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ROCK-PAINTINGS AND OTHER ANTI-
QUITIES OF PREHISTORIC AND
LATER TIMES

BY

RAI SAHIB MANORANJAN GHOSH, M.A.,
Curator, Patna Museum

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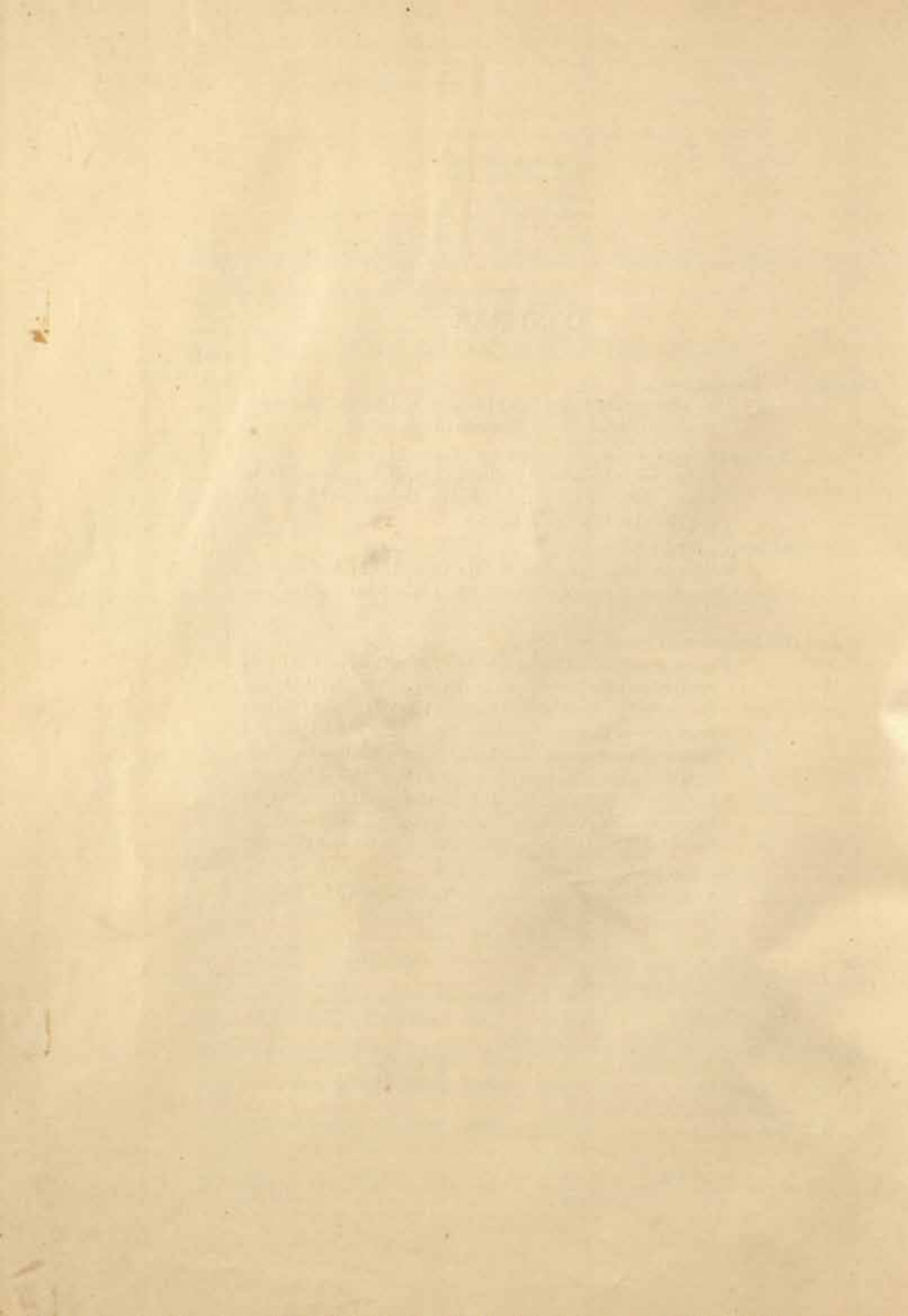
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EXPLORATION OF ROCK-PAINTINGS AND PREHISTORICS.

CHAPTER I.

Topographical.

THE *provenance* of all the ancient remains dealt with in this Monograph is the plateau forming the central parts of India. Away from the maritime provinces of India on the one hand and the great Indo-Gangetic plains on the other, this central table-land is traversed by the mighty Vindhya and Satpura hills, with their offshoots such as the Kaimur range, is watered by the Nerbudda, the Son, the Mahānadi and other smaller rivers and bounded on the south-east by the impenetrable forest land of the feudatory states of Central Provinces and Orissa. From times immemorial these tracts have been the home of India's aboriginal races, and it is to them that the student of primitive culture must turn for his material. The four localities visited by the writer for the exploration and study of rock-paintings and prehistoric remains may be conveniently called (1) Chakradharpur, (2) Singanpur, (3) Mirzapur and (4) Hoshangabad.

Chakradharpur is a small town in the Porahat estate of the district of Singhbhum in the Chhota Nagpur Division of the province of Bihar and Orissa. It is situated on the left bank of the river Sanjai, 16 miles north-west of Chaibassa, the capital of the district, and is an important station on the main line of the Bengal Nagpur Railway. The place is surrounded by ranges of hills disappearing on the horizon, as it stands at the edge of the Chhota Nagpur plateau. Outside the town and along the river, the whole valley is in a state of denudation. Every monsoon more and more soil is washed down the slopes, leaving ridges separated by rain gullies dotted over the valley, thus making the task of collecting antiquities a relatively easy one. At places the top soil is black, at places red, while gneisses, traps and schists are seen all round, lying in irregular succession. There are two gravel beds in the valley (Plate Ia).

The paintings of Singanpur are in a rock-shelter which is visible from Naharpāli, a small station on the main line of the Bengal Nagpur Railway, about 11 miles west of Raigarh, the capital of the Feudatory State of the same name in the Chhatisgarh Division of the Central Provinces, just close to the Chhota Nagpur border. The hill-side below the rock-shelter is clothed with forest

trees among which the *Sāl* predominates. The rock-shelter which overlooks the village of Singanpur commands a fine view of the valley of the river Mand, a tributary of the Mahānadi river (Plate Ib). The rocks in this vicinity are of the upper Gondwana sandstones with three bands of carbonaceous shales.

The fauna of the Raigarh forest includes tigers, bisons, bears, leopards and wild boars, besides the *sambhar*, *nilgai*, *kotri* and barking and spotted deer.

Mirzapur, between Allahabad and Benares, is one of the largest districts of the United Provinces and its scenery is correspondingly diversified. In the north is the alluvial plain of the Ganges with its level tract, next a table-land, stretching from the top of the Vindhyan scarp southwards to the Kaimur range and the valley of the Son river, and beyond the Son, a wild hilly tract full of ravines and craggy hills and valleys. It is in the valley of the Son, in the Vindhyas and in the fastnesses of the Kaimurs that the rock-shelters with paintings are chiefly found. Of the different groups, Likhunia, Kohbar and Bhaldaria lie north of the Kaimur range and Mahararia and Bijaygarh to the south. They are all easily accessible from the town of Ahraura, connected by a metalled road 13 miles long with the Ahraura Road Railway Station on the main line of the East Indian Railway. From Ahraura an unmetalled road takes one to Chhātu Inspection Bungalow, 5 miles away, where after ascending the sides of the Kaimur plateau by a zigzag, the road bifurcates, one branch going south to Robertsganj and another turning west to the irrigation reservoir at Dongia, close to the village of Mahararia. Near this village and on the upper reaches of the Garai are specimens of rock-painting. The other road, after ascending the plateau, goes straight to Robertsganj, about 24 miles from Ahraura. Just where the road nears the end of the plateau near Robertsganj is the irrigation Inspection Bungalow of Dhandraul. Some three miles to the south of this Bungalow is the famous hill fort of Bijaygarh crowning the flat top of one of the hills of the range. On the west face of the hill on which the fort stands, are rock-shelters containing besides early paintings several Gupta inscriptions in red ochre. The upper Garai, after a sheer fall of some 100 ft. below Mahararia, cuts a deep course through the sandstone of the Kaimur Plateau and enters the open country near Chhātu where it is joined by a smaller stream, called the Bhaldaria. On the lower Garai are situated the Kohbar and Likhunia rock-shelters amidst lovely surroundings (Plate. VIb). Along the Bhaldaria are three other rock-shelters with rock-paintings. The scenery at all these places is picturesque and wild and has a rugged beauty. Of large game, leopard, lynx, wolf and wild dog are the chief. Of the deer tribe the *sambhar*, *chital*, black buck and ravine gazelle are found here and there. In days gone by, as narrated by Babar, there were found maneless lions, wild elephants, rhinoceroses, buffaloes and bisons.

About two miles from the town of Hoshangabad, the headquarters of the district of the same name in the Central Provinces, are rock-paintings in a rock shelter. The hill containing the paintings can be easily identified, as there is a stone quarry, locally known as the Adamgarh quarry, after the name of the adjoining village.

CHAPTER II.

Researches near Chakradharpur.

THE first place visited was Chakradharpur. As early as 1868 Captain Beeching found chert flakes and knives on the banks of the river near Chaibassa and Chakradharpur (*Proc. A. S. B.*, 1868, p. 177; 1870, p. 268). Later on, Valentine Ball obtained at the same site flakes and axes. (V. Ball; *Proc. A. S. B.*, 1876, pp. 118-120; *Jungle Life in India*, 1880, pp. 473-5, App. B.) These explorers did not mention the exact position where the implements were found. More ample information, however, is contained in the illustrated article of Mr. C. W. Anderson in the *Journal of the Bihar and Orissa Research Society* (Vol. III, Part III, pp. 349-62). Mr. Anderson examined the whole of the valley of the Sanjai and its tributaries from a point about two miles west of Lotāpāhār station on the Bengal Nagpur Railway, north-eastwards to Sini, a distance of about 30 miles in a straight line.

The river Sanjai which encircles the town of Chakradharpur is crossed here by two bridges, one carrying the Bengal Nagpur Railway and the other the road to Chaibassa. The whole of the tract lying between these two bridges was explored for a distance of 5 miles. Palæolithic implements are found over nearly the whole of this area, only at three places were there traces of potsherds, and at one place were found bricks pointing to the existence of a settlement of a later age.

Over a mile from the village of Paṭkā several potsherds were noticed, which induced me to examine the site more closely and to dig trial trenches. At this place were recovered besides examples of incised pottery a copper ring, three fragments of a steatite plaque and a beautiful coup-de-poing of quartz, which, from its shape, appears to be an early type of palæolith (Plate XIV, 3). It was picked up on the surface among gravels and *kankar*. From the trenches higher up the valley I obtained two stone weights (Plate XIV, 17 and 18) also of the palæolithic age, and along with them broken implements of the same epoch. In the trench, were found two iron scythes and at a depth of 7·6" a terracotta urn with broken lid. On clearing the urn I found fragments of animal bones. At the bottom of this urn was an iron scythe (Plate XV, 12). Near these was also found a carnelian bead.

While excavating near the village Paṭkā, the writer explored the country between it and the P. W. D. bridge on the Sanjai. Near the bridge, were recovered three palæolithic implements (Plate XIIIa, Figs. 1, 2 and 3 bearing register Nos. 3549, 3548 and 3547). From Paṭkā the camp was removed to Chelāberā, a village about 2 miles from the Paṭkā Inspection Bungalow.

In the latter place, 6 places were excavated, but only objects of a later period were found, namely:—an iron weighing beam, two knives or razors, nails, bricks, a dabber, a broken stone footstool or mortar, stone pestles, some beads, fragments of potteries and sling balls.

From Chelāberā the camp was moved to Banglā Tār about 3 miles off and about the same distance from the Patkā Inspection Bungalow. Here a trench was started, but after digging to a depth of only 3' the coolies, who were superstitious Hos, refused to work any more, the reason being that they had lighted on a portion of a skull, a jaw and hand and leg bones belonging to a skeleton of a later period.

The antiquities from the sites near Chakradharpur fall into two groups:— (1) those of the Palæolithic and Neolithic Ages; and (2) those of the Iron Age. They are as follows:—

- (1) Palæolith, 6" long, of quartz, of greyish brown colour with irregular edges, probably used as a scraper. It was picked up near the Patkā village. Near it were gravels and *kankars*. In my preliminary tour I found two early stone implements, one borer and another scraper sticking out from a rain gully. Reg. No. 3509. (Plate XIV, 3.)
- (2) Palæolith, $1\frac{3}{8}$ " long, of flint, probably used as a scraper; has been reflaked at the back. It was found near the Chaibassa bridge at about 3' from the top of the denuded plateau. Reg. No. 3549. (Plate XIIa, Fig. 1.)
- (3) Palæolith, $1\frac{1}{8}$ " long, flint, reflaked at the back; probably used as a scraper. It was found near the Chaibassa bridge about 3' from the top of the denuded plateau. Reg. No. 3548. (Plate XIIa, Fig. 2.)
- (4) Palæolith, $1\frac{3}{8}$ " long, flint, reflaked at back; probably used as a scraper. It was found at the same place as No. 3539. Reg. No. 3547. (Plate XIIa, Fig. 3.)
- (5) Palæolith, $1\frac{1}{8}$ " long, chalcedony, probably used as a *grattoir* or planing tool; no reflaking. Reg. No. 3653. (Plate XIIa, Fig. 4.)
- (6) Palæolith, $\frac{3}{4}$ " long, of quartz, probably used as a *grattoir* or planing tool. No secondary flaking. Reg. No. 3639. (Plate XIIa, Fig. 5.)
- (7) Palæolith, 1" long, flint, probably used as a point. Spear-shaped and retouched on one side only; its opposite side is smooth and conchoidal. It was found near the Chaibassa bridge at about 3' from the top of the denuded plateau. Reg. No. 3542. (Plate XIIa, Fig. 6.)
- (8) Palæolith, $1\frac{5}{8}$ " long, flint, retouched; possibly a scraper. It is of the type called keeled-scraper or planing tool for the dressing of the hides. It was found on the surface near the Chaibassa bridge and at a depth of 3' from the top of the denuded plateau. Reg. No. 3544. (Plate XIIa, Fig. 7.)
- (9) Palæolith, $1\frac{1}{4}$ " long, flint, probably used as a knife; no flaking. Broken. Reg. No. 3539. (Plate XIIa, Fig. 8.)
- (10) Palæolith, $1\frac{5}{8}$ " long, flint, probably used as a knife; no retouching. Reg. No. 3537. (Plate XIIa, Fig. 9.)

- (11) Palæolith, $1\frac{5}{8}$ " long, flint, probably used as a graver. Reg. No. 3534. (Plate XIIa, Fig. 10.)
- (12) Palæolith, $1\frac{5}{16}$ " long, flint, probably used as a point; retouched on one side; the opposite side has a smooth conchoidal surface. 6" below surface. Reg. No. 3541. (Plate XIIa, Fig. 11.)
- (13) Palæolith, $1\frac{7}{16}$ " long, flint, probably a knife. Reg. No. 3538. (Plate XIIa, Fig. 12.)
- (14) Palæolith, $1\frac{8}{16}$ " long, flint, probably used as a scraper for dressing arrows. From its small size and denticulated side it appears to be of a later date. Reg. No. 3543. (Plate XIIa, Fig. 13.)
- (15) Palæolith, $2\frac{1}{8}$ " long, flint, grey colour; probably a knife. Shape elongated and no reflaking at the edges. Reg. No. 3536. (Plate XIIa, Fig. 14.)
- (16) Palæolith, $\frac{7}{8}$ " long, flint. It is a core. Reg. No. 3546. (Plate XIIa, Fig. 15.)
- (17) Palæolith, $1\frac{1}{8}$ " long, flint, long blade with end shaped for hafting. From the way in which the flaking has been done and the absence of any retouching at the edges, it appears to be of early date. Reg. No. 3640. (Plate XIIa, Fig. 16.)
- (18) Palæolith, $1\frac{9}{16}$ " long, flint, probably used as a point as well as a scraper; greenish colour. Of early date; one side reflaked, the other smooth and conchoidal. Found near Chaibassa bridge at a depth of 3' from top of the plateau. Reg. No. 3540. (Plate XIIa, Fig. 17.)
- (19) Palæolith, $1\frac{1}{16}$ " long; flint, core. Reg. No. 3545. (Plate XIIa, Fig. 18.)
- (20) Palæolith, $2\frac{1}{16}$ " long, flint, probably used both as a scraper and a point; one side reflaked, the other smooth and conchoidal. Found near the Chaibassa bridge at a depth of 3' from the top of the plateau. Reg. No. 3535. (Plate XIIa, Fig. 19.)
- (21) Fragment of ring-stone used for weighting a digging stick, measuring $5\frac{3}{4} \times 4\frac{1}{2}$ ", of schist (?). The hole through the centre was bored from both sides. Found 1' 4" below the surface. Reg. No. 3510. (Plate XIV, Fig. 17.)
- (22) Fragment of ring-stone used for weighting a digging stick, measuring $5 \times 3\frac{1}{4}$ ", of granite (?). Found 2' below the surface. (Plate XIV, Fig. 18.)
- The above palæoliths are typical representatives of about 50 palæoliths picked up by me in the Sanjai Valley near Chakradharpur.
- (23) Palæolith, $1\frac{5}{16}$ " long, flint, scraper. An implement of early shape. Reg. No. 3637.
- (24) Palæolith, $2\frac{1}{8}$ " long, flint, scraper, of early shape. Found at a depth of 3' 8" in the trench near the Patkā village where Nos. 21 and 22 were found.

The following belong to the Neolithic or later Copper or Iron Ages :—

- (1) Fragment of mortar, measuring $11'' \times 9''$, of granite (?); depression in upper surface; probably used for grinding grain. Found on the surface. Reg. No. 3507. (Plate XIV, Fig. 5.)
- (2) Fragment of mortar, measuring $8'' \times 6''$, of granite (?) with depression; probably used for grinding grain. Found on the surface. Reg. No. 3508. (Plate XIV, Fig. 4.)
- (3) Fragment of corn-grinder, measuring $7\frac{1}{4}'' \times 3\frac{7}{8}''$, granite, with an elliptical depression on legs. Broken. Reg. No. 3506. (Plate XV, Fig. 9.)
- (4) Pestle, $5\frac{5}{8}''$ long, of schist (?); oval in section and polished. Found on the surface near the village Chelāberā. Reg. No. 3502. (Plate XIV, Fig. 8.)
- (5) Pestle, $4\frac{7}{8}''$ long, of trap; one side flat and the other convex; broken. Found on the surface near Chelāberā. Reg. No. 3504. (Plate XIV, Fig. 12.)
- (6) Pestle, $5\frac{1}{8}''$ long, of trap (?), triangular in section. Found on the surface near Chelāberā. Reg. No. 3504. (Plate XV, Fig. 5.)
- (7) Iron weighing beam, $1' 1\frac{3}{4}''$ long; hole at one end to receive the string of the scale-pan; the other side of the beam ends in a knob to which a hook was attached. Found near Chelāberā 4' below surface. Reg. No. 3469. (Plate XIV, Fig. 10.)
- (8) Broken iron sickle, $5\frac{3}{8}''$ long; much corroded. Found at the bottom of an urn in a trench near the village Paṭkā, 7' 6" below surface. Reg. No. 3470. (Plate XV, Fig. 12.)
- (9) Part of iron sickle, $4\frac{1}{8}''$ long. Found below the surface near village Paṭkā. Reg. No. 3472. (Plate XV, Fig. 18.)
- (10) Iron object, $4\frac{5}{8}''$ long, dagger shaped. Found near Chelāberā 1' below surface. Reg. No. 3473. (Plate XV, Fig. 13.)
- (11) Iron sickle, $3\frac{7}{8}''$ long, much corroded and broken. Found near Chelāberā 1' 2" below the surface. Reg. No. 3475.
- (12) Iron arrow head, $6\frac{3}{8}''$ long; tip missing. Found near Chelāberā 1' 2" below the surface. Reg. No. 3476. (Plate XV, Fig. 20.)
- (13) Iron razor, $5\frac{1}{8}''$ long, broken. Found near Chelāberā 1' 8" below the surface. (Plate XV, Fig. 19.)
- (14) Iron nail, $2\frac{3}{8}''$ long, much corroded. Found 1' below the surface, near Chelāberā. Reg., 3478. (Plate XIV, Fig. 6.)
- (15) Flat piece of iron, $2\frac{1}{8}''$ long, broken. Found 9" below the surface. Reg. No. 3479.
- (16) Bent iron nail, $3\frac{3}{8}''$ long, one end sharpened and the other curved. Found 1' below the surface, near Chelāberā. Reg. No. 3480. (Plate XIV, Fig. 7.)
- (17) Iron ring, diam. $1\frac{3}{8}''$, much rusted. Found 9" below the surface, near Chelāberā. Reg. No. 3481. (Plate XIV, Fig. 9.)
- (18) Fragment of iron tool, $3\frac{3}{4}''$ long, much corroded. Found 6" below the surface, near Chelāberā. Reg. No. 3482. (Plate XIV, Fig. 16.)

- (19) Iron cup, $1\frac{3}{4}$ " long, broken. Found on the surface near Paṭkā. Reg. No. 3483. (Plate XIV, Fig. 11.)
- (20) Terracotta dabber, ht. $2\frac{3}{4}$ ", broken. Well baked. Found 1' 3" below the surface, near Chelāberā. Reg. No. 3484. (Plate XV, Fig. 6.)
- (21) Object of uncertain use; baked clay, ht. $2\frac{1}{8}$ ", broken. Found on the surface near Paṭkā. Reg. No. 3485. (Plate XV, Fig. 17.)
- (22) Knob of jar-cover, ht. $1\frac{3}{4}$ ", broken. Found on the surface near Paṭkā.
- (23) Pottery jar-cover, ht. 2". Found on the surface near Paṭkā. (Plate XV, Fig. 14.)
- (24) Brick, $8\frac{1}{2}$ " \times $8\frac{1}{8}$ " \times $2\frac{5}{8}$ ", broken, Found on the surface near Chelāberā. Reg. No. 3488. (Plate XIV, Fig. 1.)
- (25) Brick, 8 " \times $6\frac{3}{4}$ " \times $2\frac{1}{2}$ ", broken. Found on the surface near Chelāberā. Reg. No. 3489. (Plate XIV, Fig. 2.)
- (26) Three fragments of steatite plaque, $1\frac{3}{4}$ " \times $1\frac{1}{2}$ ", $1\frac{1}{8}$ " \times $1\frac{1}{4}$ ", $1\frac{1}{4}$ " \times $\frac{7}{8}$ ", decorated with lotus petal in low relief and triangular depression at corners. Found 6" below the surface, near Paṭkā. Reg. No. 3550.
- (27) Earthenware vessel, ht. $8\frac{1}{8}$ ", broken but repaired, with two incised lines round neck and coated with red wash. It is wheel made and served as an urn. Found at a depth of 7' 6" near Paṭkā with a ringstand and fragments of a lid. It was found full of earth, with fragments of animal bones. Reg. No. 3494. (Plate XV, Figs. 15 and 16.)
- (28) Ringstand, ht. $3\frac{1}{8}$ ", found with (27) above. Formed from the rim and neck of a broken vessel. Reg. No. 3495. (Plate XV, Fig. 16.)
- (29) Fragment of the neck of an earthenware vessel, decorated with incised marks, 5" long. Found 2' below surface, near Paṭkā. Reg. No. 3497. (Plate XV, Fig. 1.)
- (30) Fragment of a dish with dentate pattern incised on border, $4\frac{1}{4}$ " long. Found 2' below the surface, near Paṭkā. Reg. No. 3498 (Plate XV, Fig. 4.)
- (31) Fragment of pottery, 2 " \times 2 ", glazed and decorated with incised lines and dentate pattern. Found 2' below the surface, near Paṭkā. Reg. No. 3499. (Plate XV, Fig. 2.)
- (32) Fragment of pottery, $1\frac{1}{2}$ " \times $1\frac{3}{8}$ ", glazed and decorated with incised lines and oblique strokes, and a small circle. Found 2' below the surface, near Paṭkā. Reg. No. 3500. (Plate XV, Fig. 3.)
- (33) One pottery playing disc, diam. 1". Found below the surface near Chelāberā. Reg. No. 3501. (Plate XV, Fig. 11.)
- (34) Copper ring, $\frac{9}{16}$ " diam. Found 6" below the surface, near Paṭkā. Reg. No. 3608.
- (35) Stone bead, $\frac{9}{16}$ " long. Found 1' 9" below the surface, near Chelāberā. Reg. No. 3609.

- (36) Carnelian bead, $\frac{1}{4}$ " long. Found 4" below the surface, near Paṭkā.
Reg. No. 3612.
- (37) Agate bead, $\frac{1}{4}$ " long. Found 1' 4" below the surface, near Paṭkā.
Reg. No. 3613.
- (38) Crystal bead, $\frac{1}{4}$ " long. Found 6" below the surface near Paṭkā.
Reg. No. 3614.

As regards the date of the above antiquities the writer is unable to form any definite conclusion but notes the following facts :—

- (a) The position of the implements in relation to the river bank can be best studied in the three sections of the river Sanjai on Plate XXVI. The implements were found at different levels in each of the gravel deposits.
- (b) In excavating the prehistoric site of Chakradharpur, I obtained an urn with a stand that was made from the mouth of an earthenware vessel, and near it a broken lid which fitted the mouth of the urn (Plate XV, Fig. 16). The pot-urns from Adichanallur in the Madras Presidency have the same three parts, viz., the ringstand, urn and lid, exactly as in the Chakradharpur urn. For purposes of comparison an illustration of a typical Adichanallur pot-urn is appended. (Plate XV, Fig. 7).
- (c) The burial mound among the Non-Aryans, called Asuras, has been described in the Śatapatha Brāhmaṇa. It is said that the Asura burial mound was round, while the Aryan burial mound was square. At the time when the Śatapatha Brāhmaṇa was composed it would appear that the Non-Aryans, called Asuras, buried the bones of the departed in urns in circular mounds. (*Śatapatha Brāhmaṇa*, XIII, Kāṇḍa 8, Adhyāya 1, Brāhmaṇa 5.)

CHAPTER III.

Singanpur Rock-Paintings.

SINGANPUR is a small village at the foot of the Chawardhal range, about 3 miles north-west of the Naharpāli station, seen from which the rock-shelter which overlooks the village appears as a bold scarp. The road leading to the village is to the west of the station and runs along the railway line for about 2 miles; it then crosses the line, turns to the north and after a mile over uneven ground ends in the lane which divides the village into two. On reaching the foot of the hill, one encounters a small mountain stream, issuing from a spring a little higher up the hill. At the point where the hill-side rises, the ground by the side of the track is covered with fragments of agate and other stones with palæolithic implements cropping up here and there. This path proceeds over fallen boulders and leads to the rock-shelter and caves which are about 600' above the level of the plain. Within a hundred feet of the rock-shelter it turns in the direction of cave No. II (Plate IIb). A little higher up, the track turns eastward and after a space of two hundred yards terminates near cave No. I (Plate IIb). Returning to the place where the path turns towards cave No. I and ascending about 50', one reaches the rock-shelter (Plate IVb) which is a prominent point on the range easily located from the railway station.

The two caves mentioned above are nearly 20' to 30' deep by 15' wide and about the same height at the entrance. At the side of the large cave (No. 1) about 6' up and 20' from the mouth is a small gallery which is entered by a round hole 3' in diameter. Near the mouth of the cave is another gallery which can be entered by crawling. The interior of the cave was examined with the help of a petroleum lamp but did not reveal any painting. I also excavated a trench 15' by 8' to a depth of 7', but did not find any objects. After reaching 7' further work was stopped by the presence of large boulders and rocks. Cave No. II was also examined but no traces of painting were found. The floor of this cave was excavated to a depth of 2' but only broken stone mixed with a little earth was found.

A more interesting place in the vicinity is the rock-shelter already referred to, which contains the rock-paintings first noticed by Mr. C. W. Anderson, District Engineer, Bengal Nagpur Railway, in 1910. The discovery was communicated to Mr. Percy Brown who has since noticed these paintings in his book on Indian Paintings. They are also mentioned by Mr. Coggin Brown in his introduction to the *Catalogue of Prehistoric Antiquities in the Indian Museum* and were also alluded to at a meeting of the *Asiatic Society of Bengal*, as well as in the pages of *L'Anthropologie* (1915, p. 304).

From the plan (Plate XXVII), it will be seen that the rock-shelter is triangular in shape. The opening at the entrance is 37'. The left or west side is 35', and the right or east side, 34'. The highest point at the entrance is more than 60'. Mr. Anderson considers that there were once two caves within 20'

of each other but that the front had fallen away. At present the place is more a rock-shelter than a cave. There is no doubt that formerly the shelter projected considerably more than it does now, but the projections have fallen off. At the back of the shelter is a small cave about 10' by 8'. It ends in two water-worn holes. The east wall of the shelter projects towards the south, as can be seen in the plan and the photo (Plates XXVII and IIIa).

There are paintings on both the east and west walls of the shelter. On the west wall the paintings are of smaller size and at no great height. On the eastern side (Plate IIIa and b), they are towards the end and could be copied only with the help of scaffolding. In accomplishing this task, the outlines of the paintings were first traced on tracing paper and then transferred to drawing paper after which they were copied in colour, the work of the copyists being carefully checked. Beginning from the west wall the paintings are as follows:—

- (1) Representation of an animal facing to right, in front of a tree. (Plate XVIa, Fig. 1.)
- (2) Indistinct painting of animal, the outline of which is much damaged on account of flaking. (Plate XVIa, Fig. 2.)
- (3) Crude symbolic representation of a quadruped or perhaps some totemistic design. (Plate XVIa, Fig. 3.)
- (4) Cross-hatched pattern between parallel lines. (Plate XVIa, Fig. 4.)
- (5) Uncertain motif, probably a man or woman. (Plate XVIa, Fig. 5.)
- (6) Tectiform motif or perhaps a totem sign. (Plate XVIa, Fig. 6.)
- (7) Indistinct painting of some animal. (Plate XVIIa.)
- (8) Wavy marks resembling letters or signs. (Plate XXIIb, 1.)
- (9) Uncertain motif (?), head and horns of deer. (Plate XXIIb, Fig. 2.)
- (10) Representation of (?) animal or bird. (Plate XXIIb, Fig. 3.)
- (11) (?) Four-footed animal resembling a frog or possibly a man dancing. (Plate XXIIb, Fig. 4.)
- (12) (?) Front of mammoth with trunk or tusk upturned. (Plate XXIIb, Fig. 5.)
- (13) Uncertain motif. (Plate XXIIb, Fig. 6.)
- (14) Perhaps the hand of a man showing three fingers. (Plate XVIId, Fig. 1.)
- (15) Uncertain signs or emblems. (Plate XVIId, Fig. 2.)
- (16) Crude representation of men. (Plate XVIId, Fig. 3.)
- (17) Two signs. The one to the left resembles two flat sticks placed crosswise. (Plate XVIId, Fig. 4.)
- (18) Crude representation of a man. (Plate XVIId, Fig. 5.)
- (19) Two unknown symbols. (Plate XVIId, Fig. 6.)
- (20) Uncertain object. (Plate XVIb, Fig. 1.)
- (21) Conventional symbol. (Plate XVIb, Fig. 2.)
- (22) (?) Sun with rays half hidden by horizon. Mr. Anderson connects it with the honey vessel portrayed by the Veddahs of Ceylon. (Plate XVIb, Fig. 3.)

- (23) Possibly a crude attempt to represent a quadruped. (Plate XVIb, Fig. 4.)
- (24) Uncertain signs or symbols. (Plate XVIb, Fig. 5.)
- (25) (?) Crude human figure. (Plate XVIb, Fig. 6.)
- (26) (?) Two human figures. (Plate XVIb, Fig. 7.)
- (27) (?) Human figure. (Plate XVIb, Fig. 8.)
- (28) Three upright marks joined by a horizontal line; probably represents symbol or totemistic mark. (Plate XVIc, Fig. 1.)
- (29) Design of vertical parallel lines with row of lozenges at top and bottom. (Plate XVIc, Fig. 2.)
- (30) (?) Uncertain animal. (Plate XVIc, Fig. 3.)
- (31) Perhaps a fish. (Plate XVIc, Fig. 4.)
- (32) Uncertain. (Plate XVIc, Fig. 5.)
- (33) Uncertain. (Plate XVIc, Fig. 6.)
- (34) Crude representation of man with three fingers.
- (35) Some totemistic signs.
- (36) Perhaps a trap for catching animals.
- (37) Animal with woolly coat and apparently long horns. In front, an uncertain object. (Plate XXIVa.)
- (38) This appears to represent a hunting scene. Two animals are depicted, one possibly a bear and the other a porcupine. Five human figures are also shown, apparently attired in long robes. The two hatched triangles to the left of the larger animal resemble a motif that is commonly used on most painted pottery in India and elsewhere. The two objects at the top of the plate may possibly be traps. (Plate XXIVb.)

The two paintings described above are in an opening in the rock on the east wall of the shelter. The height of the paintings from the floor of the shelter is 26'. Close to these paintings is a cave which is inaccessible. The style of these paintings is quite different from those illustrated in Plates XVI and XXII. The scene illustrated in "Plate XXIVa" has not been noticed by Mr. Anderson. The exact position of painting (Plate XXIVa) is near the second platform and shewn in the photograph on Plate IIIb.

- (39) Hunting scene. In centre large figure, either ape or bear, attacking or being attacked by four human beings. (Plate XXIIIa.) The position of this painting is below the other hunting scene reproduced on the same plate.
- (40) A hunt. In centre a (?) bison is being attacked by a number of hunters armed with clubs and spears. The animal has suffered badly from the scaling of the rock. Behind and below is a smaller animal indistinctly outlined. Some of the hunters wear long garments; one appears to have been tossed by the bison. The three human figures painted in black to the right of the picture seem to have been added later, as also does the group of six figures armed with clubs.

at the left bottom corner. The painting (Plate XXIIIb) is on the projecting portion of the east wall of the shelter. The scaffolding illustrated on the Plate IIIa was constructed with no little difficulty. The scene is near the head of the painter.

- (41) Probably represents two human figures drawn in outline. (Plate XXIb.)
- (42) Uncertain motif. (Plate XVIIc, Fig. 1.)
- (43) Uncertain motif. (Plate XVIIc, Fig. 2.)
- (44) Uncertain motif. (Plate XVIIc, Fig. 3.)
- (45) Uncertain motif. (Plate XVIIc, Fig. 4.)
- (46) Uncertain motif. (Plate XVIIc, Fig. 5.)
- (47) Uncertain motif. (Plate XVIIc, Fig. 6.)
- (48) Uncertain motif. (Plate XVIIc, Fig. 7.)
- (49) Uncertain motif. (Plate XVIIc, Fig. 8.)
- (50) An antelope or stag. (Plate XVIIc, Fig. 9.)
- (51) Markings of uncertain significance. (Plate XVIIc, Fig. 10.)

The position of the sketches Nos. 42 to 51 is to the right of the painter shewn in the photo on Plate IIIa.

The antiquities that were found in the rock-shelter and at the foot of this hill, near the stream mentioned above, were as follows:—

- (1) Palæolith, $1\frac{1}{8}$ " long, agate; probably a knife. No reflaking. Found at a depth of 1' in the rock-shelter of Singanpur. Reg. No. 3551. (Plate XIIb, Fig. 1.)
- (2) Palæolith, $\frac{7}{8}$ " long, agate; a broken knife. No signs of retouching. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3552. (Plate XIIb, Fig. 2.)
- (3) Palæolith, $\frac{11}{16}$ " long, agate; a broken fragment of a flake knife. No signs of retouching. Found at a depth of 1' in the rock-shelter of Singanpur. Reg. No. 3553. (Plate XIIb, Fig. 3.)
- (4) Palæolith, $\frac{3}{4}$ " long, jasper; flake with cutting edge and point. No reflaking. Found at a depth of 1' at the rock-shelter of Singanpur. Reg. No. 3554. (Plate XIIb, Fig. 4.)
- (5) Palæolith, $1\frac{1}{4}$ " long, chert; point and scraper (?). One side has been re-worked and the back (not shewn in the plate) has a conchoidal surface. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3555. (Plate XIIb, Fig. 5.)
- (6) Palæolith, $\frac{11}{16}$ " long, chert; flake knife (?); has been re-worked on one side only; the other side is conchoidal. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3556. (Plate XIIb, Fig. 6.)
- (7) Palæolith, $\frac{11}{16}$ " long, agate; a flake with cutting edge and curved point. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3557. (Plate XIIb, Fig. 7.)
- (8) Palæolith, $\frac{11}{16}$ " long, chert; a flake probably used for dressing hides. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3558. (Plate XIIb, Fig. 8.)

- (9) Palæolith, $\frac{3}{8}$ " long, chert; a flake probably used for scraping. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3559. (Plate XIIb, Fig. 9.)
- (10) Palæolith, $1\frac{1}{8}$ " long, chert; a flake knife. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3560. (Plate XIIb, Fig. 10.)
- (11) Palæolith, $1\frac{3}{16}$ " long, chert. It is a planing tool of early form. Reg. No. 3561. (Plate XIIb, Fig. 11.)
- (12) Palæolith, $1\frac{5}{16}$ " long, chert. Probably a hide dresser. Found at a depth of 1' at the foot of the Singanpur Hill. Reg. No. 3562. (Plate XIIb, Fig. 12.)
- (13) Palæolith, $1\frac{1}{4}$ " long, chert. An incurved scraper; no retouching at the edges. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3563. (Plate XIIb, Fig. 13.)
- (14) Palæolith, $1\frac{1}{8}$ " long, agate. Probably a scraper; no refloking. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3564. (Plate XIIb, Fig. 14.)
- (15) Palæolith, $1\frac{1}{4}$ " long, chert. A flint blade with denticulated edge, characteristic of early work. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3565. (Plate XIIb, Fig. 15.)
- (16) Palæolith, 1" long. Flint core. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3568. (Plate XIIb, Fig. 16.)
- (17) Palæolith, $\frac{3}{4}$ " long, chert. Scraper with incurved edge for planing the sides of bone needles, etc. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3566. (Plate XII b, Fig. 17.)
- (18) Palæolith, $\frac{9}{16}$ " long, agate. A flake scraper. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3567. (Plate XIIb, Fig. 18.)
- (19) Palæolith, $\frac{3}{4}$ " long, agate. A core from which minute flakes have been removed. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3569. (Plate XIIb, Fig. 19.)
- (20) Palæolith, $\frac{11}{16}$ " long, chert. A core from which flakes have been removed. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3570. (Plate XIIb, Fig. 20.)
- (21) Palæolith, $\frac{11}{16}$ " long, red quartz. A core from which flakes have been removed. Found at a depth of 1' at the rock-shelter of Singanpur. Reg. No. 3571. (Plate XIIb, 21.)
- (22) Palæolith, $3\frac{3}{16}$ " long, red quartzite. A scraper of early form with one side flaked, the other plain and with a conchoidal fracture. Found at a depth of 1' at the rock-shelter of Singanpur. Reg. No. 3571. (Plate XIIb, Fig. 21.)
- (23) Palæolith, $3\frac{3}{16}$ " long, red quartzite. A scraper of early form with one side flaked, the other plain and with a conchoidal fracture. Found at a depth of 1' at the foot of the Singanpur Hill. Reg. No. 3579. (Plate XIIb, Fig. 22.)

- (24) Palæolith, $1\frac{5}{8}" \times 1\frac{7}{16}"$, quartz. A scraper. Found on surface at the foot of the Singanpur Hill. Reg. No. 3574. (Plate XIIb, Fig. 23.)
- (25) Palæolith, $1\frac{5}{16}"$ long, red quartzite. A core from which flakes have been removed. Found on the surface at the foot of the Singanpur Hill. Reg. No. 3572. (Plate XIIb, Fig. 24.)

At the above sites, the writer obtained only four other objects of a later date, namely, two hammers (?), a fragment of pottery with some scratches from a depth of 1' at the rock-shelter of Singanpur, and an earthenware spout of a vessel near the small stream close by the palæolithic site at the foot of the Singanpur Hill.

- (1) Fragment of pottery $1\frac{1}{2}"$ long, of black colour with incised mark. Found at a depth of 1' at the rock-shelter of Singanpur. (Reg. No. 3605.)
- (2) Spout of a vessel, $2\frac{1}{4}"$ long; coarse, hand made. Found on the surface at the foot of the Singanpur Hill. (Reg. No. 3604.)
- (3) Stone object, $3\frac{7}{16}"$ across, of sandstone, with a hole; probably a hammer-stone. Reg. No. 3602. (Plate XIV, Fig. 13.)
- (4) Stone object, $3\frac{3}{8}"$ across, of sandstone; probably a hammer-stone. Reg. No. 3603. (Plate XIV, Fig. 14.)

In Europe the age of palæolithic paintings has been determined sometimes with reference to the animals depicted; sometimes from the type of stone implements found in the caves containing the paintings; and sometimes with the help of fossils found in association with the implements.

In India so far as I am aware, no paintings have been found in caves. They have all been found in rock-shelters, where there is very little chance of deep soil accumulating unless the shape of the shelter happens to be such as to favour accumulation. At the Singanpur rock-shelter there was not more than 2' of soil above the natural rock, and it was therefore impossible to obtain evidence of age from stratification.

The rock-paintings noticed above are not of one age. The earlier paintings are those which were found at a higher level. The later paintings are at a low level. The earlier paintings are either of animals or hunting of animals and they, probably, belong to late palæolithic period. The later paintings are of 9th or 10th Century A.D.

Compared with the palæoliths of Europe the three implements found in the shelter appear to be of early form (Plates XIIb, 1, 3, 4), but it is by no means certain that palæolithic culture in India is of the same age as in Europe. Indeed, the study of Hekett's Bhutra boucher and Wynnes's agate chip has led Mr. Blanford to assign these Indian implements to an earlier date than their European counterparts.

At the bottom of the hill stone implements of an early age have also been found.

CHAPTER IV.

Mirzapur Rock-Paintings.

AFTER finishing work at Singanpur the writer went on to Mirzapur. Some of the paintings in this district were discovered as far back as 1880 by Mr. Archibald Carlleyle of the Archæological Survey and Mr. John Cockburn of the Opium Department. Mr. Carlleyle's discovery was noticed in the *Proceedings of the Asiatic Society of Bengal*, February 1883, p. 49, but a more detailed account seems never to have been published. Mr. John Cockburn's account of the rock-paintings appeared in the *Proceedings of the Asiatic Society of Bengal* for 1883, p. 123, and his paper on the hunting of rhinoceros was published in the *Journal of the Society*, LII, Part 2, 1883, pp. 56-64. Another paper from the same author was published in the *Proceedings* for 1884, p. 141, and an illustrated article on the Cave Drawings in the Kaimur Range in the *Journal of the Royal Asiatic Society* for 1899, p. 89. Mr. Percy Brown also drew attention to the Mirzapur Rock-Drawings in his book on *Indian Painting*, p. 16. He writes: "As usual hunting scenes are the principal subjects and we find the chase of wild animals, such as the rhinoceros and the sambar stag, most realistically rendered. All these drawings bear a remarkable resemblance to the famous rock-shelter paintings of Cogul in Spain, which are presumed to be the work of Aurignacian man of many thousands of years ago. An exploration of the Raigarh and Mirzapur Caves might reveal clues not only of the birth of painting in India, but also throw considerable light on the early history of mankind in the East generally."

The Mirzapur paintings have been noticed in the *Imperial Gazetteer of India*, Vol. II, pp. 89 to 98. There is also a general description of these paintings in the *District Gazetteer of Mirzapur*, 1911, pp. 197-200, based on a paper contributed by Messrs. W. B. and J. Cockburn. A notice by Mr. K. N. Dikshit of three paintings from three different places of the Mirzapur District appeared in the report of the Lucknow Museum for 1918.

In the first chapter the position of the different shelters containing paintings that were visited by me in the Mirzapur District has been described. Work was first begun at Likhunia. This rock-shelter is fairly well known to the villagers near Chhātu, and lies to the south-west of the Chhātu Inspection Bungalow at a distance of a little over two miles, the path passing through prickly scrub and over uneven rocky ground. On the way is an open space near which are to be seen stone flakes scattered about. At a little distance from this place the river Garai is visible with its stream glittering in the sunshine. Near the rock-shelter one has to climb the rocky bank of the Garai, and here the river has a fall of some fifteen feet, which makes the spot a singularly charming one (Plate VIb). The Likhunia shelter is formed by an over-hanging rock which projects some 16 feet towards the river (Plate VIa). The wall of the shelter containing the painting is 5' in height, the shelter itself being 72' in length, 11' in height and 24' in breadth

(Plate XXVIII). There are three paintings. The upper one represents a hunting scene with elephant (Plate VIa). Below it is another depicting the catching of birds; and to its left is an elephant and a horse. On the opposite bank of the shelter are other smaller paintings of cruder design. The details of these paintings are as follows:—

- (1) The subject of the painting is probably the capture of a wild elephant by horsemen assisted by a tame elephant. In the left hand lower corner, two animals are shewn running away. In the right hand top corner are two more animals similar to the above; and below these a triangle surrounded by a comb-like object. Near by, are three deer being driven into a trap by three men, one of whom is painted in black, a second in white and a third in white and red. The central object of the scene is a driver on a big elephant carrying in one hand a long pointed spearlike weapon and in the other a round object, probably a shield. He is pursuing a tusked elephant. Among his retinue are shewn in the upper field two archers, two men with spears and shields and a man without any weapon. Below him are a man on foot with a spear and a shield and three horses of which one has lost its rider (probably defaced). The two riders are armed with spear and shield. In front of the wild elephants is a rectangular figure blocked in with colour which may be a corral, and adjoining it some other structures drawn in line only. On the extreme left of the scene are three men with arms above their heads, engaged in driving the wild elephant. Below the leg of the latter is the figure of a man painted in black which appears to be an older work (Plate VIa).
- (2) This scene (Plate XVIIb) depicts the catching of large birds. On the left is a group of men, some on foot and others on horseback. In the centre are a number of birds and to the right others apparently entangled in a trap. On the extreme right is portrayed a structure which may be an elaborate trap.
- (3) To the left of the scene is a horse (Plate XXd) with a man on it and to the right an elephant (?) goaded by a man with a stick.

A little higher up the stream and about a furlong and a half from the Likhunia rock-shelter, is another shelter locally known as Kohbar. The height of the rock-shelter is 18', its length 64', and depth 31' 2" (Plate XXVIII). As there was a painting on the roof of the shelter, it was necessary to erect a scaffold. The photograph (Plate VIIa) shows the copyist at work. There are other paintings on the wall of the shelter, of which the writer was able to copy the following:—

- (1) Two strange animals, perhaps bears, attacking a deer. (Plate XXc.)
- (2) Two deer drawn single file. (Plate XXIIa, Fig. 1.)
- (3) A man armed with shield and apparently dancing. (Plate XXIIa, Fig. 2.)

- (4) Figure of a deer with body filled in with hatching, facing two traps. (Plate XXIIa, Fig. 3.)
- (5) Unknown symbols. (Plate XXIIa, Fig. 4.)
- (6) A man with a shield or bow, either fighting or dancing. (Plate XXIIa, Fig. 5.)

Returning from Kohbar to Chhātu Inspection Bungalow we followed up the course of the river Bhaldaria, and near where the path crosses the dry bed of the stream, came upon a hollow in the river bed, where water remains all the year round. By the side of this pool is the rock-shelter No. III (Plate VIII b). As it is approached from the top, it is a little difficult of access and I needed the help of an elephant's ladder to reach it. The height of the shelter is $6\frac{1}{2}'$, its length 110' and its depth 14' (Plate XXVIII). On the walls of the shelter are a number of paintings of which I succeeded in copying the one reproduced in Plate XXId, which depicts three figures with an object between them of indefinite shape. At a distance of some 10' from this painting are two inscriptions (Plate XXIc) which look like mediæval records of the 9th Century A.D. or somewhat earlier. One is tentatively read as '*dasa*'; the other as '*gisada*'.

Crossing the river and proceeding about two miles, the path rises up the side of the hill and at a distance of nearly three miles from the Chhātu Inspection Bungalow leads to the rock-shelter No. II (Plate VIIb). In it is inscribed the name of Mr. Cockburn who visited the spot in 1883. At the back of the shelter is a cave and in front, a narrow platform extending beyond the mouth of the cave towards the south (Plate XXVIII). The length of the shelter is 56', its height 9' 6", and breadth in front of the cave 24'. On the wall are many paintings of which the following four were copied as being the most interesting:—

- (1) A remarkable painting on the wall of the shelter, depicting four snipe standing in water with a tree on the right (Plate XXVa). At the bottom are faint traces of two animals that may be monkeys.
- (2) A hunting scene (Plate XXa). The central figure is a deer or antelope, with short horns, according to Mr. Cockburn, a Gopr stag (*Rucervus Duvancellii*). It is being speared by a man who is very crudely drawn. Above is a smaller stag and there are other hunters besides the one mentioned. The larger animal is also being attacked by dogs. The scene is executed in polychrome.
- (3) A striking picture of a boar, wounded and with its mouth open as if in pain. At the back of the hind legs are five characters. The animal figure is distinctly well drawn and all four legs are shewn instead of the two usually seen in prehistoric pictures (Plate XXVb). The rock on which this scene is painted has suffered much from flaking.
- (4) The forepart of a deer with peculiar horns facing right (Plate XXIe). The rock has flaked and it is likely that the painting will soon disappear altogether.

Descending the hill and ascending the bed of the stream we arrive at the Bhaldaria Rock-shelter No. I. The height of the shelter is 9' 6", its length 45', and depth 18' 10" in the middle (Plate XXVIII). The photo on Plate

VIIIa will give an idea of the position of the shelter. On the roof and side of the shelter are many paintings, of which the following are the most interesting:—

- (1) A man riding a galloping horse to right. With his left hand he holds the reins, and with his upraised right a weapon—probably a sword. The figures of both man and horse are vigorous and lifelike (Plate XXIf). This picture is on the roof of the shelter.
- (2) A camel, with possibly a rider once seated on its back. It is painted on the roof of the shelter (Plate XXIg).

Returning to Chhātu and ascending the Kaimur plateau by the Sukrit Pass, one turns at the fifth mile-stone to the right towards the Dongia reservoir of the Irrigation Department. About 5 miles from this point is a rock-shelter on the upper Garai near Mahararia. Here numerous paintings have been executed in red ochre, of which the two following were copied:—

- (1) Three persons with long hair evidently engaged in dancing. This has been copied in outline only, though the figures were originally filled in with colour (Plate XXIa, Fig. 1).
- (2) Below, four persons drawn in a pale red colour are dancing within an enclosure (Plate XXIa, Fig. 2). Both scenes are on the roof of the shelter.

Returning to the fifth mile-stone one reaches the main road again and at the 24th mile-stone the town of Robertsganj. On the range of hills south of this town, about 3 miles from the Dhandraul Public Works Department Inspection Bungalow, is situated the famous fort of Bijaygarh which is a prominent landmark for many miles around.

This fort stands on the summit of the hill some 1,860' above mean sea level and some 800' higher than the table-land from which it rises. The position of the fort is one of great natural strength, as it has a steep escarpment all round and is accessible only by way of two difficult passes (Plate IXa). The approach from the side of Robertsganj is by an ancient bridge over the Gāghar river, now utilized by the Irrigation Department as a dam. The bridge dates from the time of Sher Shah but seems to have been subsequently repaired. From the bridge the path to the fort ascends for some distance by an easy slope along which at intervals are the remains of ancient outworks. At the place where the path abruptly rises is the figure of a chief fighting with a lion, cut in relief on the rock and coloured (Plate IXb). The path rises through a sheer ascent of some two hundred feet to the entrance of the fort. The circumference of the hill is nearly two miles. There is a masonry rampart all round with circular bastions at irregular intervals.

The fort is of unknown origin, and is attributed to the Kols. When its history begins it was in the possession of the Baland Rājās, and thereafter passed to the Chandelā Rājputs. The construction of the present fort is attributed to Sher Shah and its later additions to Balwant Singh of Benares. After the break-up of Sher Shah's empire, it again passed to the Chandelas who held it till it was conquered by Balwant Singh. Since the expulsion of Chait Singh it has been the property of Government. Within the fort there are a tomb of a

Muhammadan saint, remains of five stone buildings of the Pathan period and three tanks from one of which good drinking water can be obtained throughout the year. Scattered about are numerous interesting sculptures of fine mediæval workmanship.

The rock-shelters are below the rampart wall and on the west side of the fort. From the entrance of the fort, already referred to, one has to go about 4 furlongs along the hill-side among dense bamboo and other jungle, over fallen debris and rocks. The rock-shelter containing the painting has a height of 80', a length of 160' and depth of 27' (Plate XXVIII). To reach the painting itself a scaffolding was needed. The painting portrays two deer-like animals with long necks and behind them, to the left, two figures facing the other way, the smaller of which resembles a man and the larger an ape (Plate XXb). The former appears to hold a branch of a tree. This painting is on the wall of the shelter (Plate IVa).

About two furlongs from this shelter there is another at a height of 28' (Plate Xa and b). This second shelter is very spacious: 8' in height, 40' in length, and 36' in depth at the centre (Plate XXVIII). On its roof and side are no less than 34 inscriptions painted in red ochre and dating from 5th to 8th Century A.D. An article describing in detail these records which do not appear to have been previously noticed will be published in the *Epigraphia Indica*.

Of the three inscriptions figured in Plate XIa, the first reads '*Indradattah, guhidattah*'. The letters of this inscription resemble the letters of the *Kahaum* Pillar inscription of Skanda Gupta of 459 A.D.

The second inscription reads '*giriḥ ~~shauma~~ chandra*'. It is in characters of the 8th Century A.D. The third inscription reads '*savatavid*' and is also written in characters of 8th Century A.D. So/

In Plate XIIb, the first inscription reads '*raṇavarmā chandra*'. The second reads '*giriḥ prakāsha*'. The third reads '*savata*'. They are written in characters of 5th Century A.D. la/

It is to be remembered that neither at Likhunia nor at Kohbar was there any soil in the shelters. I have already mentioned that on the way to Likhunia I found a number of flakes. Along the Bhaldaria neither at the rock-shelter No. III nor at No. I was there any soil. It was only at No. II that I was able to excavate to any great depth but I could only procure broken pottery, which did not appear to be ancient. In the vicinity of the Mahararia rock-shelters and in the shelters themselves no place appeared to be promising for excavation. At Bijaygarh alone was there any considerable depth of soil below the shelter, but owing to want of time and money nothing could be done here.

On the way to Bhaldaria rock-shelters one of my peons picked up a sand-stone hammer (Plate XIV, Fig. 14). One stone implement was also picked up on our way to Bijaygarh (Plate XV, Fig. 8). A detailed list of some antiquities picked up by the writer is given below:—

- (1) Stone implement, 1½" long, of quartz. Scraper. Later period. Found on the surface near Likhunia. Reg. No. 3658. (Plate XIIIb Fig. 8.)

- (2) Stone implement, $\frac{11}{8}$ " long, of flint. Probably a broken scraper of later Stone Age. It has been reflaked at the back. Found on the surface near Likhunia. Reg. No. 3656. (Plate XIIIb, Fig. 4.)
- (3) Stone implement, $\frac{3}{8}$ " long, flint, a broken knife of later period. Reflaked at the back. Found on the surface near Likhunia. Reg. No. 3657. (Plate XIIIb, Fig. 5.)
- (4) Stone implement, 1" long, of flint, blue colour. A scraper. Found on the surface near Likhunia. Reg. No. 3663. (Plate XIIIb, Fig. 1.)
- (5) Stone implement, $\frac{5}{8}$ " long, of flint of green colour. A flake knife. Found on the surface near Likhunia. Reg. No. 3661. (Plate XIIIb, Fig. 2.)
- (6) Stone implement, $\frac{3}{4}$ " long, of agate. A flake knife. Found on the surface near Likhunia. Reg. No. 3666. (Plate XIIIb, Fig. 3.)
- (7) Stone implement, $1\frac{1}{8}$ " long, of grey flint. An incurved scraper. Found on the surface near Likhunia. Reg. No. 3662. (Plate XIIIb, Fig. 6.)
- (8) Stone implement, $\frac{11}{8}$ " long, of flint. A denticulated flake. Found on the surface near Likhunia. Reg. No. 3664. (Plate XIIIb, Fig. 7.)
- (9) Stone implement, $\frac{11}{8}$ " long, flint. A flake knife. Found on the surface near Likhunia. Reg. No. 3665. (Plate XIIIb, Fig. 9.)
- (10) Stone implement, $1\frac{1}{4}$ " long, of grey flint. A flake knife. Found on the surface near Likhunia. Reg. No. 3666. (Plate XIIIb, Fig. 10.)
- (11) Stone implement, $\frac{11}{8}$ " long, chert. A core. Found on the surface near Likhunia. Reg. No. 3668. (Plate XIIIb, Fig. 11.)
- (12) Stone implement, 1' long, of green flint. A core. Found on the surface near Likhunia. Reg. No. 3667. (Plate XIIIb, Fig. 12.)
- (13) Stone implement, $1\frac{5}{8}$ " long, of flint. It has a denticulated edge and is a typical neolithic implement. Found on the surface near Likhunia. Reg. No. 3659. (Plate XIIIb, Fig. 13.)
- (14) Stone implement, $2\frac{1}{2}$ " long, of flint. A broken knife. Found on the surface on the way to Bijaygarh fort. Reg. No. 3742. (Plate XV, Fig. 8.)

Antiquities of later period :—

- (1) Stone object, $3" \times 2\frac{1}{2}"$, of sandstone. Probably an unfinished hammer with a depression in the middle. Found on the surface near Bhal-daria Rock-shelter No. III. Reg. No. 3669. (Plate XIV, Fig. 14.)
- (2) Round terracotta disc, $1\frac{3}{8}"$ in diam. Found near Rock-shelter No. I, Bijaygarh. Reg. No. 3743. (Plate XV, Fig. 10.)

The paintings described above are all of late date ranging from the 4th Century A.D. to the 10th A.D. They are contemporary with the inscriptions found in the locality.

CHAPTER V.

Hoshangabad Rock-Paintings.

AS far as is known, the rock-paintings of Hoshangabad have not been published before. In 1921 at the instance of the Deputy Commissioner of Hoshangabad the writer was requested by Pandit Hirananda Sastri, the then Superintendent, Archaeological Survey, Central Circle, to examine the paintings; which he accordingly visited in the spring of 1922. Here, about $2\frac{1}{2}$ miles from the Civil Station, on the Hoshangabad Adamgarh Quarry Road is a small hill, in which is the Public Works Department Quarry of Adamgarh. Many of the rocks on this hill bear paintings of a primitive character, the chief ones being on the face of a rock about half-way to the top (Plate Va). The rock appears to be a natural cleft with an overhanging shelter, but it is difficult to say whether the rock in front of the cleft has fallen from the roof or has been separated in times gone by from the main body (Plate Vb). From the plan and section of the rocks and from the photographs the position of the shelter will be clear to the reader. The paintings are on the face of the rock looking north-east. The shelter measures 39' in length by 22' in height (Plate XXVII). The most important of the paintings is that of an elephant executed in light yellow, well modelled but reproduced very faintly (Plate XVIIIa). Over the elephant have been drawn a variety of figures in red ochre. One of these, conspicuous for its long neck, looks like a giraffe but must undoubtedly be intended for a horse; behind it is a man riding a horse also with a long neck and in the act of throwing a missile. Below is a warrior with a bow, two arrows and a quiver at his back and above a smaller figure, also taking part in the chase.

Other figures or groups of figures on the same rock are reproduced on a larger scale in the succeeding pictures (Plates XVIIIb, c and d and XIXa and b). The first and last of these, painted one in red and the other in yellow, depict long horned buffaloes with præternaturally slender legs. The group shown in Plate XVIIIc comprises four huntsmen or warriors armed with bows and arrows; and the one following (XVIII d), three warriors on horseback and one on foot—all armed with swords and shields, though the shield which the footman is holding above his head seems to resemble a cloak rather than the small round shields which the horsemen carry slung to their backs. Plate XIXa, which is also executed in red ochre, probably represents a wild boar.

The paintings described above belong to 9th or 10th Century A.D.

A search at the foot of the shelter and over the hill-side was rewarded by the discovery of a number of small chert flakes, knives, etc., but obviously these afford no evidence of the age of the paintings, the later ones of which probably belong to the historic period.

The implements found by me are as follows:—

- (1) Palæolithic knife, $2\frac{1}{3}$ " long, of chert; later period. From 1' below the surface. Reg. No. 3931. (Plate XIIIa, Fig. 12.)

- (2) Palæolithic knife, $1\frac{1}{8}$ " long, of flint. Later period. From 1' below the surface. Reg. No. 3932. (Plate XIIIa, Fig. 11.)
- (3) Palæolithic knife, $1\frac{3}{8}$ " long, of chert. Later period. From 1' below the surface. Reg. No. 3933. (Plate XIIIa, Fig. 8.)
- (4) Palæolithic knife, 1" long, of chert. Later period. From 1' below the surface, Reg. No. 3934. (Plate XIIIa, Fig. 14.)
- (5) Palæolithic point, $1\frac{3}{8}$ " long, of chert. Later period. From 1' below the surface. Reg. No. 3935. (Plate XIIIa, Fig. 7.)
- (6) Palæolithic knife point, $\frac{11}{16}$ " long, of chalcedony. Later period. From 1' below the surface. Reg. No. 3936. (Plate XIII a, Fig. 6.)
- (7) Palæolithic knife point, $\frac{11}{16}$ " long, of quartz. Later period. From 1' below the surface. Reg. No. 3937. (Plate XIIIa, Fig. 10.)
- (8) Palæolithic knife, 1" long, of chalcedony. Later period. From 1' below the surface. Reg. No. 3938. (Plate XIIIa, Fig. 1.)
- (9) Palæolithic knife, $\frac{3}{4}$ " long, of opal. Later period. From 1' below the surface. Reg. No. 3939. (Plate XIIIa, Fig. 4.)
- (10) Palæolithic knife, $1\frac{1}{8}$ " long, of agate. Later period. From the surface of the hill. Reg. No. 3940. (Plate XIIIa, Fig. 9.)
- (11) Palæolithic knife, $1\frac{1}{8}$ " long, of chalcedony. Later period. From the surface of the hill. Reg. No. 3941. (Plate XIIIa, Fig. 3.)
- (12) Palæolithic knife, $\frac{11}{16}$ " long, of opal. Later period. From the surface of the hill. Reg. No. 3942. (Plate XIIIa, Fig. 2.)
- (13) Palæolithic knife, $1\frac{1}{8}$ " long, of agate. Later period. From the surface of the hill. Reg. No. 3943. (Plate XIIIa, Fig. 13.)
- (14) Palæolithic knife, $\frac{7}{8}$ " long, of chalcedony. Later period. From the surface of the hill. Reg. No. 3944. (Plate XIIIa, Fig. 5.)

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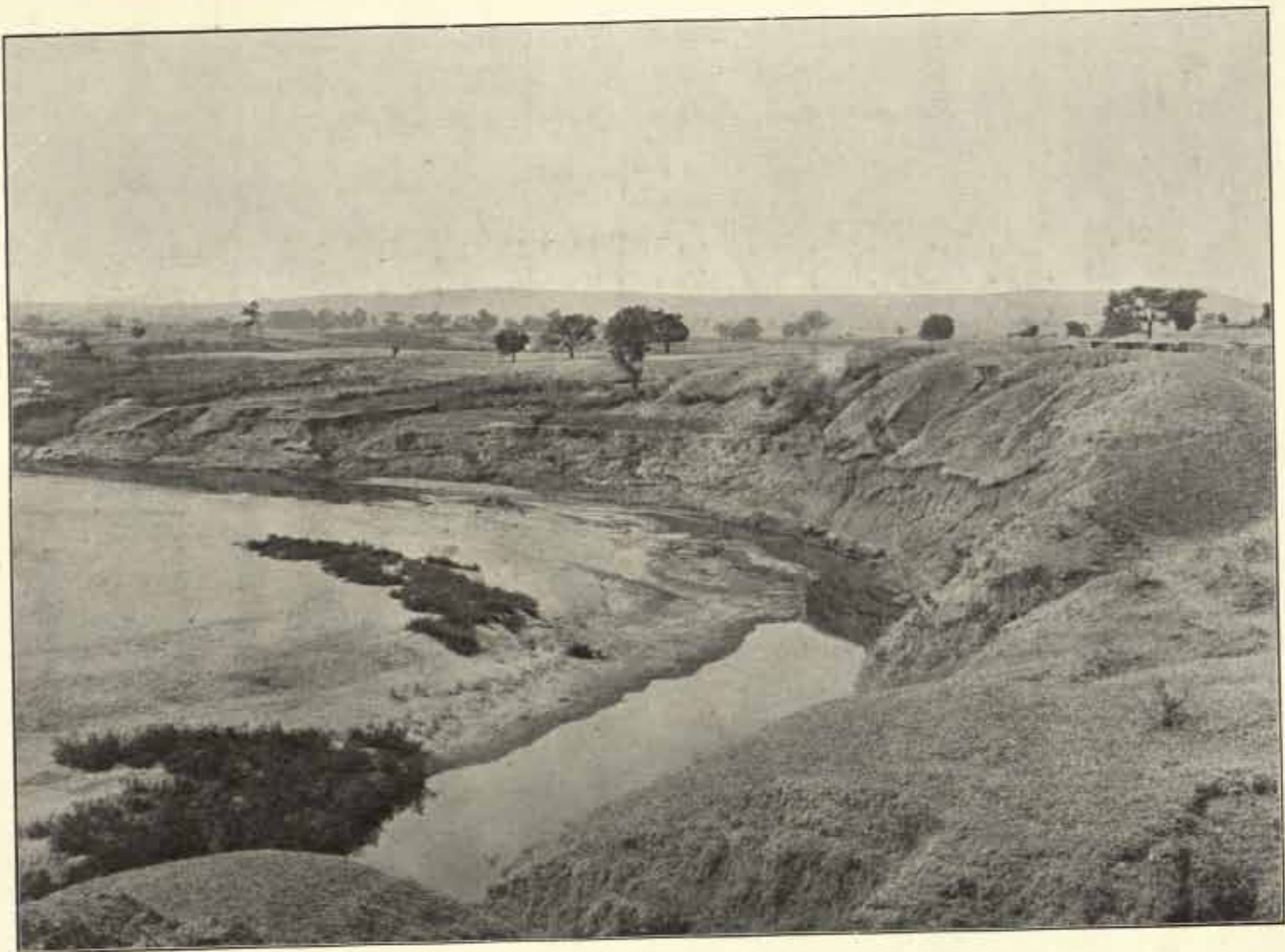
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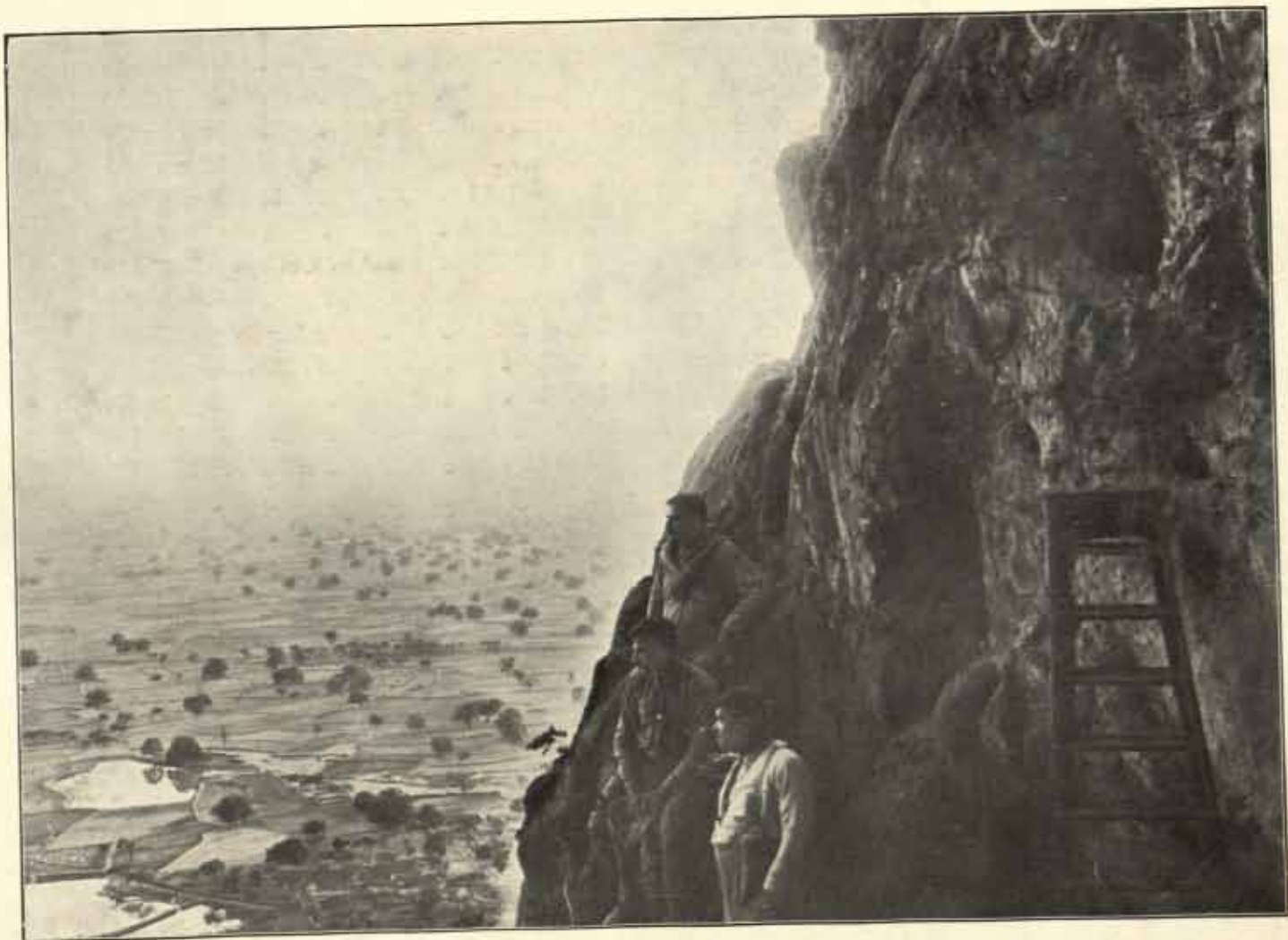
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(a) GENERAL VIEW OF THE RIVER SANJAI NEAR CHAKRADHARPUR.

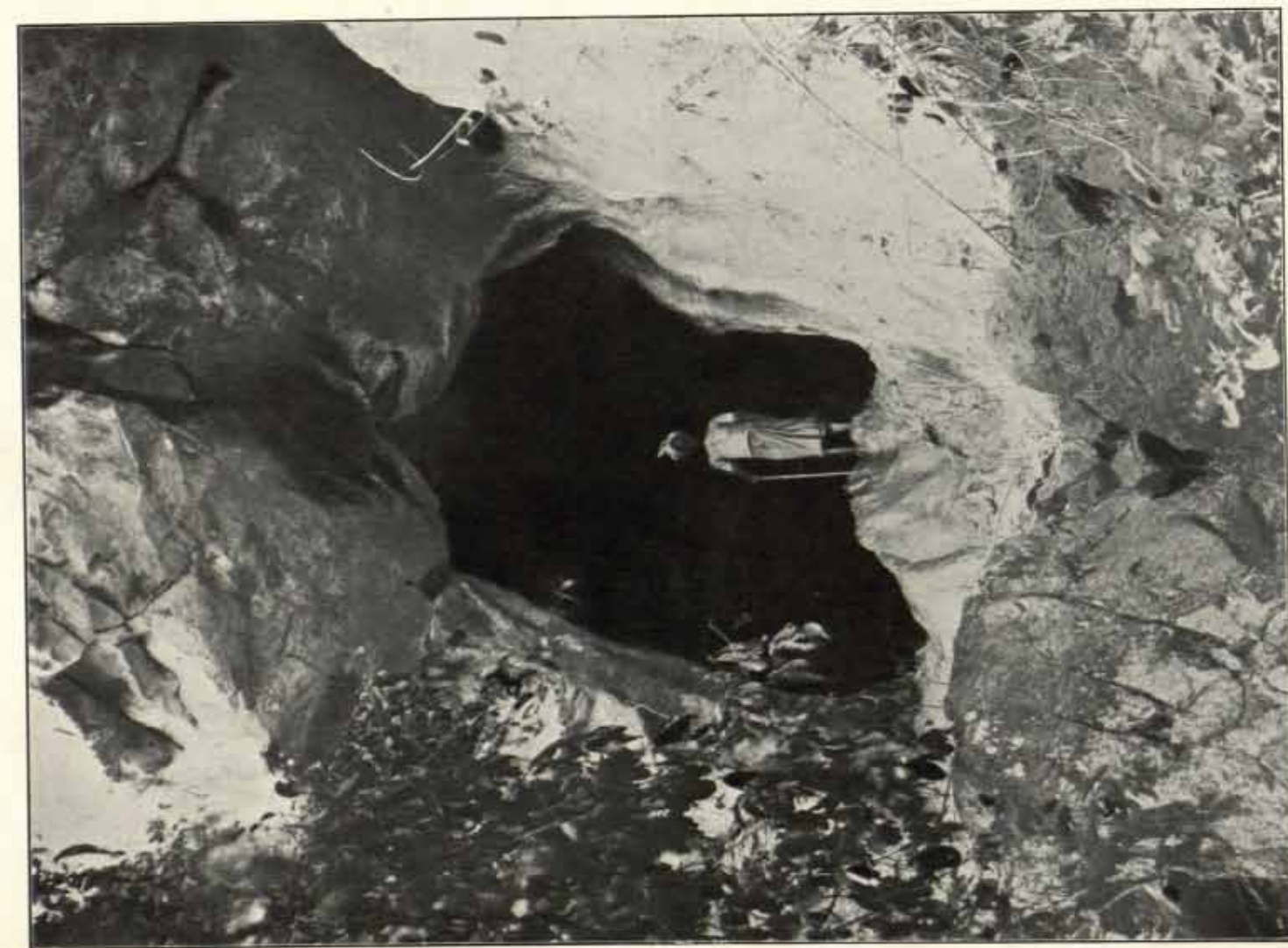


(b) GENERAL VIEW OF THE VALLEY OF THE MAND FROM THE SINGANPUR ROCK-SHELTER.

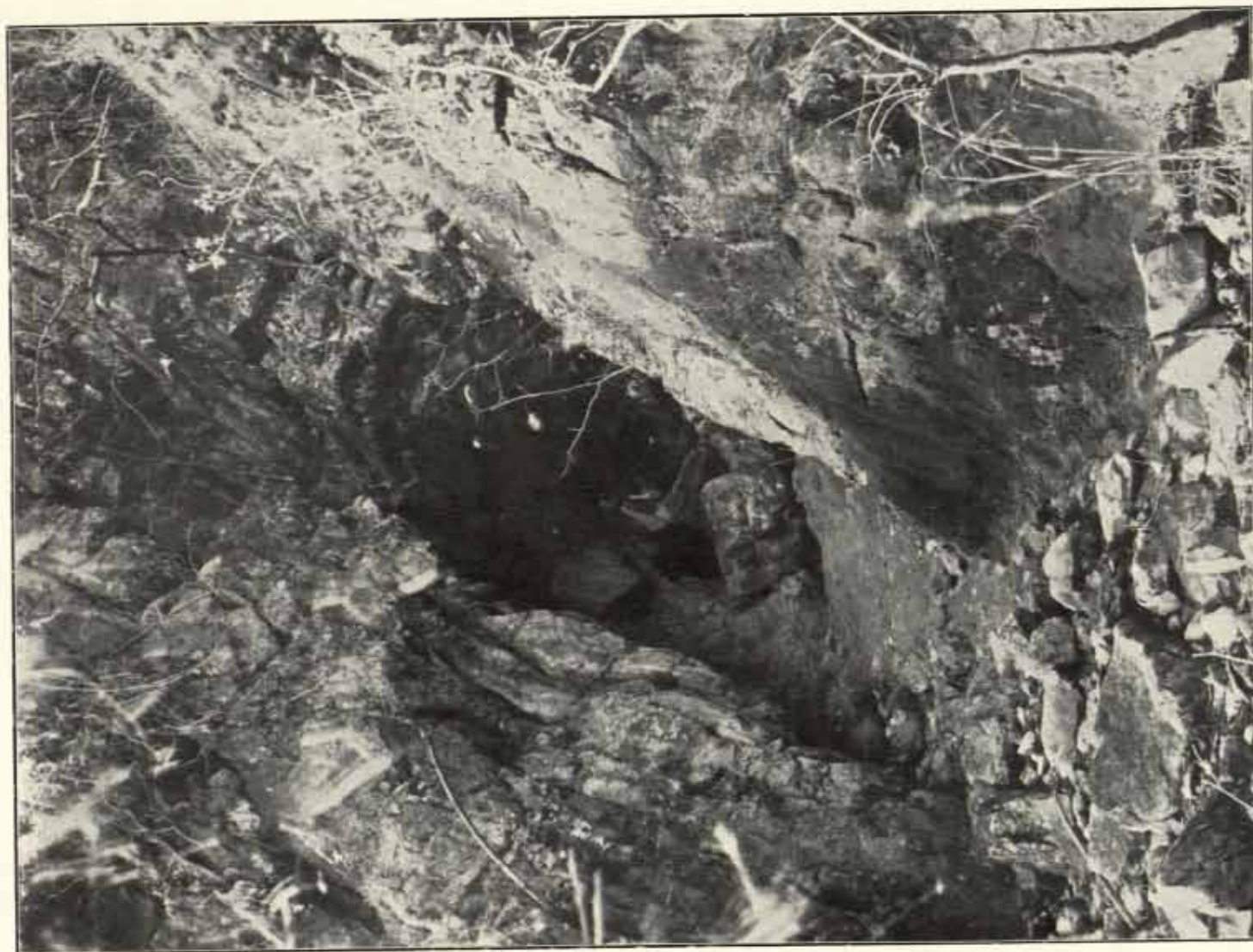
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1. The first part of the paper is devoted to a general discussion of the problem of the origin of life. It is shown that the problem is one of the most important and most difficult in the history of science. The author discusses the various theories of the origin of life, and shows that the most plausible is the theory of spontaneous generation. This theory is based on the fact that life is a complex of many different parts, and that these parts are all derived from a common ancestor. The author shows that the theory of spontaneous generation is supported by the facts of the origin of life, and that it is the only theory that can explain the origin of life.

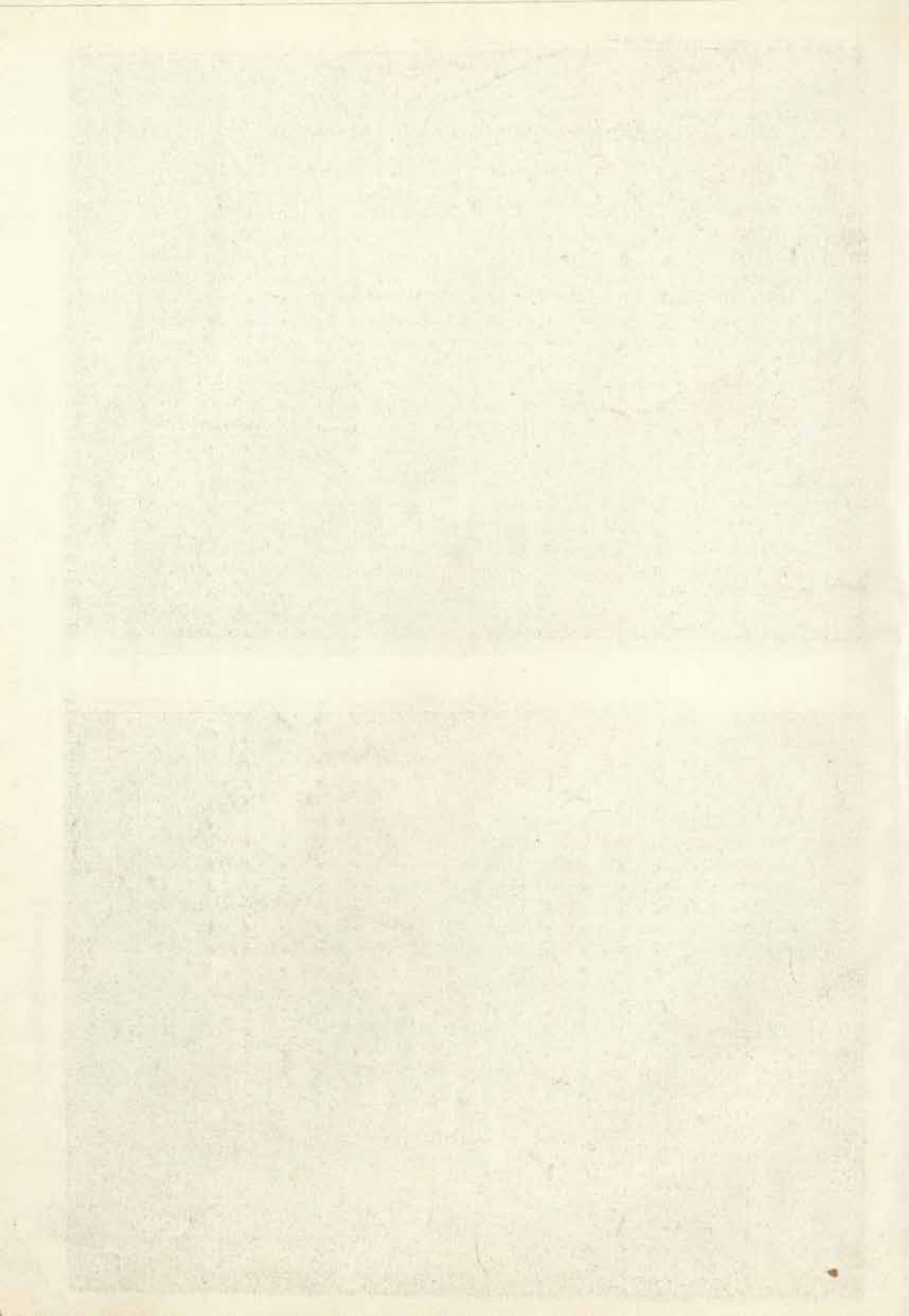
2. The second part of the paper is devoted to a detailed discussion of the theory of spontaneous generation. The author shows that the theory is based on the fact that life is a complex of many different parts, and that these parts are all derived from a common ancestor. The author shows that the theory of spontaneous generation is supported by the facts of the origin of life, and that it is the only theory that can explain the origin of life. The author also shows that the theory of spontaneous generation is supported by the facts of the origin of life, and that it is the only theory that can explain the origin of life.

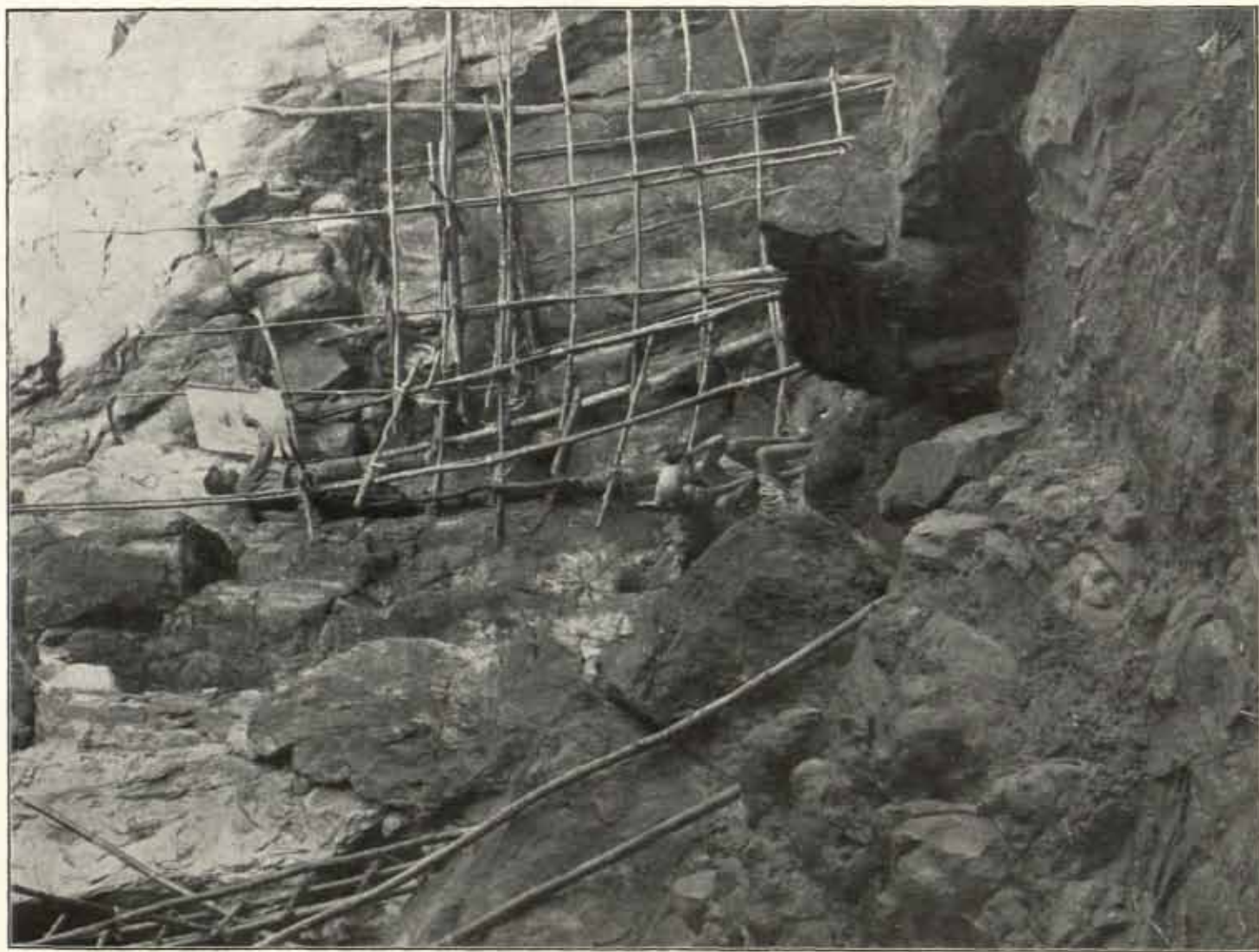


(a) VIEW OF THE CAVE NO. I, SINGANPUR.



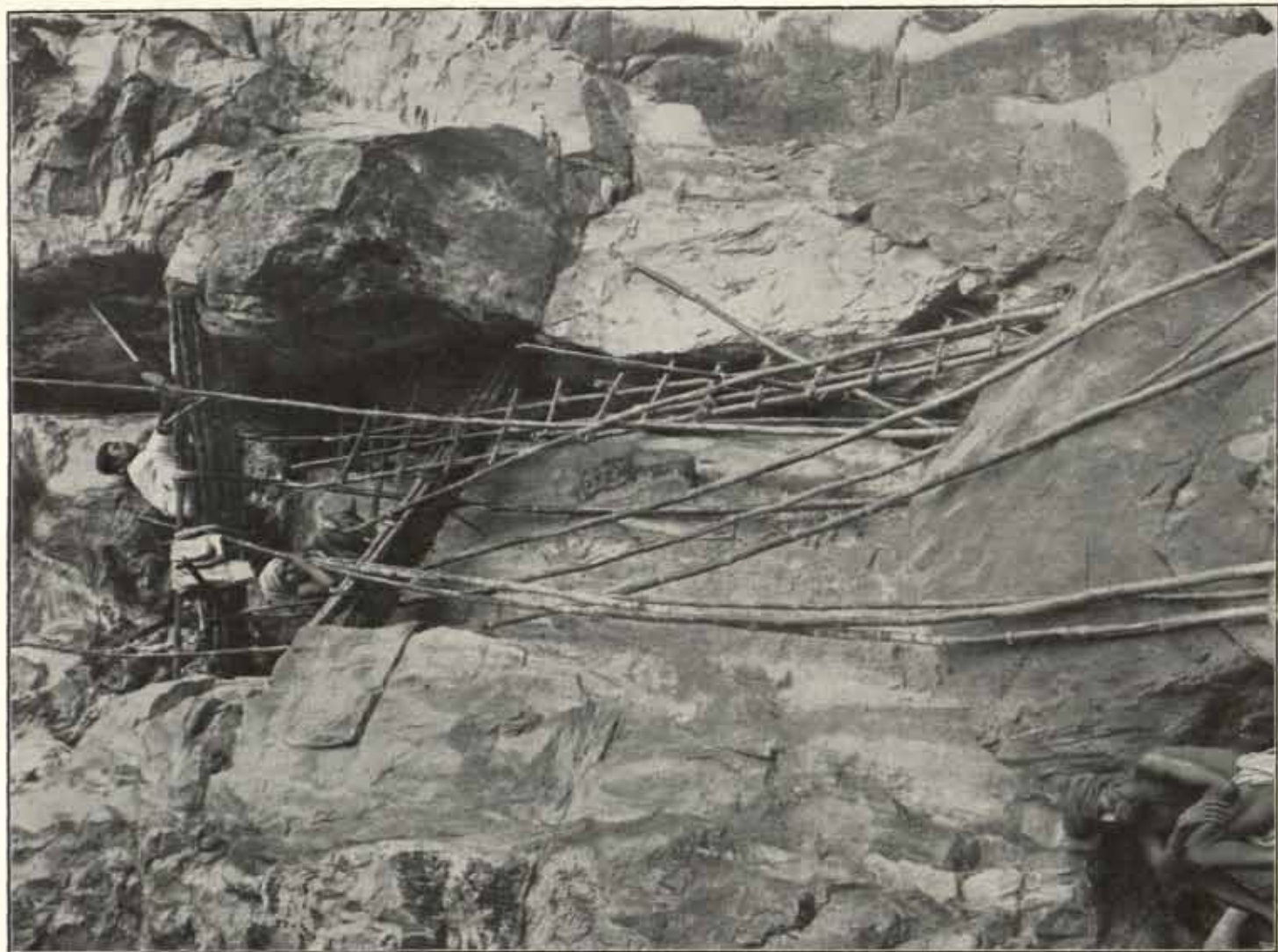
(b) VIEW OF THE CAVE NO. II, SINGANPUR.



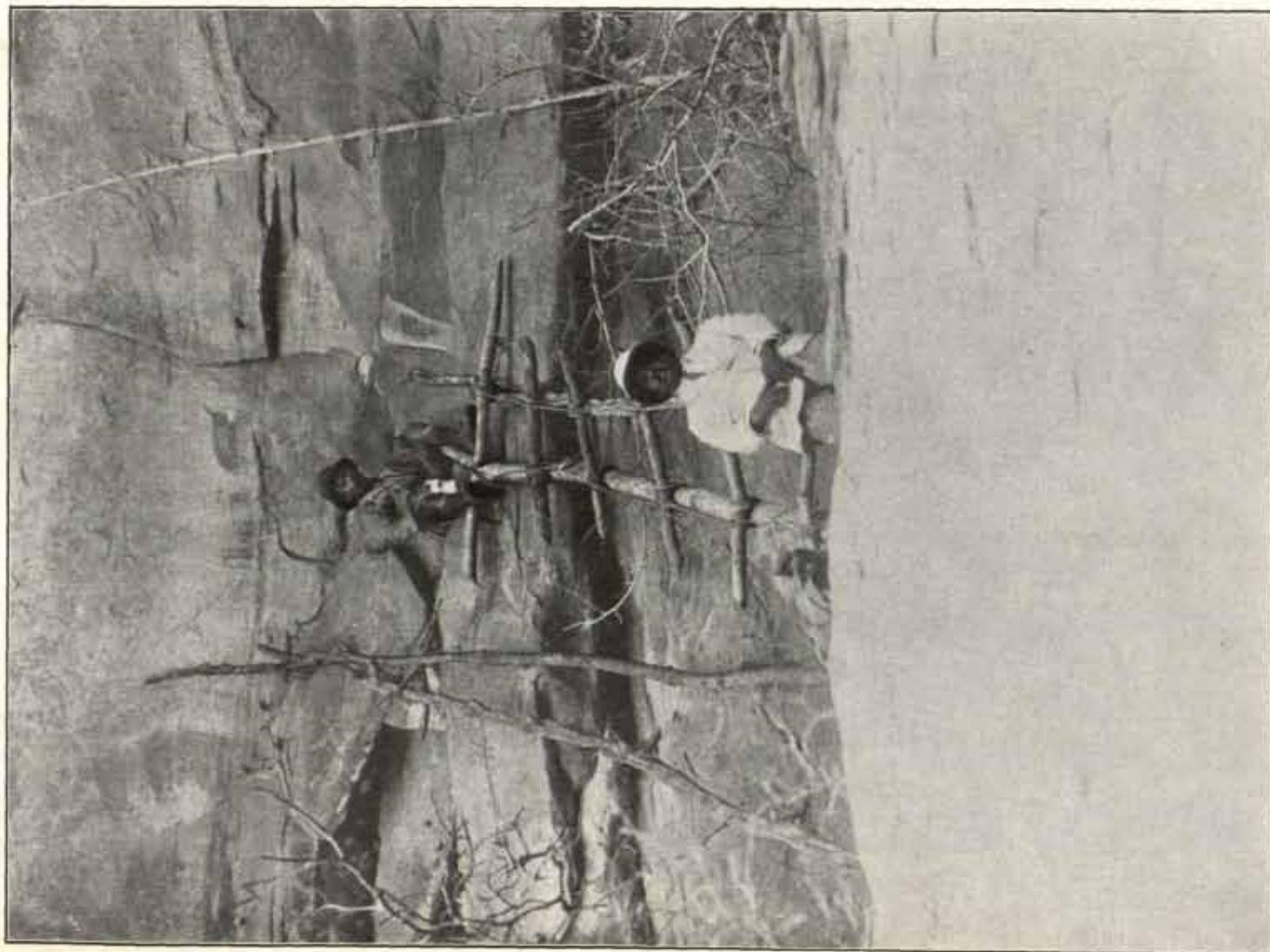


(a)

VIEW OF THE SCAFFOLD AND ROCK-PAINTINGS, SINGANPUR.



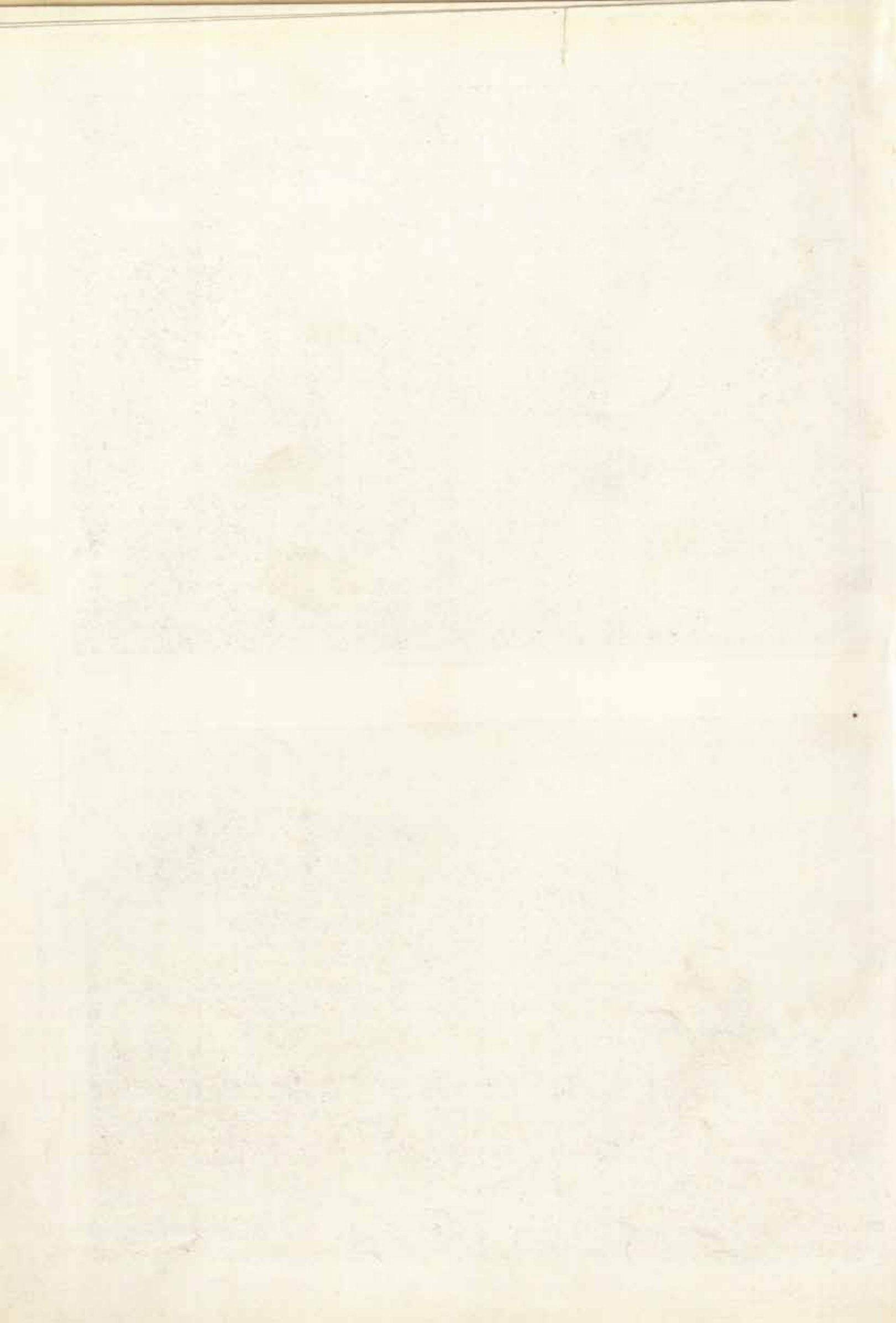
(b)



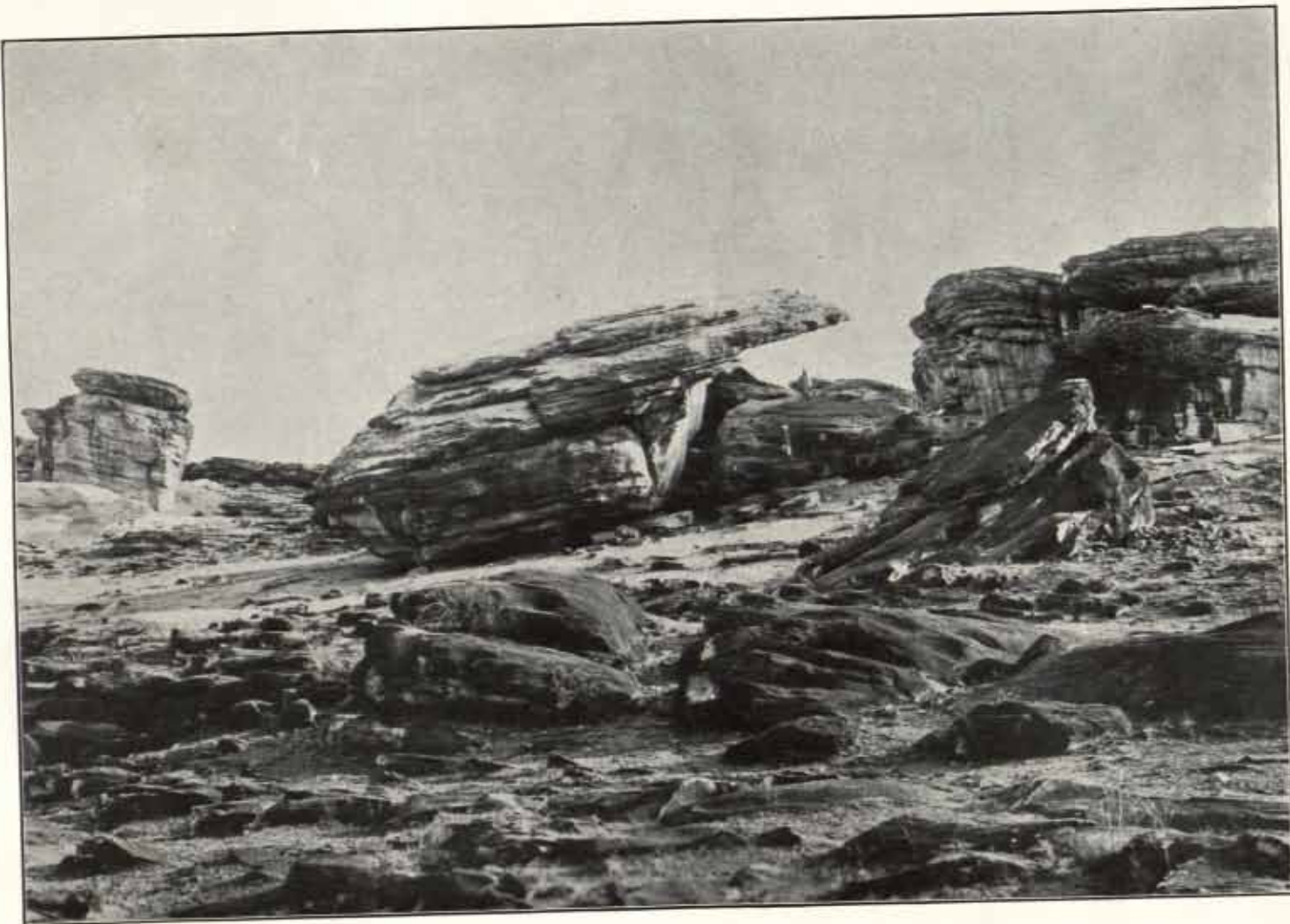
(a) VIEW OF THE ROCK-SHELTER CONTAINING PREHISTORIC PAINTINGS, BJAYGARRH.



(b) VIEW OF THE ROCK-SHELTER CONTAINING PREHISTORIC PAINTINGS, SINGAMPUL.

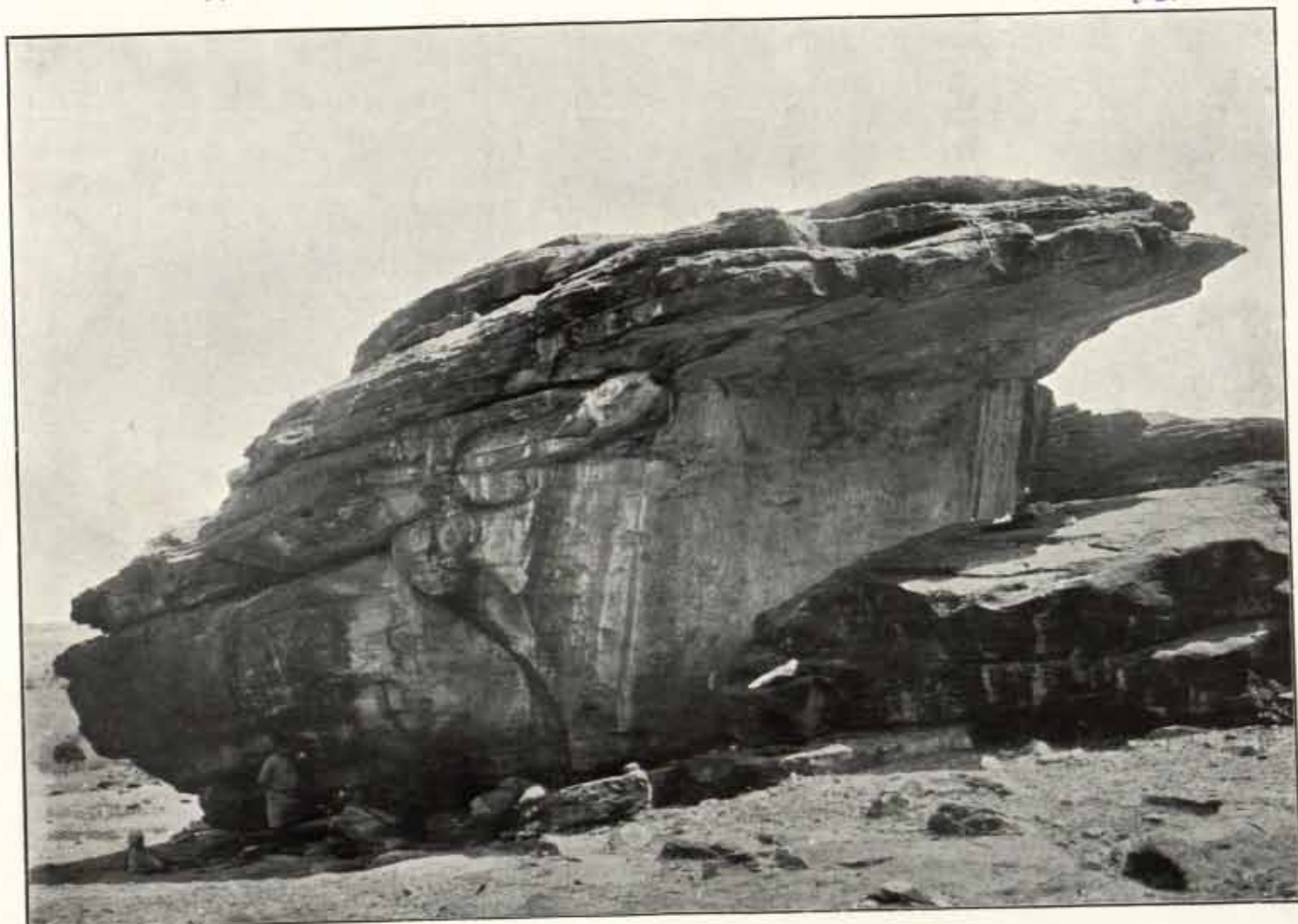


ROCK PAINTINGS AND PREHISTORICS.



GENERAL VIEW OF THE ROCK-SHELTER CONTAINING PREHISTORIC PAINTINGS, HOSHANGABAD.

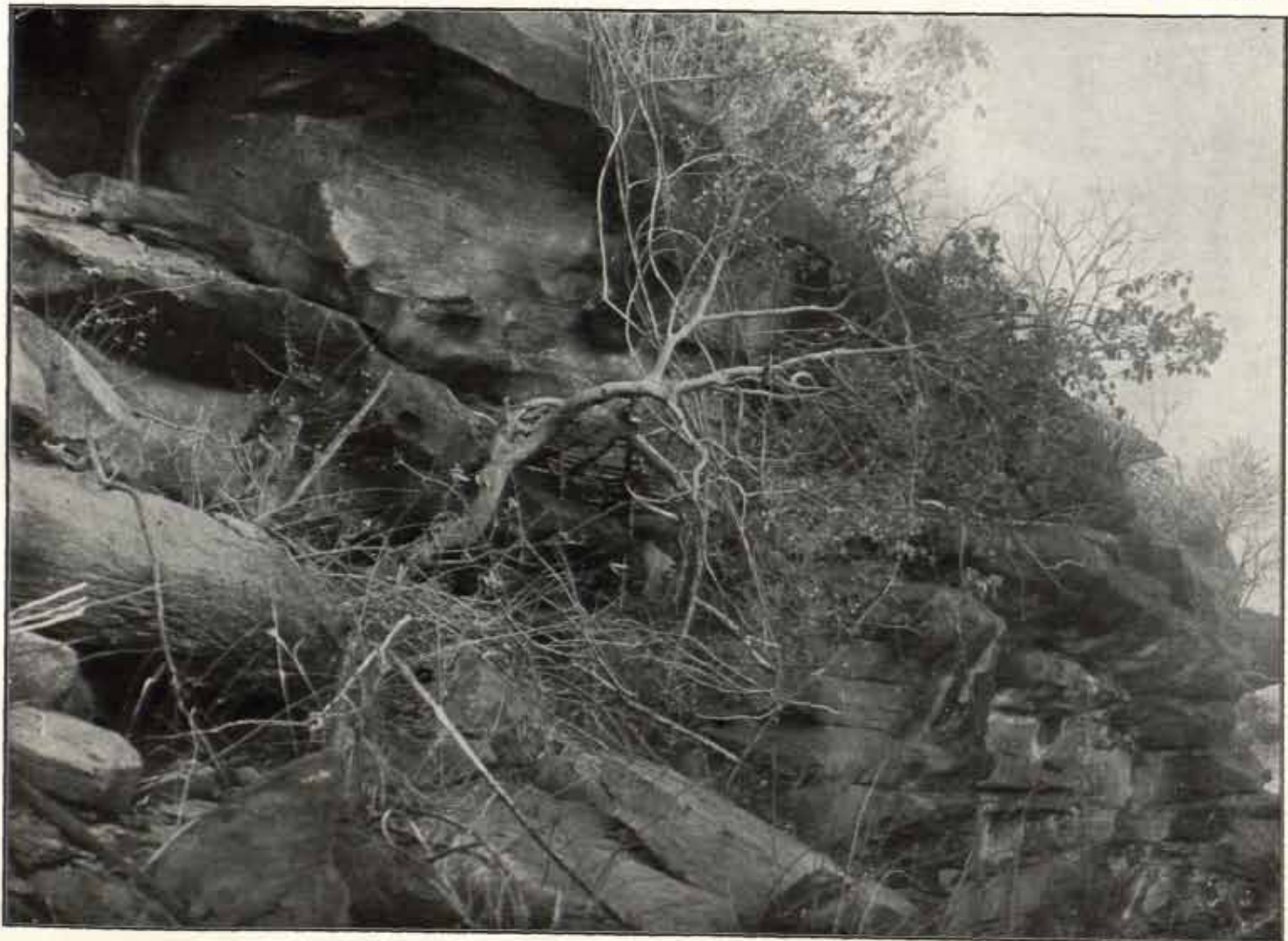
PLATE VI.



DETAILED VIEW OF THE ROCK-SHELTER CONTAINING PREHISTORIC PAINTINGS, HOSHANGABAD.



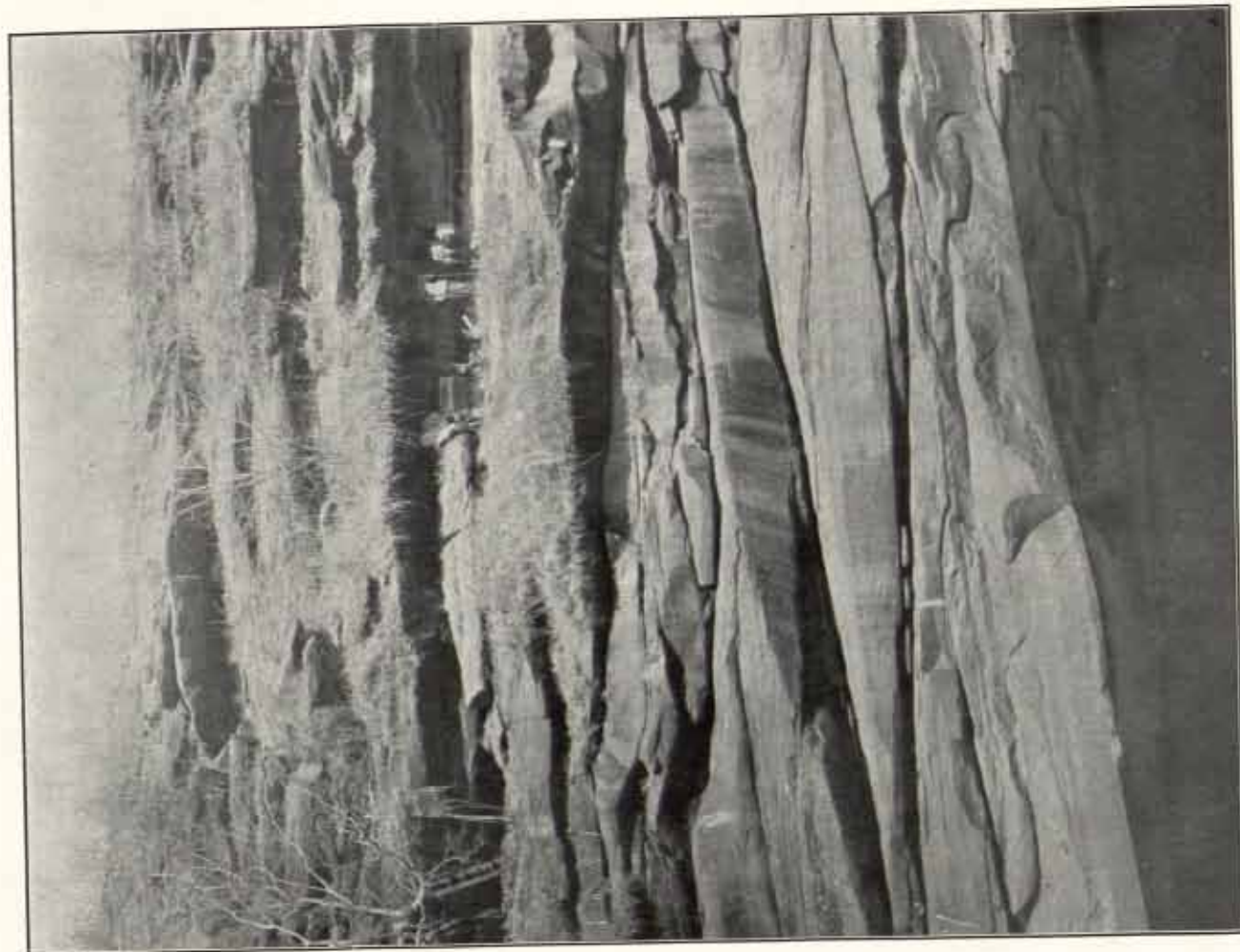
VIEW OF THE ROCK-SHELTER OF KOHBAR, NEAR AHRAURA, MIRZAPUR.



VIEW OF THE BHALDARIA ROCK-SHELTER NO. II NEAR AHRAURA, MIRZAPUR.

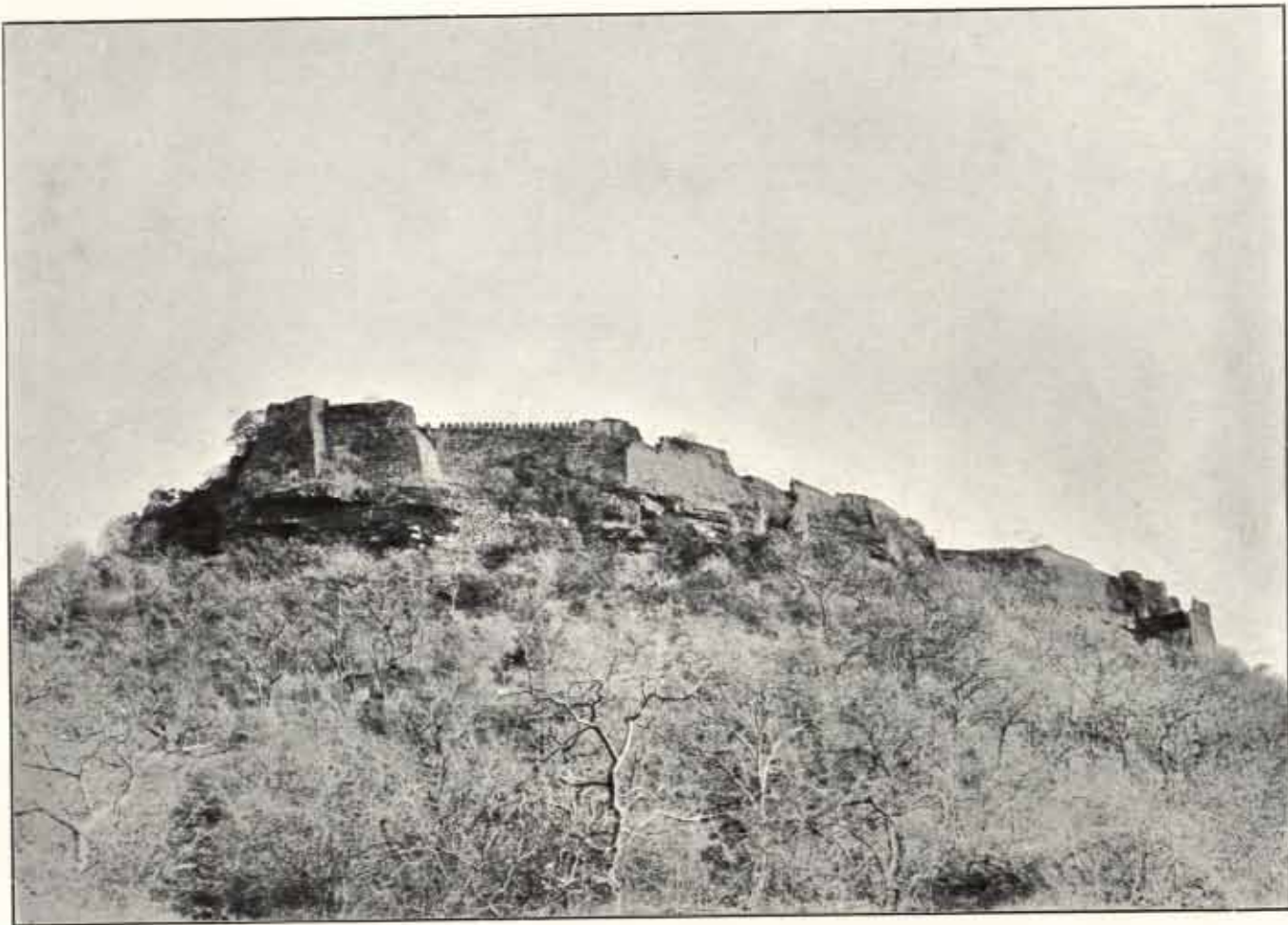


(a) VIEW OF THE ROCK-SHELTER NO. I, NEAR AHRAURA, MIRZAPUR.

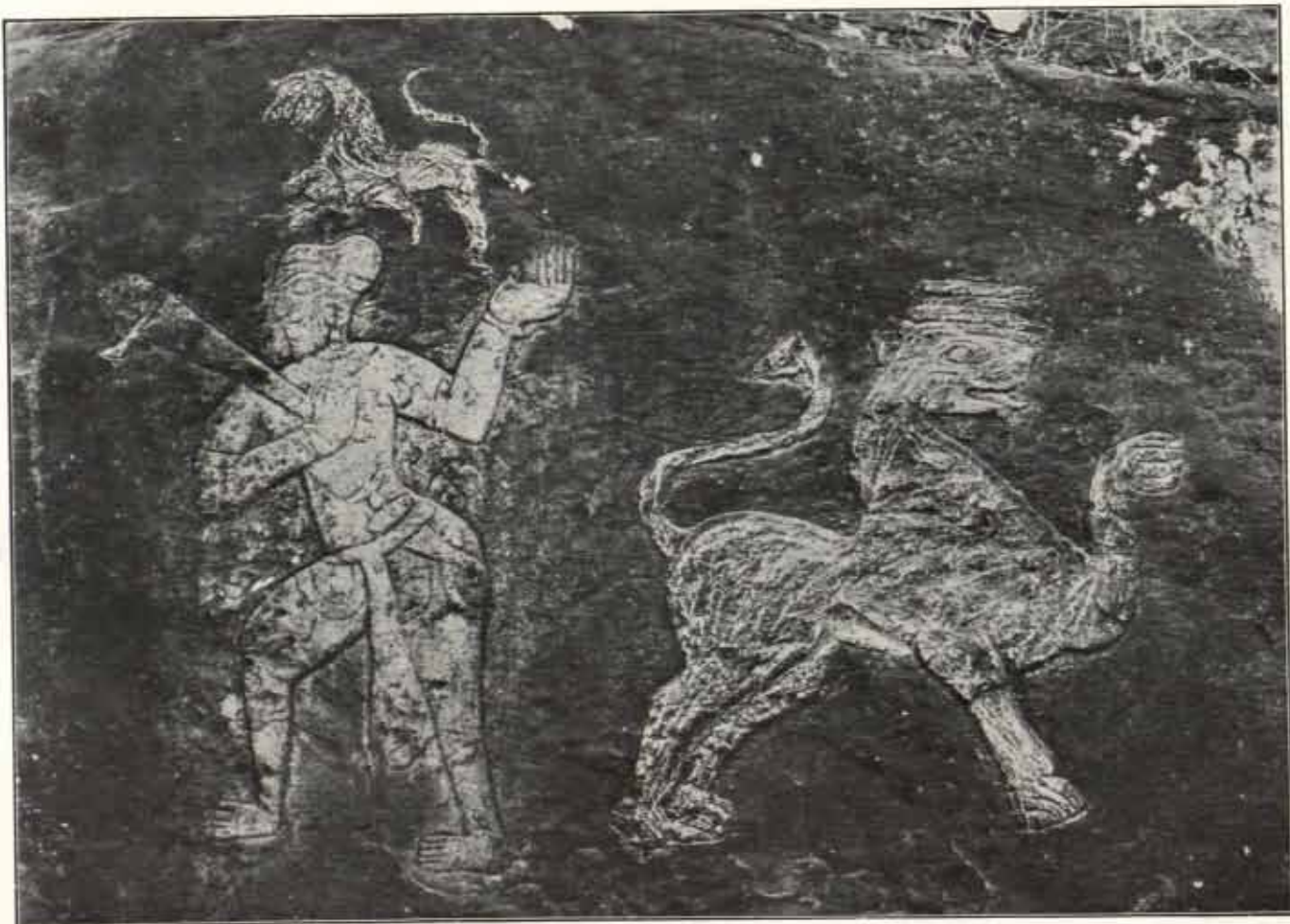


(b) VIEW OF THE BHALDARIA ROCK-SHELTER NO. III, NEAR AHRAURA, MIRZAPUR.

ROCK PAINTINGS AND PREHISTORICS.

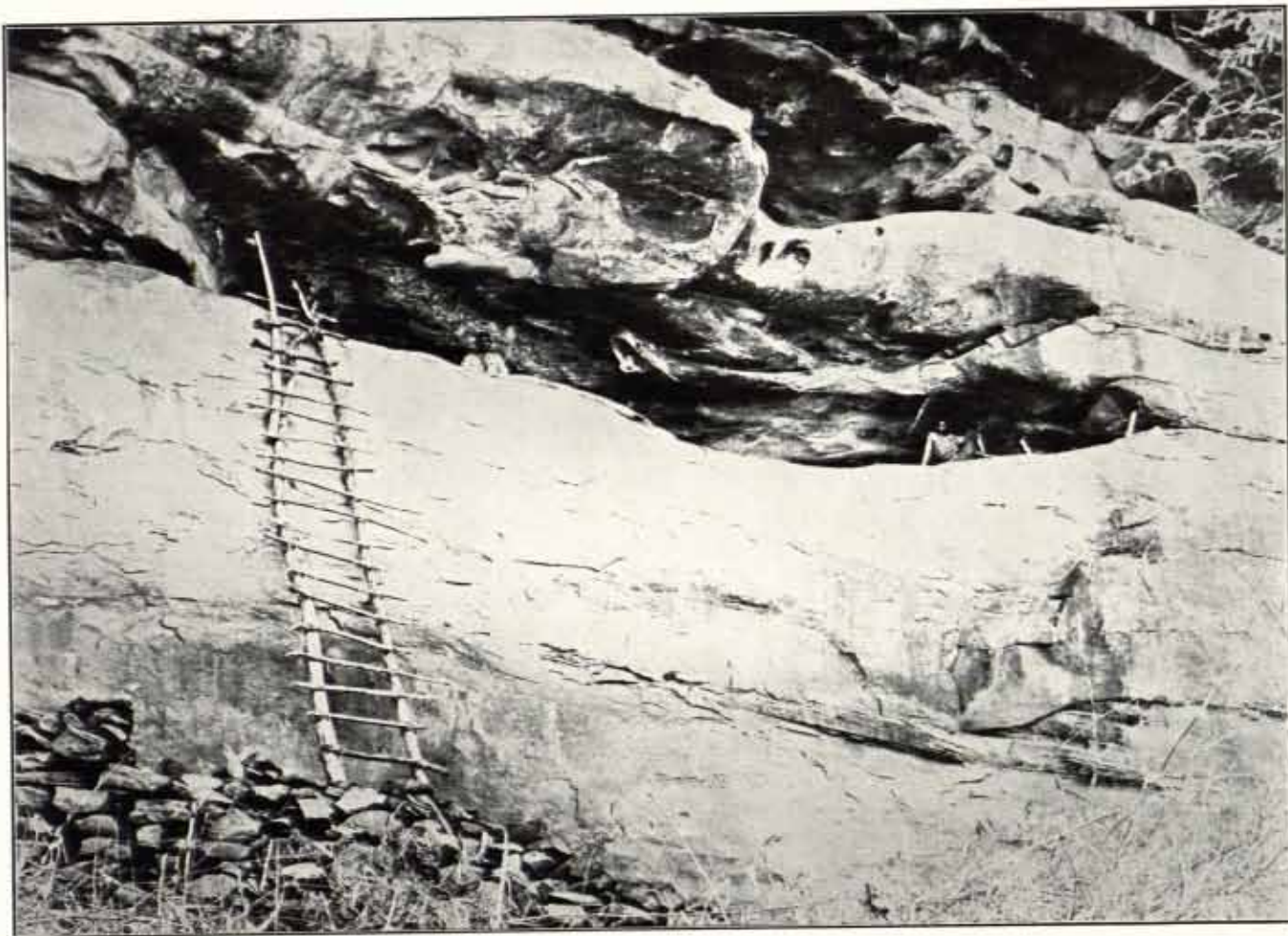


(a) VIEW OF THE FORT OF BIJAYGARH, MIRZAPUR.



(b) VIEW OF THE WARRIOR ON THE WAY TO BIJAYGARH, MIRZAPUR.

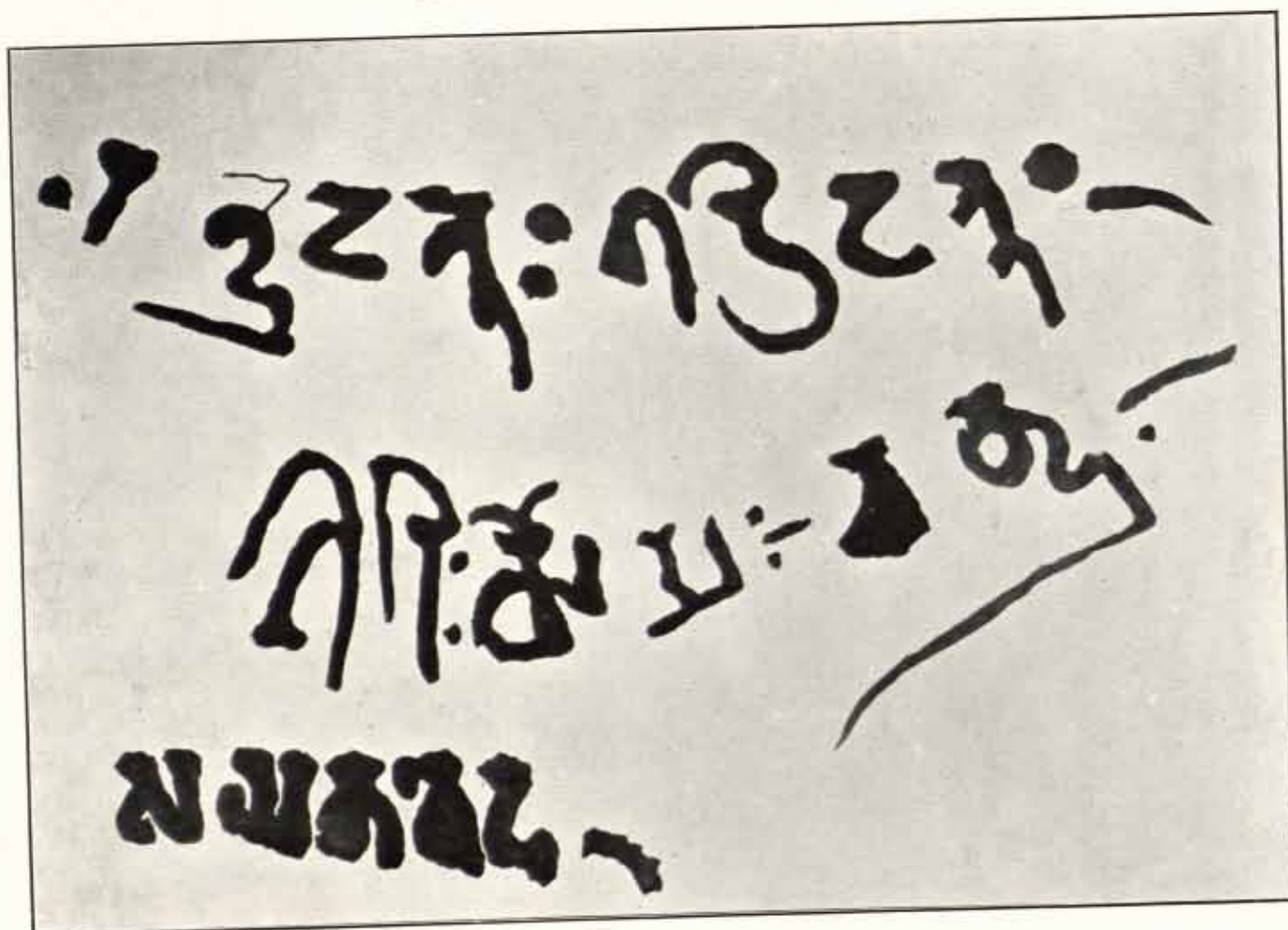
ROCK PAINTINGS AND PREHISTORICS.



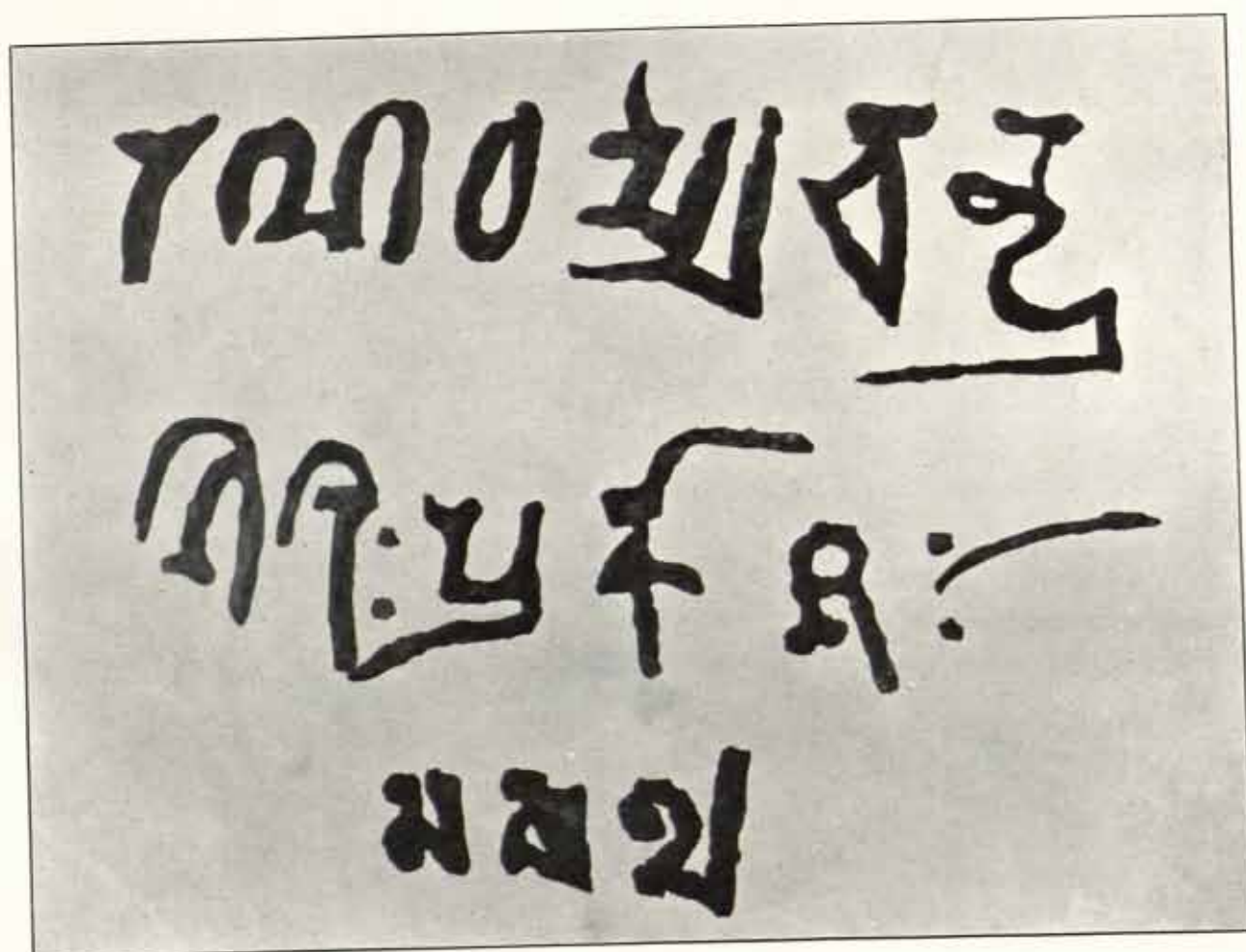
(a) VIEW OF THE ROCK-SHELTER NO. II, BJAYGAH, MIRZAPUR.



(b) VIEW OF THE INSCRIPTIONS PAINTED ON THE ROOF OF THE ROCK-SHELTER NO. II, BJAYGAH, MIRZAPUR.

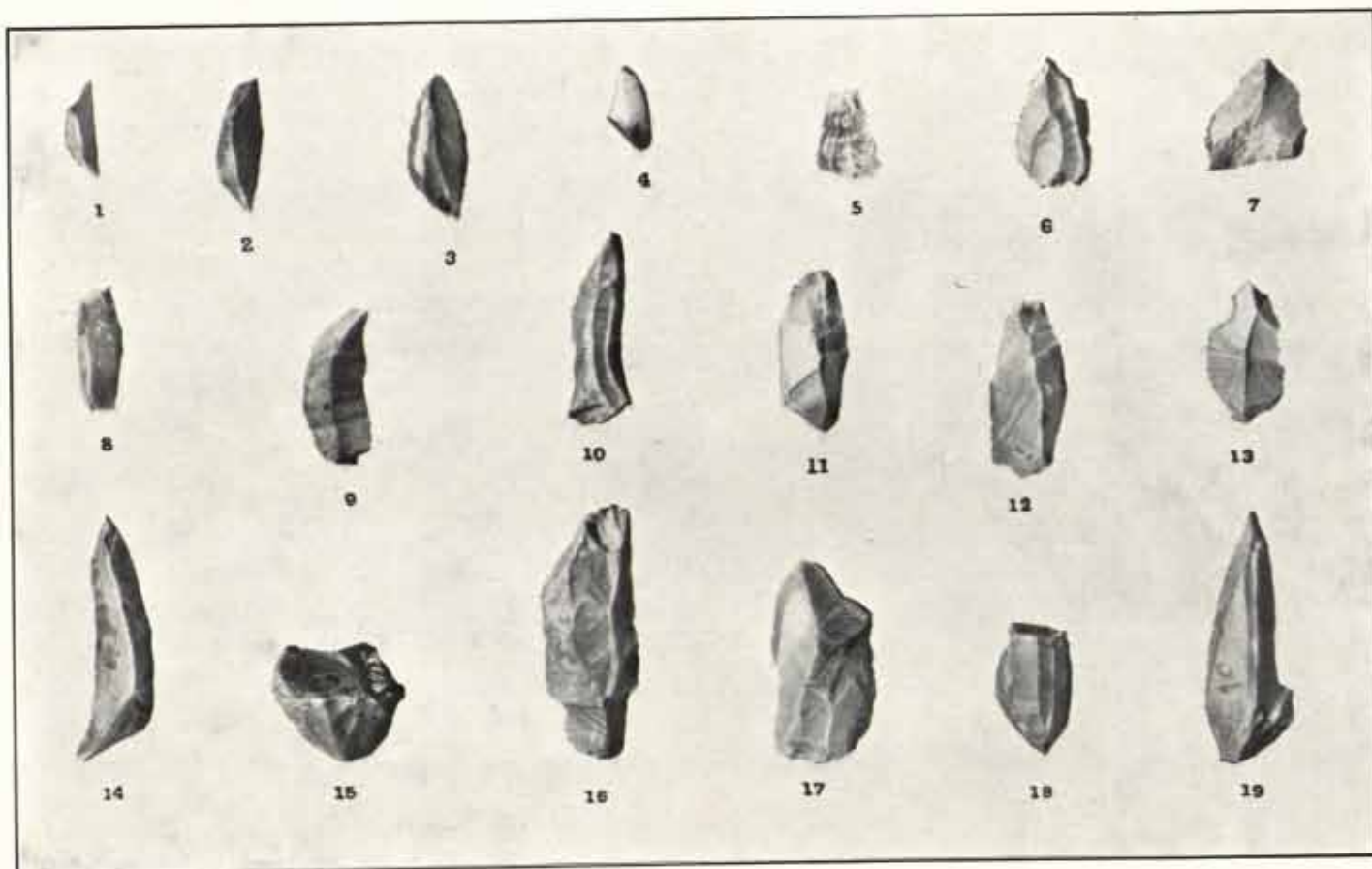


a

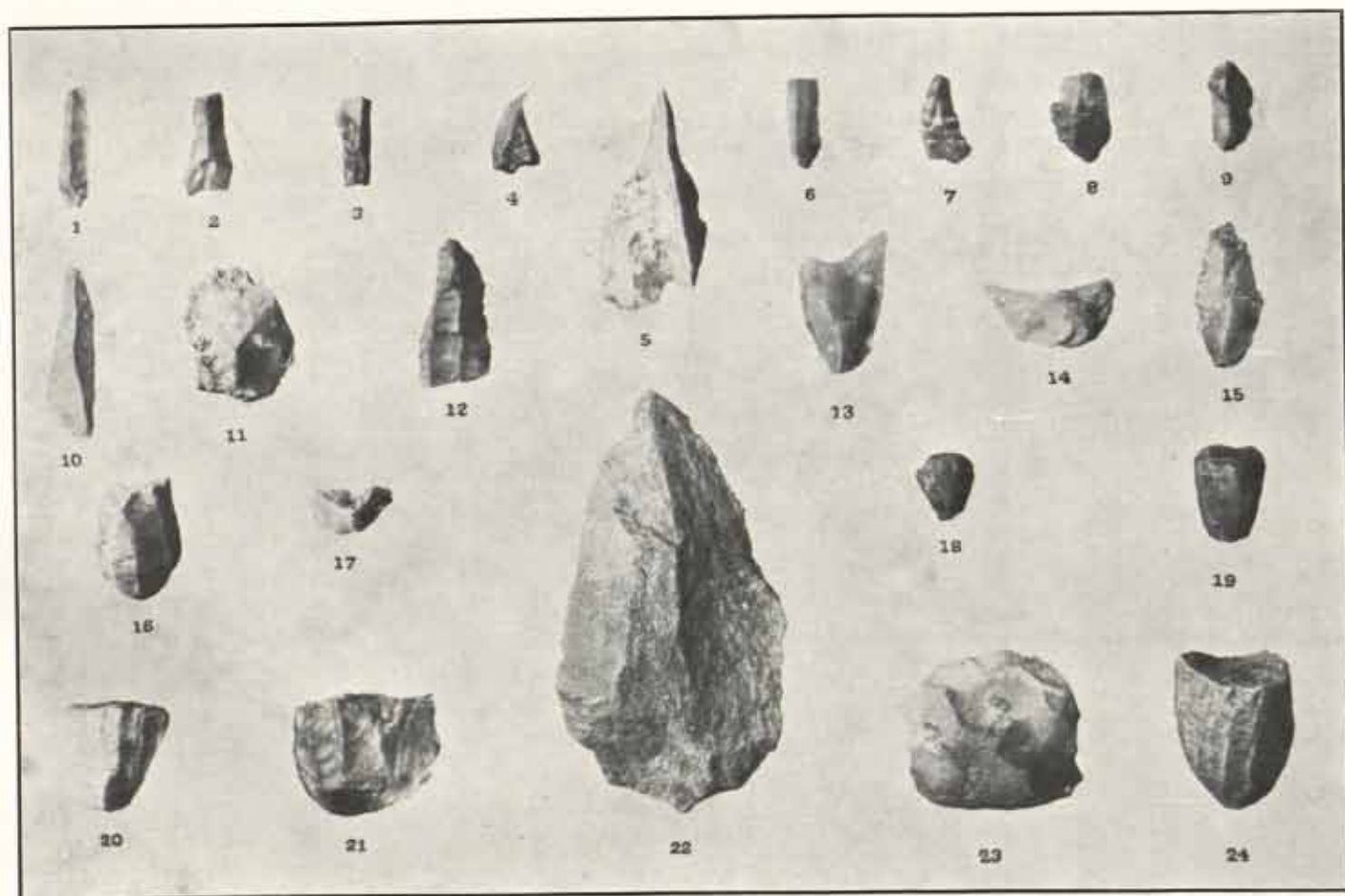


b

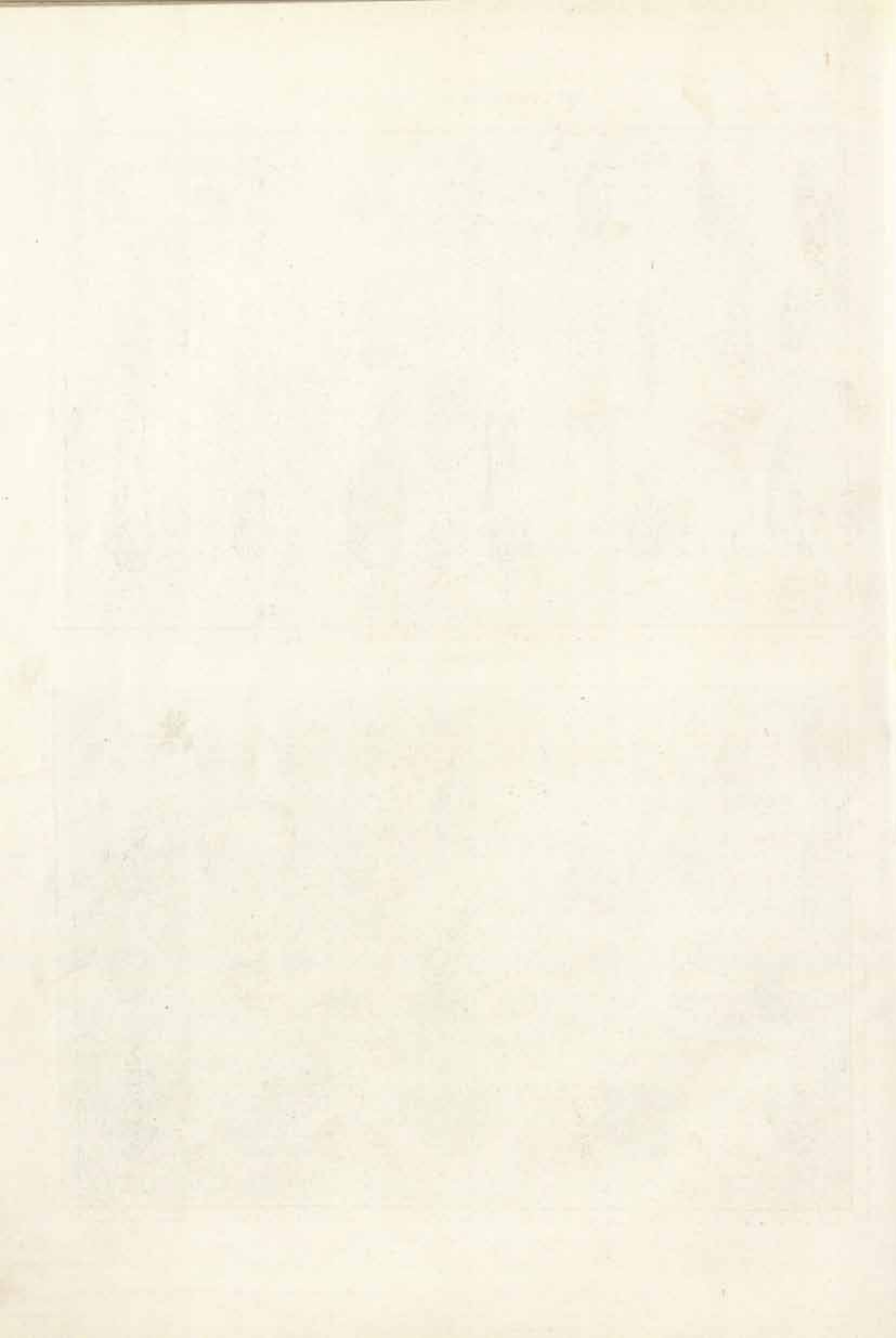
ROCK PAINTINGS AND PREHISTORICS.



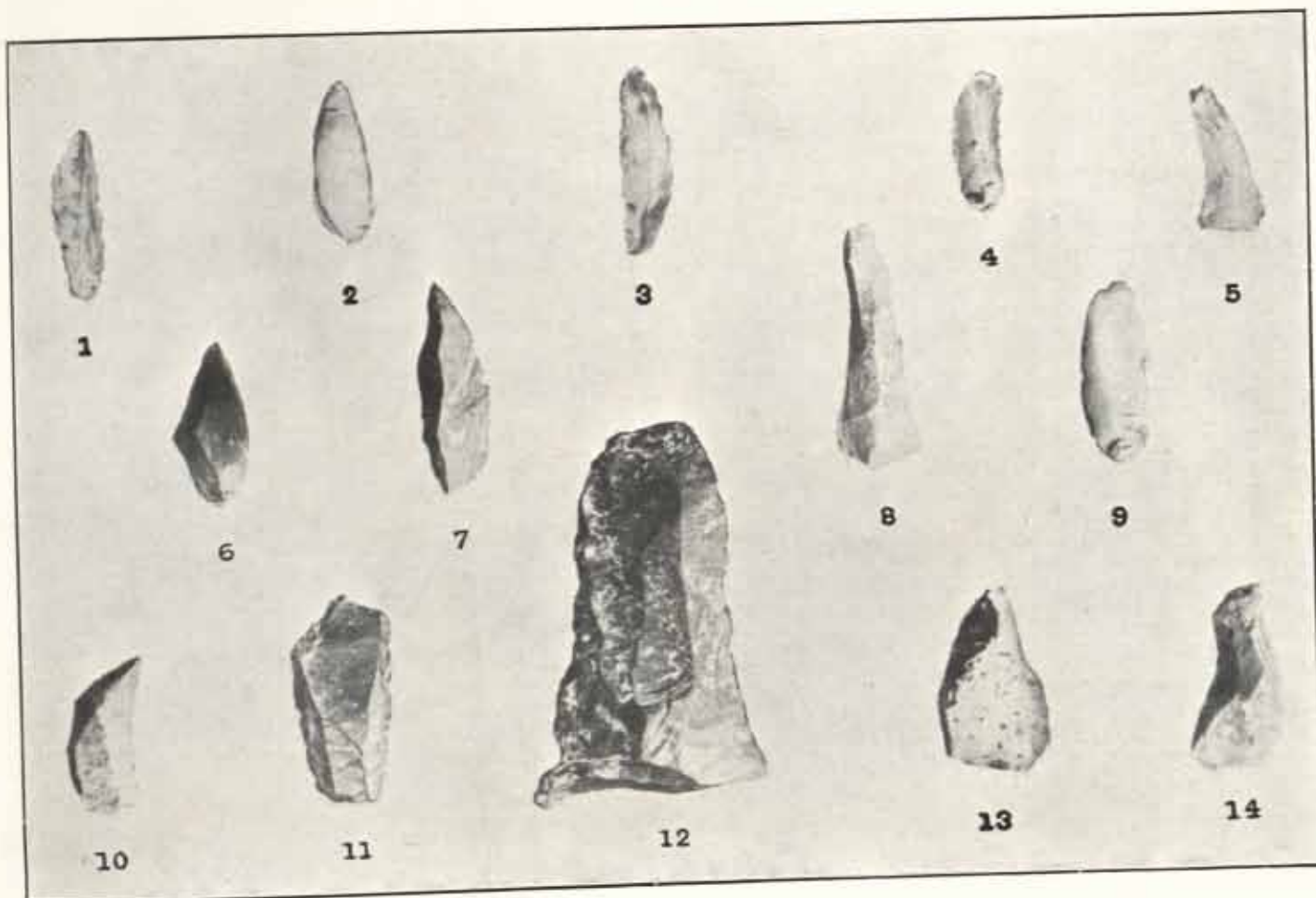
(a) PALEOLITHS FROM CHAKRADHARPUR.



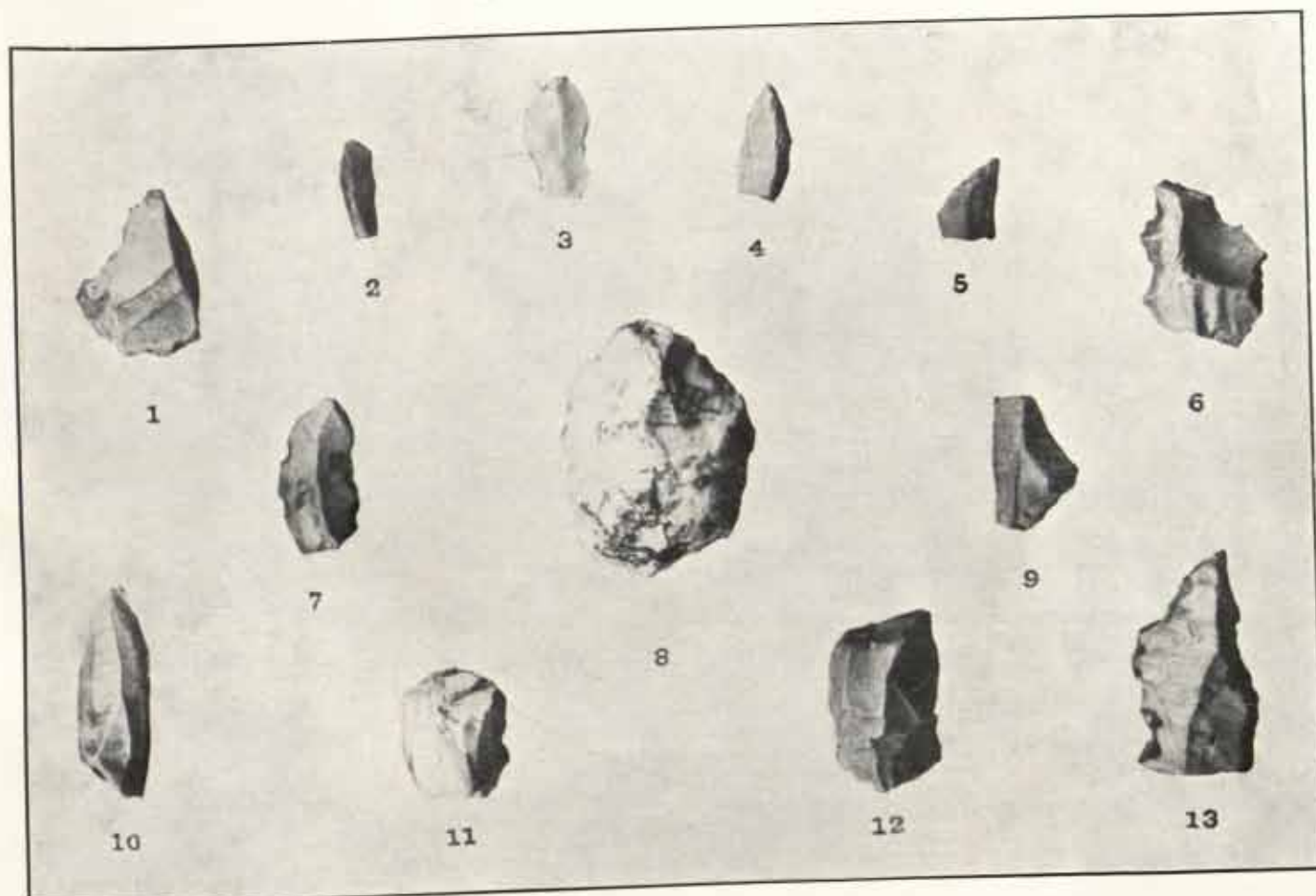
(b) PALEOLITHS FROM SINGANPUR.



ROCK PAINTINGS AND PREHISTORICS.



(a) PALEOLITHS FROM HOSHANGABAD.



(b) PALEOLITHS FROM LIKHUNIA, NEAR AHRAURA, MIRZAPUR.



5



12

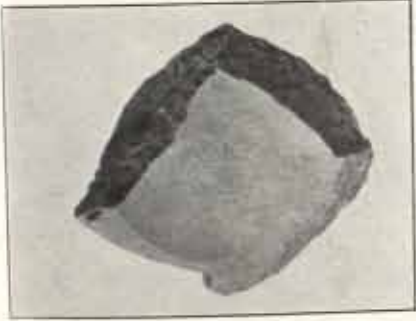


11



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17



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16



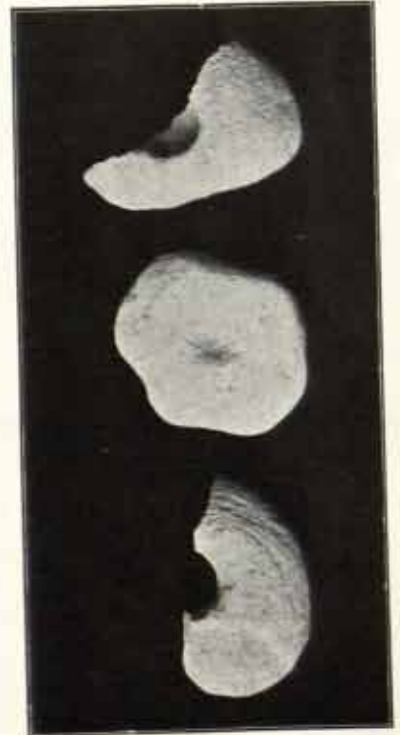
3



6



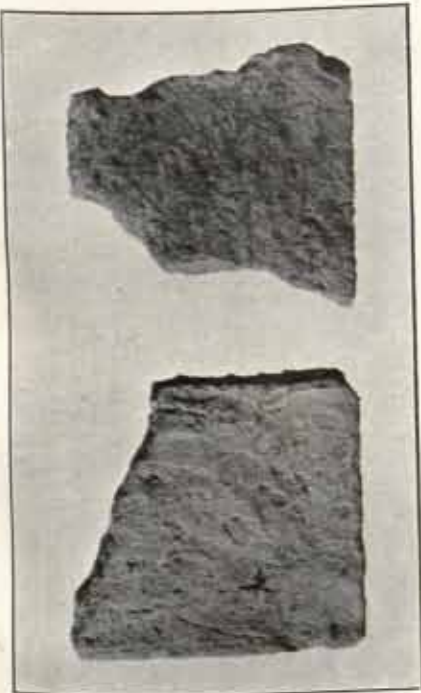
9



13

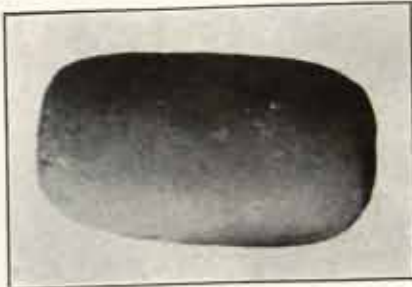
14

15



1

2



8



4



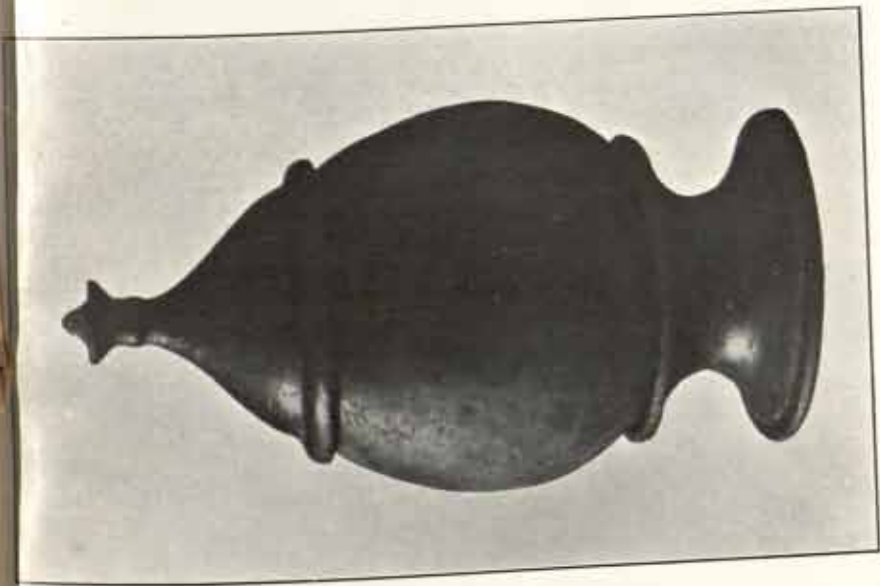
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3



8



7



2



6



1



5



10



14



13



16

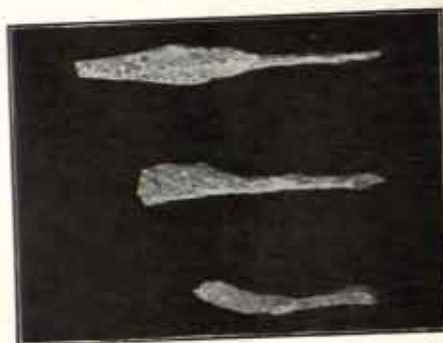
MISCELLANEOUS ANTIQUITIES.



11



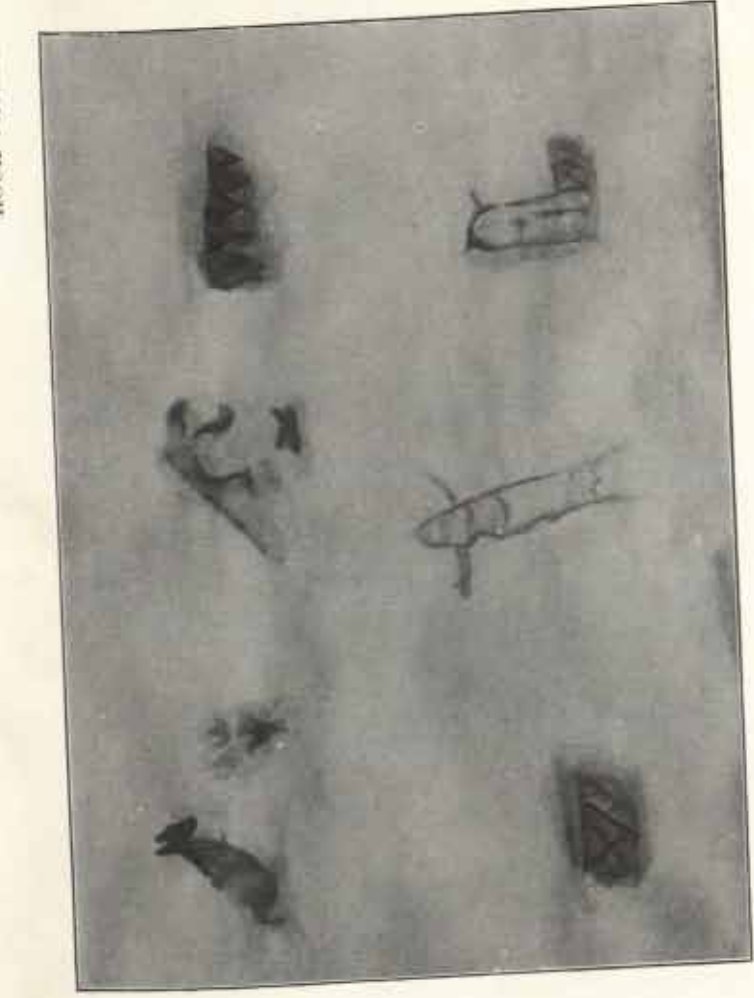
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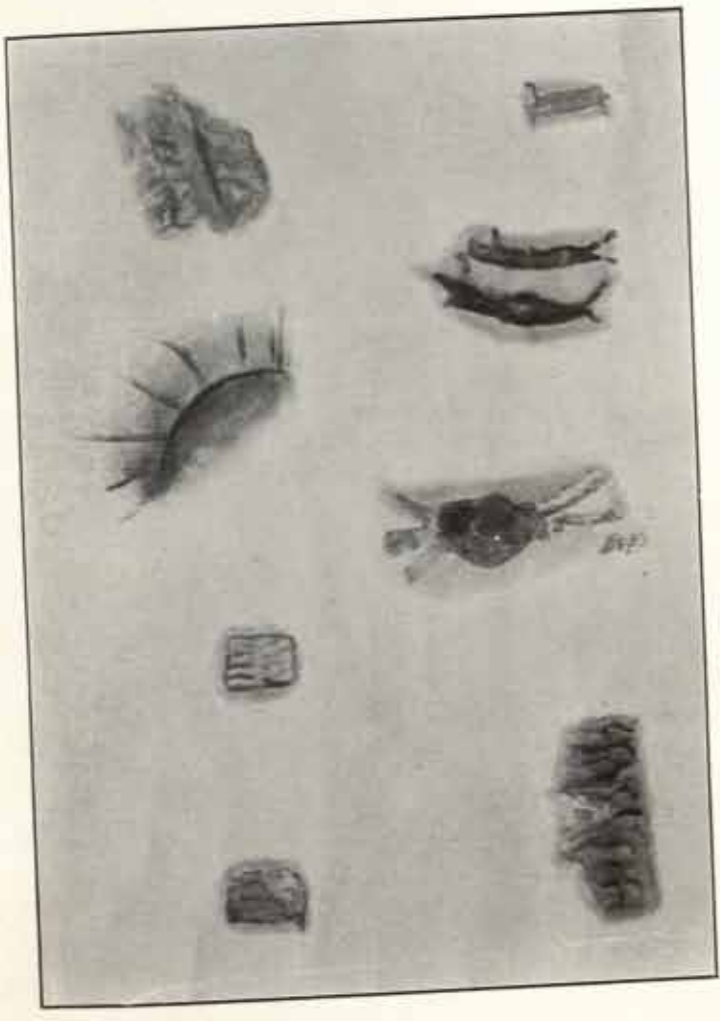
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19

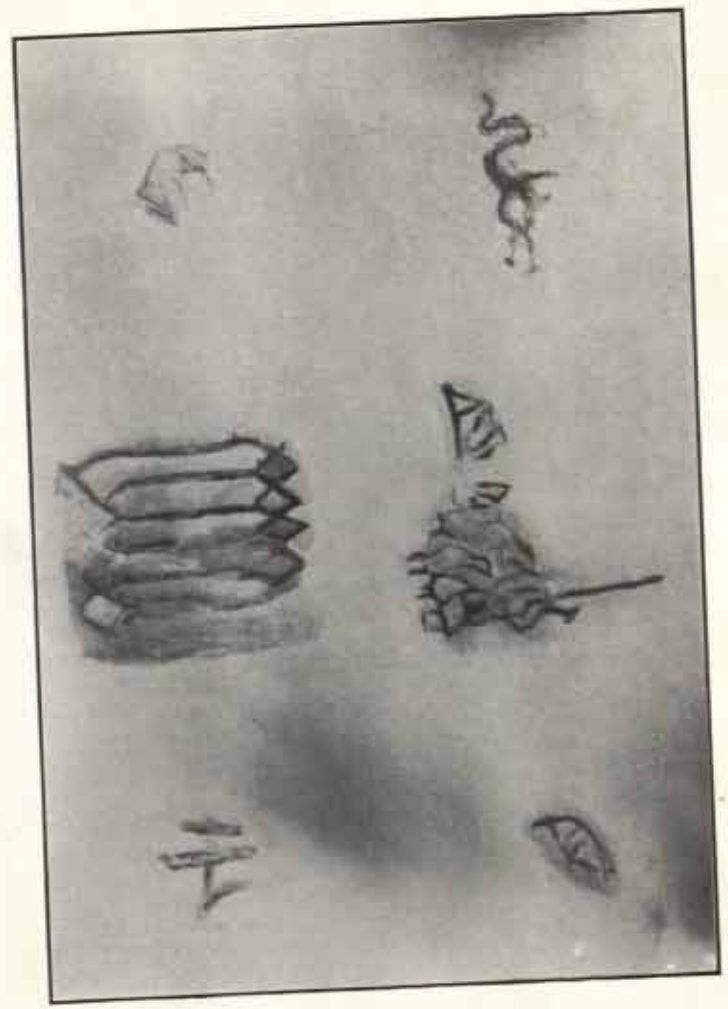
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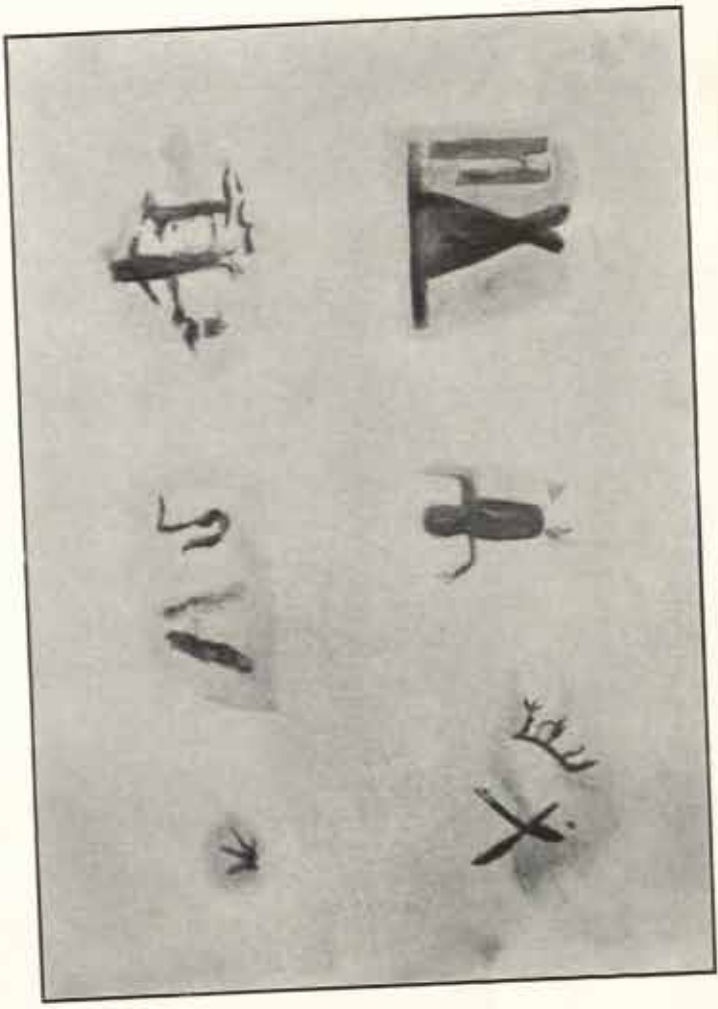
a



b

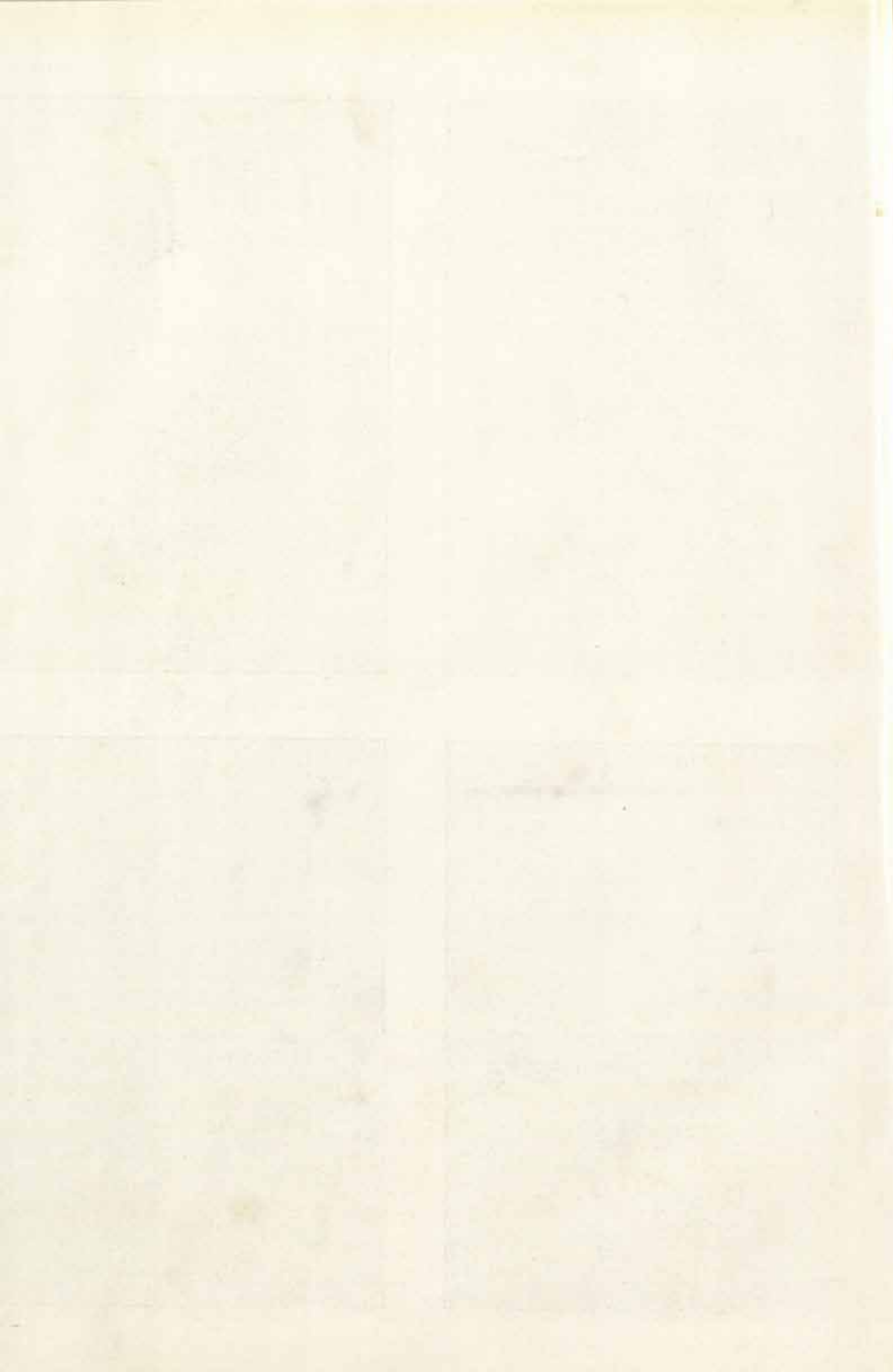


c

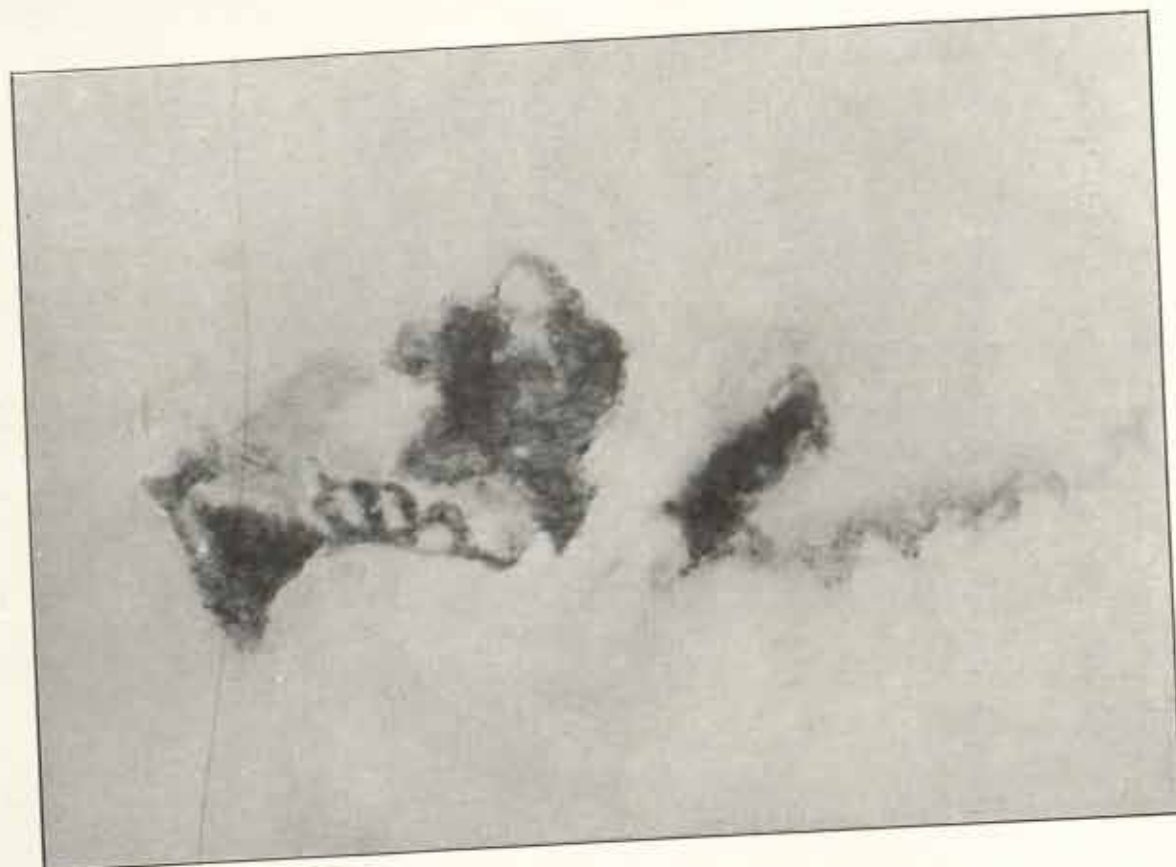


d

PREHISTORIC PAINTINGS FROM SINGANPUR ROCK-SHELTER.



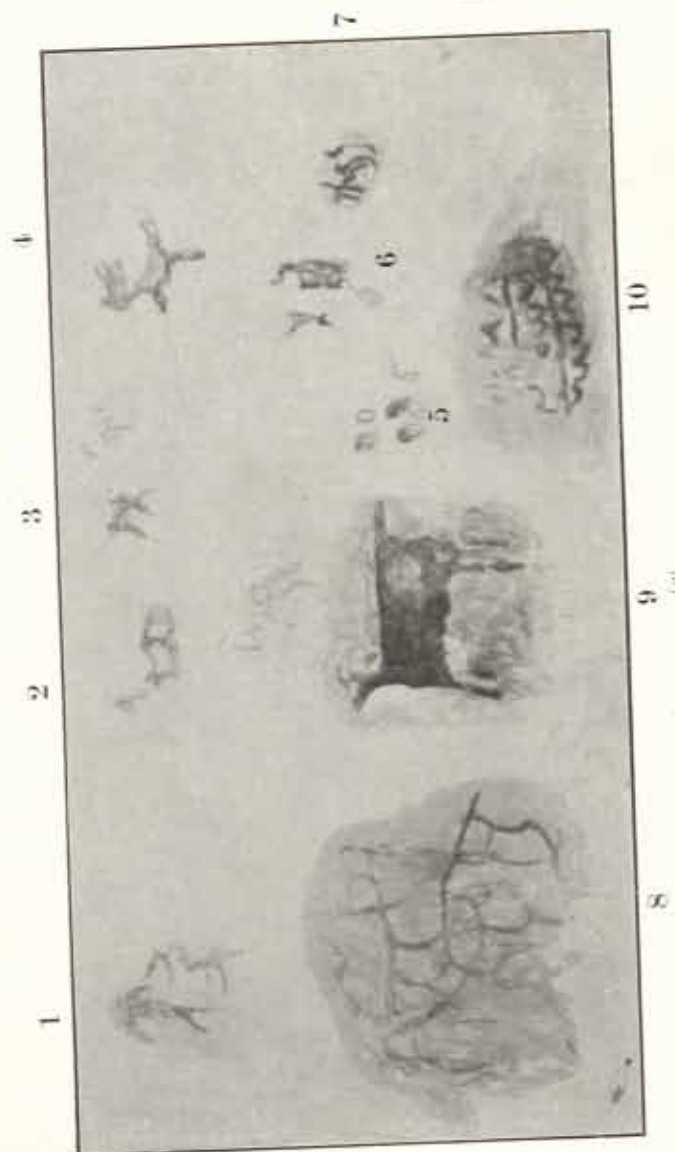
ROCK PAINTINGS AND PREHISTORIC.



(a)

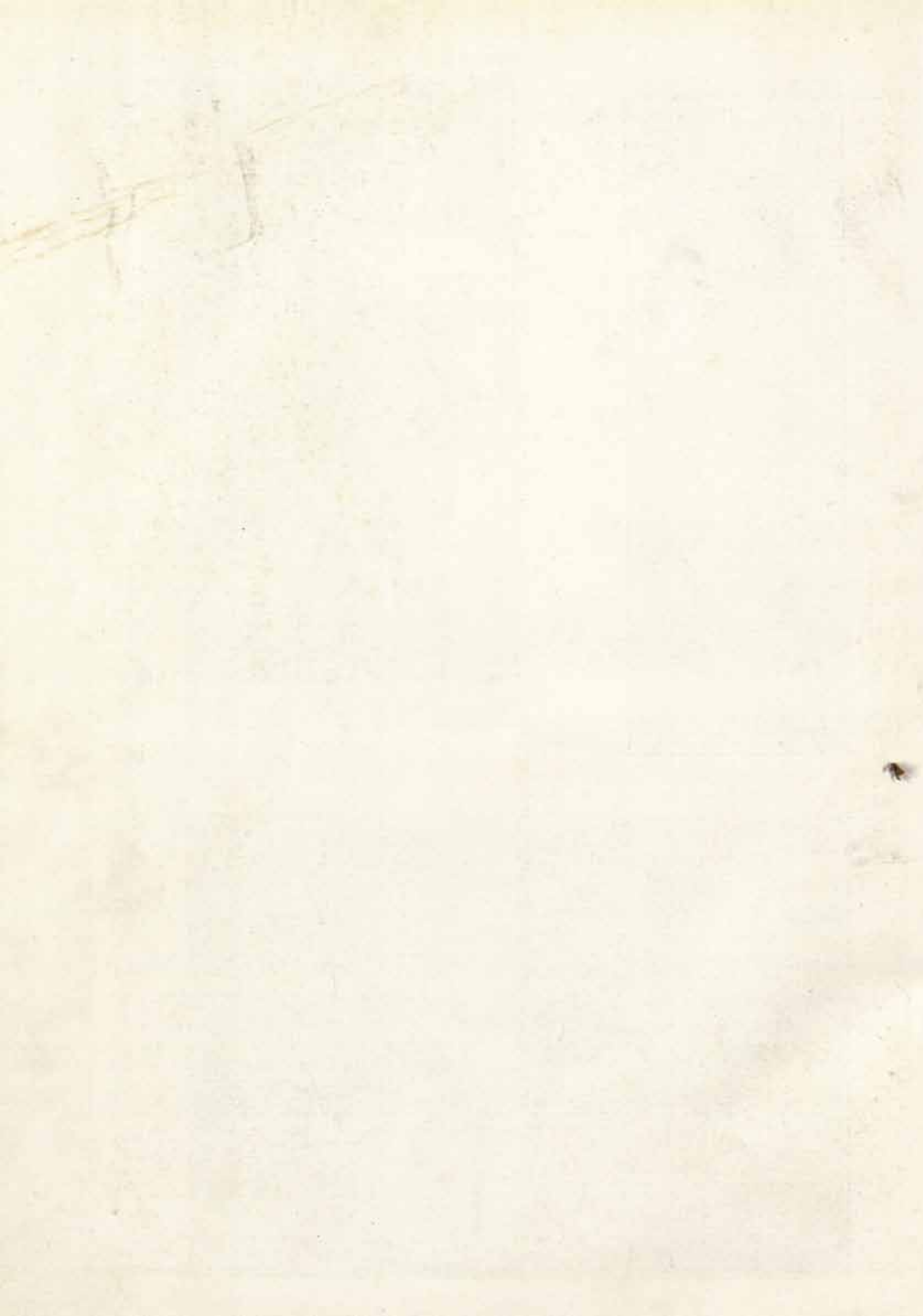


(b)



PREHISTORIC PAINTINGS FROM SINGANPUR ROCK-SHELTER.

Photographed & printed at the Office of the Survey of India, Calcutta, 1921.





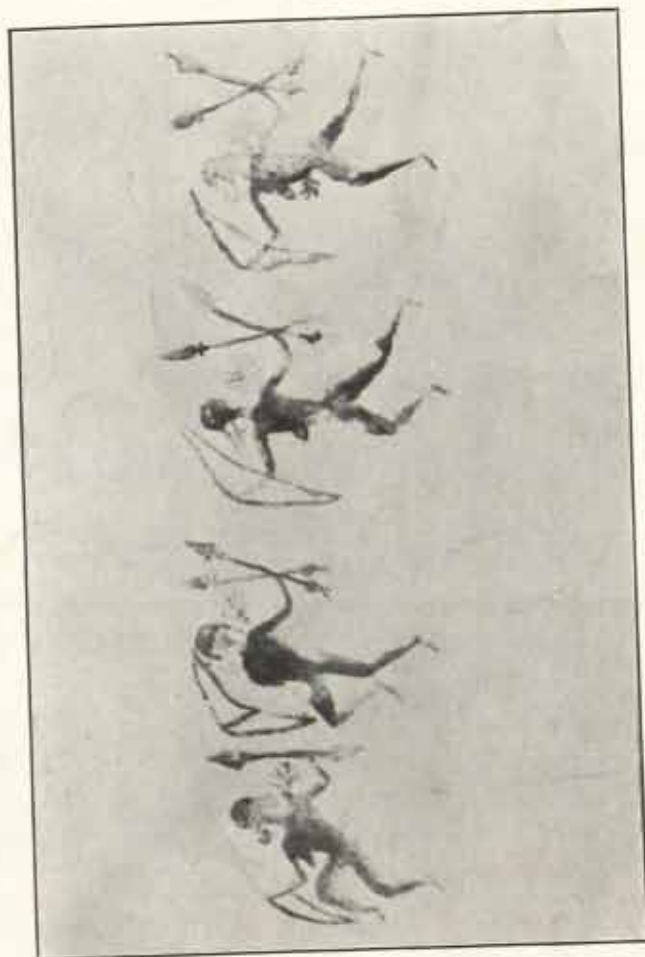
b



d

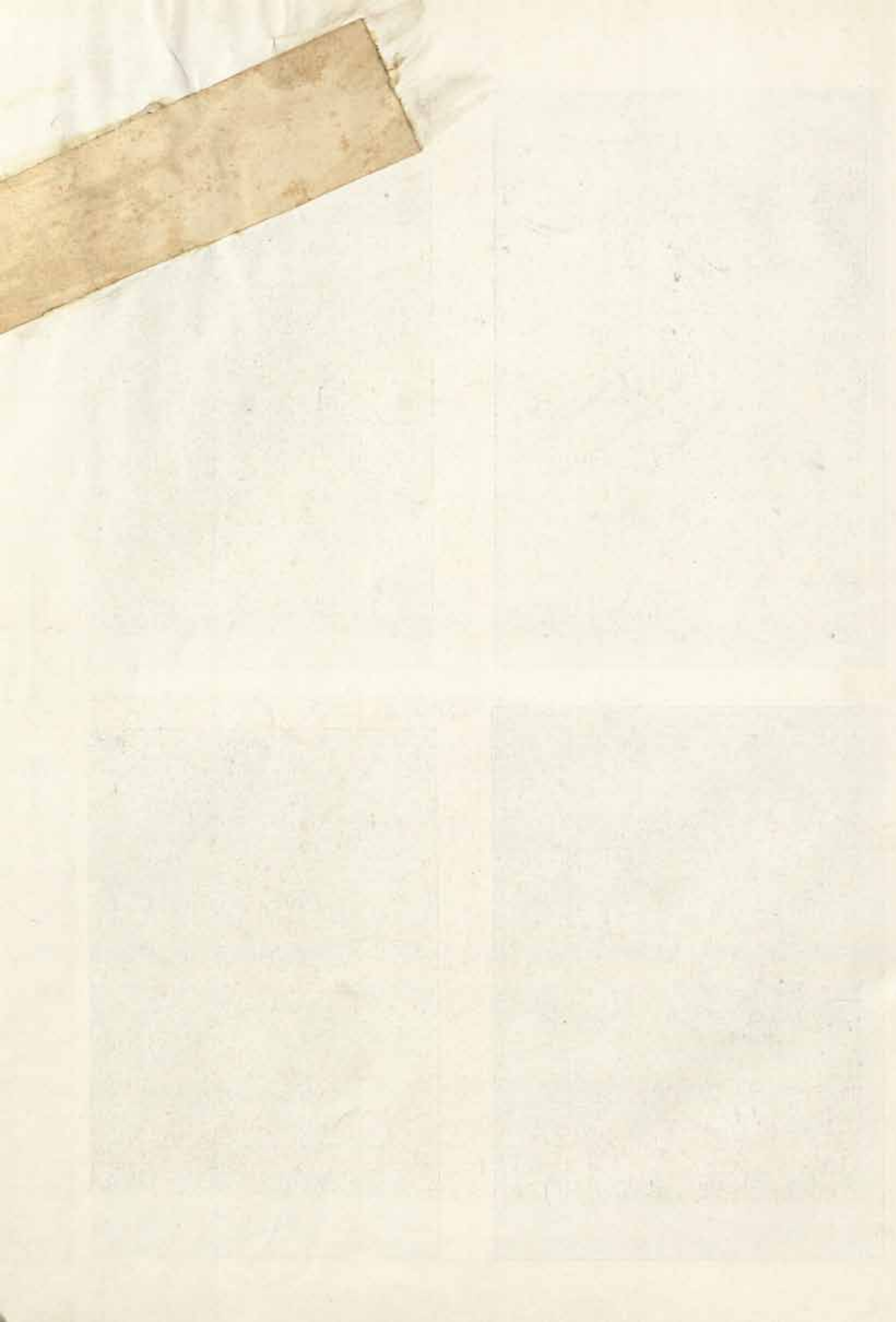


a

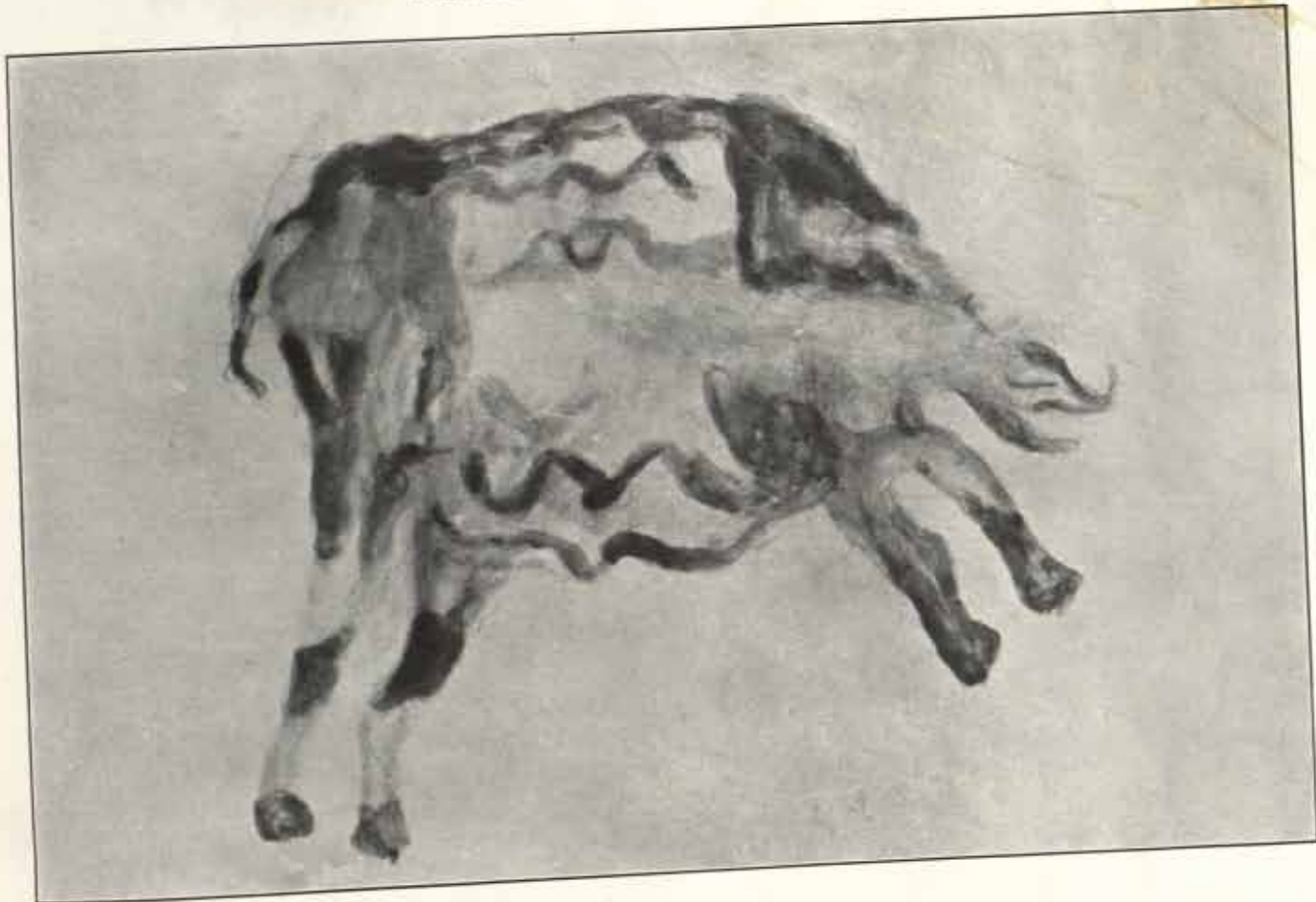


c

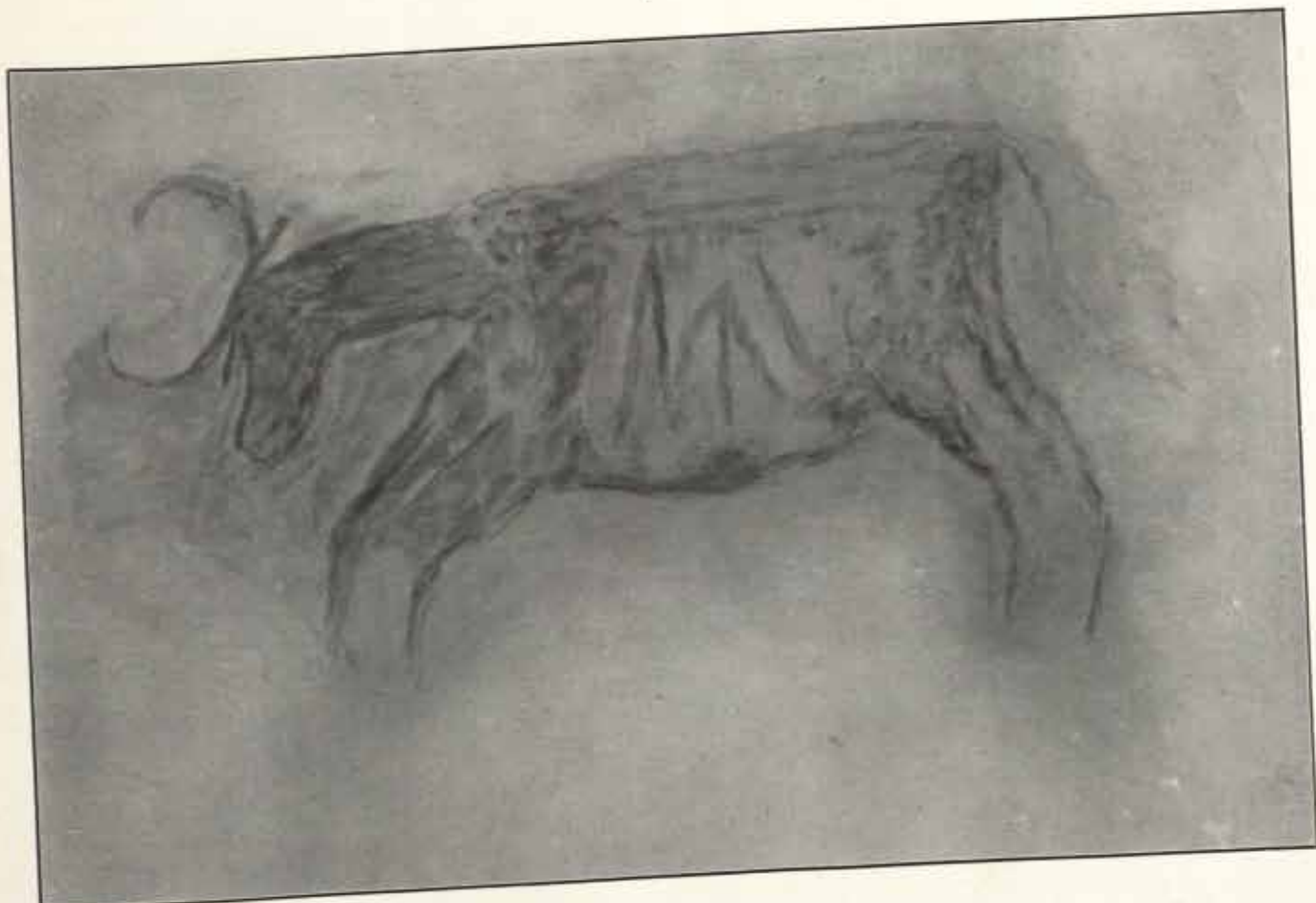
PREHISTORIC PAINTINGS FROM HOSHANGABAD.



ROCK PAINTINGS AND PREHISTORICS.



a

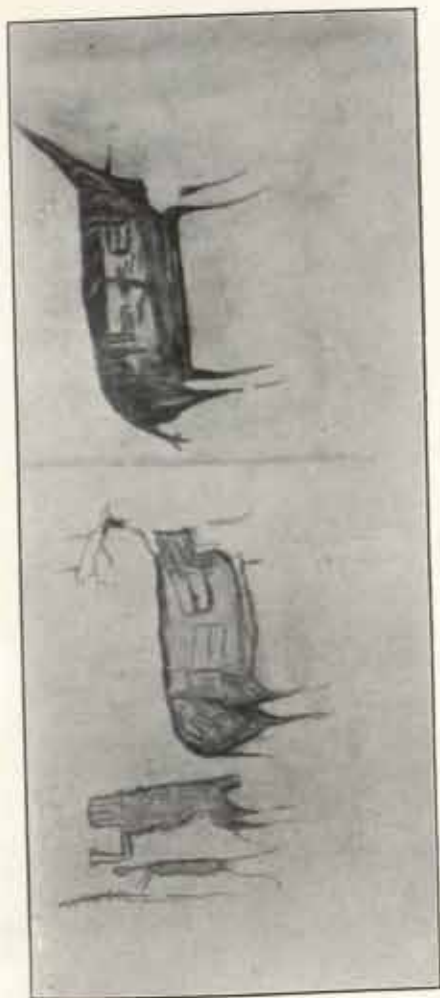


b

PREHISTORIC PAINTINGS FROM HOSHANGABAD.



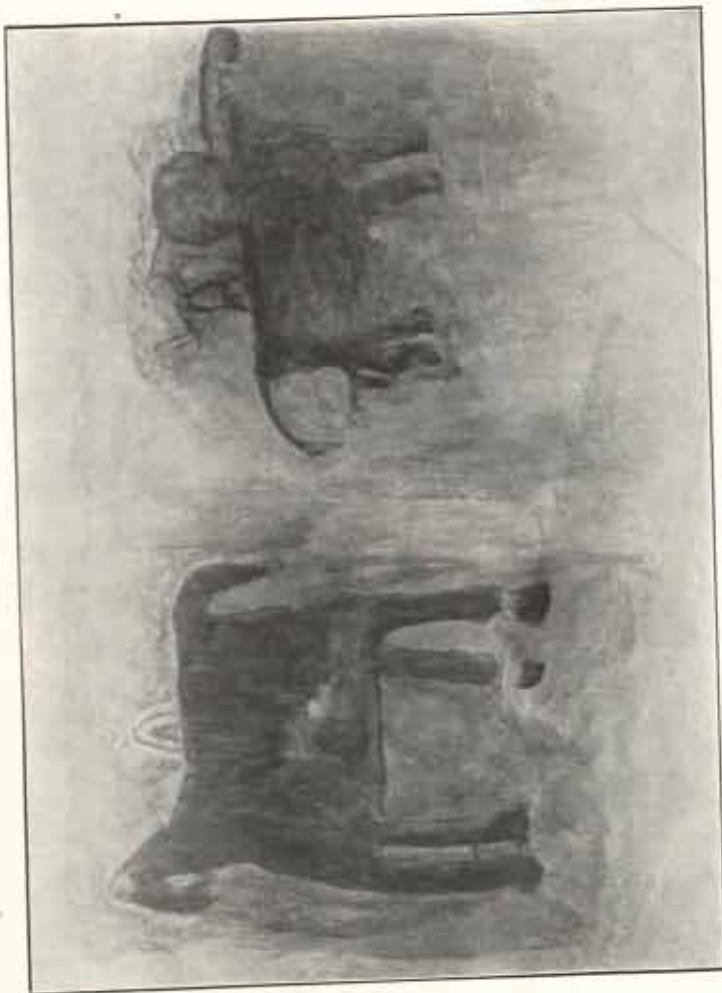
a



b

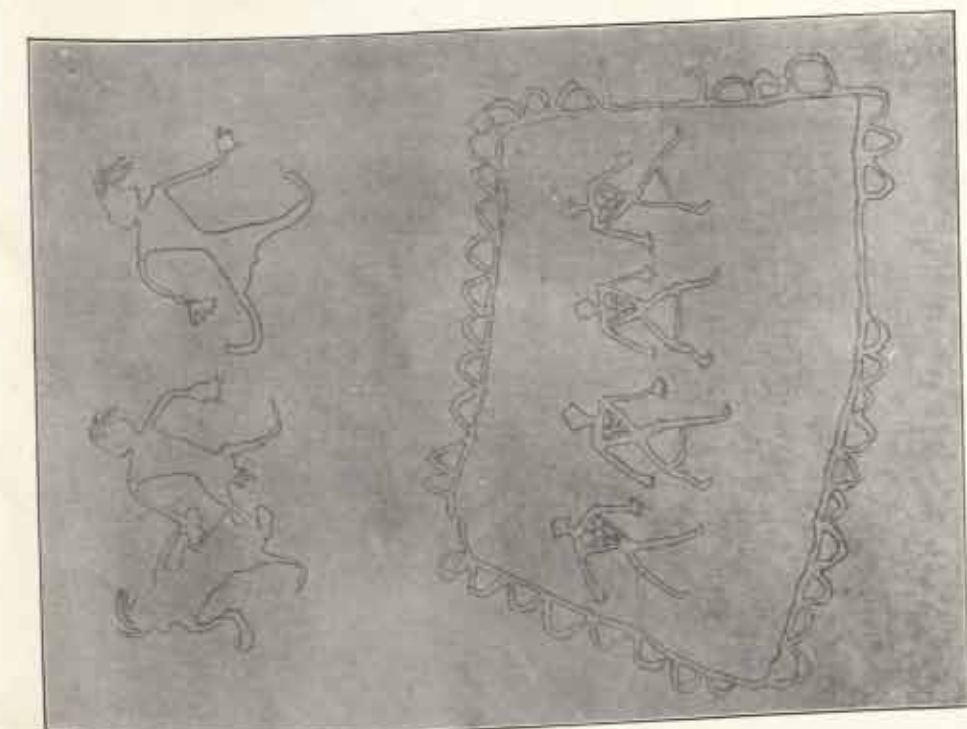


c



d

PREHISTORIC PAINTINGS FROM MIRZAPUR ROCK-SHELTER.



b



d

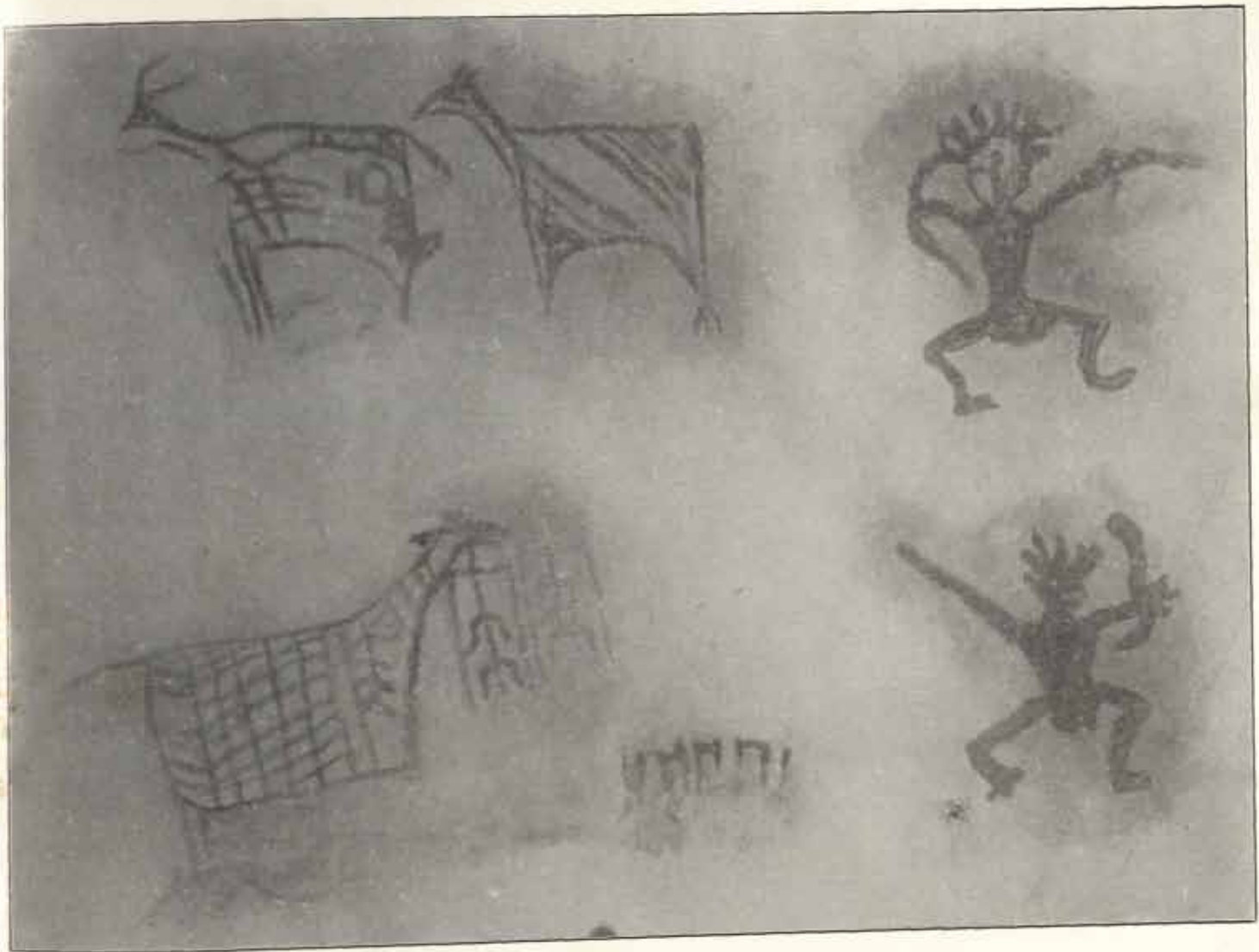


f

PREHISTORIC PAINTINGS FROM MIRZAPUR ROCK-SHELTERS.

g

e

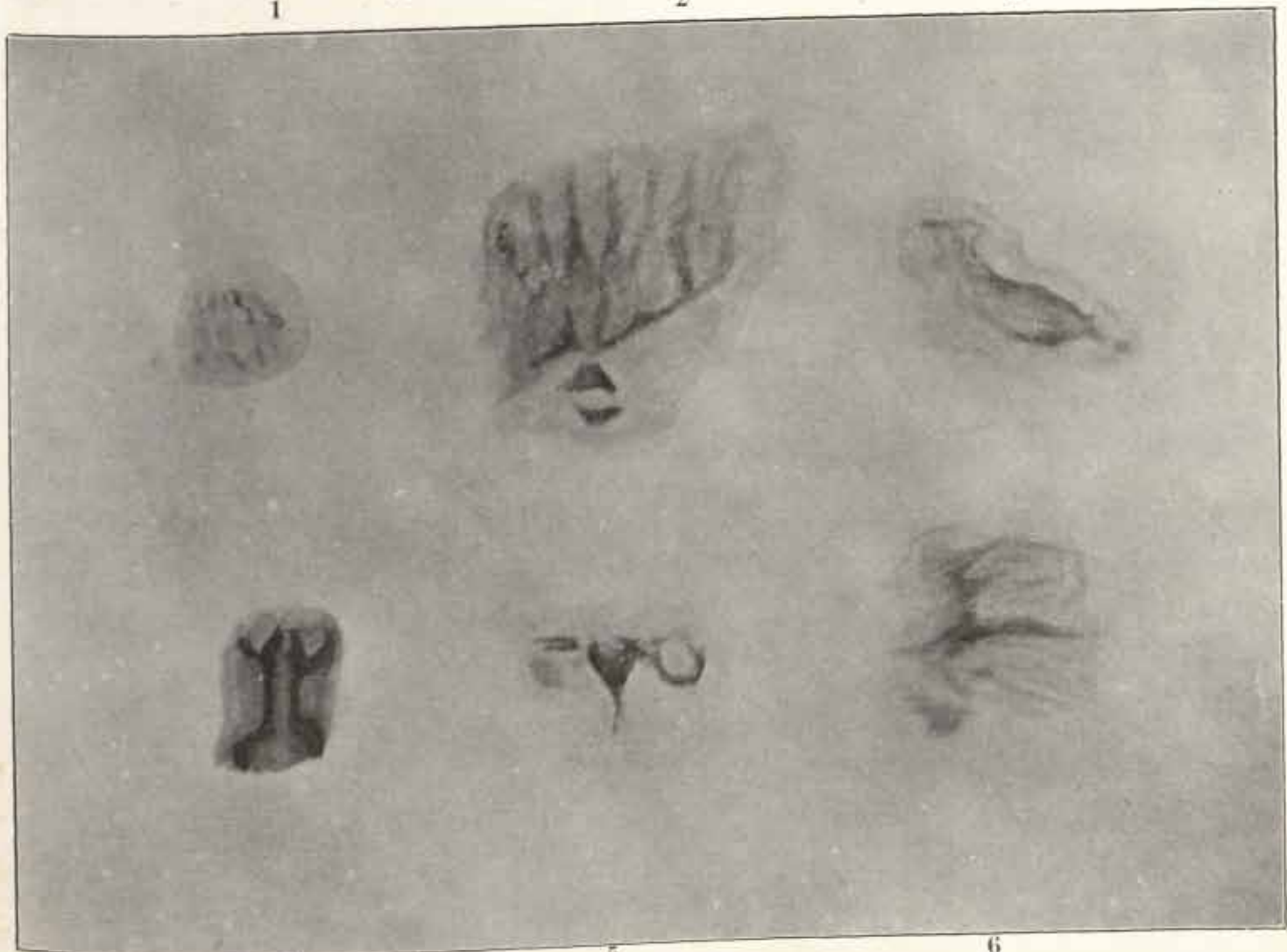


(a) PREHISTORIC PAINTINGS FROM KOHBAE, MIRZAPUR.

1

2

3



(b) PREHISTORIC PAINTINGS FROM SINGANPUR.

4

5

6

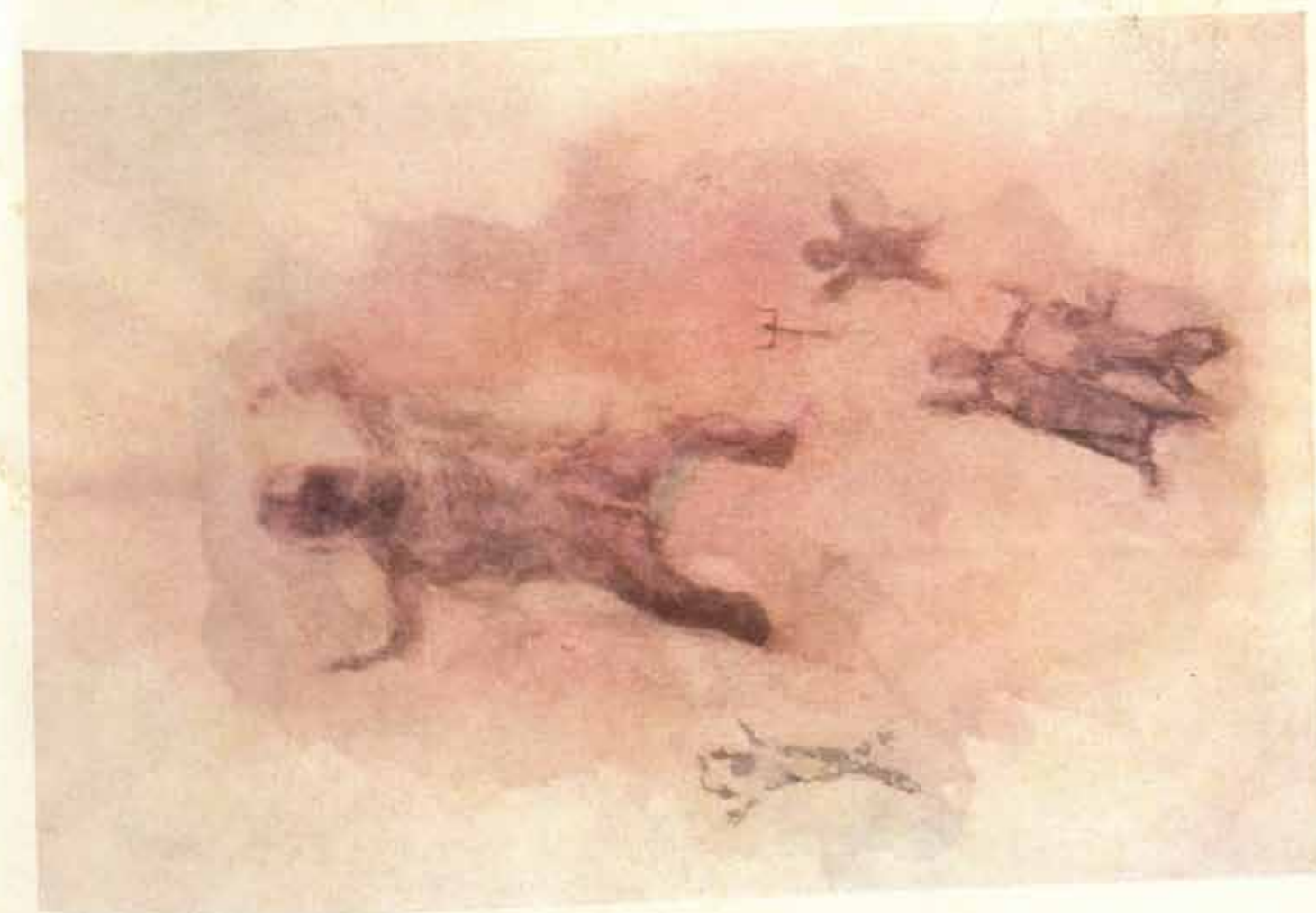
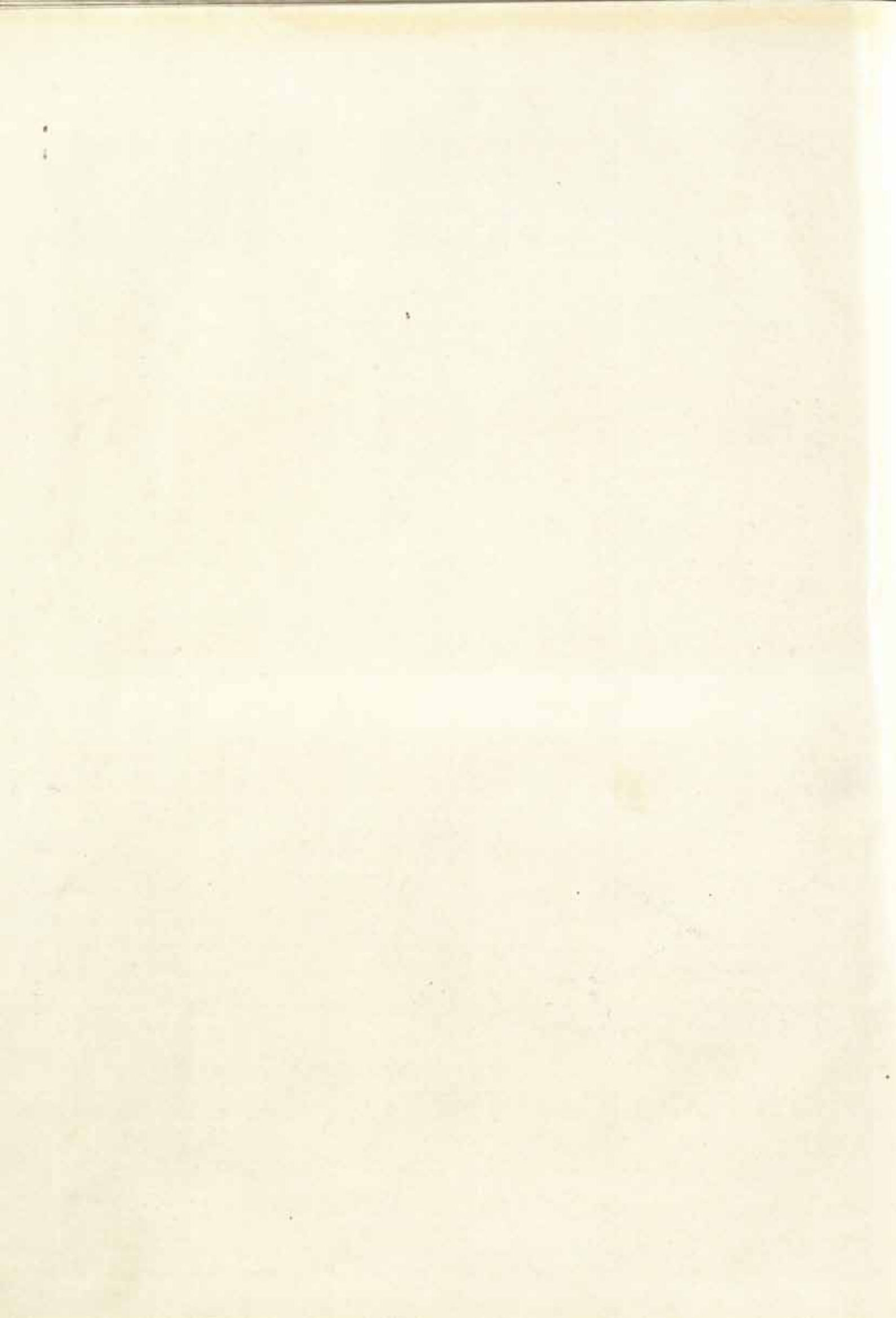


FIG. (a).



FIG. (b).

PREHISTORIC PAINTINGS FROM SINGANPUR.



ROCK PAINTINGS AND PREHISTORICS.



FIG. (a).

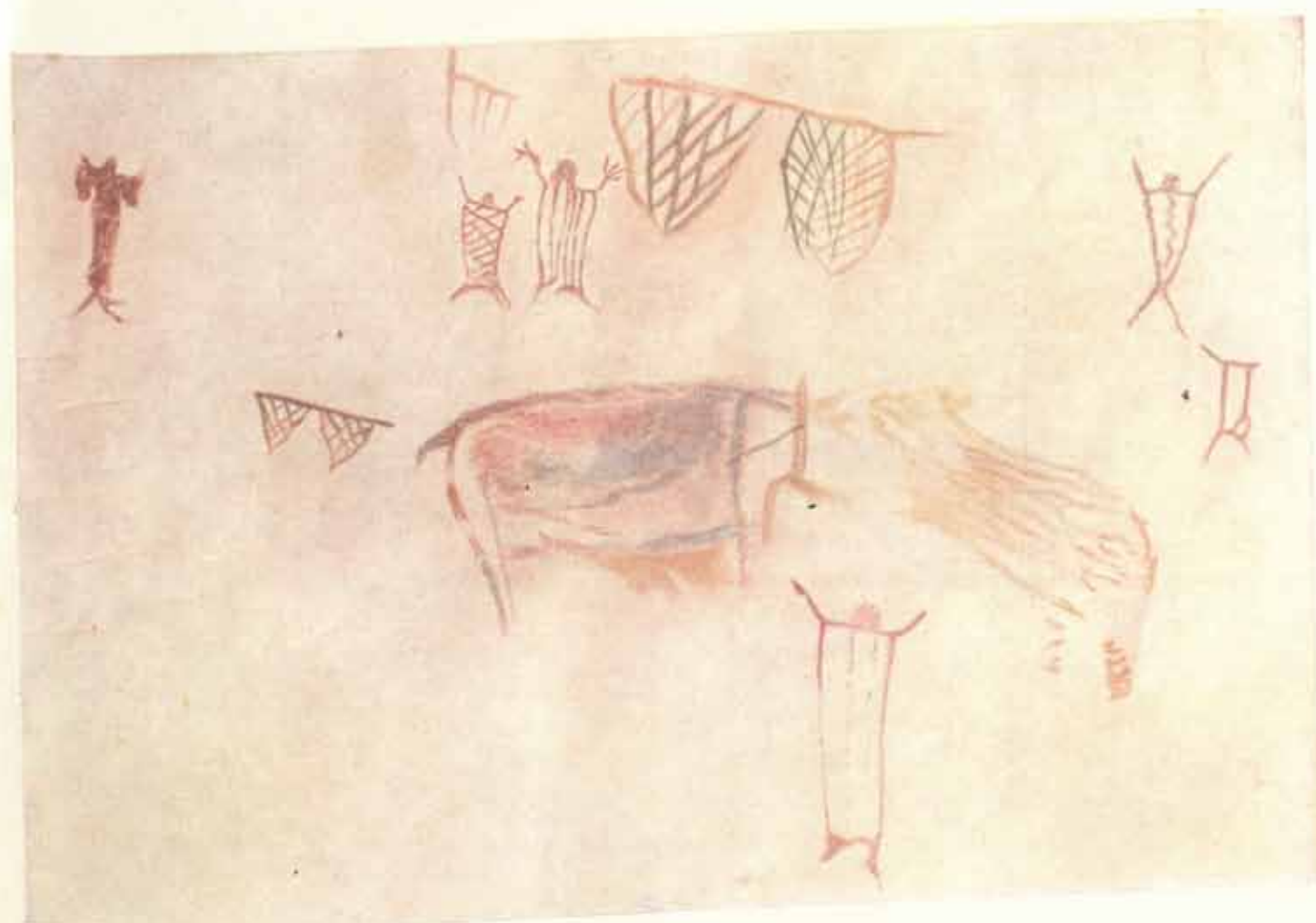


FIG. (b).

PREHISTORIC PAINTINGS FROM SINGANPUR.

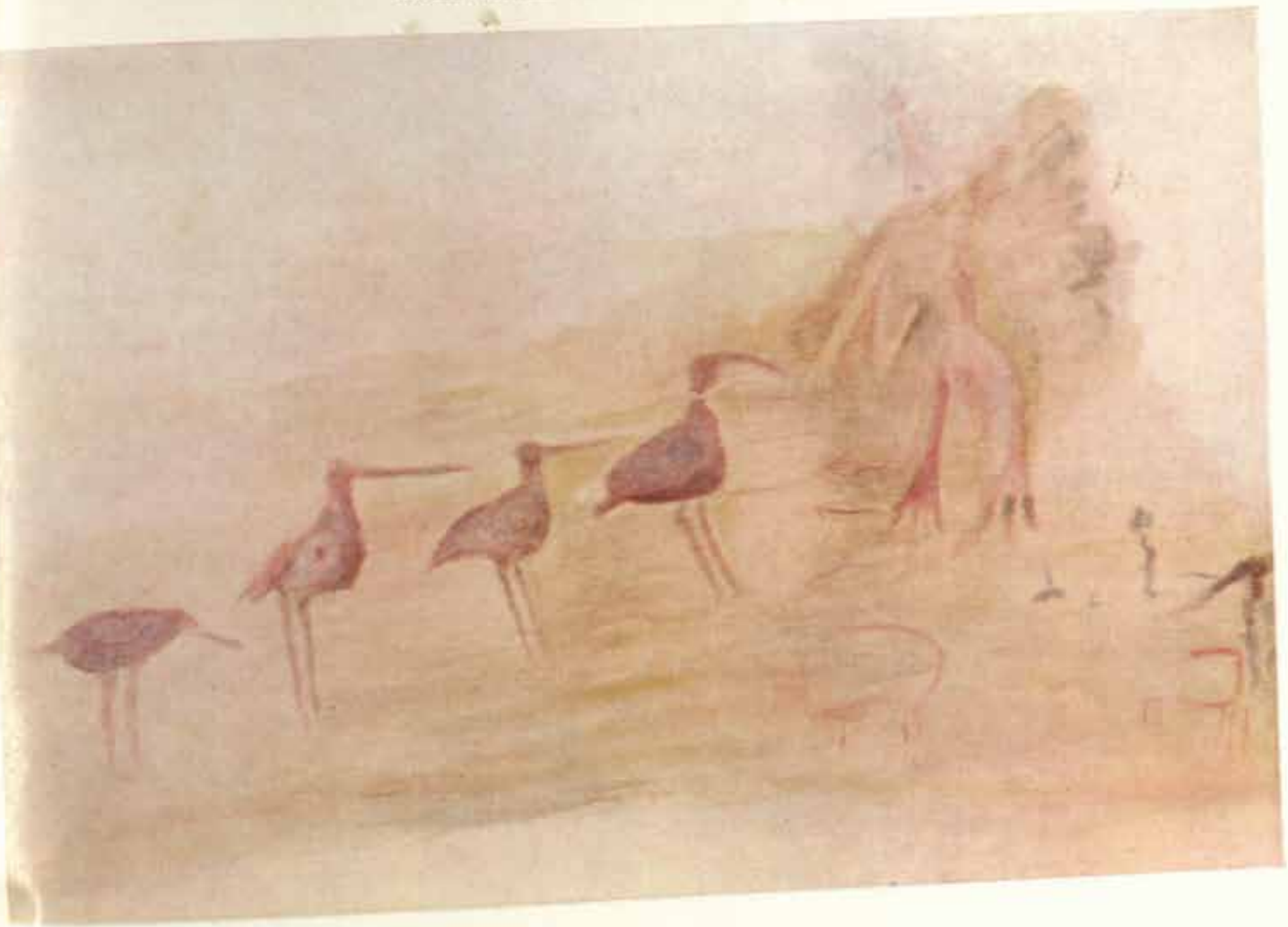


FIG. (a).



FIG. (b).

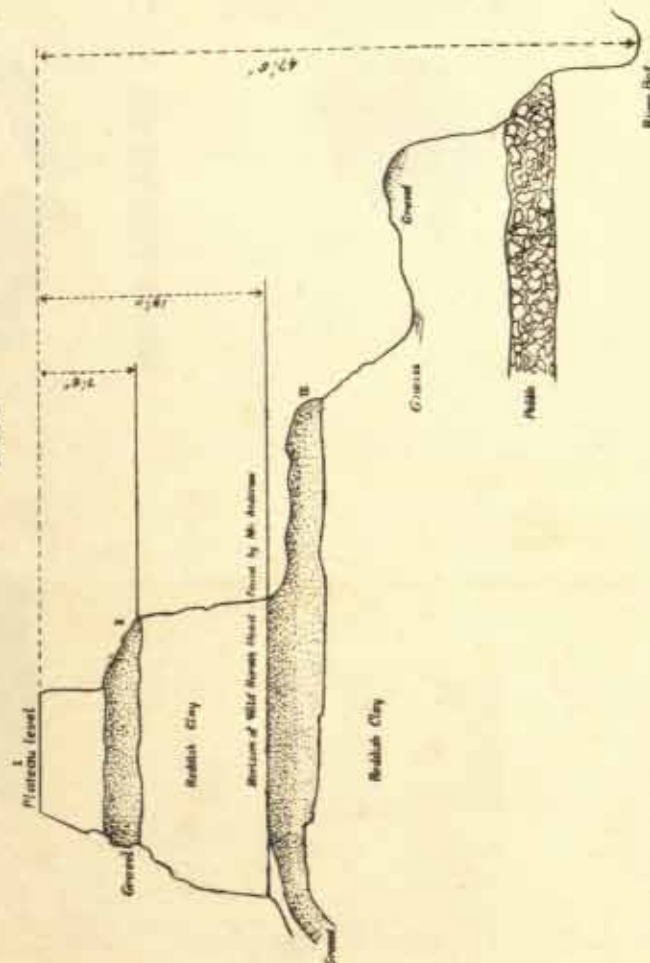
PREHISTORIC PAINTINGS FROM MIRZAPUR.

SECTIONS OF THE SANJAI RIVER NEAR CHAKRADHARPUR

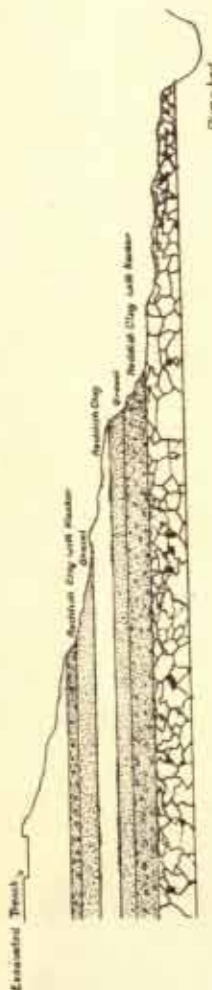
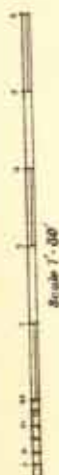
SECTION
OF
THE SANJAI RIVER
NEAR
PATKA



SECTION
OF
THE SANJAI RIVER
NEAR
BANGALATAR



SECTION
OF
THE SANJAI RIVER
NEAR
CHELABERA

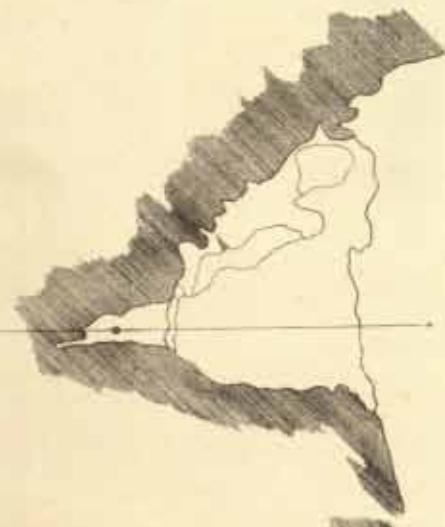


SINGANPUR ROCK-SHELTER

SECTION ON A B
Showing the Western side



PLAN

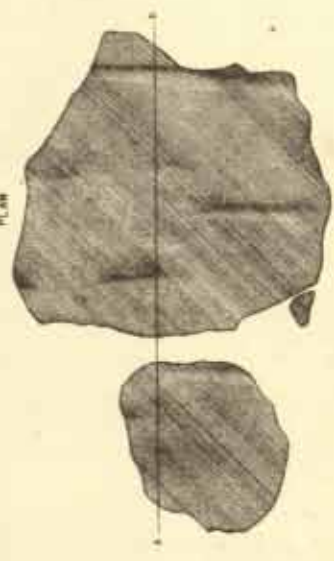


SECTION ON A B
Showing the Eastern side



HOSHANGABAD ROCK-SHELTER

PLAN



SECTION ON A B

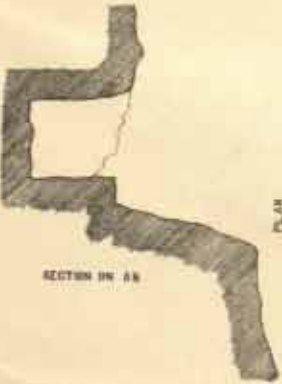


MIRZAPUR ROCK-SHELTERS

PLAN
OF
THE ROCK-SHELTER OF LAKHIA

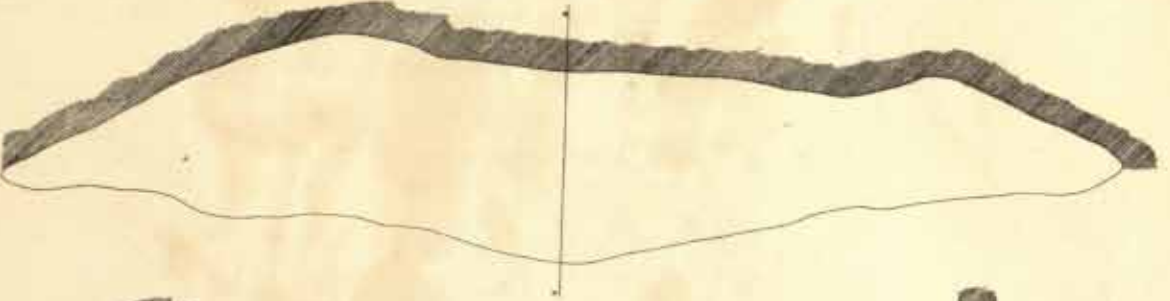


SECTION ON A-B



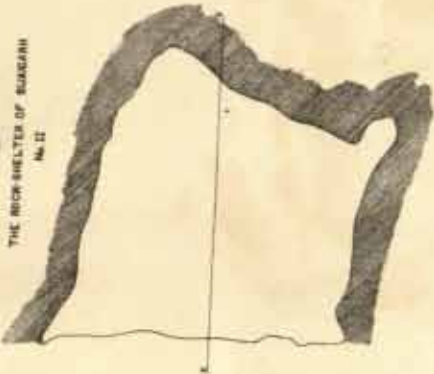
Scale 1 inch = 100 feet

PLAN
OF
THE ROCK-SHELTER OF BURGARI
No. 1

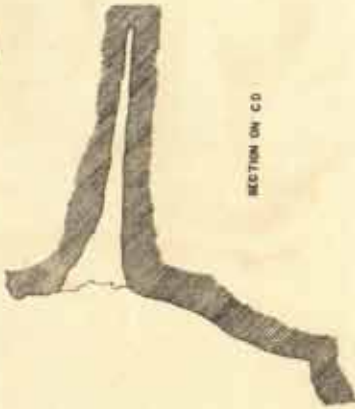


SECTION ON A-B

PLAN
OF
THE ROCK-SHELTER OF BURGARI
No. 2

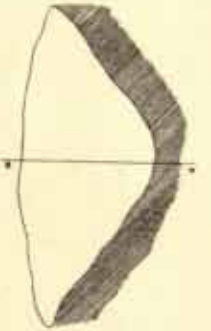


SECTION ON C-D

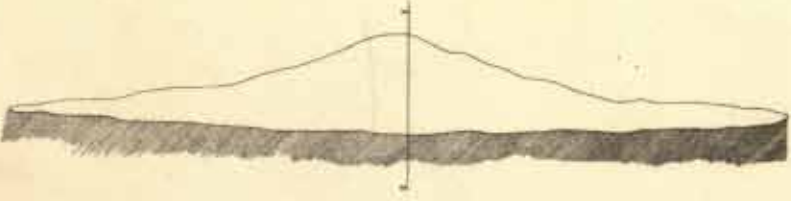


SECTION ON A-B

PLAN
OF
THE ROCK-SHELTER OF NIALDARIA
No. 1



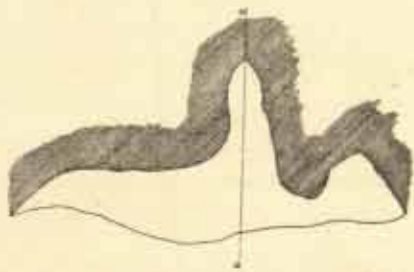
PLAN
OF
THE ROCK-SHELTER OF NIALDARIA
No. 2



SECTION ON E-F



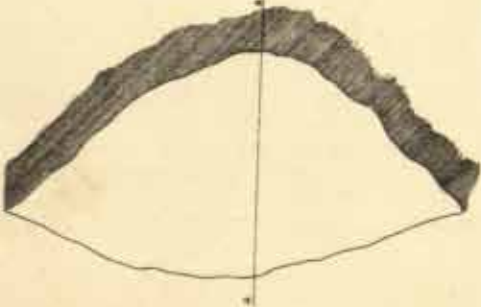
PLAN
OF
THE ROCK-SHELTER OF NIALDARIA
No. 3



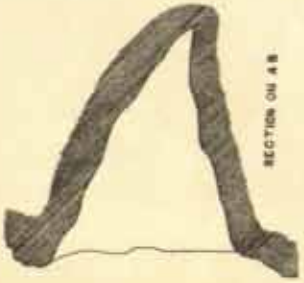
SECTION ON C-D



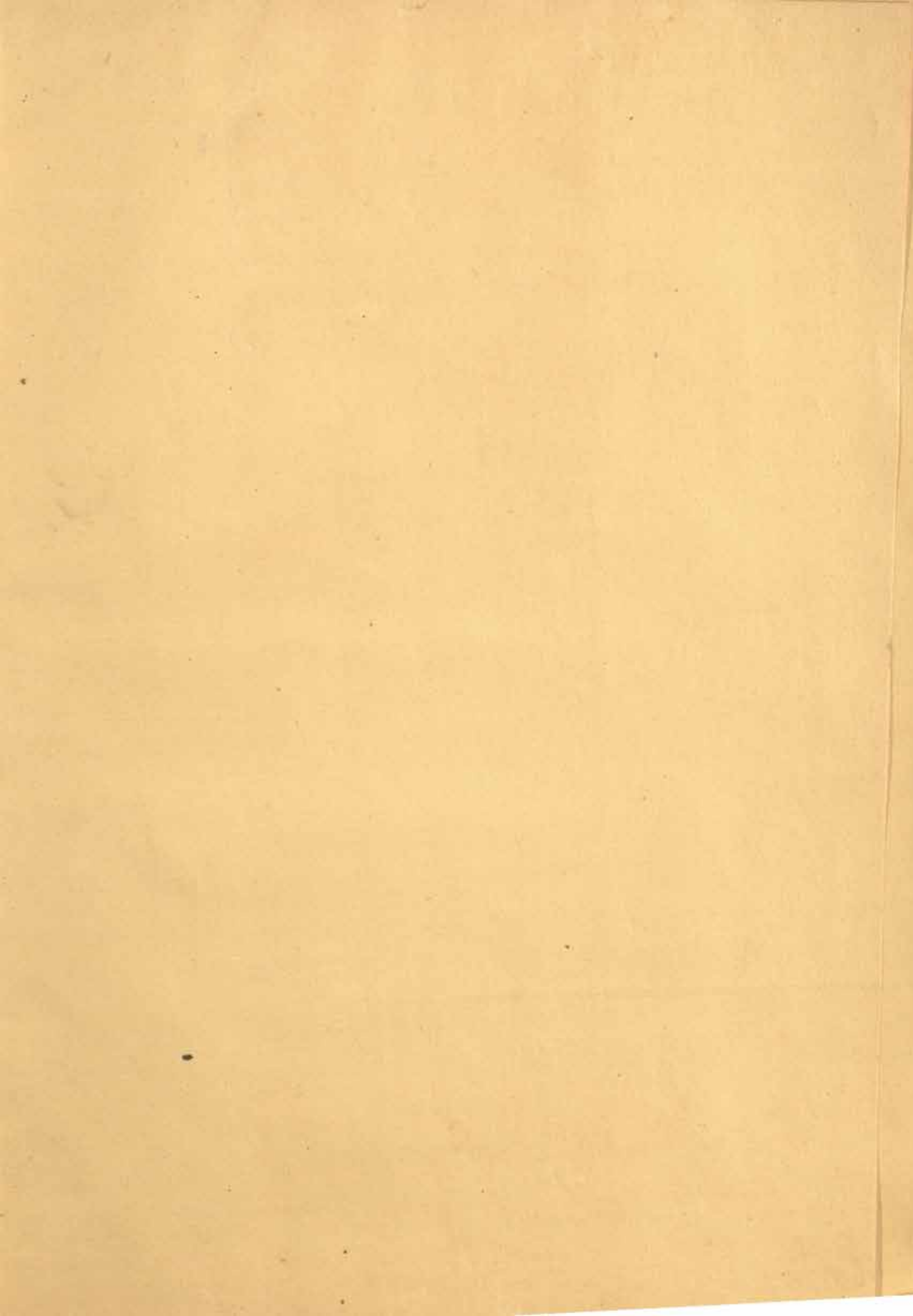
PLAN
OF
THE ROCK-SHELTER OF KUNDA

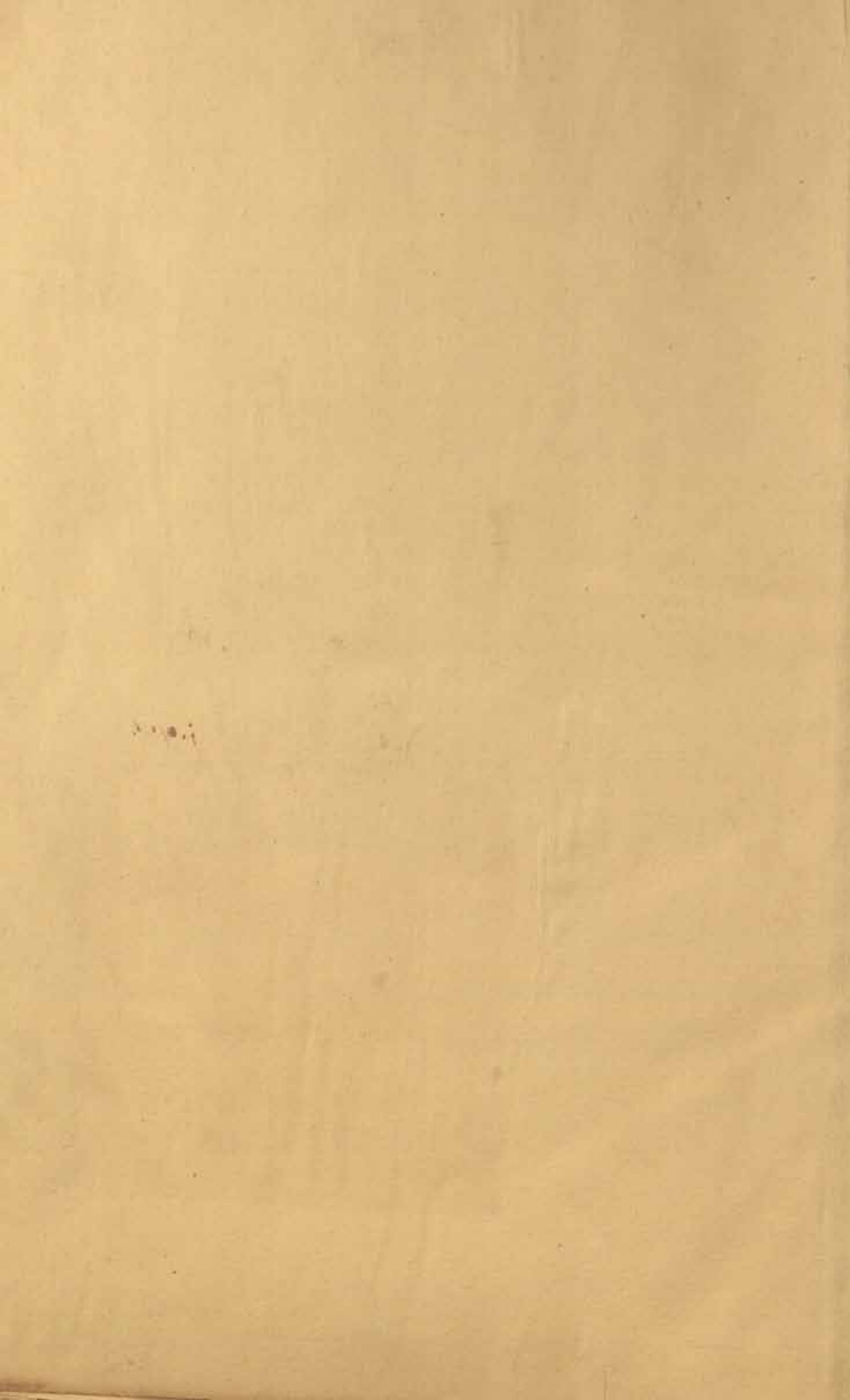


SECTION ON A-B









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