecasteaux region (Pl. XV, Fig. 6; Pl. XVI, Fig. 1.). No native appears able to throw any light on the meaning of this common device. Although there are some poorly executed examples, the concentric circles are usually formed with fair regularity, and the effect of the device when carved on rock is a pleasing one.

Jenness and Ballantyne[2] mention "a number of rough concentric circles alternately red and black" painted on a house, which design was said to represent the sun. This of course may simply mean that the informants in question put that construction on the design. I have not met with the "sun" interpretation myself, and it would be unwarrantable to assume that the frequent examples of "concentric circles" all represented suns.

Concentric Circles with Radiating Hooks.

Some of the series have hooks or spirals radiating from the outermost circumference, the hook being here, perhaps, a degenerate form of the spiral. An example of this design, "a small circle with radiating hook-like processes," was noted by Seligman on an incised stone at Wamira (Wedau), where "it was considered to represent either a star or an eye."[3]

[1] Cf. also the incised stone found by Dr. Strong in Nahatana village.

[2] *Op. cit.*, p. 198.

[3] *Melanesians of B.N.G.*, p. 466.

For the photo on Pl. X, Fig. 2, I am indebted to Mr. R. A. Vivian, who has shown a keen interest in the petrographs of Boianai and its neighbourhood. He has suggested that certain of these Boianai stones, to judge from comparison with " the Ehununaque hieroglyphic picture-writing " and the investigations of H. MacL. Mann, " are of an astronomical value, archæologically." I regret I have been unable to see the published matter on the subject and so to follow the comparison for myself; but it does not seem credible that the exceedingly crude and unsystematic carvings of Boianai should have had any astronomical significance for the people who made them. This of course is not to deny, however, that these crude carvings may have some connection with others, more systematic, for which a calendric meaning could perhaps be established.

Spirals.

A number of fine scrolls are to be seen engraved on the stones of Boianai. When weathered they are not always easily distinguished from the other typical design of the Boianai-d'Entrecasteaux region, viz., the series of concentric circles.

The spiral is usually found as a separate design, but in Pl. XVI, Fig. 3 it forms part of a large design, partly obliterated; and in Pl. XVI, Fig. 6 a conjunction of several spirals recalls the present-day Melanesian scroll. I can give no hint as to its possible meaning.

General.

The modern native, as we have observed before, is rather loth to read any meaning into a design unless it is obviously pictorial. He does not feel so strongly that urge (which seems irresistible in some Europeans) to get at the painter's intention. Rather, in his characteristic way, does he accept the paintings and carvings as so many marks on the rock; and in many cases an informant is quite nonplussed by the question, " What do they represent ? " It is often in fact, a hard matter to get him to understand the question.

I think we may say, then, that to the present-day native the petrographs have in the main a decorative rather than a pictorial value. And if this be true it is not impossible that they possessed a mainly decorative value even to the natives who made them, *i.e.* they were in many cases at any rate, marks or patterns rather than pictures.

There can be little doubt, it is true, that some of the purely decorative designs had a pictorial origin, and in some instances the " picture " remains little changed; though, even in such obvious cases as those of the lizard and the anthropomorph, I have tried to show that by their intrinsic qualities of outline and symmetry they may tend toward a predominantly decorative value. In other instances the pictorial origin of a design is far from obvious, and can only be safely deduced from a descending series which shows the process of change or conventionalisation. But while admitting a pictorial origin, or an original significance, for some designs, we need

not by any means make the same admission for all. It seems quite possible that some arose from chance movements of the hand, resulting in marks or patterns which happened to please, and which were in due course copied and perpetuated. To such chance designs the native, despite his devotion to stereotyped forms in art and his relative indifference to their meaning, may, nevertheless attach any name that happens to suggest itself to his fancy. Sometimes a design has no conventional name, and then it is only a specially bright or imaginative informant who is capable of reading a meaning into it, or of extemporizing a name for it. In other cases it has a conventional name. But in other cases, again, the same design is found in different places or communities to have quite a variety of names, signifying different things which all happen to resemble it in some point or other. This state of affairs must be familiar to all those who have studied primitive art in the field, *i.e.* with the collaboration, such as it is, of the primitive artist himself. It appears frequently to be the case, then, that the name of the meaning is superimposed on the design. We can only guess at an original meaning; and further, as I am endeavouring to prove, it is altogether questionable whether the design *had* an original meaning.

I may give a definite instance of the way in which a design is made mechanically and without any thought as to its meaning. It is a common practice among Papuan children playing on the sea sands or on the level village ground, to bend down the great toe of one foot and then spin round on the heel. They thus describe a circle with a large spot in the centre—" the cup and ring," or the " sun disk," or whatever you like to call it. As for the native boy, he prefers to call it nothing at all, and thinks it rather queer that you should suggest it is a picture of anything. I would submit then, that many decorative designs have originated in a mechanical and thoughtless manner.

The question of the general purpose of the petrographs, or the motive which impelled the native to make them, is so much one of conjecture that one may feel hesitation about discussing it.

There is not a great deal, I think, in these Papuan petrographs to support the " magic " theory. Of paintings or carvings that could conceivably have any bearing on the hunt or hunting magic there are comparatively few. " Lizards " or " crocodiles " are indeed numerous, but as I have said, it is not likely that these creatures were ever of importance as quarry for the hunter. There are some paintings (at Yaritari) which might be taken for cuscus; but these animals again are equally unimportant. I have one " broad-arrow " which might represent the footmark of a cassowary; and Dr. Strong has reproduced a design from Bomana which looks like a picture of the bird in outline. There is one fairly obvious fish at Wakuia Wai. It is seen that the animal pictures form only a small proportion of the petrographs, and the magic theory, even if accepted for them, would not carry us very far.

It is more than probable, however, that the early petrographers were, like nearly all the present-day peoples of Papua, first and foremost, gardeners and only second-

arily hunters. One is not aware that the primitive gardener uses sympathetic magic any less assiduously than the hunter; he is certainly very much addicted to it in Papua. Should we not expect then, if the petrographs were made in pursuance of magic, to find a greater proportion of vegetable or perhaps meteorological, symbols than of animal symbols? The fact is that we find none, or none that are beyond doubt recognizable as such.

One is certainly rather tempted to place a magical construction on the "barred-ovals"—that is if they are to be taken as *vulvæ*. But it is equally possible that they were in the nature of records, engraved by individuals in boastful commemoration of their conquests, just as the native of to-day may enumerate his loves by notches in a stick, or set up a row of human skulls and pig skulls as records of success in the raid and the chase. Again, they may be merely the products of male obscenity such as we see nowadays on the walls of public latrines (though here one is not prepared to deny that there may be in some cases a latent magical motive). On the whole, while the motive of sympathetic magic may account for some of the petrographs, it seems plainly inadequate as an explanation for all of them.

There is another motive which may account for the presence of at least some of the petrographs, one which has not, I think, received sufficient stress. But before dealing with this it is necessary to make a preliminary point. Can all these petrographs be regarded as having aesthetic value? Is every daub of paint and every crude, irregular carving to be called an example of primitive art? I think definitely, no; and on that account I have avoided the expression "primitive art" throughout this paper. Many of the designs have some claim to decorative value and for them, in the absence of proof as to another motive, the "mere decoration theory" is perhaps sufficient. But in other cases the designs—or, as we might better call them, marks—are in our eyes devoid of any artistic value; and I suggest that they may have been equally devoid of artistic value in the eyes of the people who made them.

What motive can there be for these? Now I think it is a trait still common to most of us to leave some record of our presence in places which are in any way memorable; and this, no doubt is merely an aspect of our general desire to impress our personalities upon our environment and upon the minds of our fellow-beings. It is all too well evidenced by the tourist's habit of writing or cutting his name in the vicinity of sacred or celebrated places which he has come to visit; and sad to think the more names he finds already inscribed, the greater the temptation to add his own. The motive, then, is to "leave your mark"; and such a motive is as common among primitives as among ourselves, if not more so. They cannot write their names (though nowadays, when some of them can, we see more than enough of that); but they can make a mark which, on a subsequent visit perhaps, they can proudly point to and say "I did it." It is not at all impossible that many of the petrographs are due to such a simple motive. Individuals who have visited these sites, perhaps merely by chance, and who have camped there by night or rested in the

heat of noon, may well have repeated one of the stock designs or made some new, and perhaps meaningless, scrawl of their own; and this with no other motive than that of "leaving their mark."

For conclusion I have a suggestion which may seem even cynical; and one feels almost glad to say that it is by no means fully substantiated. Do we not, however, sometimes attach a greater importance to ancient rock-carvings and paintings than they really deserve? I do not mean in relation to the other branches of the science of anthropology, but intrinsically, as elements of a more or less hypothetical early culture. In this way certain petrographs of Europe have been invested with a high magical and even religious import.

Now one would not venture to assail what has been called the orthodox view, on the strength of the scanty and insignificant petrographs discovered in Papua. But several small points have struck me in my investigation of them. We have seen in regard to the fresher-looking paintings at Isakerikeri that some of the local natives, being asked for their opinion, suggested that they had been made by children in "play-about"; and I confess that, as I looked at them again, I thought, with a tinge of disquietude, that perhaps this was really so. A similar suggestion was made regarding the spirals at Boianai: boys and girls had executed them in play, first drawing the pattern, then tapping it out with blows of a stone. That again might have been possibly true, for the process is easy enough. Lastly there was that stencilled hand at Wakuia Wai. When I placed my own near it, I saw that the hand was small and slender—to all appearances that of a child. These points only served to start a train of thought: they prove nothing. But it is a fact that to the present-day native the petrographs are unnoticed and unimportant. It is just possible that they were equally unimportant to the long-ago natives in whose time they were made. It is just possible, in fact, that at least some of them were literally "child's-play."

The great trouble in the study of ancient rock-carvings and paintings is of course the paucity of relevant data; we have nothing more than the carvings and paintings themselves, their situation, and their associated remains to go upon. What with this dearth of relevant information and the sometimes intriguing nature of the petrographs themselves, there is the risk that, like buried treasure, they should become a fertile subject for romance. It is unfortunate that rock-carving or painting among primitive people should always apparently be ancient or prehistoric —a lost art. It is hard to believe, however, that this is invariably the case, and what is needed at present, one may suggest, is a full description of the methods and motive of some surviving petrographers—if any exist, *i.e.* of some present-day natives among whom rock decoration is a living custom. Such information might throw an invaluable, even though borrowed, light on the archæological study of this phase of human activity.

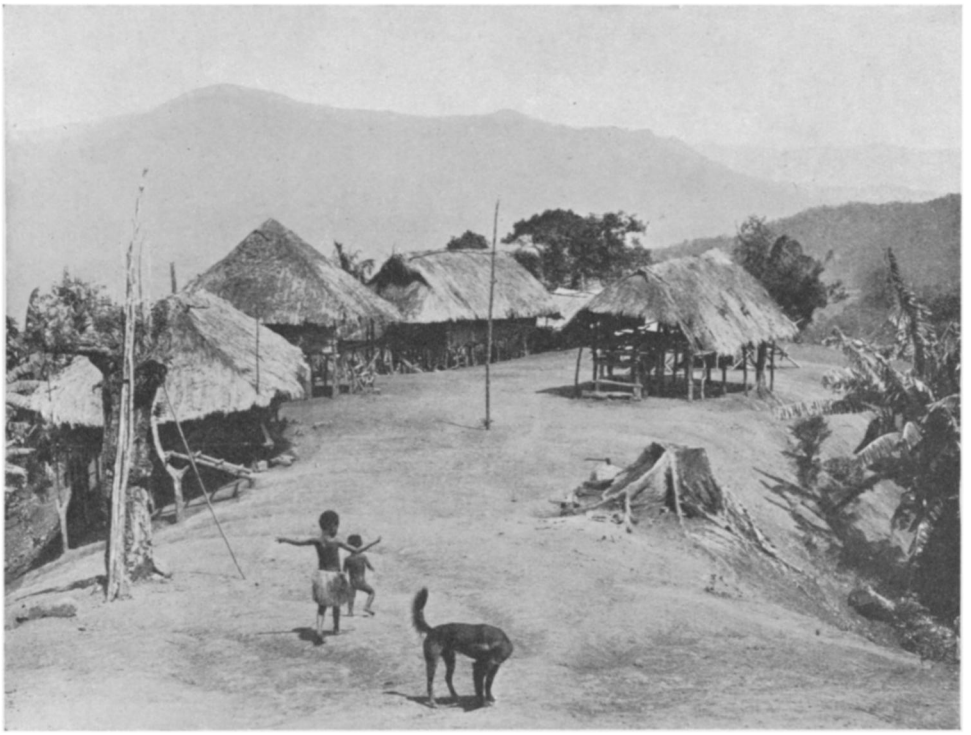


FIG. 1.—HILL VILLAGE, SOGERI REGION.

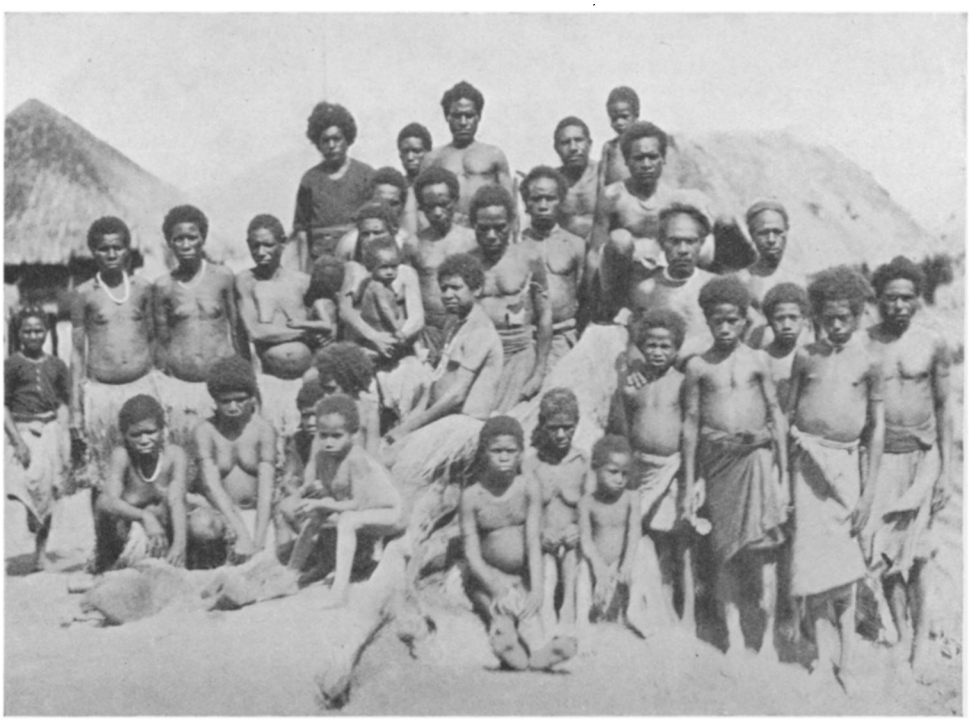


FIG. 2.—GROUP OF NATIVES, SOGERI REGION.

PAPUAN PETROGRAPHS.

FIG. 3.

FIG. 4.

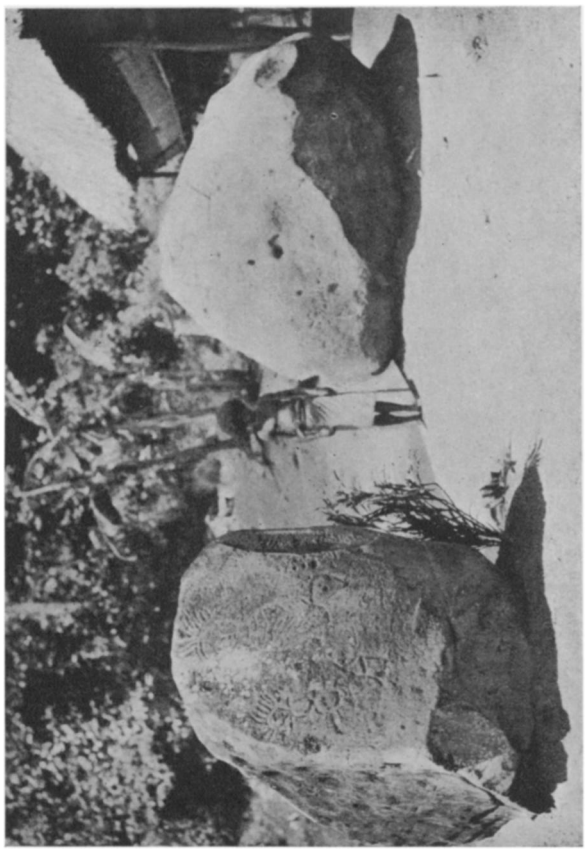


FIG. 1.

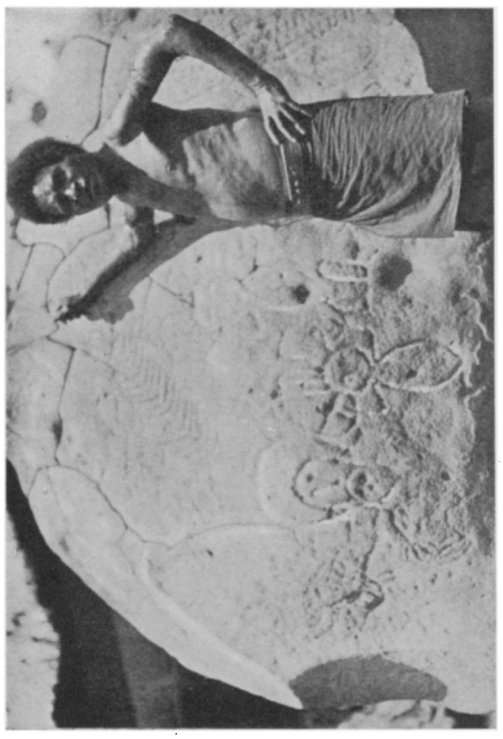


FIG. 2.

FIG. 1.—"ISOROPU" AND "SOROPUTA" ROCKS, LOHOMUNIDABU. FIG. 3.—VIEW OF WAGAVA. THE PETROGRAPHS ARE IN THE RECESS OF THE CLIFF.
FIG. 2.—"SOROPUTA" ROCK, LOHOMUNIDABU. FIG. 4.—ROCK-PAINTINGS, RED, YELLOW AND WHITE, WAGAVA. (*See also* PL. XI, FIG. 1.)

PAPUAN PETROGRAPHS.

FIG. 5.

FIG. 6.

FIG. 3.

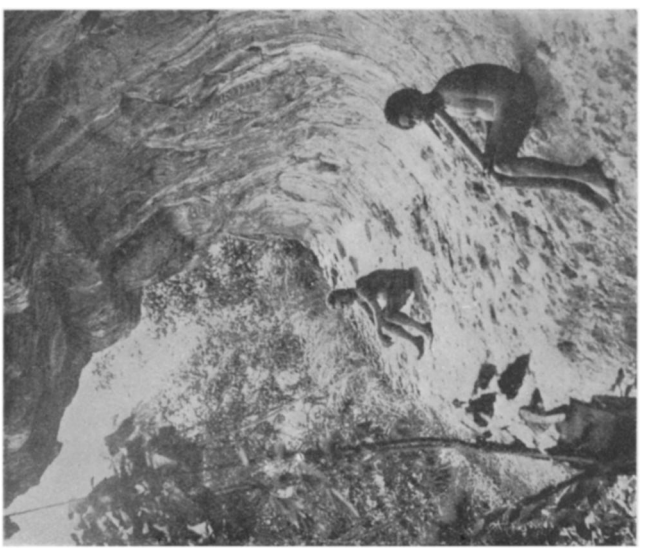


FIG. 4.

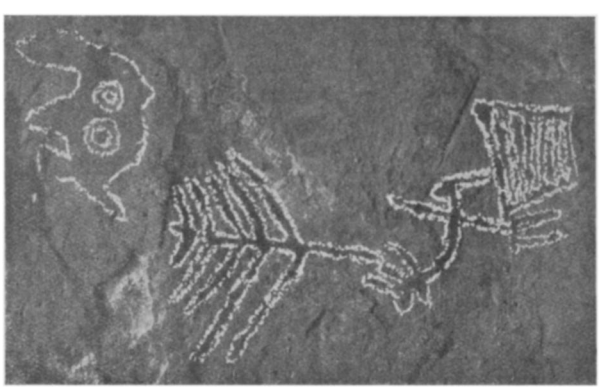


FIG. 1.

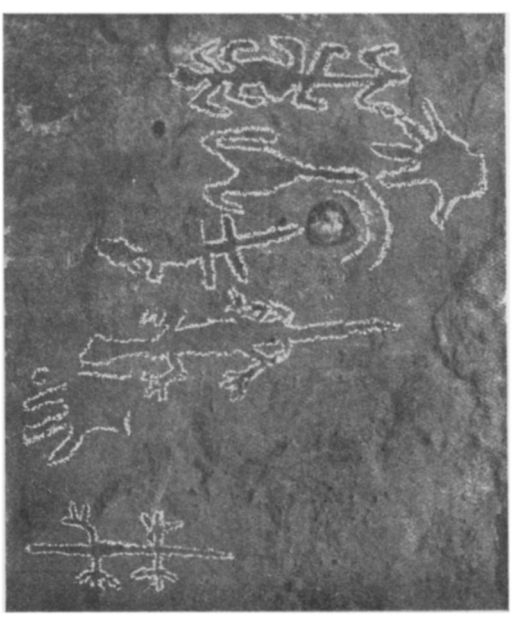


FIG. 2.

FIGS. 1 AND 2.—ROCK-PAINTINGS, YOIWORO II AND I. RED (OUTLINED WITH CHALK FOR PHOTOGRAPHING).
FIGS. 3 AND 4.—ROCK-PAINTINGS, RED AND WHITE, AND ROCK SHELTER, SERINUMU.
FIG. 5.—"BARRED OVALS," WAKUIA WAI. (PARALLEL SCRATCHINGS VISIBLE OVER MAN'S LEFT SHOULDER.)
FIG. 6.—"CLOSED Ms" AND "BARRED OVALS," SERINUMU.

PAPUAN PETROGRAPHS.

Journal of the Royal Anthropological Institute, Vol. LXI, 1931, Plate X.

FIG. 1.

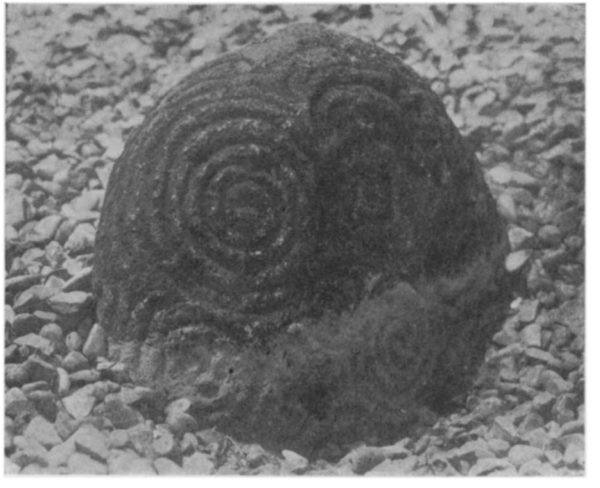


FIG. 3.

FIG. 2. (*Photo by R. A. Vivian.*)

FIG. 4.

FIGS. 1 AND 4.—"WAKEKE'S HOUSE," BOIANAI, BEFORE AND AFTER EXCAVATION, SHOWING REMAINS OF POT COVERING SKULL.
FIGS. 2 AND 3.—CARVED STONES, BOIANAI. (FIG. 2 LINED WITH CHALK FOR PHOTOGRAPHING.)

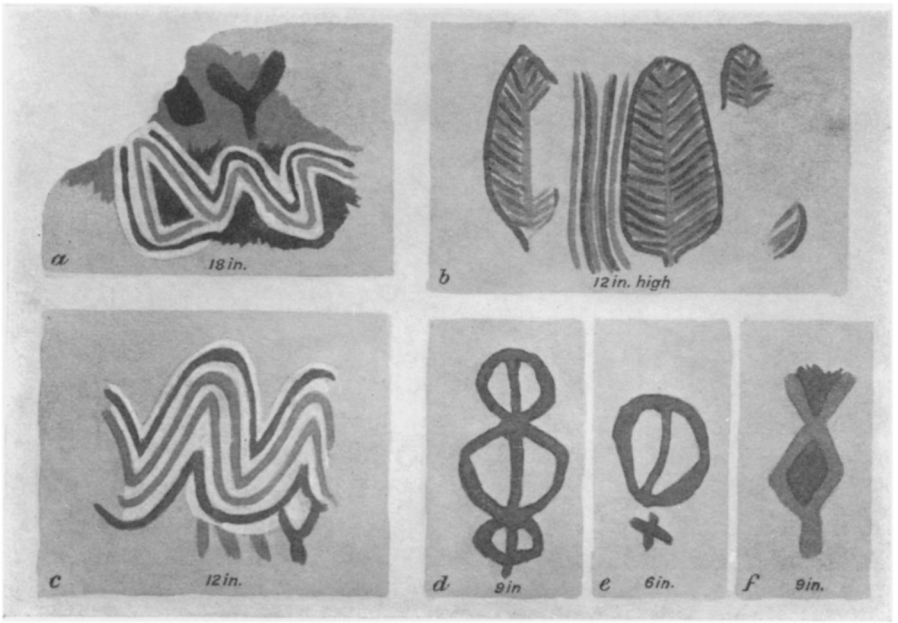


FIG. 1.—PAINTED DESIGNS: RED, YELLOW AND WHITE, WAGAVA.

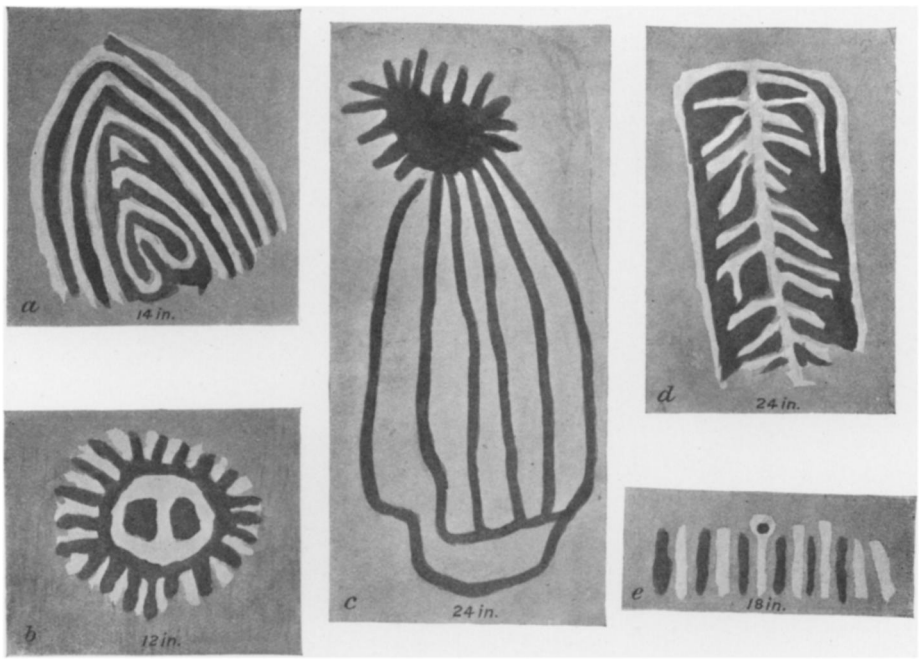


FIG. 2.—PAINTED DESIGNS: RED AND WHITE, SERINUMU.

PAPUAN PETROGRAPHS.

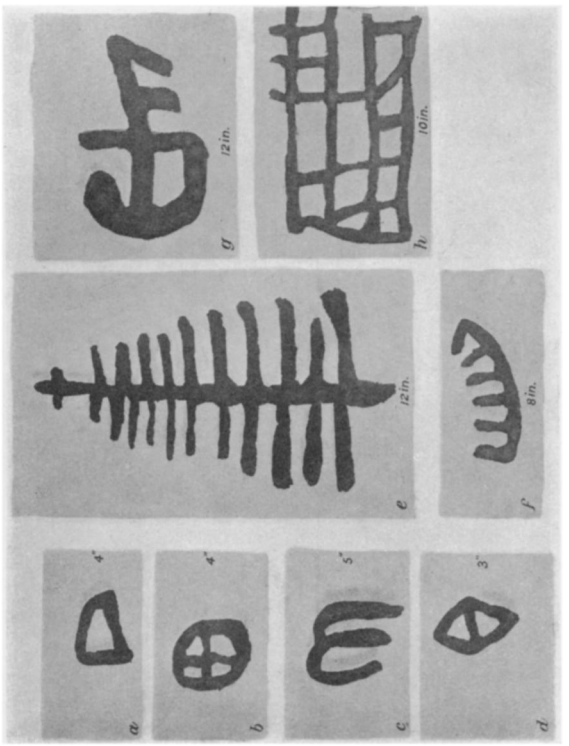


FIG. 3.—PAINTED DESIGNS: RED, YARITARI.

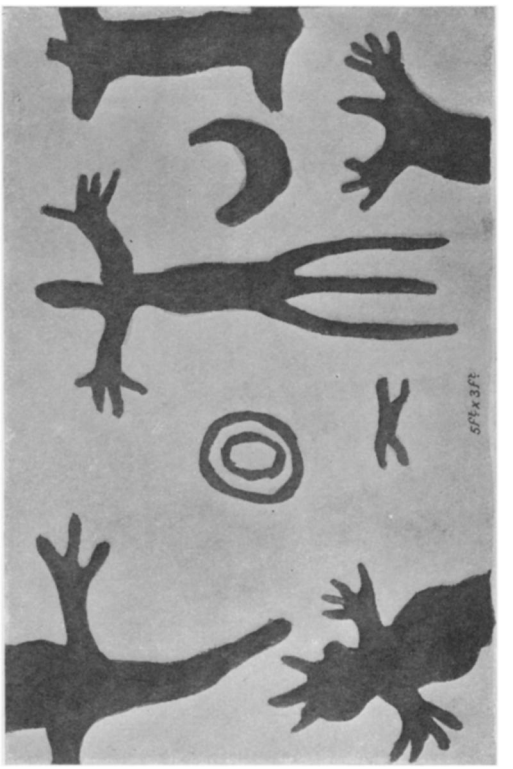


FIG. 4.—PAINTED DESIGNS: RED, YARITARI.

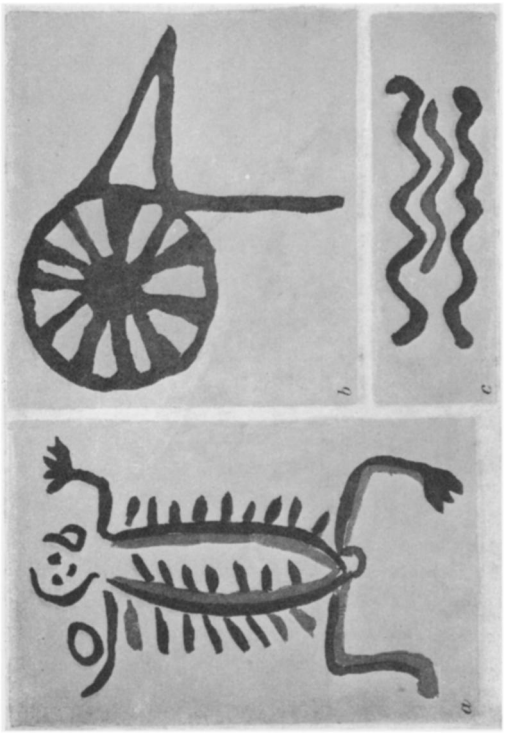


FIG. 1.—PAINTED DESIGNS: RED AND YELLOW, WAKUIA WAI.

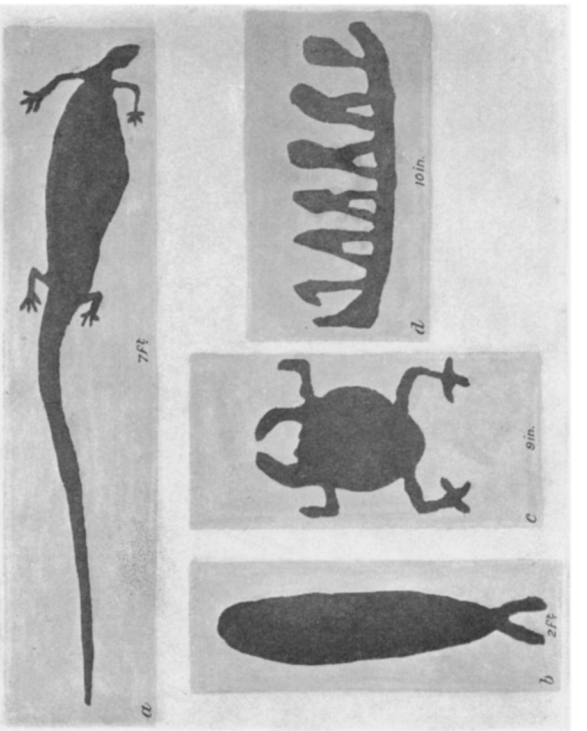


FIG. 2.—PAINTED DESIGNS: RED, WAKUIA-WAI, MAGIBIRI.

PAPUAN PETROGRAPHS.

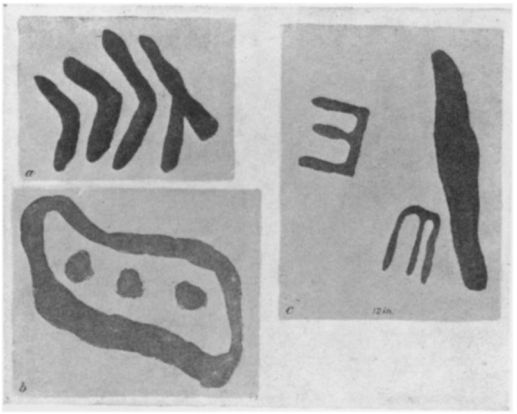


FIG. 1.—PAINTED DESIGNS: *a*, RED; *b*, YELLOW, WUREVA-YANI; *c*, RED, ROUNA.

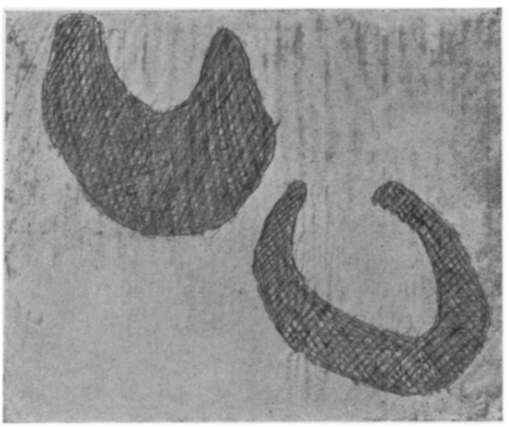


FIG. 2.—PAINTED CRESCENT DESIGNS.

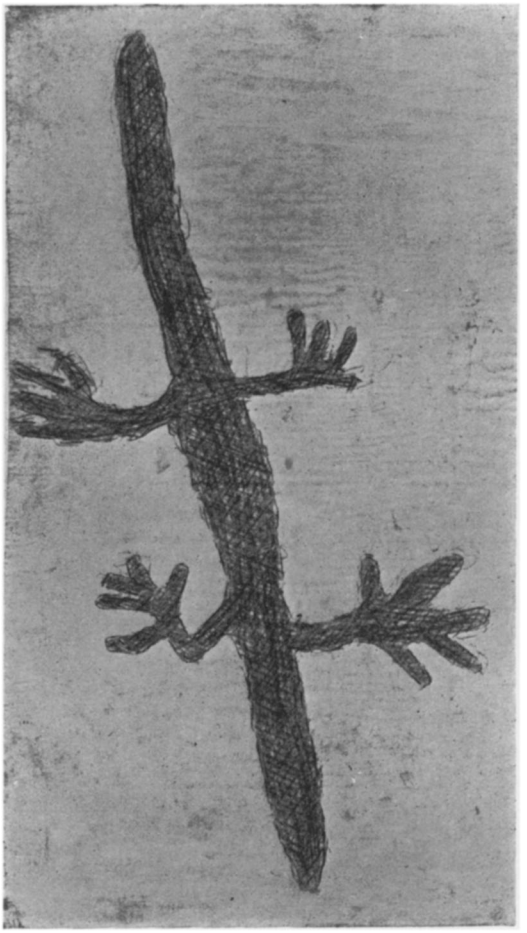


FIG. 4.—PAINTED AIOUWA OR "MONITOR LIZARD."

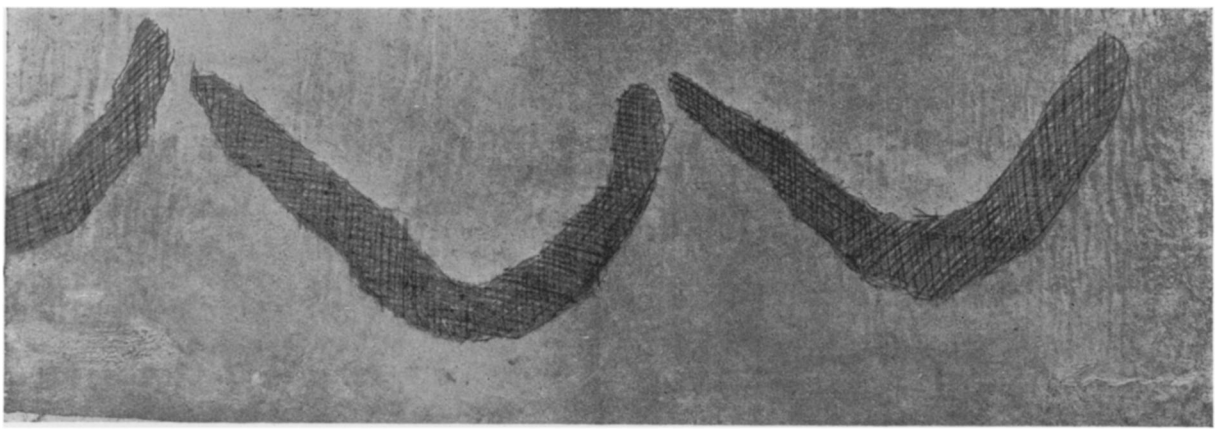


FIG. 3.—PAINTED BOOMERANG-SHAPED DESIGNS.

FIGS. 2–4.—TRACINGS FROM PAINTED ROCK-SHELTER AT OWANIBETANA NEAR YARITARI (× $\frac{1}{6}$).

PAPUAN PETROGRAPHS.

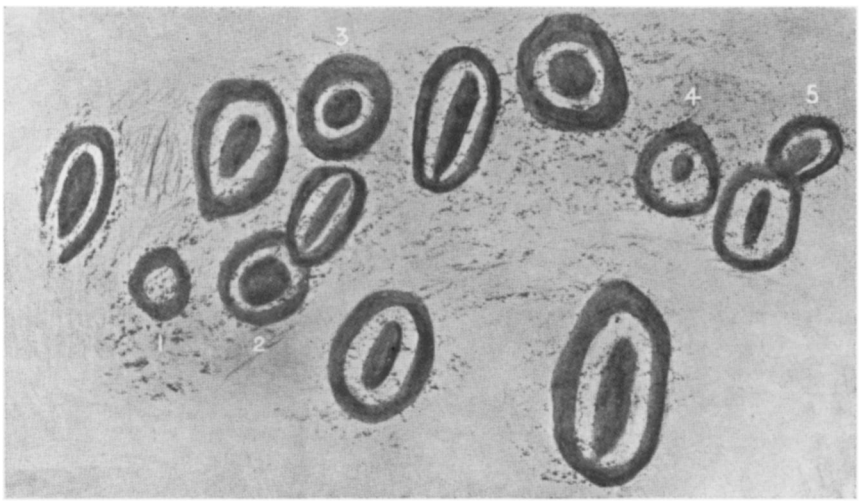


FIG. 1. (*See p. 136 footnote.*)

FIG. 4.

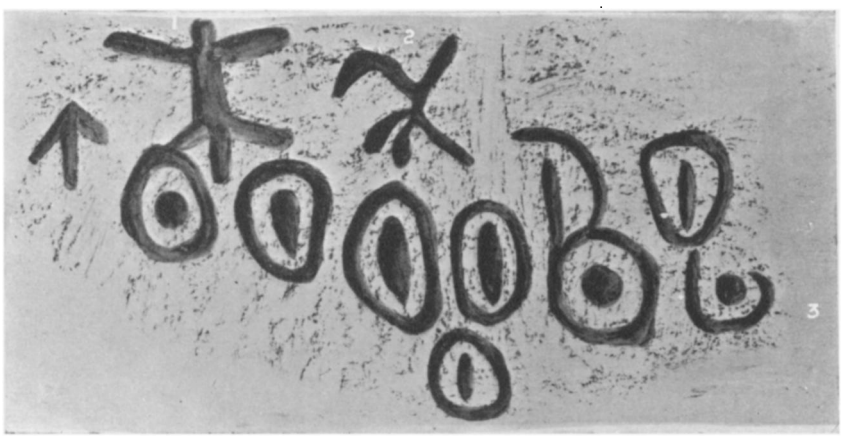


FIG. 2. (*See p. 136 footnote.*)

FIG. 5.

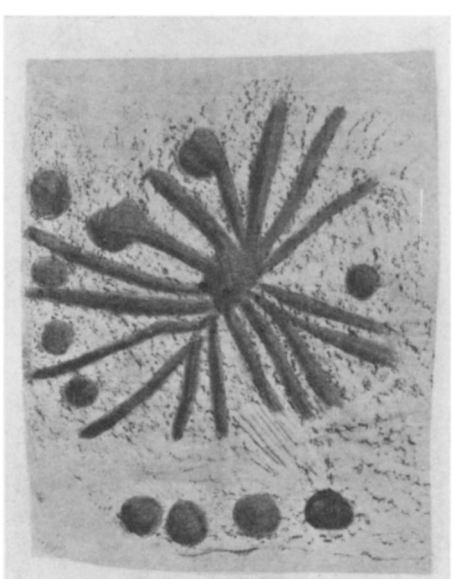


FIG. 3.

FIG. 6.

FIG. 7.

FIG. 8.

FIG. 9.

FIG. 10.

FIGS. 1, 2.—"BARRED OVALS," WAKUIA WAI (MAXIMUM DEPTH: $\frac{1}{4}$ INCH). FIGS. 3–5.—UNUSUAL DESIGNS, WAKUIA-WAI. (FIG. 4 IS ONE OF THE MORE RECENT FIGURES.) FIGS. 6–10.—"CLOSED MS" AND VARIANTS, IFA KURUKU, SERINUMU.

(RUBBINGS FROM ROCK-CARVINGS IN THE SOGERI REGION ($\times\frac{1}{7}$).)

PAPUAN PETROGRAPHS.

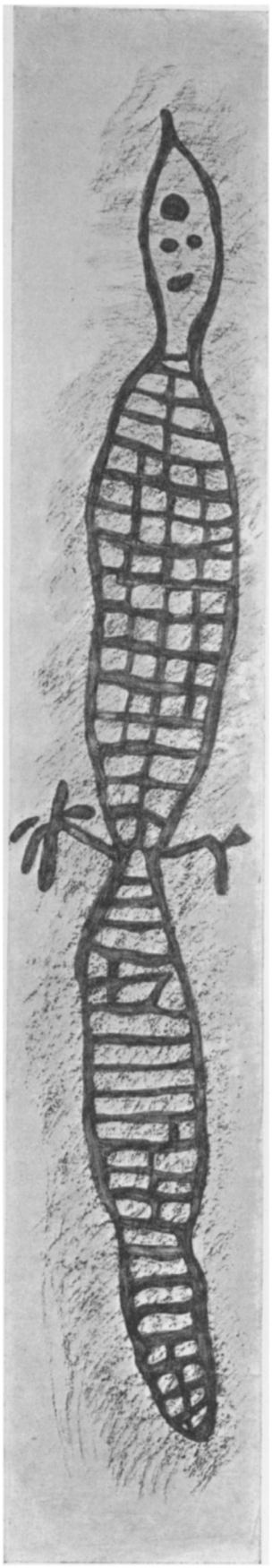


FIG. 1.

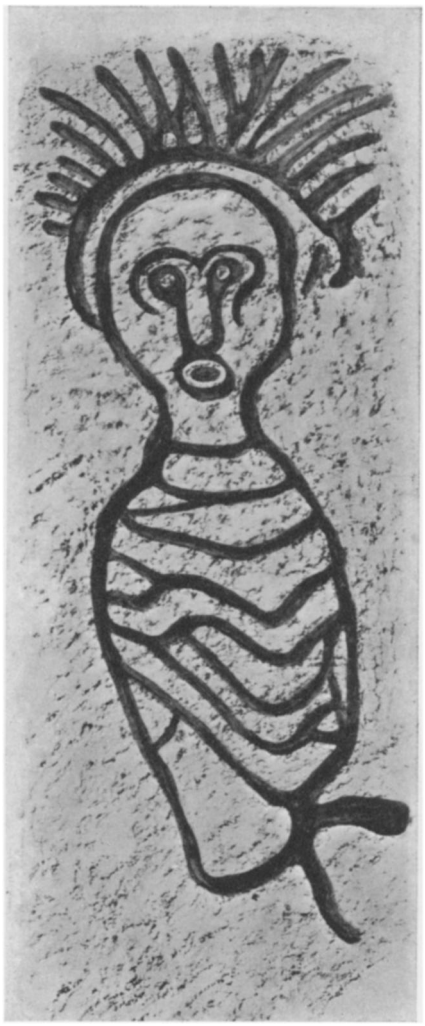


FIG. 2.

FIG. 3.

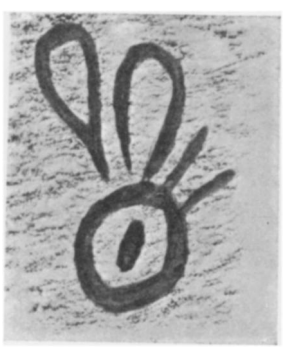


FIG. 5.

FIG. 6.

FIG. 4.

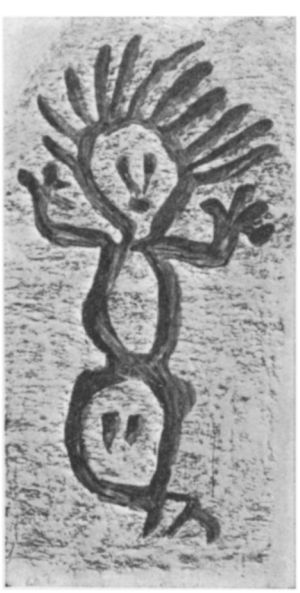


FIG. 7.

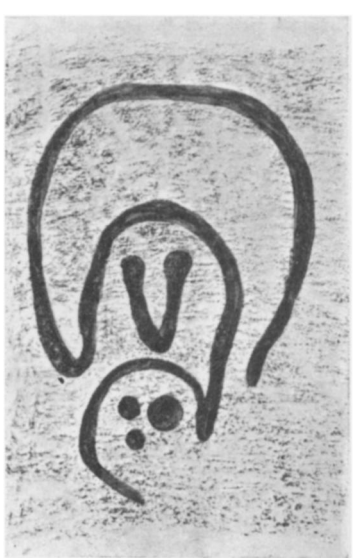


FIG. 8.

(RUBBINGS FROM ROCK-CARVINGS AT LOHOMUNIDABU). ($\times \frac{1}{7}$.)

PAPUAN PETROGRAPHS.

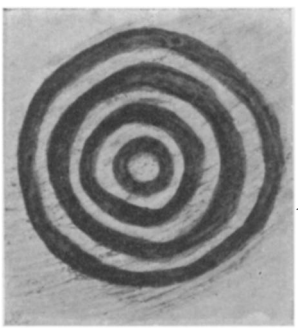


FIG. 1.—BISIAI.

FIG. 2.—BISIAI. FACE OF FIGURE CARVED ON THE SMALLEST OF THE INSCRIBED ROCKS.

FIG. 3.—BISIAI.

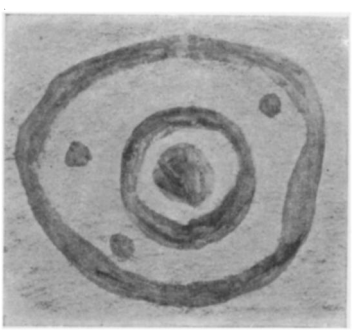


FIG. 4.—BISIAI.

FIG. 5.—SISIANA.

FIG. 6.—SISIANA.

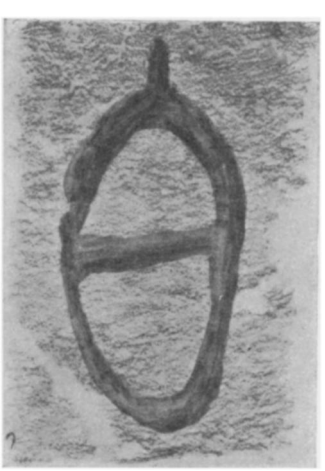


FIG. 7.—SISIANA.

FIG. 8.—SISIANA.

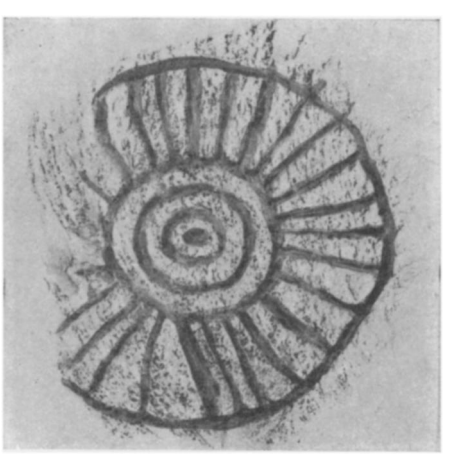


FIG. 9.—BOIANAI.

(RUBBINGS FROM ROCK-CARVINGS, BOIANAI-D'ENTRECASTEAUX REGION ($\times \frac{1}{5}$).)

PAPUAN PETROGRAPHS.

Method of Recording and Illustrating.

Rock-carvings and paintings are difficult subjects to photograph. The paintings are usually dull and faded ; and the shallow carvings (or at least the more ancient of them) wear a self-coloured patina, which on the general surface of the rock render them almost invisible except under a favourable incidence of light. However, I have tried wherever possible to make photographs. In some instances I have outlined the designs with chalk, a method which gives good results for illustration, but which I have avoided in the main, as the chalk cannot easily be wiped off the rough surface and remains as a falsification of the original.

Tracings without the aid of chalk or some similar substance are impracticable. The most satisfactory method that remains, in the case of the carvings, seems to be that of rubbing on tracing-linen or some tough paper. A large number of the accompanying figures are taken from rubbings subsequently painted over. I have not had much success with paper squeezes ; and the taking of plaster casts presents too many practical difficulties for one who is primarily engaged on ethnography of a very different kind.

Often, when other methods have been for one reason or another impossible, it has been necessary to fall back on freehand sketches, in which I have done my best to prevent the recorder's hand from being guided by his imagination. In the case of these freehand drawings the approximate measurement of the greatest dimension is given.