

SOUTH AFRICAN JOURNAL OF SCIENCE, Vol. XXVIII, pp. 475-486,
November, 1931.

ROCK ENGRAVINGS IN SOUTHERN AFRICA AND SOME
CLUES TO THEIR SIGNIFICANCE AND AGE.

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With Plates XV, XVI.

Read 9 July, 1931.

The state of our knowledge relative to rock-engravings in South Africa is extremely inadequate. These curious manifestations of human activity are widely scattered in the subcontinent and the forms which they take are very diverse. It may well be that there is no common explanation underlying all of the engravings, but there are some aspects of the problem to which attention has not previously been directed and which, to my mind, account for the presence at least of a large number of them. During the last few days of our stay in Northern Rhodesia, the camp of the Italian Scientific Expedition remained at Nchanga and Signor Del Grande and I took advantage of several days to follow the route to Solwezi and the Kansanshi Mine, which lie about 150 miles west of Nchanga. The expedition had been particularly requested by the Hon. J. Moffat Thomson, Secretary for Native Affairs at Livingstone, to visit Solwezi, to enquire into reports that had been sent to him by the District Commissioner, Mr. L. J. Tweedy. Certain markings in rocks and various flaked stones had been found by him and Mr. I. C. Barnard, geologist of the Kansanshi Mine, on the Chifubwa stream near Solwezi.

The site in question is a rock-shelter protected by the overhanging micaceous granitic archaean rocks on the western bank of a ravine, 14 feet above the Chifubwa which flows to the Lunga River, a tributary of the Kafue—hence the district forms a portion of the enormous watershed of the Zambesi. Excavations carried out by Tweedy and Barnard reveal to-day a rock surface, at least 26 feet long and 10 feet high, covered with engravings of what appear to be representations of human figures in a processional arrangement surmounted by symbolical and mystical signs, which may originally have formed an inscription (see Pl. XV, Figs. 1, 5). Fig. 1 illustrates the panorama of the principal rock surface. A sieve is standing on the implement-bearing stratum. Above it can be seen the present-day ground level, indicated by a sharp line of demarcation between the covered and uncovered portions of the rock-face bearing the engravings. Fig. 5 shows the right portion of the engraved rock surface in somewhat better detail. The upper half of this grandiose mural decoration lies above the present level of the earth and has been covered in such a manner as to be rendered almost unrecognisable by a dense and tenacious

growth of lichens. The lower 5 feet lay below the sand, which has preserved their outline with great fidelity. This sand is sterile—devoid of stone implements or any other trace of human industry, until one reaches a depth of 7 feet near the back wall of the shelter in which the engravings were found. Below this 7 feet stratum of sterile sand, however, there lies a stratum of 12 to 18 inches thickness, which is an enormous bed of fractured and chipped crystalline quartz, rich in fabricated stone implements. From this stratum we secured lance heads, arrow heads, scrapers and the stone tools with which these were manufactured. The stone industry is of the Late Stone Age type, similar to that discovered at Mumbwa. This implementiferous stratum lies on the rock bottom.

It is apparent, therefore, that these rock-carvings were carried out by the ancient people who lived on the Chifubwa stream and were making these quartz implements. The 7 feet accumulation of fine sand provided a clue to the considerable period of time which has elapsed since the engravings were first made. This sand is not river-borne gravel but—according to the opinions of the geologists, such as Mr. Barnard and Mr. Douglas, who have investigated it—is derived from the over-hanging rocks as the products of their disintegration have been gradually formed, and washed down and blown in under the rocks to form the superincumbent mass. That process has necessarily occupied many centuries: a lapse of time seemingly comparable directly with the time period consumed at Mumbwa in submerging to a depth of 6 to 8 feet the ancient iron-furnace site discovered there during 1930 by the Italian Scientific Expedition. But the feature, which relates more intimately the two happenings to a similar time, is the fact that the quartz stone-implements of Mumbwa and of Solwezi are identical. There is, therefore, presumptive evidence for believing that the rock-engravings at Solwezi belong, with the Mumbwa iron-smelting activities, to a date of some 4,000 or more years ago.

If any further proof were required for attributing the engravings to the makers of the quartz tools, it is supplied by a curious and important custom on the part of these unknown sculptors. After they had completed the carving, they took pieces of red or yellow ochre or of soft black haematite and then, either directly, or with some animal fat, rubbed the pigments into the figures and symbols they had executed. Most of the pigment they used has disappeared completely, but in various places it can be easily and distinctly recognised. Hence, although the brilliance of their pictorial mural design is no longer recognisable, we know that these people embellished their sculptures with a rich variety of colour, and knew the pigmentary value of iron minerals. They were painters as well as engravers. This, too, is very important, because certain scientists in the past have believed that the stone engravings of Southern Africa were made by one race of people and the cave-paintings by an entirely different race. At Solwezi the engravers and the painters were of the same period and

worked in the same place. The ochres and the haematite they used are to be recovered in the same stratum as the quartz stone implements. The sculptors and painters were thus artists of the Late Stone Age.

This is the first occasion, in the history of anthropological research in Southern Africa, when rock engravings have been found at depth in a cave-shelter and in such surroundings as to allow of an unmistakeable understanding of the people to whom they were due and the stone-culture in practice at the time of their origin. At Mumbwa, the people who practised the quartz culture of the New Stone Age were metal-gatherers, smelters of iron. At Solwezi, some 200 miles north-east of Mumbwa, expert artisans in the New Stone Age craft chose pigmented ferruginous minerals to decorate the engraved walls of their mystical cavern. There is nothing to prove that the dwellers at the Chifubwa stream were smelters. They appear rather to have been artists and probably priests, dwelling alongside this stream, expert in their stone craft, choosing the most beautiful and refined crystal-clear quartz for their work and manufacturing weapons. These, perhaps endowed with mysterious qualities, brought to their impressive establishment the wondering admiration of the ignorant Bushman population which, as we know from our Mumbwa researches, at that time inhabited Northern Rhodesia.

The first point to which I wish to direct attention concerning rock-engravings in general and those at Solwezi in particular is, that they are in the closest possible propinquity to a stream. Hundreds of instances of such an association in Southern Africa will occur to the minds of many, and others will emerge in our present sequel. The second point of interest is that the people, who were responsible for them at Solwezi, were probably foreigners and were at least held in elevated religious respect. No skeletal remains have, as yet, been found at this Solwezi site; but it is of premier importance, as illustrating their foreign character, that such markings engraved in rocks are associated constantly in the traditions of living natives with the power and might of God. They are ancient and mysterious. "They say that Leza, the Supreme Being, made these marks," we were told by Simon, son of the old chief Chibanza and at present the magistrate's (Mr. Tweedy's) trusted interpreter, "when the earth was being made, whilst the stones were still soft." The engravings, covering the vast area already referred to, are not easy to decipher. The biggest individual area, comprising a space roughly 15 feet long by 10 feet high, seems to have been devoted to two processional scenes—one above covered by lichen, the other below (the sand) clear and definite. The outlines of the figures (apparently human and long-haired or hooded) follow one another closely together. The idea seems to have been to give an impressionistic rather than an individual character to the component figures. Above these, and towards the left-hand side more particularly, are rows of dots and symbols, shaped like an H or inverted U's or inverted tridents, which recall the curious markings found on

the painted pebbles discovered at Mas d'Azil in Spain. The human figures, where more clearly executed, are reminiscent of the square-shouldered art forms of Egypt, and it is likely that the whole was intended to convey the idea of the decoration of a shrine, especially when illuminated by the pigments previously mentioned.

Whether the symbolic ornamentations ever formed a legible script is a matter that is not easy to resolve, and would require more ample and detailed examination than we were able to give during our stay there. Such examination would also involve the clearing away of the encrusted lichen covering of the upper engravings by careful and judicious measures. It may, nevertheless, be pointed out that the rare examples of the earliest known Sumerian writing (4,000 B.C.) are engravings in polished stone tablets. Further, the Sumerian symbols are pictographic and include dots, circles, tectiform, scalariform and other symbols similar to those found at Solwezi and elsewhere in Southern Africa. Whatever interpretation, therefore, may be placed upon the bizarre collection of figures at Solwezi, the third point of importance is that the engravings had a symbolical and magical purpose.

Symbolical rock-engravings are found frequently in Southern Africa, even as far north as the Congo. We halted for two days at Lubudi, 260 miles north of Elizabethville, to inspect a cave, which had been discovered previously by Signor Rainieri on his farm. It was situated in a grove of trees, certain of which were entirely foreign to the district and occurred only in that spot, which, once more, overlooked a streamlet. They must, presumably, have been transported thither and planted intentionally by human beings. The flat soft vertical limestone surfaces of the rock about the entrance to this impressive place are covered with a most confusing series of curved, dotted and linear carvings—concentric circles, triangles, wave-like lines, arrow heads, grids, arborescent and tectiform symbols—to which it is impossible, as yet, to provide any key. There is a genetic similarity between certain of these markings (see Pl. XVI, Figs. 4, 5) and those found on the engraved stones from the dolmen near Göhlitsch in Saxony (vide MacCurdy).

Away to the east of Elizabethville, on the confines of the Belgian Congo and Northern Rhodesia, on the Munwa stream, which runs into the Luapula River below the Johnston Falls, curious engravings have been incised in the hard granitic rock. They take the form of spirals, concentric circles, arrow-heads (or bird's feet), horse-shoe shapes and ladder designs. They occur on a ridge alongside the river but out in the open and on a horizontally-lying surface of rock. Dots, spirals, boats, fingerprint patterns, concentric circles (solar signs) were the commonest engraving motives utilised during the Bronze Age in Europe. (See Pl. XVI, Fig. 7.) One of the most striking of these puzzling lithographic monuments was described by Mr. Owen Letcher in the *Rhodesia Journal* for 1910. They had been discovered by Mr. Carl

Weise, who found several other sites within a radius of about two days' march from Chifumbazi. Those in question occur on the vertical surface of an overhanging slab of granite 2 miles from the Vubwe River, $8\frac{1}{2}$ miles north-west of Chifumbazi and about 165 miles north of the Zambesi River at Tete in Portuguese East Africa. Mr. Letcher says,

"Here is what looks like a butterfly, there an attempt at depicting a boat, here something resembling a fire and various other mysterious looking objects. Interspersed between these characters are a number of mutilated hands (i.e. hands with fingers severed from the palms) and several cylindrical objects which Mr. Hall states probably represent quivers."

Unfortunately I have not been able to secure a photograph of these engravings (which, also, according to Mr. Letcher, had been painted over with red pigment) but Mr. Letcher has kindly supplied me with a sketch, made on the spot, over 20 years ago, of a portion of the pattern, for whose accuracy he vouches. "Just below the inscription or paintings," he says, "there is a cave, in this we found bones and one or two bits of flint which might possibly have served as arrow-heads. Mr. Weise had excavated to a depth of about 15 feet at this point and he took with him to Germany a large quantity of bones, etc., discovered in the cave and in the process of excavation." (See Pl. XVI, Fig. 6.)

In the Chifumbazi engravings there are literally hundreds of discrete symbols—scalariform, tectiform, radiating, concentric, circular and manual—now a vast jumble but seemingly executed originally with some underlying plan and purpose. The imprints of disfigured hands recall those of the cavern of Gargas in the French Pyrenees. The concentric ring, dot, boat and wheel pictographs recall those of the solar-barks from Borge, Norway. The general similarity between the Chifumbazi engravings and those discovered by Mr. MacLagan on the Munwa River relates them to the same people or influence. These engravings raise a further (fifth) point of importance, namely, that there are ancient mines in the vicinity of Chifumbazi. Equally definite are those incisions which were discovered by the members of the Italian Scientific Expedition on horizontal slabs of rock out in the open at a point, near the junction of the Kafue and Zambesi Rivers, called Nabulimbwa, 70 miles east of the railway line. These markings include a circle surrounding radiating lines; and, in close proximity, the symbols of an axe and a fibula or hook. There are also trilinear or crow's foot impressions, chevron lines, curved markings such as recur in the other rock engravings mentioned, and stylised representations of human and animal figures, certain of which recall the symbolical markings found on the painted pebbles of Mas d'Azil in Spain and which have been interpreted as such. Of these engravings at Nabulimbwa I am reproducing three (see Pl. XVI, Figs. 1, 2, 3) which illustrate certain of the points referred to. The presence of a symbolical wheel, axe and fibula in juxtaposition appears to me to link these markings unquestionably with a metal-using people of late Neolithic or early Bronze age cult. I have been informed by my colleagues of the Italian Scientific Expedition that Nabulimbwa is a holy

place in local native tradition, and that it was until recent times a site of sacrificial worship in connection with rain ceremonies, marked by the ritual murder of twins.

The strange character of many rock-engravings, their curious distribution in relation to streams, and other natural landmarks, as well as ancient workings, and the superstitious reverence with which they are regarded by living natives, led me to believe that at least some of them were made by mining foreigners *to whom they served as landmarks*. It is self-evident that during the days of the exploitation of the ancient mineral wealth of the continent, the visiting miners who came by sea and penetrated the waterways of the continent must have had some system of designating the landmarks of the country they were passing through. It occurred to me that some of these seemingly irrational stone carvings represented not only signposts but also species of territorial maps, indicating to those who knew how to read them the disposition of the ancient mines, the direction in which to go, and what topographical difficulties had to be surmounted in order to reach them. I therefore expressed this view in a letter on the subject of rock-engravings in the Congo and Northern Rhodesia to Mr. William C. MacLagan, who had first drawn my attention to them there and he replied,

“ One idea that came to my mind on reading your letter is that possibly the markings might have something to do with the route from the Lakes, i.e. Moeru to Bangweolo. On the Congo side of the Luapula River these markings are found on the Kundulungu Plateau, which is the nearest range of hills west of where I found the (Munwa) markings. This plateau extends northwards west of Moeru and is connected with the Marungu Plateau, S.W. of Tanganyika. Natives and missionaries report the markings to extend as far as the Marungu Plateau. Eastwards they are known to be at Tambalala about half-way between the Luapula River and Lake Bangweolo in an approximately straight line east of the southern point of the Kundulungu Plateau. My ‘find’ lies about half-way between Tambala and the Kundulungu.”

It was on the basis of the above-mentioned hypothesis that I made careful enquiries into the occurrences of other rock-engravings in Northern Rhodesia and it was remarkable to discover the intimacy of the connection that exists between mythical travelling, culture heroes, rock-engravings, streams, roads, metal working and ancient mining enterprise. It was through Mr. MacLagan's advice and interest that I met Mr. E. B. H. Goodall, Provincial Commissioner at Ndola, who, for many years, was stationed at the Luwingu magistracy and there gained a deep knowledge of the native tribes of that region of North-eastern Rhodesia. He immediately summoned Sergeant Luwishya, an Awemba native, who has been in the Government Service for the last 25 years, and who prior to 1900 had travelled for two years with that adventurous hunter Poulet-Weatherly (or Ngalamika as the natives called him), one of the most noted early European personalities of that extensive territory between Lake Nyassa and Stanleyville in the late nineties. From this well-informed and trusted native, we received the following account of the marks that are found emblazoned on rocks. His story, like those of

independent witnesses, links these rock-engravings with the directional movements of remote culture heroes.

"They are *Makasa ya kwa Luchele*, (the tracks or footprints of Luchele). Luchele is a being who came a very long time ago, but we cannot say now that he is a person. It is the old chiefs, who came a long time ago from the west and wherever they slept, on the rocks as they passed, there they left their footprints, and they went all over the country."

Did he carry any weapons? "No, he brought nothing in his hands. Chiti-muluwa brought the grain (i.e. *Eleusinium*, the tiny brown millet which is the staple food of the natives of that region and is an entirely different species from the millet, or kaffir corn!—GOODALL) and also the iron and weapons. When Chiti-muluwa came in he told our fathers that Luchele-N'ganga came with him."

(Luchele-N'ganga is really a mythical person, a kind of demi-god, but Chiti-muluwa might be described as being almost historical!—GOODALL).

Why did he sleep in so many places? "Wherever he went and found a stone, he liked to leave his mark, so that those who came after after him would know where he had gone."

Whence did he come? "We do not know whence he came, he went to the east and we do not know where he ended. I have not seen any of his marks here (i.e. at Broken Hill) but in my home country all streams having stones show these marks. They are to be found on the Kafibwe stream near Tungati's village (this stream enters the Kawela which goes into the Lunika and thence into the Luena which issues finally into Lake Bangweolo), on the Kafwaka stream (a tributary of the Kawela and near the same village), at the point where the Kakoko stream enters the Luwansenshi River (in Kasama district near Chiyawila's old (1915) village), down-stream on the Luwingu side near M'pasa's village (somewhere between the Sicheembe and Wuwenshi streams as they enter the Luwansenshi River), and on the Lukulu River near Shimumpuku's ferry."

This native did not, however, know of the existence of further markings reported to me by Mr. Goodall, and which are said to be found in the "mulanda-mashitu" (or swamps) of the estuary of the Luena River as it enters Lake Bangweolo.

Symbolical markings on rocks unquestionably had an important significance at one time in Southern Africa. They are very widespread and are certainly associated to-day in the oral tradition of the people with gods or demi-gods who were travellers and with their earthly movements from place to place. These mythical people seem to have been the ancient metal-gatherers. This is indicated by the metallic nature of certain symbols like the axe at Nabulimbwa at the junction of the Kafue and Zambesi. An incident which points to that probability also was that communicated to us through Mr. C. F. Spearpoint (Compound Manager of the Roan Antelope Mine, Luanshya) from Sanda Unga (45 years old), the son of the blind old chief Katanga. On our enquiring about rock-markings, Katanga (who lives at Muliashi near Luanshya) sent his son, Sanda Unga, a day's journey to the paramount chief Mushiri, who informed him that such markings are to be found 13-15 miles south-east of Bwana Mkubwa (previously the site of ancient copper workings), on a stream. The paramount chief Mushiri had been told of these things by an old man, skilled in the smelting of minerals, and in the making of weapons and ornaments in metal. In the old days, when this artist made weapons or ornaments he brought

them to the chief Katanga, who took what he considered was due to him as chief, and then allowed the metallurgist to barter the remainder. The significance of this story lies in the fact that neither the chief nor the paramount chief knew the position of these markings at first hand; they were preserved in the tradition of the metal-worker. The old chief Katanga sent in, by his son Sanda Unga, iron ore, slag and a tuyère from their old furnace sites to demonstrate the reality of the old smith and his story to Mr. Spearpoint, who handed them over to us.

I will return to the association of rock engravings with metal gathering again, but I will first bring forward further evidence of their being landmarks. We have seen that there is a close connection between rock-carvings and streams. This bears out the existing tradition that they were associated with the directional movements along rivers or across country of travelling people who loved streams, because the optimum situation for halting, resting and sleeping by travellers afoot is in the vicinity of a stream or watering-place. Their actuality as landmarks is proved by the intimate relation between these markings and *pre-european* roads. This was revealed by the information of trustworthy natives in the service of the Government as messengers at the Solwezi "boma" (or magistracy). Here Mr. Tweedy gave us great assistance. Thus:

Simon (son of Chief Chibanza) said: "I have seen many footprints on the stones in the Lalaguta River, at Makundu near Mushima's village in the Kasempa district." (This is a site on the native road going south to Barotseland from the Congo!—TWEEDY).

Lewiva (40 years, 3rd messenger, 10 years in service) said: "I have heard from Chibanda's people that there are footprints on the rocks in the 'dambo' (or depression) at the source of the Kengele stream, near the boundary line between Kapijimpanga's and Chibanza's territories." (This is a site on the native road leading west from Kansanshi—a site of ancient copper workings—and Solwezi—a site of rock carvings—towards Kobombo!—TWEEDY).

Mondama (45 years, late head messenger, 15 years in service) said: "There are footprints on the Kalubi River (tributary of the Mafwe) at Chipolo's village. We thought that the marks were made by Europeans because they seemed to have been made with boots and shoes and no Kaonde people wore these." (This site is on the same western native road!—TWEEDY). Perhaps they are intended to represent sandals.

It seems a far call from the rock engravings of Rhodesia, Belgian Congo and Portuguese East Africa to the engraved stones of the Lydenburg district in the Transvaal studied by Dr. Cornelius Pijper of Johannesburg. Dr. Pijper has published a number of excellent photographs of them, and I owe to his generosity certain others that are being published here. The importance of the Lydenburg engravings lies in the fact that they are meaningless unless we assume them to have been made by metal-gatherers of the late Neolithic period or early Bronze age. This district was extensively exploited by the ancient metal-gatherers, and some of the markings there are so deeply incised in the hard diabase that it is impossible for any of them to have been executed with any other than metal implements; moreover, in some cases, the tool marks are clearly visible in the rock.



ROCK ENGRAVINGS IN SOUTHERN AFRICA.

To face Page 483.

The engravings are scattered over the surfaces of a number of boulders lying about in the field. The groups of concentric circles, which was the dominant motive, are usually independent but are sometimes connected by an intricate system of more or less straight lines; or a series of two or four circles may be found enclosed within two concentric circles or concentric circles may be surrounded by animal (? zodiacal) and other symbols. (See Pl. XV, Figs. 3, 4.) In other cases a cup-like hollow is surrounded by two concentric rings; or several cup-like hollows occur without encircling rings. In one case, in particular, a deep "moat" has been incised about a circular "knob" about twice the size of a human head; and above this image of the sun there are a number of concentric semicircular lines which Dr. Pijper thinks may have been intended to represent the moon. (See Pl. XV, Fig. 2.)

Although the Lydenburg specimens show motives that are repeated in other parts of Southern Africa, the site stands out before all others in the exactitude of the comparison that can be drawn between these sculptures and those of other countries. As Dr. Pijper has said,

"The British Museum is in possession of slabs of stone, with markings of unknown meaning, but probably of the neolithic period. The simplest are cup-markings about $1\frac{1}{2}$ in. in diameter with a uniform depth of $\frac{1}{2}$ in. More elaborate examples show concentric rings, cut about $\frac{3}{10}$ in. deep, or concentric rings surrounding a pit, usually known as cup-and-ring markings. These are sometimes connected by channels. These markings frequently found in connection with burials of the Bronze Age, are frequent in Northumberland, Yorkshire, Argyllshire, Kerry and other parts of our islands; while they are known also in India, North America, Central America and New Caledonia."

Dexter says, in discussing the food offerings given to stone monuments in Great Britain and Ireland,

"At the ancient sanctuaries of Gezer and Taanach in Palestine have been discovered standing stones with holes cut in them presumably for the anointing of the stones and for the reception of offerings of oil and blood. Nearer home we find Montelius, the Swedish archaeologist, asserting that libations were in his time secretly poured into cup-stones in Sweden."

Similar cults were practised in South Africa. At least one monolithic stone from Rhodesia, over which ritual libations were still being poured in recent times, is preserved in the Cape Town Museum.

In our paper on "The ancient iron-smelting cavern at Mumbwa" (*Trans. Roy Soc. S.Afr.*, XIX, 1931), Signor N. Del Grande and I have shown that neolithic influences were indubitably associated with the iron-smelting activities at Mumbwa. This was evidenced by the discovery there, in the furnace stratum, of polished stone axes and perforated round stones in haematite. It cannot be doubted, therefore, that peoples practising neolithic arts exploited minerals in South Africa and in the light of the stratification at Mumbwa as well as that of their own character, we refer the rock-engravings at Lydenburg to the same neolithic period.

Some time ago (*Nature*, 1929) I pointed out that as bronze was unquestionably manufactured during prehistoric times in the Transvaal, there must have been a phase of the Bronze Age

represented in Southern Africa. We are not yet in possession of sufficient archaeological data in Southern Africa to separate the Neolithic phase from the Bronze Age phase. In fact, it is highly probable that there never existed such a separation in time in this country. Here the practisers of neolithic arts were gathering metals; and the two periods, which are not satisfactorily separable in Europe, are even more inextricably merged into one another in South Africa.

This is not intended to be an exhaustive treatment of stone-engravings in Southern Africa, consequently I have not referred to the better-known engravings of animals generally attributed to the Bushmen. There is, however, much to be said for linking the commoner engravings of animals to those of geometrical figures. In the first place, engravings of animals sometimes—as at Lydenburg (rhinoceros and beetle) and in the neighbourhood of Chifumbazi (giraffe)—accompany the symbolical geometrical markings. In other and numerous cases, animals and human beings are symbolised by their footprints, just as at Chifumbazi men are symbolised by handprints. Further these “spoons” of men and beasts are associated with magical and legendary stories—myths of creation and travel—similar to those connected with the more stylised engravings.

A beautiful series of rock engravings is published in a photograph in Neville Jones' “The Stone Age in Rhodesia.” It occurs at Bambuzi in the Wankie District and consists solely of representations of the spoor of various species of buck deeply incised in the cave wall . . . they were discovered by Mr. J. M. Kearney in 1907. Mr. Jones thinks that like the paintings of buck, these spoor engravings had a magical significance in connection with the hunt. This may well be true, but in some cases engraved animals are found along with the circular and other motives as at Lydenburg and at Chifumbazi; and a relationship certainly exists in native tradition between myths of creation, stories of travel and the engraved tracks of wild beasts. This is well illustrated by the engraved spoors which are found alongside water-holes in Bechuanaland at Kopong and at Loe (or Lowe), described by Miss M. Wilman in the *South African Journal of Science* for 1918 and 1919. At these places engravings occur of what appear to be animal spoors such as eland, hartebeest, kudu, lion, antbear, zebra and its young, baboons, and even human beings. At Kopong “on the slopes leading to the hole, the rock (quartzite) has been worn down by humans and animals in quest of water to such an extent that it is now quite smooth and slippery.” “At Loe again the hole seems deep and suggestive of mystery whereas here (at Kopong) there is but a sand-choked hollow.” In connection with these markings, legends, not unlike those previously referred to, are related such as in this extract from a mission boy's story given by Miss Wilman in her article. This is the legend,

“ . . . Numerous tracks of wild beasts and many tracks of people can be seen, veld-schoens of the Bechuanas and Bushmen, and the footprints of dogs, lions, tigers and a good many other beasts. These tracks

are still there even now. Among those tracks of people there was a very long track of a man's foot, very wide also. This man was supposed to have led his people from there. They called him Matsieng. The place where he trod is called *Neneke*. It is not very far from Kanye. When they went out from that hole one nation went in one direction and another in another direction; even the beasts and cows took their own directions. . . . A remarkable thing is that none of *Matsieng's* footprints can be seen facing either north, east or south; they always face west. At *Neneke* his footprint is pointing towards the west, and in those places where his footprint has been seen it is always the footprint of the right foot. Among the natives it is believed that when any stock gets lost, if they faced the east it is a sure sign that they will never be seen again, unless they turn towards the west, where their owner has faced. In the whole of Bechuanaland, when they carry a dead person to be buried, they carry him with his head towards the west and bury him also with his head towards the west. The reason for this is that *Matsieng* faced the west when he came out from Lowe, and his children, when they die are supposed to be following him."

In the report of the South African Museum for 1918 and 1919, the Director, Dr. Peringuey, referred to the existence of engravings in the rocks in South-West Africa, which exhibit hoofs of animals and human feet. Commenting on this new type of engraving Mr. A. J. C. Molyneux described a rock, 50 yards in diameter containing a hole 6 feet in diameter whose brim has been polished "by the passing of feet" at *Metsang*, 3 miles west of *Pilane* siding (mile-post 984½) eight miles south of *Mochudi* station. Here were chipped the outlines of human feet of varying sizes up to 14 inches in length and "drawings of pads of canines, lions and smaller felines. . . . Native legend is that the gravings were done by 'ancient people'." Molyneux redirects attention to *Theophilus Hahn's* statement "that in the *Namib* the Bush people had signs (?) painted (?) or engraved (?) to denote places where they had found water."

It would serve no useful purpose to multiply further here, either further instances of the occurrence of rock engravings, the types they present or the myths accompanying them. Those engravings, which represent the fauna of the country, elephants, giraffes, rhinoceroses, buffaloes etc. are well known and have received a considerable amount of attention because of their beauty, grace and artistic skill. For some of them a tremendous age has been claimed, because of the assumption that they portray animals that are now extinct. On the other hand, there are those who claim that none of the engravings in very hard rock, such as diabase and granite, could ever have been made with other than metallic tools. We will have to await the final solutions of these questions.

In the meantime, there is sufficient evidence from stratification, situation and story to link a considerable portion of the South African rock engravings directly with the mysterious movements of the neolithic culture heroes and their creation myths, with their wide-spread comings and goings across the continent, with their magical paraphernalia of groves, grottos, sacrifices and stone monuments, and with their trafficking in mineral, metal and pigment wealth.

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EXPLANATION OF PLATES.

PLATE XV.

Fig. 1.—Panorama of engraved rock shelter on the right bank of the Chifubwa stream near Solwezi, N. Rhodesia portraying figures, apparently human, in processional arrangement and various symbols:—Dots in rows of six, singly and in groups of three, inverted tridents: U's and H's. Sieve in right lower angle.

Fig. 2.—Circular "moated" engraving from the Lydenburg district, Transvaal, exhibiting the marks of the tools employed in sculpturing the diabase. Note the concentric circular patterns engraved in the rock above the solar image. (Photograph by kind permission of Dr. C. Pijper).

Fig. 3.—Concentric circular engravings from the same Lydenburg vicinity enclosing other circles and lunate forms of varying sizes and a pocket-compass alongside. (Photograph by permission of Dr. C. Pijper).

Fig. 4.—Complicated double concentric circle pattern (? sun and moon) surrounded by (? zodiacal) representations of animals resembling a rhinoceros and a beetle (or scorpion) and other objects from the same Lydenburg locality. (Photograph by permission of Dr. C. Pijper).

Fig. 5.—The northern extremity of the Chifubwa (Solwezi), mural scene showing the figures, excavation and clear line of separation between the earth-covered and uncovered portions of the engraved surface.

PLATE XVI.

Fig. 1.—(Solar) wheel or disc symbol engraved on a rock surface in the open at Nabulimbwa, and in close proximity (above) symbol of an axe and (below) a fibula or hook.

Fig. 2.—Triangular and stylised animal symbols from the same Nabulimbwa site.

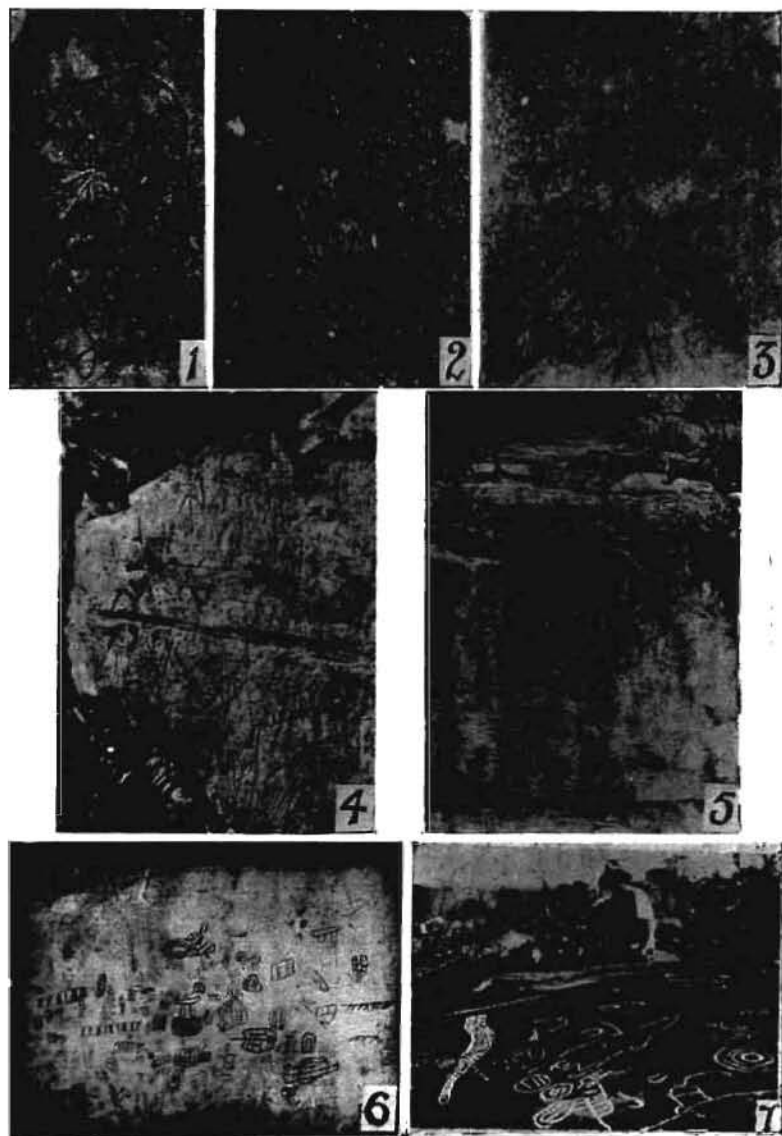
Fig. 3.—Stylised human and crow's feet figures (comparable with similar petroglyphs from Spain) at Nabulimbwa.

Fig. 4.—Rock-engravings on vertical slab of limestone rock at entrance to Rainieri's grotto near Lubudi, Belgian Congo, showing rows of dots, triangles and other symbolical markings.

Fig. 5.—A further area of the Lubudi engravings (from a slab placed virtually at a right angle to the previous one) showing grids, triangles, arrow-heads, lance heads, tectiform signs and a complicated whorled pattern reminiscent of the whorled (finger print) designs such as are found in the interior of the passage grave of Gavrinis in Brittany (see MacCurdy).

Fig. 6.—A reproduction of portion of the engraved pattern on a vertical granite surface at Chifumbazi, illustrating its rich variety of scalariform, tectiform, dotted, grid, circular, manual, navicular and other symbols.

Fig. 7.—Petroglyphs from the rocks out in the open on the Kaboron-geni Ridge alongside the Munwa stream about five miles from where it enters the Luapula River (below the Johnston Falls). They include concentric, circular, arcuate, horseshoe, radiating, arrow-head, (?), axe, crozier (or hook), S, dots and scalariform symbols.



ROCK ENGRAVINGS IN SOUTHERN AFRICA.

To face Page 486.