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Archaeology and Petroglyphs of Dampier (Western Australia)
an Archaeological Investigation of Skew Valley and Gum Tree Valley

by

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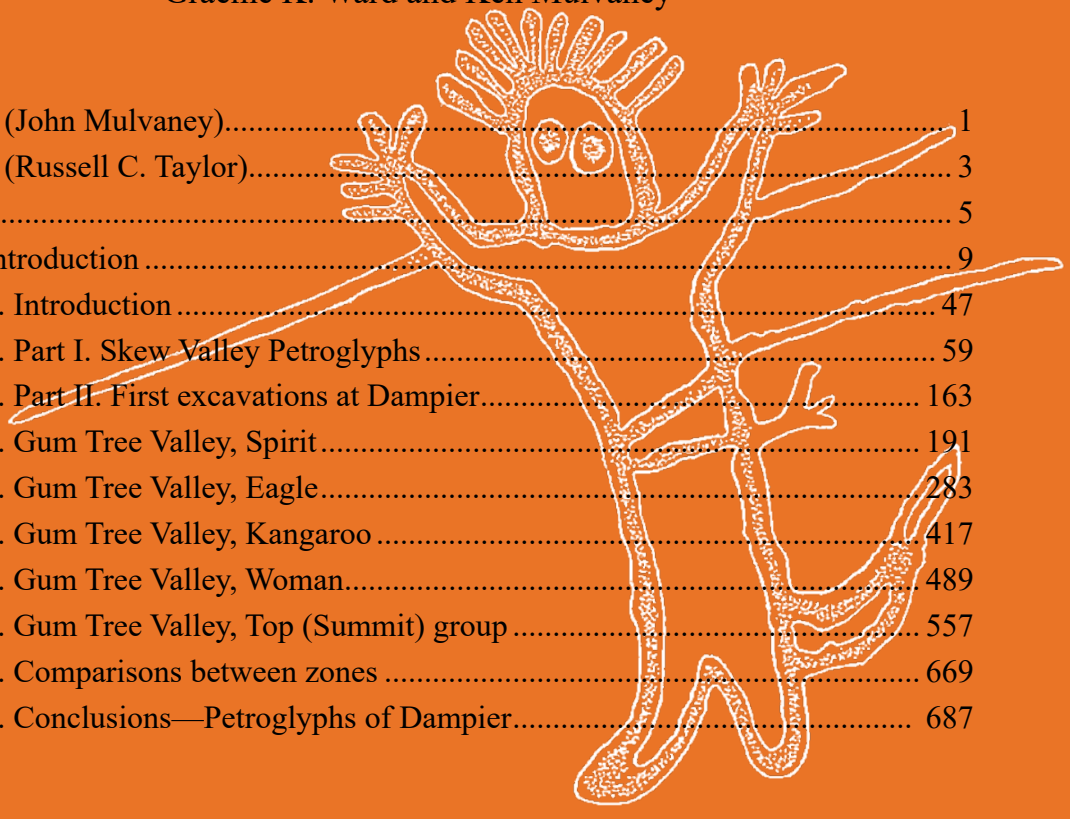
edited by

Graeme K. Ward and Ken Mulvaney



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Michel Lorblanchet joined the *Centre national de la recherche scientifique* (CNRS, France) in 1969 to study the Palaeolithic rock art of France. After graduating in 1972 from Université Sorbonne (Paris) with a doctorate in Prehistory, he was employed from 1974 to 1977 at the Australian Institute of Aboriginal Studies to conduct research into indigenous Australian rock art. From his base in Canberra, he participated in projects in Far North Queensland and in western Victoria. Between 1975 and 1976, he conducted the fieldwork at Dampier, Western Australia, on which this monograph is based, and made two further fieldtrips there in 1983 and 1984. He returned to France in 1977 to the *Centre de Préhistoire du Pech Merle* (Cabrerets). Lorblanchet was appointed *Directeur de recherches au CNRS* in 1995; he retired in 1999 and lives near Saint Sozy in the Lot Valley where he continues to research and publish about rock art. He is the author of many papers and several books on European Palaeolithic art (some are listed in the editors' introduction) as well as reports and this monograph on his Australian researches.

Volume Editors

Graeme K. Ward has conducted archaeological and ethno-archaeological fieldwork in the island Pacific and Australia. He gained his doctorate from The Australian National University and was employed at the Australian Institute of Aboriginal Studies where he was involved with administration of research programs including the national Rock Art Protection Program. Subsequently, as Research Fellow and Senior Research Fellow at the Australian Institute of Aboriginal and Torres Strait Islanders Studies he undertook research into Indigenous cultural landscapes in northern Australia with traditional knowledge-holders of cultural heritage places. He is the author of various research papers, of three monographs and editor of many collections of archaeological papers; he served as the editor of the Institute's journal, *Australian Aboriginal Studies*, for several years. Currently he is a visitor at the Department of Archaeology and Natural History, School of Culture, History and Language, College of Asia and the Pacific, of The Australian National University.

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Chapter 4

The Eagle Group

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The Eagle Group at Gum Tree Valley

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The Eagle Group Site

In the middle part of Gum Tree Valley, about equidistant from the upper reaches and the mouth of a gorge, the slopes diverge to form a kind of amphitheatre (*cirque*), the base of which is occupied by a large shell mound, 23 m in diameter and about 1.5 m high. The mound is formed by accumulations of *Anadara granosa* shells; most have not been disturbed and are intact (Fig. 4.1). The central midden of the middle of Gum Tree Valley (GTVE) thus resembles that of Skew Valley and most of shellfish mounds on the Dampier coast. This suggests that it is roughly contemporaneous with the Skew Valley mound about 1.2 km to the north.

The layout of the place, the presence of two major slopes surrounding a central midden (a habitation site), explains the high number of petroglyphs in the vicinity. The presence of a seasonal water source clearly played a role in this concentration of remains: large basins of potable water (although tending to be brackish) last for seven or eight months of each year in the gorge about 40 m to the west, downstream of the mound, beside a pathway that leads to the ocean shore. The petroglyphs are much less numerous in the gorge around the pools than in the amphitheatre where the gorge widens and the midden is located.

The amphitheatre is asymmetrical, and it is bisected by the stream, which is oriented east-west. The northern side of the valley, which backs the shell mound, has a height of 7–8 m. Its slope is relatively slight, whereas the southern side, which faces the midden, is 10–12 m in height and slopes steeply (Fig. 4.2). As throughout this part of Dampier Island, both sides of the valley are covered with large gabbro blocks, which sometimes bear petroglyphs on several surfaces.

In a rectangular area of 90 × 105 m, of which the midden occupies the centre, we recorded 364 blocks bearing petroglyphs and mapped them using a theodolite (Figs 4.3 and 4.4). As is my usual practice (Lorblanchet, 1977, 1980, 1983), they have been numbered on photographs of the site (Fig. 4.5).

A map of relative densities of the petroglyphs (produced by Jekhowsky's method) highlights these points (Fig. 4.6). The distribution pattern emphasises the relationship between the shell mound and most of the petroglyphs. Away from the midden, carved blocks become rarer and even absent, especially on the top of the northern hill, and to the west on the sub-vertical walls of the gorge that overlook the sources of semi-permanent water.[1] The density of petroglyphs also decreases sharply ascending the thalweg[2] towards the east and leaving the amphitheatre that contains the habitation area. Towards the south, the petroglyphs disappear almost completely at the top of the hill. However, a few motifs appear here and there on a kind of isthmus connecting GTVE to a small satellite grouping, at the edge of a grassy plateau, where the depiction of a kangaroo (GTVE-400 {p. 407})[3] is located.

As the density plot shows, the concentration of petroglyphs is much higher on the more sunlit Southern Slope than on the Northern Slope. A total 267 blocks decorated with 424 motifs was found in the south, and only 97 blocks with 162 motifs in the north. Thus, many motifs are displayed on a large regular steep slope, where they are highlighted. An observer standing on the shell mound enjoys a continuous spectacle of petroglyphs, progressively lit by the sun's path across the dark side of the slope. It is likely that the placement of the motifs was chosen so that

Figure 4.1. GTVE. Southern Slope. The white arrow indicates the petroglyph depicting The Eagle; in the foreground, the white area with spinifex is the surface of the midden.

Figure 4.2. GTVE. Northern Slope and Midden. A small part of the Southern Slope is at bottom right; the midden is the white surface in the centre; the Northern Slope is the dark mid-ground.

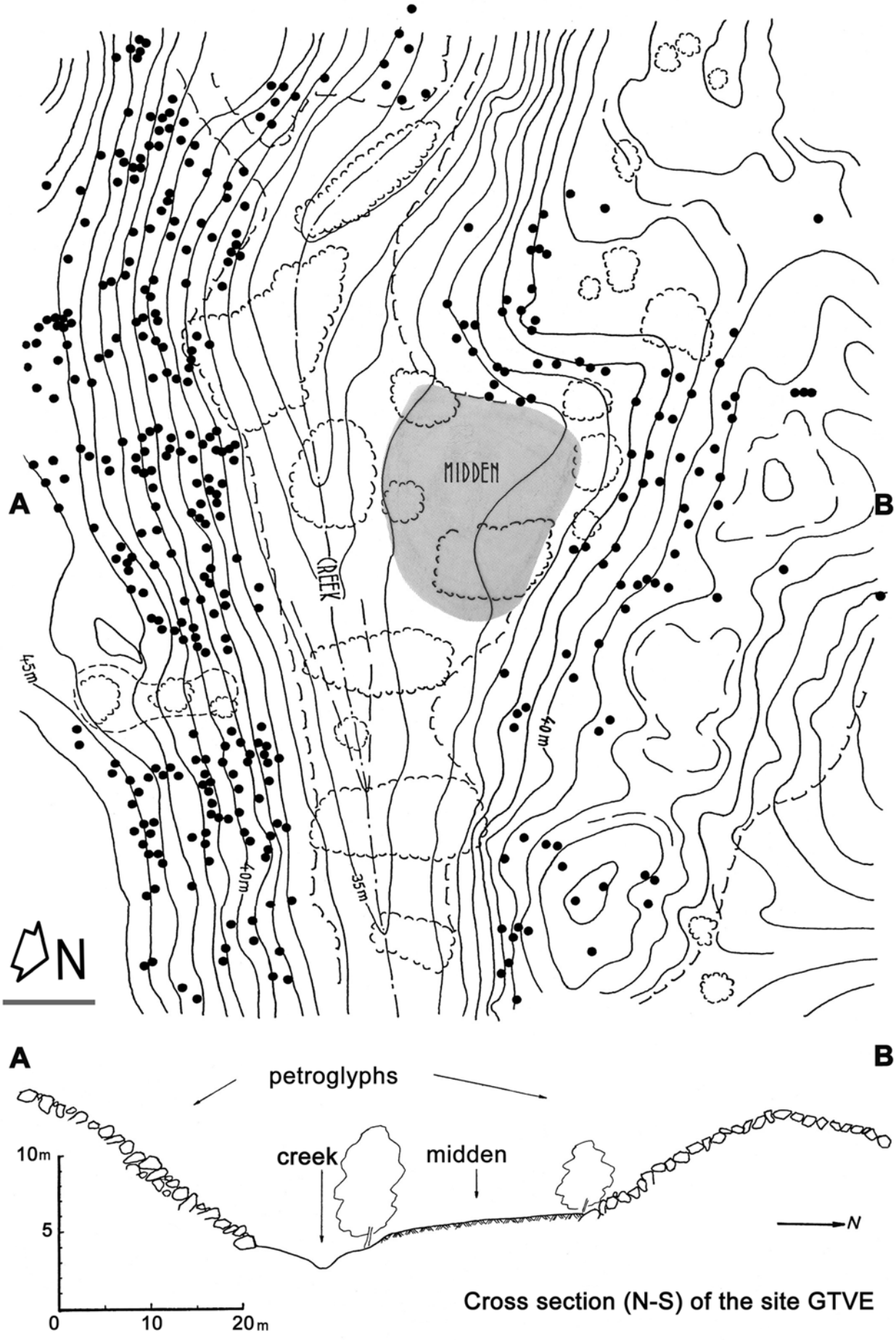

Figure 4.3. GTVE. *Upper:* site plan showing distribution of petroglyphs. Scale: 10 m. *Lower:* cross-section (N to S). Scale: horizontal: 20 m, vertical: 10 m.

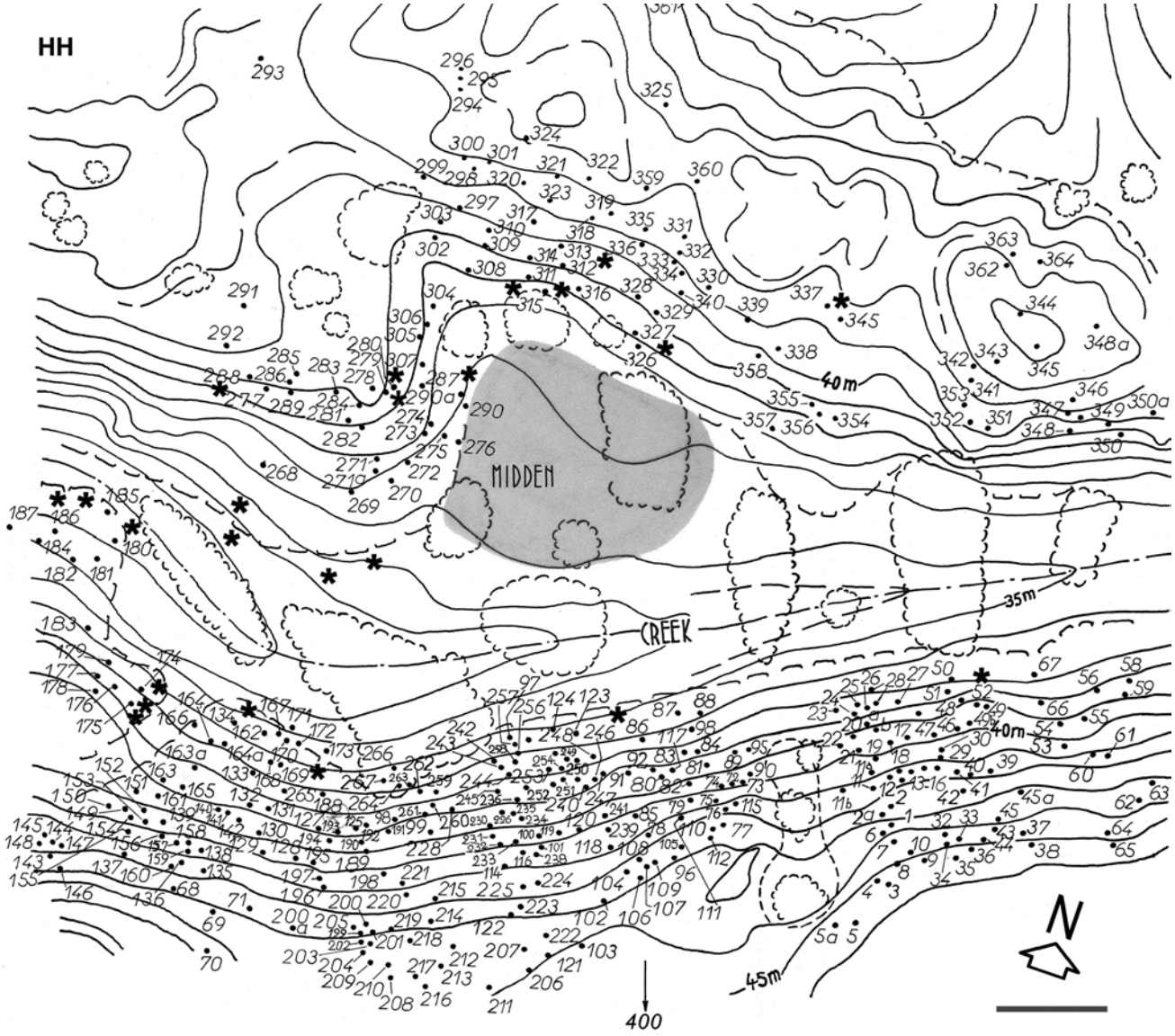

Figure 4.4. GTVE. Distribution of petroglyphs, * = grindstones, HH = hunting hide. Scale: 10 m.

they afforded a moving spectacle. Some prominent motifs that were probably of particular importance remain visible throughout the day. These include a very conspicuous great Eagle with its 'ceremonial headdress' (GTVE-1 {p. 346}) after which I have named this concentration of petroglyphs, 'Gum Tree Valley Eagle Group'.

The relative density curves delineate eight denser clusters, four on the Southern Slope and four on Northern Slope; these sub-groups of the Eagle Group are designated by the letters 'A' to 'H'. To the west of the complex, at the entry to the site, is a concentration of petroglyphs, designated 'Group W'; it is less obvious from the midden area.

Group A and Group B are the densest concentration. Group A surrounds the motif of The Eagle (marked on Fig. 4.6 by a white cross, and on Fig. 4.7). Group B, also very important, is exactly opposite the midden. Finally, the major group of the northern slope, Group E, occupies the rocky spur and closes the amphitheatre to the west.

In addition, about 15 m northwest of the shell midden mound, on a flat slope overlooking the north of the valley, there is a horizontal surface area (12 × 20 m) formed of small stones. This holds shrubby vegetation and probably provided pleasant shade and shelter. At several other points in the valley I have observed this type of semi-natural compound forming an islet within this rocky chaos. It might have provided the actual floor for a 'hut', as discussed below.[4] Although its surface has been levelled and it seems to have been surrounded by displaced blocks, the site would have to be cleared to verify the existence of further traces of occupation.

Finally, about 60 m northwest of the midden, along a kind of pass, a cavity has been built into the middle of the rock scree and it is surrounded by blocks that had been arranged around the hole. It has a diameter of about one metre and is 1.5 m deep. This small well, other examples of which exist on the same ridge to the west and elsewhere on Dampier Island, served as a hide—a watching post (*poste de guet*)—for the hunter with a spear, lurking on the edge of the ridge where kangaroo usually passed during their travels. This hunting method is known ethnographically (e.g., Bindon & Lofgren, 1982; Lewis, 1988; Mulvaney, 1993).[5]

During our stay on the site (a lengthy period due to the time taken to make the recordings), we noted that, during the dry season (between June and August), the Southern Slope of the valley was significantly warmer and sunnier than the Northern Slope, which is shaded and exposed to the prevailing wind for much of the day. In this season, the wind on the Dampier coast is most frequently a steady, fresh, almost constant, easterly. During their work, members of our team spontaneously sought out a sunny area sheltered from the wind. They met on the Southern Slope where they preferred to remain. We made some temperature readings that provide useful information (Table 4.1).

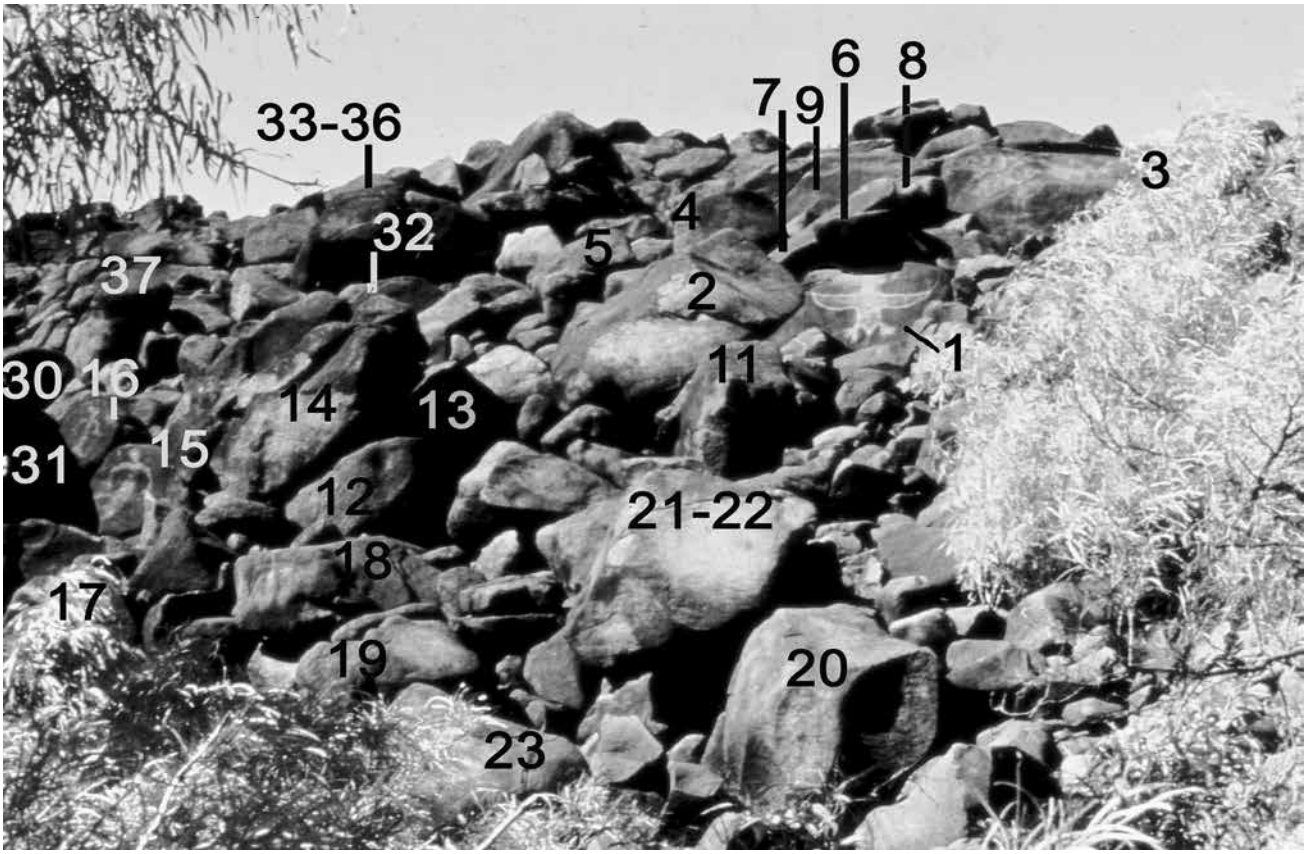

Figure 4.5. GTVE. The Eagle Group of petroglyphs with the carved blocks numbered (Group A).

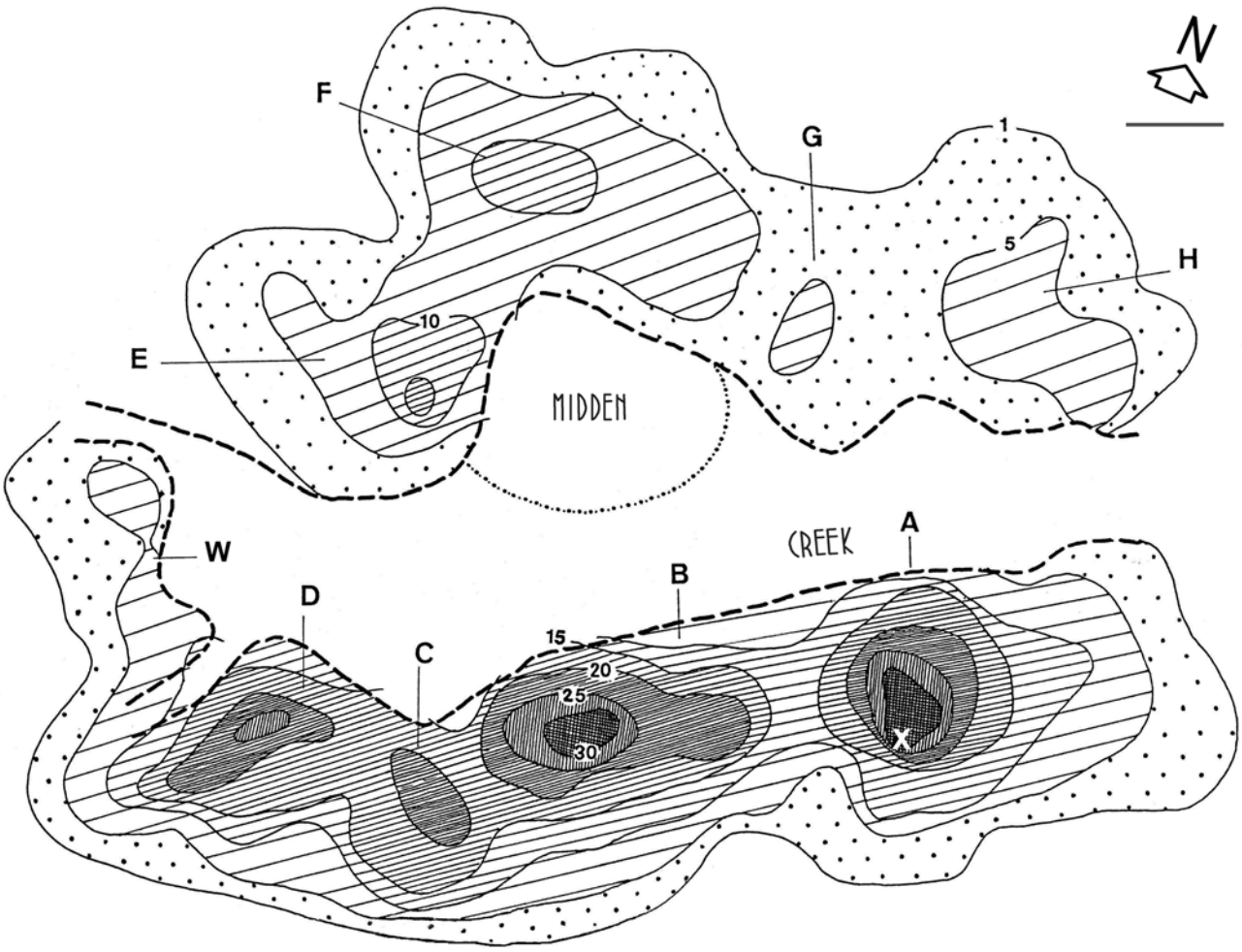

Figure 4.6. GTVE. Map of densities of petroglyphs (white cross indicates position of 'The Eagle' motif). On each slope, the area of maximum density has been indicated by dark shading. Scale: 10 m.

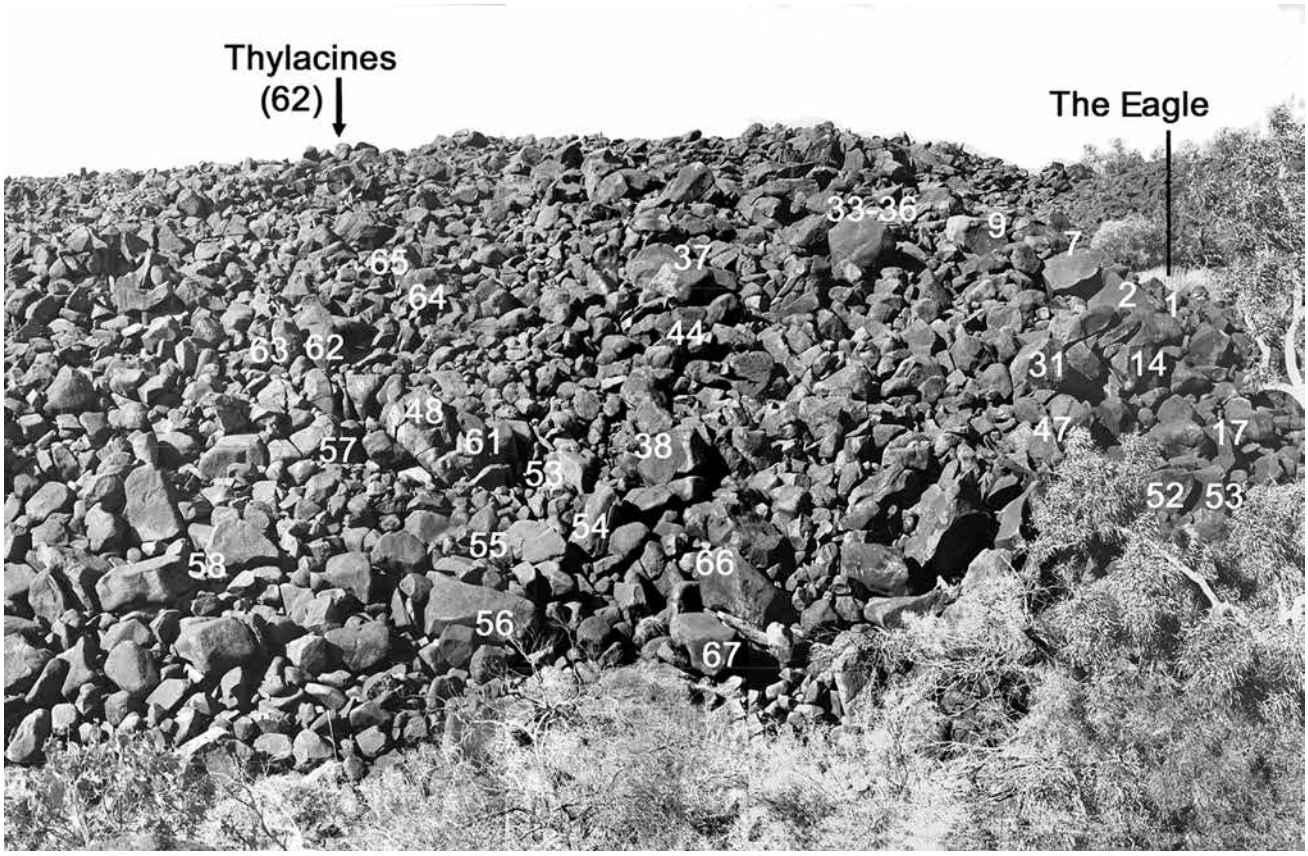

Figure 4.7. GTVE. Petroglyphs to the east of 'The Eagle' (Group A). Blocks numbered using the theodolite; positions of 'The Eagle' and depictions of thylacines are marked.

These data show a thermal difference between the Northern and Southern Slopes of two to three degrees Celsius. Thus, as one finds for mountain valleys, there was a Gum Tree Valley (winter) 'south-facing slope' (*adret*) and a 'north-facing side' (*ubac*)! This contrast must have had an influence on human occupation of the place and therefore the distribution of the petroglyphs. The fact that the Southern Slope (facing north) has over 72% of the total motifs may be, in part, due to microclimatic conditions. The carvers' preference for the warm side may also indicate significant visitation of the site during the cooler months of June and July, while the creek still provided a focus for obtaining drinking water, unlike the summer, cyclone season, when potable water was more generally available.

The record of temperatures confirms a further observation: the rocky outcrop that closes the valley west of the shell mound receives more sunshine than most of the Northern Slope. Its temperature is one to two degrees higher than that of the Northern Slope. It is therefore also a favoured sector. This sunny spur shows evidence of frequent occupation, as discussed below.

Sun exposure is therefore strongly correlated with petroglyphs; these are concentrated on the Southern Slopes and the western spur. The long sunny Southern Slope both attracted the place's occupants and put their works on show.

Table 4.1. GTVE. Temperature readings (1984).

dates	at time of day	northern slope		southern slope		observations	difference N-side / S-side
		near petroglyph number					
		313	271	140	97		
2 July	10h00	17°	18°	20°	—	sky clear; wind from the east	1° and 3°
	16h00	22°	23.5°	25°	—		1.5° and 3°
3 July	10h00	20°	—	22°	23°	sky clear; wind from the east	2° and 3°
	16h00	23°	—	26.5°	28°		3.5° and 5°
6 July	10h00	19°	—	—	21°	sky clear; wind from the east	2°
	16h00	23°	—	—	26°		3°

Table 4.2. GTVE. Inventory of motifs.[7]

type of motif	n	N-side	S-side	percentages (undetermined motifs included) (values rounded to one decimal place)		percentages (undetermined motifs excluded) (values rounded to one decimal place)	
'human' motifs							
'humans'	139	42	97	23.9		37.7	
'humans' in a 'coital scene'	2	—	2			0.6	
totals	141	42	99		23.8		38.3
'human prints'							
'human feet'	2		2	0.3	0.3	0.6	0.6
'animal' motifs							
'kangaroo'	36	9	27	6.1		10.0	
'bird'	4	1	3	0.7		1.2	
'snake'	4	—	4	1.0		1.2	
'marine turtle'	11	4	7	1.9		3.0	
'fish'	9	1	8	1.4		2.2	
other	5	2	3	0.9		1.2	
'eggs' (in cluster)	42	20	22	7.1		11.5	
totals	111	37	74		18.7		30.3
'animal prints'							
of 'kangaroo'	6	4	2	1.0		1.7	
of 'bird'	22	13	9	3.7		6.1	
of 'turtle'	1	1	—	0.2		0.2	
totals	29	18	11		4.9		8.0
geometric motifs							
circular form	6		6	1.0		1.7	
arc-like form	38	6	32	6.4		10.5	
bi-lobed form	4	1	3	0.7		1.2	
triangular form	5	1	4	0.8		1.4	
oval form	7	4	3	1.2		2.0	
linear form	8	2	6	1.4		1.2	
punctations	12	2	10	2.0		3.2	
other geometric form	5	—	5	0.8		1.3	
totals	85	16	69		14.3		23.0
indeterminate motifs	223	52	171		37.7		n/a
grand totals	591	164	426		100		100

The Eagle Group petroglyphs

The overall inventory of motifs at GTVE that were identified in the sample area is summarized in Table 4.2 (each motif is counted as a unit when it is included as part of a cluster).

Depictions of humans

A total of 143 'human' motifs was recorded for the Eagle Group. Depictions of humans are abundant—representing nearly one quarter (23.9%) of the total petroglyphs and more than a third (38.5%) of identifiable motifs. Almost one quarter of the carved surfaces has an anthropomorphic theme, and these are more numerous than 'animal' and geometric subjects. While they are fewer than indeterminate motifs, anthropomorphs are among the most dominant motif categories identified at GTVE. Their lengths are detailed in Table 4.3.

Among the 143 GTVE 'human' figures (Table 4.4) three main types were distinguished: Type H: what I call 'diverse undifferentiated humans' (represented by 69 figures: 48% of the total 'humans');[6] Type Hs: the 'stick figures' common in the Dampier area and elsewhere in Australia; and the third category, relatively few, Type Hfa: 'the ghost-like figures' (or 'phantom figures') that are found also in GTVT. Some other categories ('humans with exaggerated genitalia', 'humans in coitus', 'humans in profile'), are also present but only in small numbers. There are also two 'footprint' motifs (Fig. 4.8)[7].

Depictions of Stick Figures

The 56 individual stick figures represent 39% of total 'human' motifs. This common type is often reduced to a linear 'body' formed by a vertical bar that is crossed by other bars to represent limbs (Fig. 4.9). These motifs are small in size as indicated by the following data (Table 4.5). Almost all are represented as male; only two are depicted without 'gender' (Fig. 4.9: 3, 34). Female depictions are equally rare, there being only two in all sectors studied.

Table 4.3. GTVE. Dimensions of 'human' motifs.

dimension	value
maximum length	1300 mm
minimum length	110 mm
average length	440 mm
coefficient of variation	61.3 %
range of variation	1190 mm
standard deviation	270 mm

Table 4.4. GTVE. proportions of various human motifs.

type		number	percent
H	'human' figure (single: diverse undifferentiated 'human')	69	48.0
Hs	'human' stick figure	56	39.0
Hf	'female' figure	2	1.5
Hfa	ghost-like figure ('phantom')	5	3.5
Hsv	'human' figure with exaggerated 'genitalia'	1	0.5
Hv	undifferentiated 'human' with exaggerated 'genitalia'	2	1.5
Hcv	'human' in profile with exaggerated genitalia	2	1.5
Hsex	'human' in 'coitus'	2	1.5
Hc	undifferentiated 'human' in profile	2	1.5
Hp	'human feet'	2	1.5
	totals	143	100

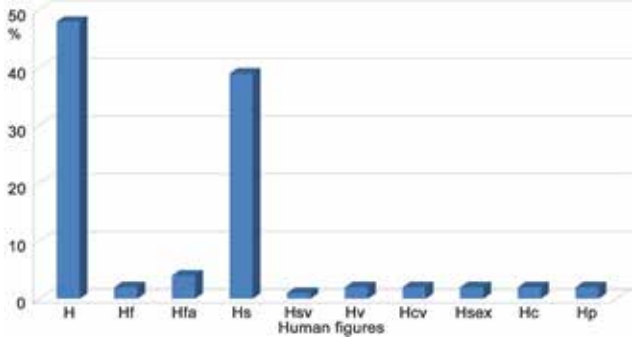

Figure 4.8. GTVE. Typology of 'human' figures (abbreviations as for Table 4.4).

Despite their general consistency, the stick figures show some variety in the positions of 'limbs'; these might be raised, extended or point downward; in the unusual presence of 'hands' (Fig. 4.9: 9, 34); in the shape of the 'head', which can be rounded, linear, ring-shaped, or reduced to a point, with some even appearing to have a 'headdress' (Fig. 4.9: 3, 238). The 'penis', usually linear, can be rounded (Fig. 4.9: 9, 246). Three individuals also hold a 'boomerang' (Fig. 4.9: 1, 3; GTVE-151).

In this category, I include five arboriform motifs (Fig. 4.9: 105, 359; GTVE-105, -107, -109, -144, -359 {p. 404}), which consist of a vertical axis crossed by parallel curves and endowed with lateral lines at each end. These motifs could be considered geometric but I think that it is rather a matter of schematic anthropomorphs, of a type of stick figure. The lateral appendages depict the limbs, and the parallel curves represent boomerangs. Other 'human' motifs have more explicit elements in the shape of an arc-like form attached at the middle of the 'torso', which we interpret as depictions of boomerangs fixed at the waist (e.g., GTVE-132 {p. 375}). The practice of carrying boomerangs in a waist-band is attested ethnographically (e.g., Jones, 1996: 38; Peter n.d.).

A 'male' stick figure (GTVE-312 {p. 399}) appears to shelter under his 'arms' small stick figures that are also 'males'. A 'coital scene', a common form in these regions, shows the union of two stick figures (GTVE-182 {p. 385}).

Stick figures are especially numerous on the Southern Slope; here there are 49 examples, compared with only eight recorded on the Northern Slope.

Depictions of ghost-like motifs

The GTVE 'ghost-like' or 'phantom' motifs (Fig. 4.10) closely resemble those at the Top of Gum Tree Valley, although here they are more detailed and made by a different carving technique (discussed below). Five of these large motifs have been identified at GTVE (Table 4.6). Depictions of neck-less heads with a rounded top, and with simple, outlined, limbs are characteristic. Depictions of eyes are present in two cases, as are hands.

The 'ghost-like' figures of the Eagle Group are distinguished from those at the Top of Gum Tree Valley by their radiating 'ceremonial headdresses' (four of five cases), their 'weapons' or 'tools', including a 'sack', and curved 'boomerangs' in the 'waist-band' (GTVE-132 {p. 375}).

Depictions of diverse humans

The category of 'diverse' or 'undifferentiated human' figures comprises 70 individuals representing 54% of total 'human' motifs (Fig. 4.11; Table 4.7). Foremost among these are anthropomorphs lacking any special characteristics—they are neither 'ghost-like ('phantom') figures' nor stick figures. Examples are GTVE-72 {p. 365} and -34 {p. 360}.

As with the previous categories, they are almost all clearly depicted as males. Only two are without depiction of gender. GTVE-130 {p. 375} appears to be 'female' based on the shape of the 'genitalia', which recall the 'vulva' of other explicit female depictions in the Valley that also exhibited 'breasts'. The lack of 'breasts' makes the assignment of gender more uncertain here. One image (GTVE-184) depicts a 'woman' with 'breasts' and a 'loincloth'.

The 'male' character of certain motifs is particularly accentuated; four of them are indeed ithyphallic. The 'phallus' is thus a lateral extension, forming an angle with the axis of the 'torso' instead of hanging between the 'legs' (GTVE-5 {p. 350}, -301 {p. 399}, -339 {p. 404}). Its dimensions are exaggerated by being as long as, or even longer than the 'body' of the individual. On one (GTVE-301 {p. 399}), 'testes' are represented by an oval mass inaccurately placed at half-length of the 'penis'.

Two other 'human' motifs are in profile and leaning forward (GTVE-213, -216). In addition, 12 have radiating 'headdresses' (Fig. 4.12), in a ring (GTVE-305 {p. 400}), or in an arc over the 'head' (GTVE-349). Some 'human' figures are depicted in close proximity to various items that give the impression that they might be holding 'boomerangs' or 'kit-bags' (Fig. 4.13).

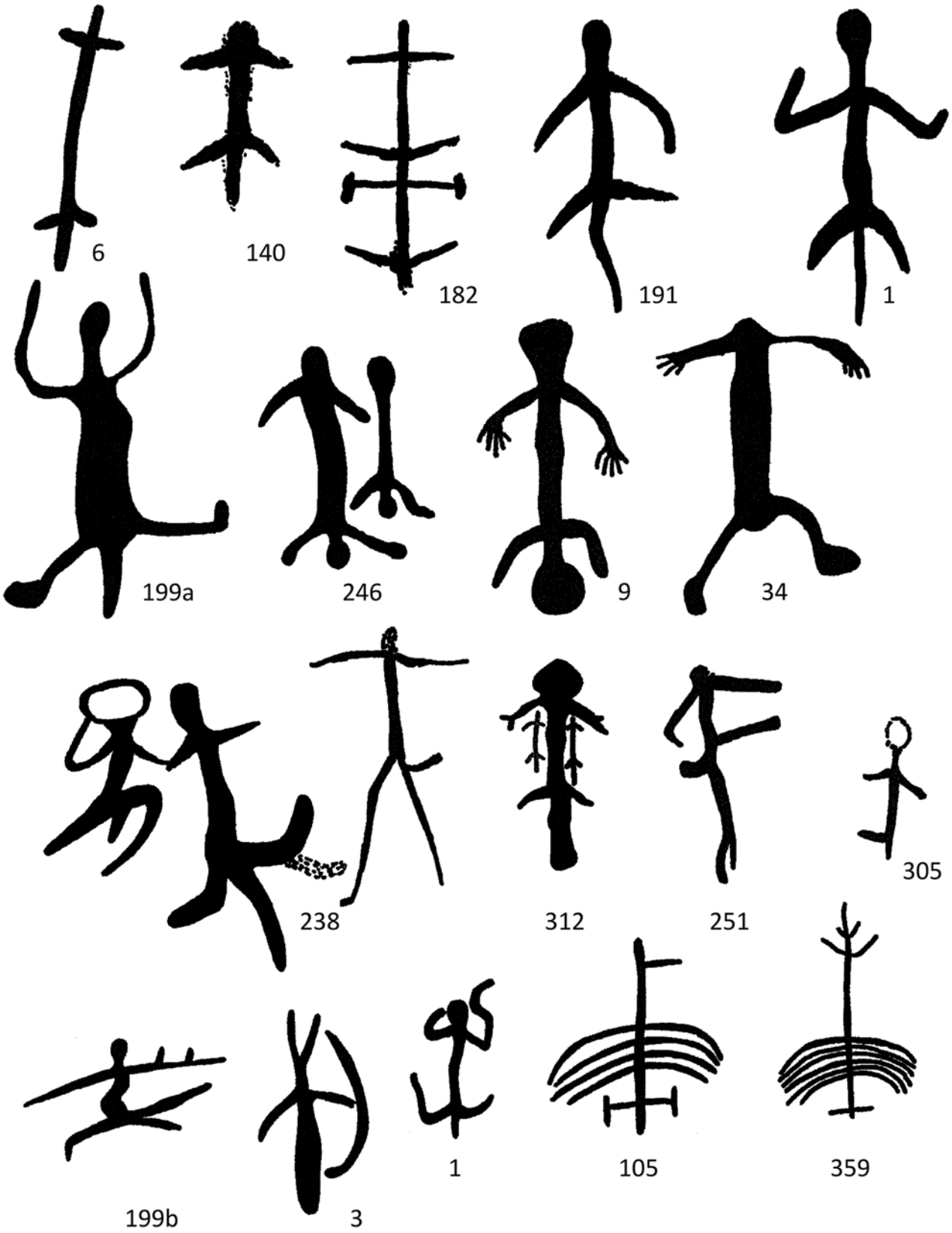

Figure 4.9. GTVE. Examples of depictions of humans as stick figures. Scale: GTVE-199a is approximately 400 mm long.

Table 4.5. GTVE. Dimensions of 'human' stick figures.

dimension	mm
maximum length	530
minimum length	110
average length	310
range of variation	420
standard deviation	160

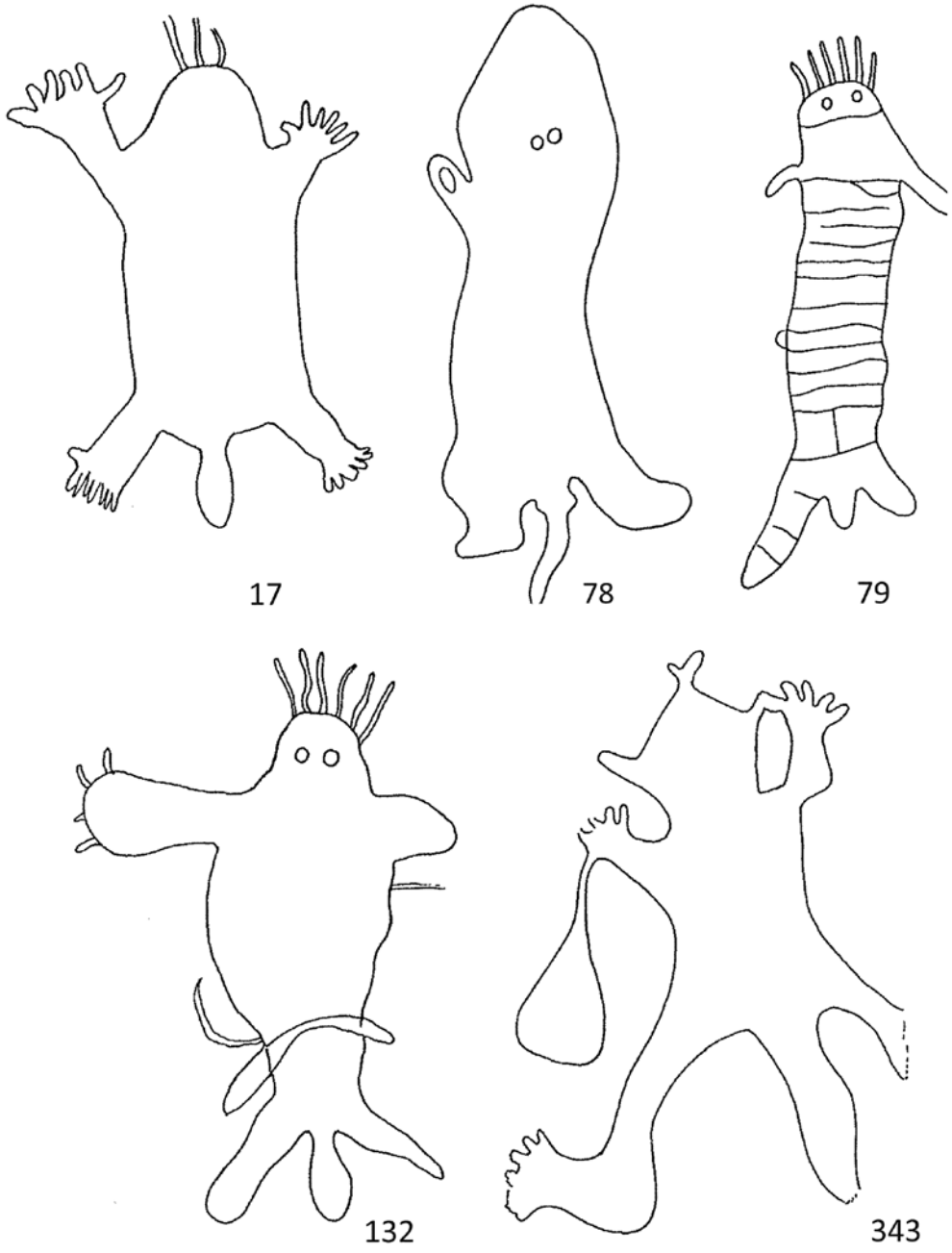

Figure 4.10. GTVE. Depictions of 'ghost-like' human figures. GTVE-17 is approximately 1100 mm long.

Table 4.6. GTVE. Dimensions of 'ghost-like' figures.

dimension	mm
maximum length	1300
minimum length	900
average length	1110

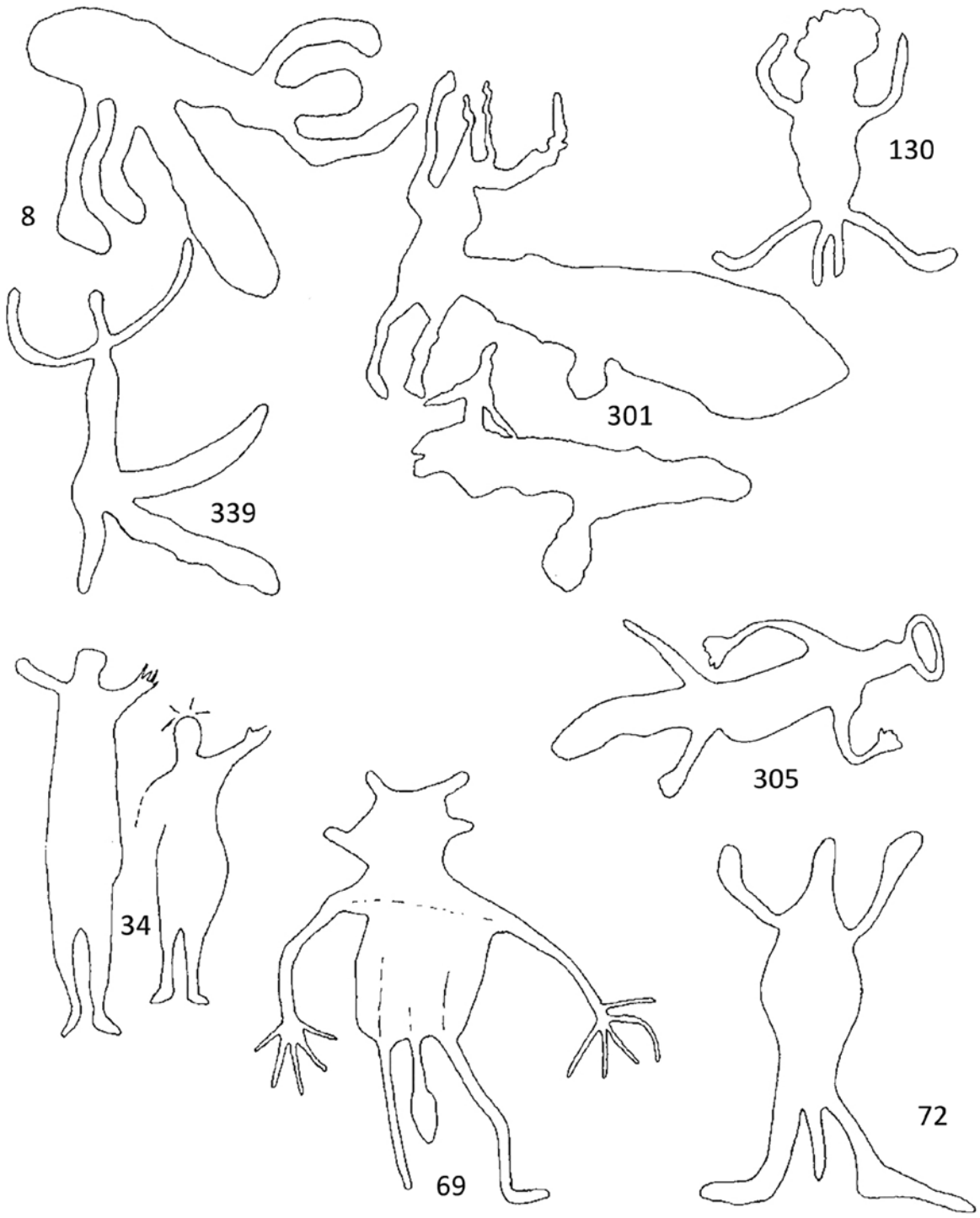

Figure 4.11. GTVE. Depictions of 'diverse human' motifs; GTVE-5, 301, 305, 339: ithyphallic examples depicted with exaggerated 'penis'. GTVE-72 is approximately 320 mm long.

Table 4.7. GTVE. Dimensions of 'diverse human' motifs.

dimension	mm
maximum length	1000
minimum length	130
average length	510
range of variation	870
standard deviation	220

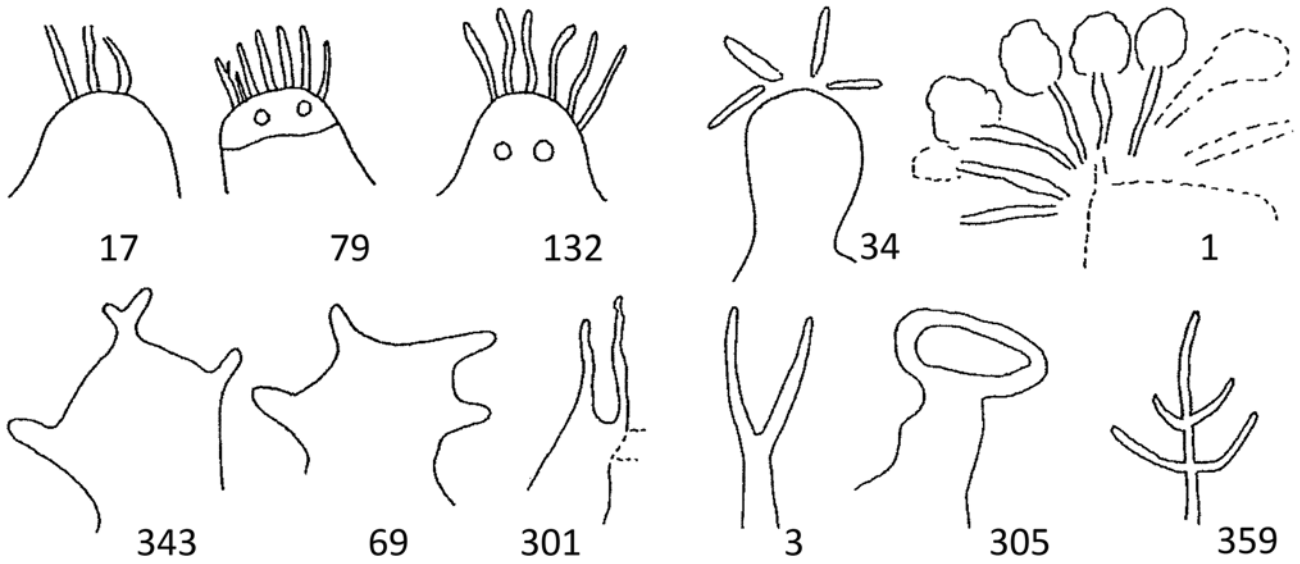

Figure 4.12. GTVE. 'Headdresses' worn by 'human' motifs; 1: The Eagle headdress; 305: 'head' or 'hair'. Scale: motif dimensions range from 50 mm (34) to 200 mm (1).

The 'diverse humans' category has a more equally balanced distribution than that of the 'stick figures': 41 are located on the Southern Slope and 28 on the Northern Slope.

Depictions of human feet

Two 'human footprints'[7] are carved on panels GTVE-187 {p. 386} and -210 {p. 387}. They are bigger than in reality, the first measuring 2900 mm in length and the second 3600 mm. Each has five 'toes' but it is not clear whether the intention was to depict the left or right foot because of the degree of schematization of both motifs. It is possible that the carver's intention was to use the depiction of a 'human foot' to suggest a symbolic human presence.

Inventory and distribution of 'human' figures

Inventory of human figures

Tables 4.8, 4.9 and 4.10 summarize characteristics of petroglyphs recorded on each block supporting one or more petroglyphs on the Southern and Northern Slopes (Table 4.11 provides the key to abbreviations used). A full inventory of Eagle Group petroglyphs is provided in Appendix B to this chapter.

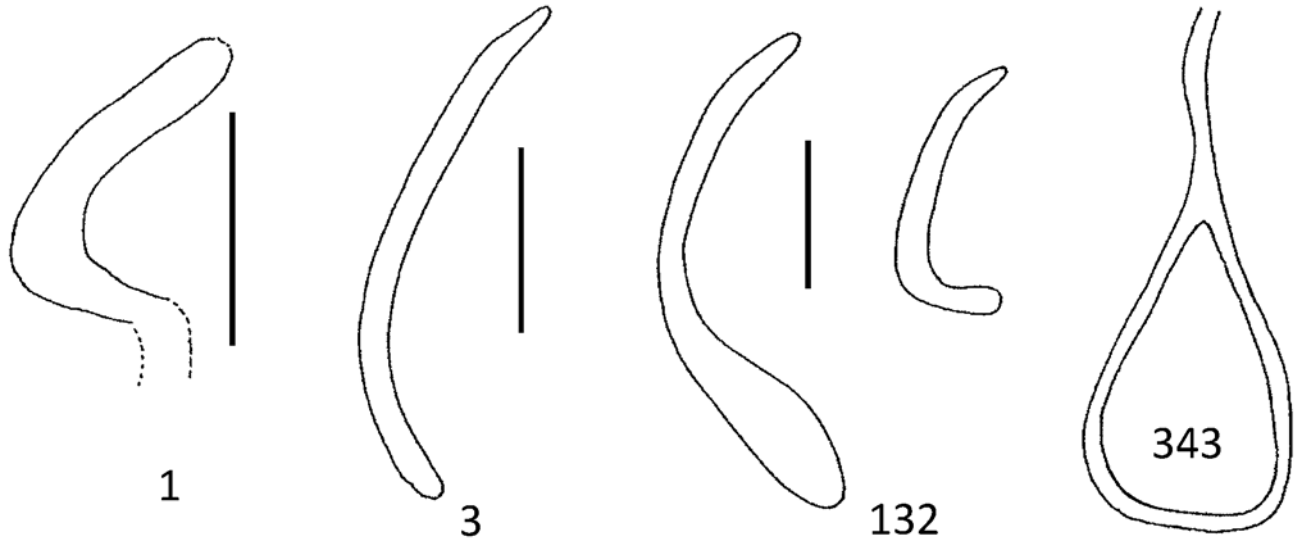

Figure 4.13. GTVE. Probable 'boomerangs' and 'bag' held by 'human' figures. Scales: 50 mm (1) and 100 mm (others).

Table 4.8. GTVE. Inventory of 'human' figures (Southern Slope). Key: Table 4.11.

figure		type	height (m)	width (m)	Tech 1	Tech 2	Pat 1	Pat 2	VST	orient.
1	b	Hs	0.19	0.12	PL	—	2	—	V	NNW
1	c	Hs	0.44	0.25	PL	—	2	—	V	NNW
1	d	Hs	0.53	0.20	PL	—	2	—	V	NNW
3	g	Hcv	0.46	0.23	PL	—	1	—	S	W
5	a	Hs	0.43	0.29	PT	—	1	—	V	E
6	b	Hs	0.36	0.10	PL	—	1	—	T	—
9	a	Hs	0.30	0.18	PS	—	2	—	V	NW
15		Hs	1.00	0.55	PS	—	2	—	V	NW
16		Hs	0.52	0.27	PS	—	2	—	V	NW
17		Hfa	1.30	0.74	—	PT CAN	—	1+3	S	W
34	a	H	0.80	0.29	PL	—	1	—	V	NW
34	b	H	0.60	0.24	PL	—	1	—	V	NW
34	c	Hs	0.55	0.27	PT	—	2	—	V	NW
38		Hs	—	—	PL	—	1	—	S	N
39	a	H	—	—	PT	—	1	—	V	W
39	b	Hs	—	—	PL	—	1	—	V	E
43		H	—	—	PL	—	1	—	V	W
45		Hs	—	—	PL	—	1	—	V	N
51		Hs	0.50	0.20	—	PL MAR	—	1+2	T	—
56		H	—	—	—	PL MAR	2	—	S	NE
59		H	—	—	—	PL MAR	—	1+2	V	NNW
69		H	0.60	0.60	PT	—	—	2+3	V	NE
72	a	H	0.36	0.10	PT	—	2	—	S	NNW
72	b	H	0.32	0.15	PT	—	2	—	S	NNW
72	c	H	0.37	0.10	PT	—	2	—	S	NNW
73	b	Hs	0.20	0.15	PL	—	1	—	V	NW
73	c	Hs	—	—	PL	—	1	—	V	NW
78		Hfa	0.90	0.45	—	CAN MAR	—	1+2	S	NW
79		Hfa	1.30	0.47	—	PL PS	—	1+2	V	NW
81	a	H	—	—	—	PL PS	2	—	S	NNW
81	b	H	—	—	—	PL PS	2	—	S	NNW
81	c	H	—	—	—	PL PS	2	—	S	NNW
81	d	H	—	—	—	PL PS	2	—	S	NNW
83	a	H	—	—	—	PL PS	2	—	V	NW
84	a	H	—	—	PS	—	2	—	V	NW
84	b	H	—	—	PS	—	2		V	NW
84	c	H	—	—	PS	—	2		V	NW
86	a	Hs	0.15	0.11	—	PL PS	2	—	V	NNW
89	a	H	—	—	PS	—	2	—	S	NE
89	b	H	—	—	PS	—	2	—	S	NE
89	c	H	—	—	PS	—	2	—	S	NE
89	d	H	—	—	PS	—	2	—	S	NE
90		Hs	—	—	PL	—	1	—	V	N
98	a	H	0.30	0.18	PS	—	2	—	V	NE
105		Hs	0.27	0.24	PL	—	1	—	T	—
107		Hs	—	—	PL	—	2	—	T	—
109		Hs	—	—	PL	—	2	—	T	—
114		H	—	—	PL	—	1	—	V	NW
115		H	—	—	PL	—	1	—	V	E
117		Hs	0.45	0.15	PL	—	2	—	S	NW
118		Hs	—	—	PS	—	2	—	V	NE

Table 4.8 continued next page …

Table 4.8 (continued). GTVE. Inventory of 'human' figures (Southern Slope). Key: Table 4.11.

119	a	H	—	—	PS	—	2	—	V	N
119	b	H	—	—	PS	—	2	—	V	N
119	c	H	—	—	PS	—	2	—	V	W
119	d	H	—	—	PS	—	2	—	V	W
121	a	H	—	—	PS	—	1	—	V	NW
121	b	H	—	—	PS	—	1	—	V	NW
130		Hf	0.35	0.19		PL PT		1+2	S	NNE
132		Hfa	0.97	0.62	PT	—	2	—	V	N
137	b	Hs	0.23	0.10	PL	—	1	—	S	NW
140	b	Hs	0.20	0.15	PS	—	2	—	T	—
140	c	Hs	0.18	0.15	PS	—	2	—	T	—
140	d	Hs	0.15	0.15	PS	—	2	—	T	—
140	e	Hs	0.22	0.15	PS	—	2	—	T	—
141		H	—	—	—	PL PS	1	—	V	N
144		Hs	—	—	PL	—	1	—	T	—
151	b	H	—	—	PL	—	1	—	V	W
151	c	Hs	0.30	0.18	PL	—	1	—	V	W
151	d	Hs	0.50	0.13	PL	—	2	—	V	W
159	a	H	—	—		PL PS	2	—	V	NE
182	a	Hsex	0.30	0.20	PT	—	2	—	V	NE
182	b	Hsex	0.30	0.20	PT	—	2	—	V	NE
184	a	HF	—	—		PL PS	2	—	V	N
186	a	H	—	—	PS	—	2	—	V	N
187	b	H	0.70	0.49	PT	—	2	—	V	N
187	c	HP	0.29	0.14	PS	—	2	—	V	N
191		Hs	0.30	0.15	PL	—	2	—	S	N
199	a	H	0.35	0.16	PT	—	1	—	V	NW
199	b	Hs	0.14	0.08	PL	—	1	—	V	NW
199	c	Hs	0.18	0.11	PL	—	1	—	V	NW
206	a	H	—	—	PL	—	1	—	S	N
207	b	H	—	—	PS	—	2	—	V	NW
210		HP	0.36	0.23	PT	—	—	1+2	S	W
213		Hc	—	—	PL	—	1	—	S	N
216		Hc	—	—	—	PL PT	1	—	V	N
218		Hs	—	—	—	PL PS	2	—	V	NE
228	a	Hs	—	—	PL	—	2	—	V	N
228	b	Hs	—	—	PL	—	2	—	V	N
228	c	Hs	—	—	PL	—	2	—	V	N
228	d	Hs	—	—	PL	—	2	—	V	N
230		H	0.70	0.30	PS	—	2	—	V	NW
238	a	Hs	0.30	0.17	PL	—	1	—	S	N
238	b	Hs	0.24	0.12	PL	—	1	—	V	N
238	c	Hs	0.30	0.18	PL	—	1	—	S	N
239		H	—	—	PL	—	1	—	S	W
246	a	Hs	0.45	0.26	PL	—	1	—	T	—
246	b	Hs	0.35	0.16	PL	—	1	—	T	—
246	c	Hs	0.21	0.20	PL	—	1	—	T	—
251	c	Hs	0.40	0.17	PL	—	1	—	T	—
251	d	Hs	0.22	0.12	PL	—	1	—	T	—
252		H	—	—	PL	—	2	—	V	N
263		Hs	—	—	PS	—	2	—	V	NE

Table 4.9. GTVE. Inventory of 'human' figures (Northern Slope).

figure		type	height (m)	width (m)	Tech 1	Tech 2	Pat 1	Pat 2	VST	orient.
279	b	H	—	—	PL	—	2	—	V	S
279	c	H	—	—	PL	—	2	—	V	S
280		H	—	—	PS	—	2	—	S	N
301	a	Hcv	0.50	0.34	PT	—	1	—	V	SE
301	b	Hv	0.21	0.13	PT	—	1	—	V	SE
305	a	H	0.50	0.30	PT	—	2	—	V	N
305	b	H	0.45	0.23	PT	—	2	—	V	N
305	c	H	0.50	0.21	PT	—	2	—	V	N
305	d	Hs	0.30	0.17	PT	—	2	—	V	N
305	e	Hs	0.15	0.08	PT	—	2	—	V	N
307		H	0.80	0.25	PT	—	2	—	S	NE
308	a	H	—	—	PL	—	1	—	S	NW
308	b	H	—	—	PL	—	1	—	S	NW
310		H	—	—	PL	—	1	—	S	W
311		H	—	—	—	PL PS	—	1+2	S	W
312	a	Hsv	0.50	0.24	PT	—	2	—	V	S
312	b	Hs	0.19	0.06	PT	—	2	—	V	S
312	c	Hs	0.17	0.06	PT	—	2	—	V	S
314		H	—	—	PS	—	2	—	S	SE
315		H	—	—	PS	—	2	—	T	—
320	a	Hs	—	—	PL	—	2	—	V	NW
320	b	Hs	—	—	PL	—	2	—	V	NW
320	c	Hs	—	—	PL	—	2	—	V	NW
322		H	—	—	PT	—	1	—	T	—
331	a	H	—	—	PS	—	2	—	S	W
331	c	H	—	—	PS	—	2	—	V	S
334		H	—	—	—	PL PS	2	—	T	—
338	a	H	—	—	PS	—	2	—	V	S
339		Hv	0.40	0.27	PT	—	1	—	V	NE
343		Hfa	1.10	0.80	PT	—	2	—	V	SW
348		H	—	—	PL	—	1	—	V	SE
349		H	—	—	PL	—	1	—	V	W
352		Hs	—	—	—	PL PS	2	—	S	S
354		H	—	—	PL	—	1	—	V	S
356		H	—	—	PL	—	1	—	T	—
359		Hs	0.40	0.27	PL	—	1	—	T	—
362	a	H	—	—	PL	—	1	—	S	N
362	b	H	—	—	PL	—	1	—	S	N
362	c	H	—	—	PL	—	1	—	S	N
362	d	H	—	—	PL	—	1	—	S	N
364		H	—	—	PT	—	1	—	V	N

Table 4.10. GTVE-S. 'Man-Animal' motifs. Key: Table 4.11.

figure		type	height (m)	width (m)	Tech 1	Tech 2	Pat 1	Pat 2	VST	orient.
1	a	AA(HO)	0.94	1.15	—	CAN MAR	—	1+3	V	NNW
142		AA(HK)	0.76	0.30	—	PL PS	2	—	S	NW
143	a	AA(HK)	1.00	0.75	—	PL PS	2	—	V	E

Table 4.11. GTVE. Key to Tables 4.4 and 4.8–4.10.

site	Southern or Northern Slope		
figure	motif number [rock support / block / panel number]		
type	H	'human' figure (single: diverse undifferentiated human)	
	Hs	'human' stick figure	
	Hf	'female' figure	
	Hfa	ghost-like figure (phantom)	
	Hsv	'human' figure with exaggerated 'genitalia'	
	Hv	undifferentiated 'human' with exaggerated 'genitalia'	
	Hcv	'human' in profile with exaggerated 'genitalia'	
	Hsex	'human' in 'coitus'	
	Hc	undifferentiated 'human' in profile	
	Hp	'human foot'	
man-animal motifs			
	AA	other 'animal'	
	AA(HO)	'Man-bird'	
	AA(HK)	'Man-kangaroo'	
column abbreviations			
	TECH 1	primary carving technique	
	PL	linear pecking	
	PS	superficial pecking	
	PT	fully pecked intaglio	
	TECH 2	secondary carving technique	
	CAN MAR	grooving and hammering	
	PL MAR	linear pecking plus hammering	
	PT CAN	fully pecked plus grooving	
	PAT 1	primary patination of motif	Level 1—deeply patinated
	PAT 2	re-marking secondary patination	Level 2—patinated
			Level 3—fresh
	VST	vertical, sloping, top	
	Orien.	orientation of carved surface	

Distribution of human figures

The distribution of depictions of humans across the GTVE Group is shown in Fig. 4.14. 'Human' motifs have a wide distribution across the Group. They are found mainly in the major concentrations of the petroglyphs, especially in Group B, just in front of the midden. They are in prominent positions which would have exposed them to the view of the midden-dwellers.

Depictions of animals

Depictions of macropods: Kangaroo and others

A total of 36 depictions of macropods were recorded at the Eagle Group. The 'kangaroo' and other 'macropods' form a critical graphic component at GTVE. Their numbers and percentages (up to 10% of the total petroglyphs) are relatively high. Examples are pictured in Figs 4.15–4.18.

Twenty-seven 'macropods' were located on the Southern Slope and only nine on the Northern Slope. The identification of 'macropods' as distinct from other 'animal' motifs is based mainly on three morphological characters: unequal 'limb' length (back 'legs' are significantly longer than front 'legs'); the frequent presence of 'feet' with a strong central 'digit' and less-developed lateral 'digit'; and a vaulted 'back'.

The lack of detail in the depictions makes it generally impossible to distinguish among the several macropod species, including representations of kangaroo from wallaby. On some points, therefore, I recorded the same observations as Andrée Rosenfeld (1982) made when studying depictions of macropods in the Laura region. To facilitate comparisons between Dampier and Cape York Peninsula, we adopted most of her methods for measuring, and complemented them with others as the Dampier depictions required.

Dimensions. Depictions of macropods at GTVE often are large as the following data show (Table 4.12; Fig. 4.19). In fact, the major motifs (with lengths over one metre) are accompanied by a category of small motifs whose length does not exceed one half metre.

Positions. Most macropod depictions (60%) are located on vertical or sub-vertical block surfaces. The longitudinal axis of the 'body' thus determines an angle to the horizontal. In 40% of cases, the exact position of the 'body' is undifferentiated because the motif's placement on the upper surface of a slab allows for all angles of view. Only one half of that proportion (20%) of the macropod depictions is horizontal, 15% are semi-erect, 15% are vertical (stretched or seated, the 'tail' folded under the 'buttocks') and 10% are represented as leaning forward.

The body of an actual kangaroo is leaning forward when in a slow walk; it is horizontal or half-standing when hopping; and vertical at rest when seated. These various positions probably are not a complete representation of different phases of the animal's movement; the position of the limbs, especially the tail, prevents any reading in the sense of systematic realism. The depiction of legs is always stiff: They are sometimes bent at a right angle to one side, which may be an attempt to depict them as being supported by the ground, but often they hang or they are simply parallel

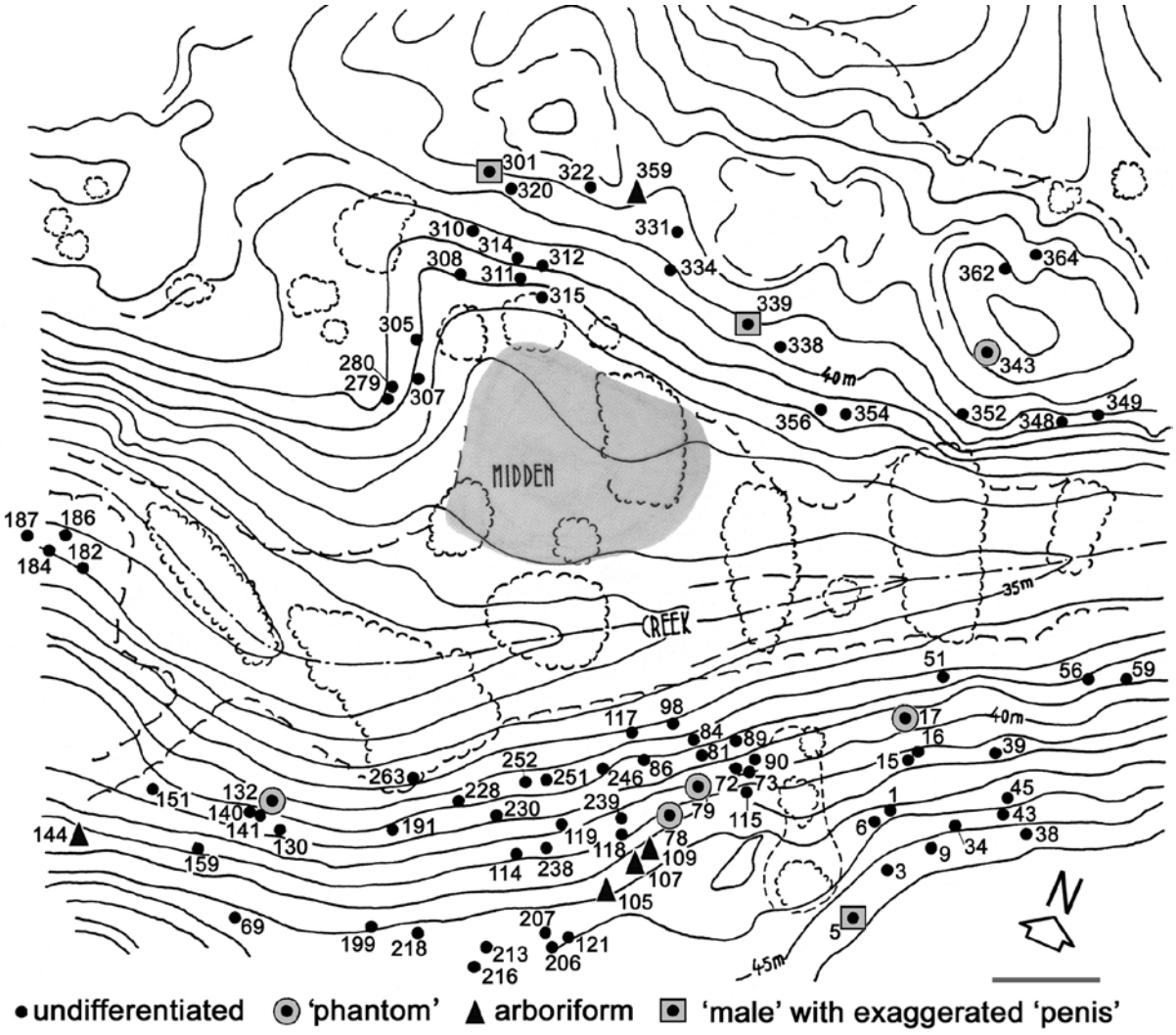

Figure 4.14. GTVE. Map of Eagle Group showing distribution of 'human' motifs; 'undifferentiated' category includes stick figures and 'diverse humans'. Scale: 10 m.

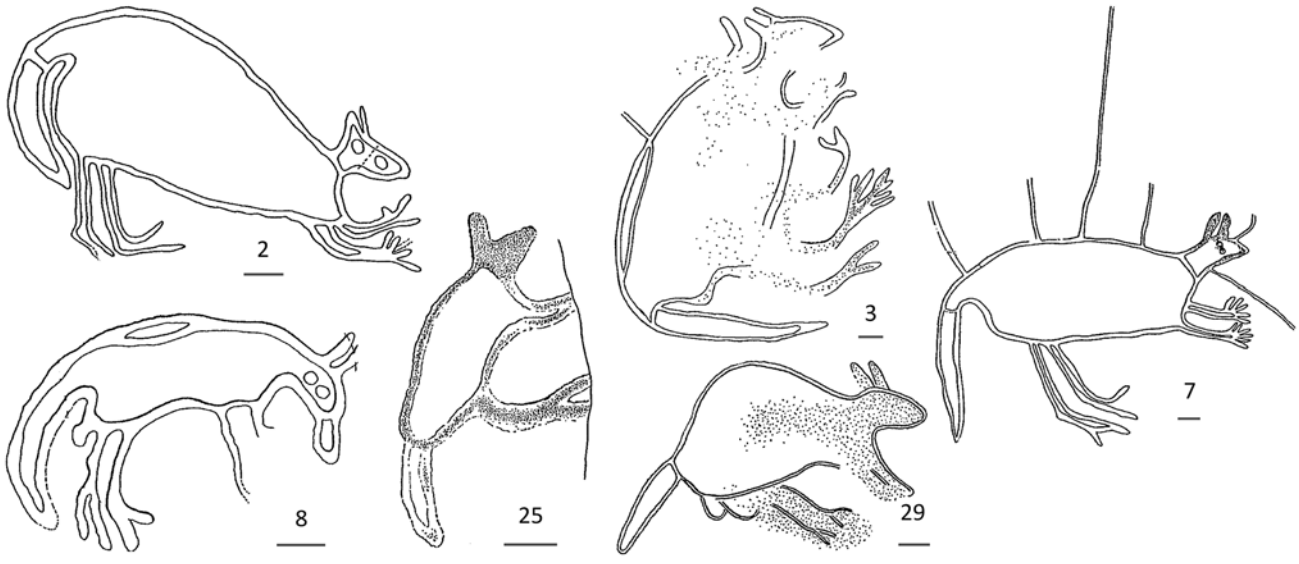

Figure 4.15. GTVE. Depictions of macropods. Scales: 100 mm.

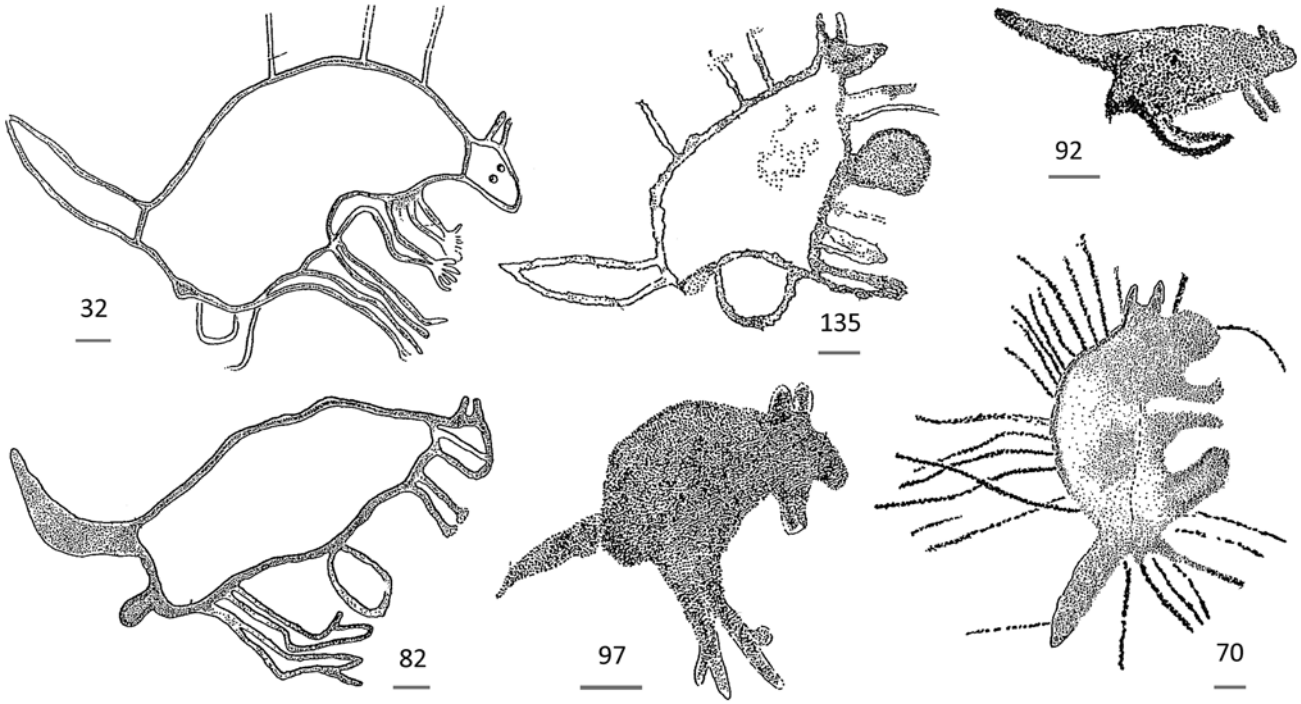

Figure 4.16. GTVE. Depictions of macropods. Scales: 100 mm.

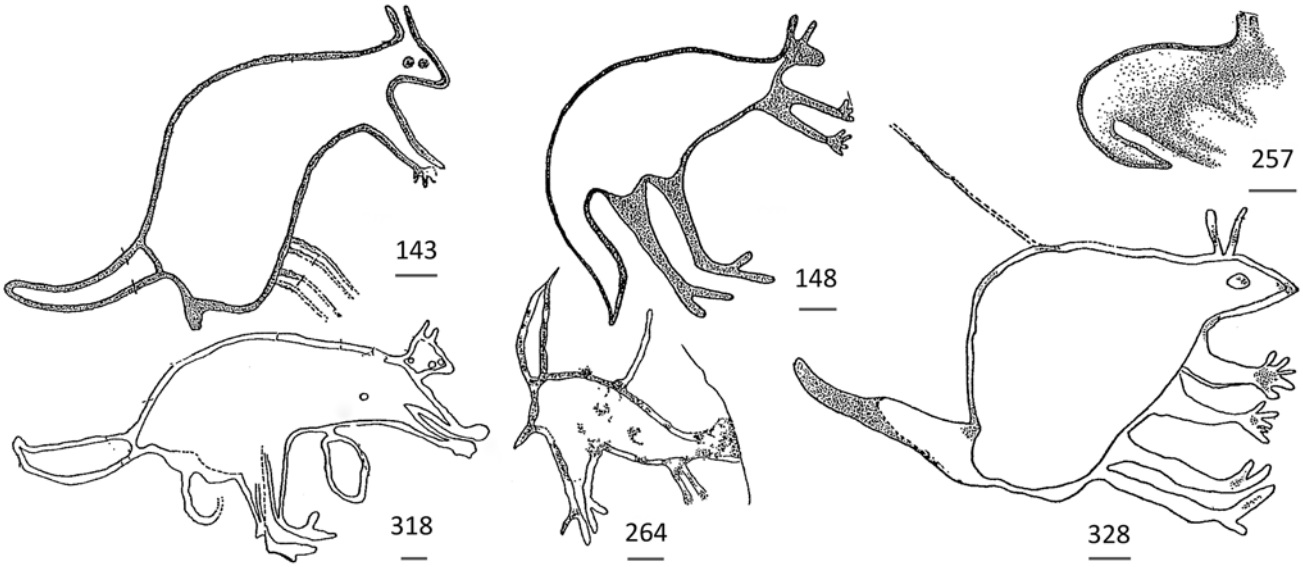

Figure 4.17. GTVE. Depictions of macropods. Scales: 100 mm.

and stretched forward. The 'tail' almost never features an S-profile characteristic of kangaroo. Its positions, as shown later, are both very diverse and almost always seemingly arbitrary.

All these observations are illustrated in an exemplary motif (Fig. 4.15: 25) depicting a macropod appearing to climb along a sub-vertical blocky ledge. Such a posture with the 'tail' hanging stiffly is totally imaginary. And it is not meant to represent a possum, since the 'foot' with two 'digits' is certainly that of the kangaroo or the wallaby.

The position of the 'body' does not have a veritable sense of realism: most often it appears arbitrary.

'Body' proportions. In accordance with Rosenfeld's definition (1982: 206–207), 'body proportions' are expressed by the ratio of body length (from the base of the neck to the base of the tail), and body height (measured between the line of the belly and the highest point of the arched back). As shown by the following data, their average body length is less than twice their height (Table 4.13).

These data on 'body' proportions must be used with extreme caution because the more-or-less elongated silhouette of the motif is not always culturally significant. It is sometimes based on the shape of the support block, which can be constraining. Adaptation to the form of the support may have had greater and more consistent influence on the morphology of 'animal' motifs when they are carved onto a block, as found at Dampier, than in the case of paintings or carvings on the walls of a rock shelter.

The most elongated 'kangaroo' (GTVE-318 {p. 402}), whose body ratio is 2.50, occupies the entire surface of a block that is itself quite long. The elongation of the support is important: at 1.90, the ratio of length to height of the block approximates that of the motif. Conversely, one of the very squat 'macropods' (GTVE-135 {p. 376}), the body ratio of which is one of the lowest (1.30), is placed on a rounded slab the ratio of which is only 1.41. The influence of the

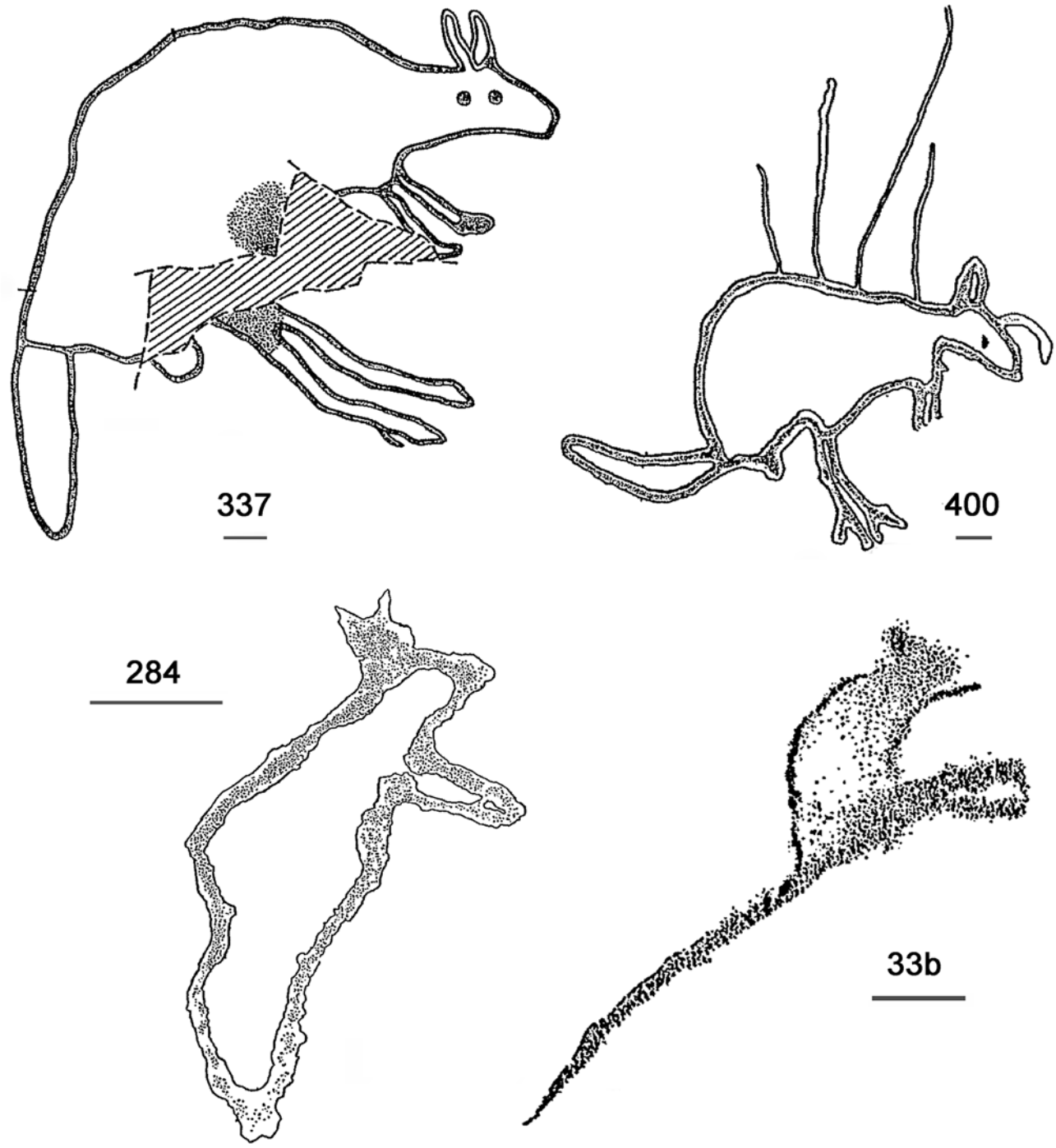

Figure 4.18. GTVE. Depictions of macropods. Scales: 100 mm.

medium is obvious in some cases, but it is not consistent; it seems especially important in extreme cases.

Rosenfeld (1982: 207) defined 'back curvature' (BAR) as "… the back length from top of neck to top of tail, over the maximum height of the back arch over this line". The following data show that this curve is generally very clear (Table 4.14). Always, the relative standard deviation highlights the wide range of the curvature index; however, it is much more accented on some motifs than on others.

'Head'. The 'head' of 'macropods' is generally represented as a triangular form. The extremity of its 'snout' is either sharp or rounded. However, one individual (Fig. 4.18: 337) has a rectangular 'head', the end of which terminates in a straight line, and on another (Fig. 4.15: 8), a strange loop extends from the 'head'. The 'ears' are depicted in pairs, except in one individual depicted in full profile (Fig. 4.15: 25), which has only one, as it has only one 'member' per pair. While most 'macropods' are depicted without 'eyes', seven have two 'eyes', and two have only one.

'Legs'. In nearly 60% of 'macropod' motifs, the hind 'legs' exhibit the characteristic 'digits', whereas only 27% have detailed front 'legs' with two to six 'digits'. The remaining motifs have undifferentiated 'legs'. Barely a quarter of depictions have both front and back 'legs' detailed.

'Genitalia'. Two-thirds of 'macropod' motifs are represented as being without gender. Among those in which gender is depicted, 'males' are slightly more numerous (18%) than 'females' (14%) as shown by their ventral 'pouch'. Some motifs seem to have depicted both genders, including one (Fig. 4.16: 82) that combines a 'penis' and a 'pouch'. It is possible that in this case, the gender of the motif has changed during re-marking.

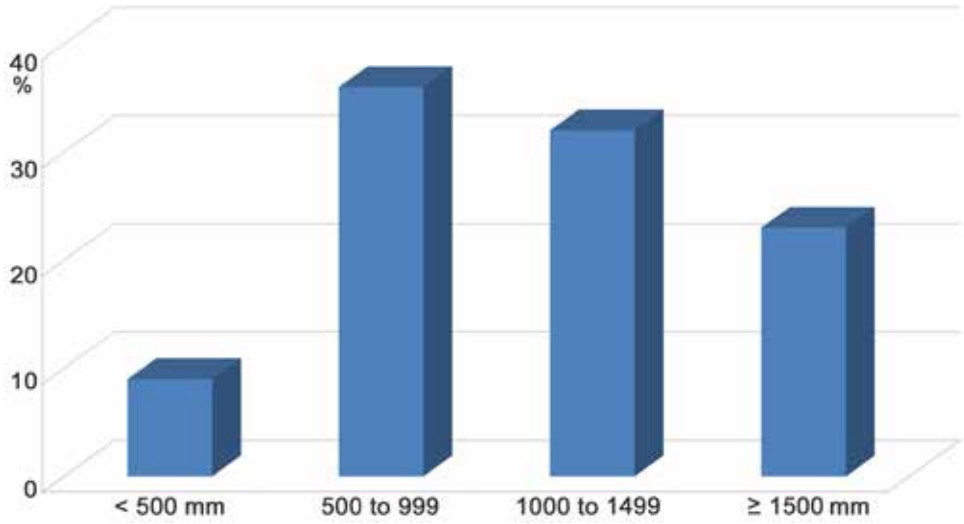

Figure 4.19. GTVE. Distribution of lengths of 'macropod' motifs.

'Tail'. The abnormal shape of the 'tail', a simple or straight curve, has already been reported. Another abnormal characteristic (in 68% of cases) is medial thickening. The 'tail' of most 'macropod' petroglyphs at GTVE is indeed thicker at mid-length or in its proximal third than at its base. Some motifs (GTVE-82 {p. 369}, -135 {p. 376}, -264 {p. 393}, -318 {p. 402}) have a 'bushy tail' that would relate to the depictions of macropods with a thick 'tail' in the Pilbara as described by Steve Brown (1983: 185, 198) and Ken Mulvaney (2009). Yet here again, I am inclined to reject any hypothesis of realism, any idea of depiction of an alleged extinct 'macropod with a fat tail' for which palaeontology provides no evidence. Of course, thickening of the 'tails' of GTVE animals is extremely varied. Between the 'tails' of normal thickness, decreasing and bushy tails, all intermediary forms exist. The thick 'tail' is not a special type that differs from the normal. It is a simple variant and possibly a mere stylistic convention or the result of hasty execution. The idea of an intentional focus on this organ to recognize its nutritional qualities hardly seems convincing.

The position of the 'tail' itself is very varied; there are as many individuals with their 'tails' up as individuals with 'tails' held horizontally or extending along the 'body' axis. Lowered 'tails' (about ten) are fewer, but they are still relatively frequent. However, contrary to the dingoes, as noted by Rosenfeld (1982), in reality, kangaroo and other macropods never have tails in the air.

Depiction of the position of the tails of these animals appears frequently to result from an adaptation of petroglyphs to their support blocks. Whether in a high or low position, the 'tail' is adapted to the edge of a slab to allow maximum surface space for the rest of the 'body'. There are several examples (GTVE-3 {p. 349}, -7 {p. 352}, -8 {p. 353}, -148 {p. 383}, -328 {p. 403}, -337 {p. 402}). In some instances, on the contrary, the 'tail' extends directly along the axis of the 'body', stretching to fit the possibilities provided by the shape and length of a block (Fig. 4.16: 32, 92). It appears to manifest a desire to use the entire field, the carver's taste for using the entire available surface, and the general plasticity of representational forms, in contrast to any concern for realism.

Table 4.12. GTVE. Dimensions of 'macropod' motifs.

dimension	mm
maximum length	1950
minimum length	450
average length	1090
range of variation	1500
standard deviation	450

Table 4.13. GTVE. Body ratios (BR) of 'macropod' motifs.

index	value
maximum value ratio	2.50
minimum value ratio	1.30
average body value	1.86
range of variation	1.20
standard deviation	0.33

Table 4.14. GTVE. Back curvature (index) of 'macropod' motifs.

index	value
maximum value of curvature	13.00
minimum value of curvature	2.21
average value of curvature	4.75
range of variation	10.79
standard deviation	2.30

The 'caudal ratio', expressed as the ratio of length of the tail to that of the body (from the base of neck to the base of tail), provides the following data (Table 4.15). These results show that Eagle Group 'macropods' are depicted with particularly short 'tails' since 'tail' length is little more than half that of the 'body'. If we exclude Motif 33b (Fig. 4.18), whose frayed appendage is beyond the standard, the homogeneity of the category and consistency of the proportions are obvious. In reality, kangaroo have tails the length of which is almost identical to that of their body. This remark confirms the unrealistic nature of these depictions.

GTVE-33b {p. 357} (Fig. 4.18), the caudal ratio of which is 1.53, is distinguished from the rest of the assemblage; this could be a controlled and intentional depiction of a species of macropod different from the others. By their massive character, most of the motifs seem to evoke different varieties of kangaroo, while the slender appearance of Motif 33b might suggest a smaller species such as one of the wallaby.

Internal divisions. Ten percent of the GTVE depictions of 'macropods' are totally pecked silhouettes ('intaglio'). They do not contain any internal details. However, most of these motifs have been executed in grooved outlines, sometimes associated with a partially pecked infill technique. In this case, we find that the subsequent internal divisions were made mostly by a fluted line but sometimes using a different carving technique (for example, a 'head' made with pecked infill is detached from the rest of the 'body' formed by outline technique). These cases illustrate various instances of internal division:

1 Motifs with a bar across the base of the 'tail'. The 64% of 'macropod' motifs that are not fully pecked show a line at the base of the 'tail' (it might be interpreted as 'severing' the 'tail' from the 'body' (for example, GTVE-2 {p. 350}, -3 {p. 349}, -7 {p. 352}, -25 {p. 357}));
2 Motifs with a bar across the 'neck'. Thirty-six percent of the outline motifs have this trait (for example, GTVE-2 {p. 350}, -7 {p. 352}, -25 {p. 357}, -32 {p. 353}, -135 {p. 376}, -148 {p. 383});
3 Thirty-two percent of motifs have both the 'neck' and 'tail' marked in this way; and
4 Finally, a few examples also feature a dorsal longitudinal line dividing the arch of the 'back' (for example, GTVE-3 {p. 349}, -8 {p. 353}). Is this a case of simple correction of the dorsal outline?

The 'head' of one animal (GTVE-82 {p. 369}) is unusual in that it is has been depicted with longitudinal bars.

On the other hand, on nearly half of the 'macropod' petroglyphs, 'limbs' are separated from the 'body'. But this is a simple way of depiction: The 'feet' have been added after outlining the 'body'. This observation provides us with the opportunity to stress that, in contrast, the deliberate practice of 'severing' the 'neck' and 'tail' was done after outlining the 'animal'. It is clear that the 'head' and 'tail' have not been made by adding appendages to an oval that was first made to represent the 'body'. 'Head', 'body' and 'tail' are in one continuous line where internal divisions are not integrated. These internal divisions, therefore, have been added to the motif.

These divisions thus correspond to a particular intention. But since they are not as numerous as the many depictions of Cape York macropods described by Rosenfeld (1982), it is difficult to see a relationship with a quartering of the beast and of sharing rituals. Perhaps it is only stylistic conventions?

Table 4.15. GTVE. Macropod caudal link ratio.

	all measured examples	excluding motif 33B
	n = 30	n = 29
maximum tail ratio	1.53	0.76
minimum tail ratio	0.44	0.44
average tail ratio	0.63	0.57
range of variation	1.09	0.32
standard deviation	0.21	0.09

'Spears'. In nearly 30% of the depictions of GTVE macropods, the outlines bear from one to 26 vertical straight lines. These lines might depict hunters' spears and thus portray 'injured animals'. Often these lines are bent at right angles to follow onto another surface of the support block (examples are GTVE-7 {p. 352}, -70 {p. 363}, -400 {p. 407}).

Among the 'macropods' so portrayed, less than half have only one 'spear' embedded in the 'back'. Others have more lines, usually three to five. One example (GTVE-70 {p. 363}) has 26! Among the 47 marks identified as 'spears' in the total sample, 32 are depicted as stuck in the 'back', seven in the 'buttocks', five in the 'head', two in the 'belly' and one in the 'tail'.

It is possible, even probable, that the depiction of 'injured animals' may be about hunting magic. In some cases, although we have no direct evidence to support this interpretation, the proliferation of 'spears' in the same subject may have been the result of a repetitive, ritual, action on the motif; that is, a staggered series of interventions over time. In any case, where the 'spears' are repeated, they do not overlap but are placed at almost regular intervals. This desire to separate the 'spears' so that each is visible might have prompted their placement even some in less vulnerable body parts such as the 'tail' or 'buttocks'.

As discussed further below, many of these 'injured animal' motifs had been used again and re-marked, but that the 'spears' generally have not been renovated.

Outside the sample area, there is depiction of a kangaroo (GTVE-400 {p. 407}) that not only has four 'spears' in its 'back' but also an arc-like form attached to the outline of its 'forehead'; this is likely to represent a boomerang. This detail seems to confirm that some Gum Tree Valley depictions of macropods are of injured animals.

The case of GTVE-284 {p. 394}. This little motif (Fig. 4.18: 284), roughly fashioned, has an undifferentiated mass in the lower part, which could represent a tail, but lacks 'hind legs'. It is still interpreted as an incomplete depiction of a macropod because the shape of its 'head' and 'ears', the very high position of front 'legs' (below the 'neck') and the curvature of the 'back', are distinctive features found in more definite GTVE 'macropod' motifs. Depictions of only a part of a 'macropod' is a feature of the wider Dampier rock art corpus; it is less common in the case of birds.

Distribution of macropod motifs. The distribution of depictions of macropods is shown in Fig. 4.20. The map reveals that the portrayals of kangaroo are distributed evenly all over the Eagle site, with a distinct concentration of 'kangaroo' motifs in the sector containing The Eagle motif.

Depictions of birds

Apart from 'The Eagle', four depictions of other birds were recorded at the GTVE Site (Fig. 4.21: left). They are relatively small; their lengths range from 320–700 mm. The poor condition of the images and their summary execution make them generally difficult to interpret. The identification of only one (GTVE-73 {p. 364}) seems sure. This is probably a depiction of an Emu that has been superimposed on two almost-erased 'human' stick figures. The general form of the 'bird', the arched 'back', long 'neck' and long strong 'legs' are typical. The knob at the base of the 'neck' seems to include even the stumps of 'wings' so particular to this species.

The other motifs (Fig. 4.21: 98 and 333) possibly also may be seen as representations of Emu but they are less certain. One of the pair (Motif 98) has a long 'neck' prompting such an interpretation. The 'head' of the other (GTVE-333 {p. 401}) disappears into another motif; the differences in technique and patination suggest that this is a case of overlap, not of an intentionally monstrous face.

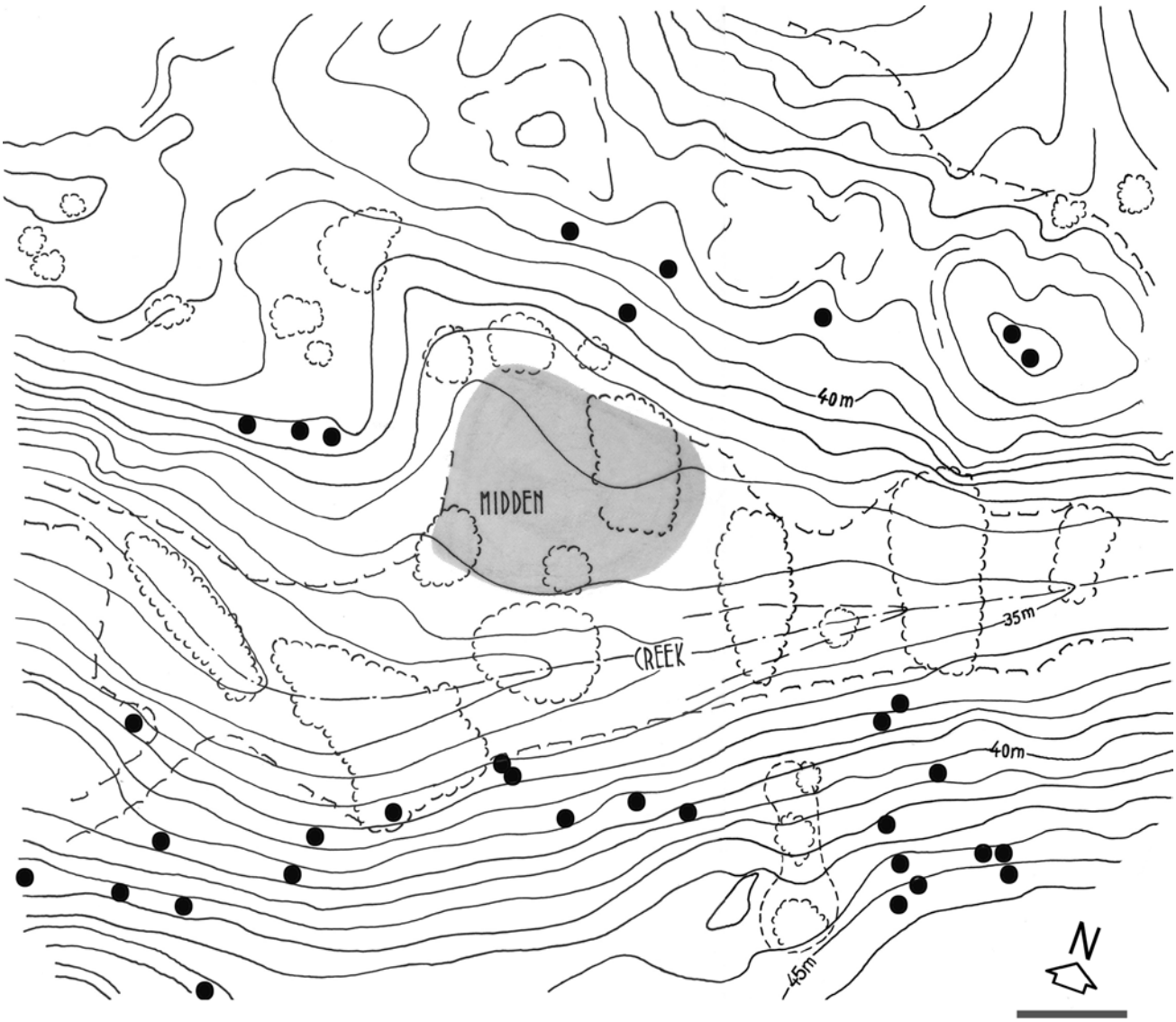

Figure 4.20. GTVE. Distribution of 'macropod' motifs. Scale: 10 m.

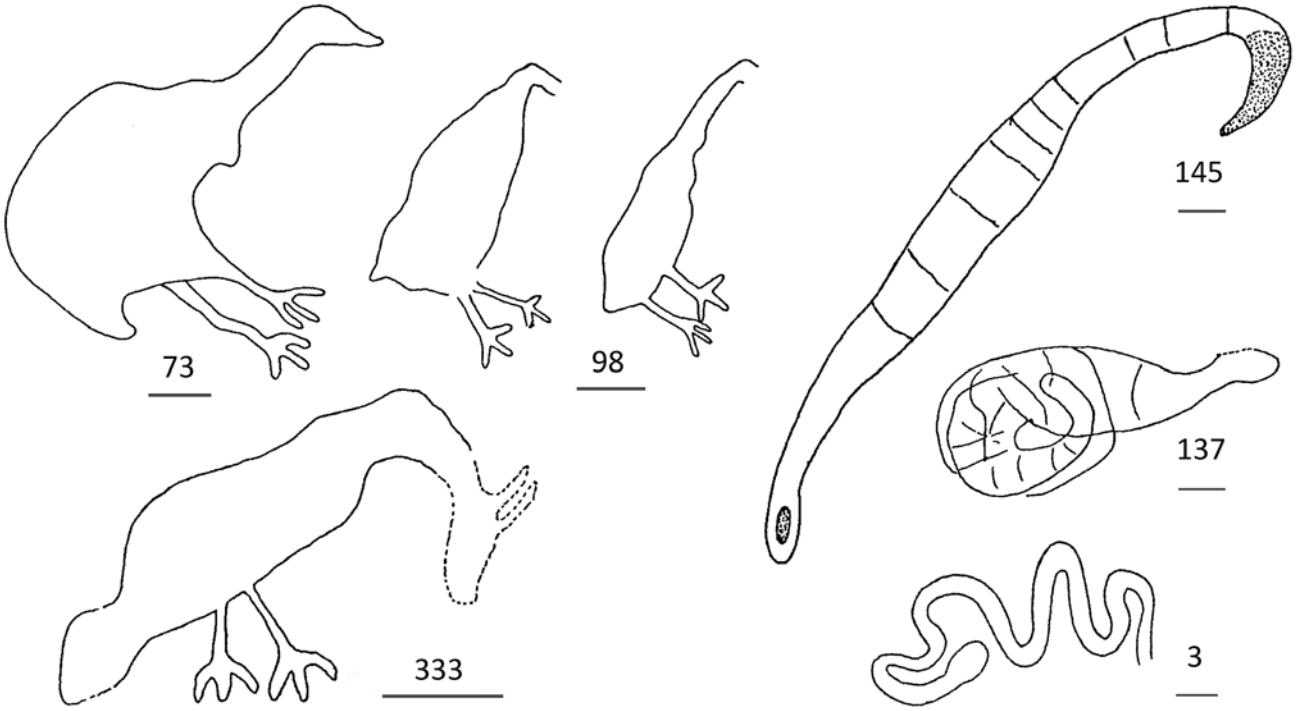

Figure 4.21. GTVE. Depictions of birds (left) and snakes (right). Scales: 100 mm.

Depictions of snakes

Four depictions of snakes have been recorded (Fig. 4.21: right). They are all located on the Southern Slope. Their lengths range from 0.80–1.60 m. They seem to represent at least two different species: a slender, long and relatively thin variety (Fig. 4.21: 3; GTVE-58 and -145), and a more massive, short and thick variety. It is possible to recognize the latter as portraying a Death Adder by the character of its 'body' and thick, abruptly tapering, 'tail' (Fig. 4.21: 137).[8] Internal divisions featured probably represent details of skin colour.

Depictions of turtles

The Eagle Group includes 11 depictions of turtles (seven on the Southern Slope and four on the Northern Slope). Their lengths range from 390–900 mm. Their large 'fins' and their lack of 'neck' identify them as 'marine turtles' (Fig. 4.22). Some of them have internal motifs, grids or parallel lines, indicating details of the 'carapace'.[9]

Depictions of fishes and marine mammals

Nine depictions of fishes and other sea creatures were found at GTVE. All are on the Southern Slope except for GTVE-272 {p. 395}, which is on the Northern Slope (Fig. 4.23). Their average length is 800 mm; they range in length from 330–1400 mm.

Several of these motifs have an undifferentiated morphology that makes any specific identification impossible (for example Fig. 4.23: 68). However, a few elongated 'fishes' (GTVE-209 {p. 387}, -272 {p. 395}) with round 'heads' may depict the mullet (*Mugil cephalus*), as do several motifs in Skew Valley.[10] In contrast, the very old linear and deeply patinated image (139) seems to have the shape of the barramundi (*Lates calcarifer*) with its oval perciform 'body', its spiny dorsal 'fin' and the strong 'jaw' under the 'head'. Three subjects have both 'eyes' in what appears as a profile-drawn depiction (Fig. 4.23: 68, 104, 272). Motif 272 even has four 'eyes' (two larger and shinier than the other two), which indicates re-marking of the figure. As at Skew Valley, several depictions of fish show a line on the side which probably represents a spear (Fig. 4.23: 104, 211, 272). Spearfishing is well attested in the petroglyphs of GTVE. A small example (Fig. 4.23: 211), with its very indented 'tail' and almost lozenge-shaped oval 'body', evokes the Trevally, a common type on the Dampier coast.

In both the motifs that initially seemed to represent rays (Fig. 4.23: 123), the biologist Nathan Sammy (then employee of the Dampier Salt Company: pers. comm.) recognized two arthropods of the 'Horseshoe crab' type.[11]

Another motif (GTVE-187 {p. 386}), 0.86 m in length, probably depicts a dugong[12] as characterized by its fusiform 'body', its large triangular 'tail' (which, unlike that of a whale, is not indented), its two 'fins', and its 'lips' forming a mass protruding in front of its 'nose'. Other depictions of dugong exist on Dampier Island.[13] This animal is widely hunted by coastal tribes of tropical Australia (Lorblanchet, pers. obs.).

In two instances (Fig. 4.23: 104, 211), straight lines are closely associated with the depictions of fish. These attest to the former existence of spear-fishing here.

Depictions of other animals

Six 'animal' petroglyphs have particular characteristics (Figs 4.24–4.26). Two motifs probably depict thylacines (GTVE-62a); another, a possible dingo (361);[14] and three others show 'half-animal, half-human', hybrid creatures (GTVE-1 {p. 346}, -142 {p. 380}, -143A {p. 382}).

GTVE-62a: In 1976, at the beginning of this study, we simply registered these petroglyphs in our first Gum Tree Valley inventory, with the notation 'striped animals to be checked again', but without studying them in depth and without tracing them. In 2011, I asked Ken Mulvaney and Graeme Ward to check this panel. The tracing made during August 2011 by Mulvaney with Ward's assistance reveals that they are in fact two images depicting the Thylacine; that is, of animals which disappeared from the mainland Australia some 4000–3000 years ago (Fig. 4.25). Approximately 180

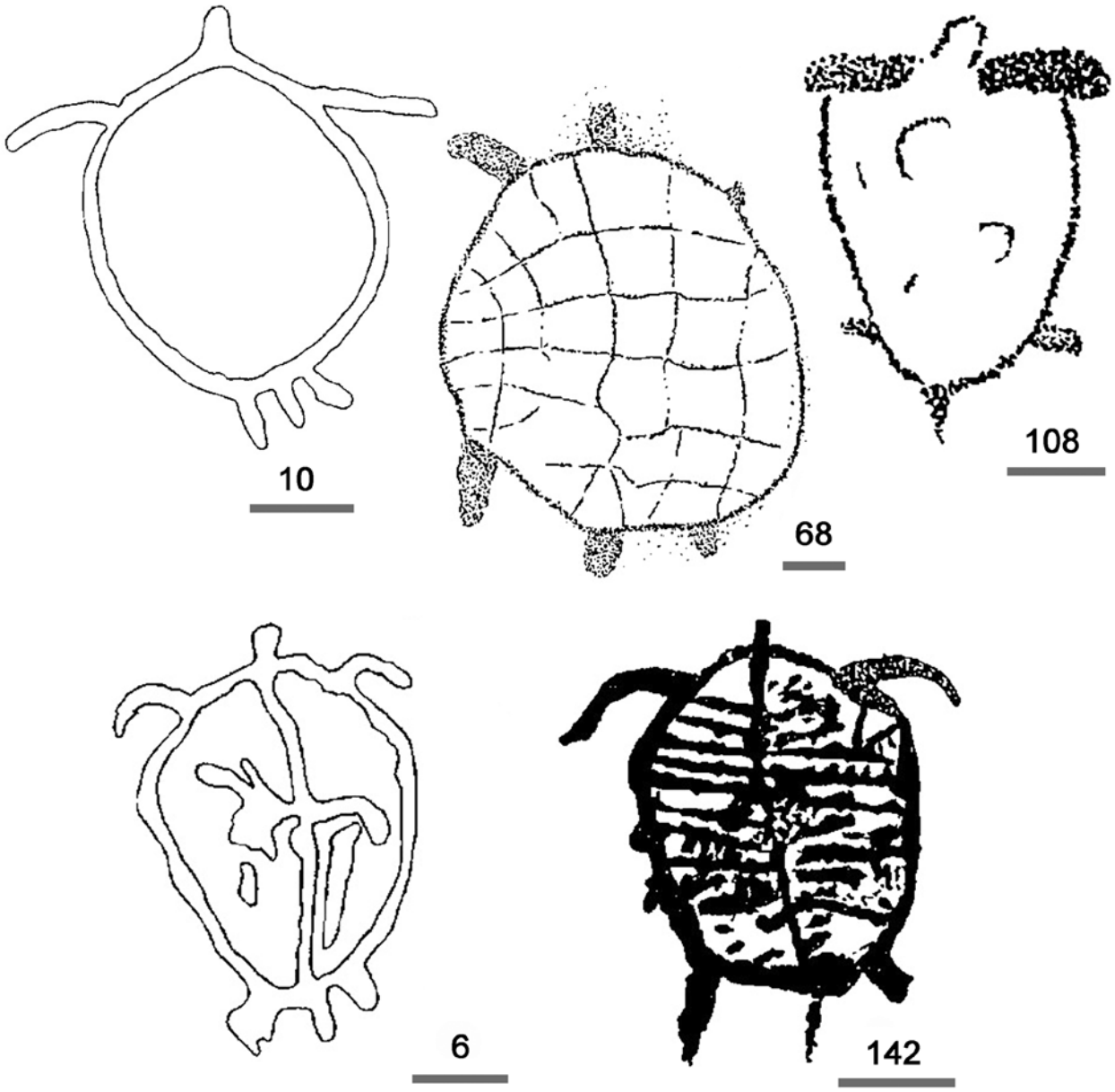

Figure 4.22. GTVE. Depictions of turtles. Scales: 100 mm.

m further up the valley to the east is another petroglyph displaying characteristics of a thylacine (Fig. 4.26). According to Mulvaney (2009: 47):

> To date 27 probable and possible thylacine images have been recorded from the Dampier Archipelago. In addition, there are a dozen or so quadruped images that lack the distinctive transverse stripes. This presence of thylacine images in the rock art provides a minimum date, not only for art production but also for the ritual context of its production.

This instructive story, which sealed appropriately the friendly collaboration with my Australian colleagues, shows that in rock-art studies to know what has been drawn on the rock the last word is given to tracing. This is particularly so when old figures are faint and when the tracing is made by knowledgeable specialists.

GTVE-361 {p. 406}: This motif (Fig. 4.26) is located in an odd position at the northern end of the sample area, about 50 m from the shell midden, on a slope oriented toward the north. It is not visible from the mound and the central habitation area. It is a very old linear-pecked carving with deep patination. Its length is 770 mm. It shares a single characteristic in common with the depictions of kangaroo, the disproportionate representation of the limbs: the single front leg is much shorter than the hind ones (Fig. 4.26: 361). Yet, other characteristics show that it is not meant to represent a kangaroo.

The general body proportions would be exceptional for a kangaroo. Its body index of 2.52 is slightly higher than the maximum ratio for depictions of GTVE kangaroo. Its 'body' is particularly elongated. The 'tail' is longer than that of most kangaroo (tail index = 0.67) and is also much thinner than those of macropods. The distal extremities of the 'legs' are rounded. The 'back' is straight and not vaulted like that of the great majority of the 'macropod' petroglyphs. This is probably a distinctive characteristic. Lastly, the 'ears' are particularly pointed and well developed. Moreover, the lack of 'genitals' or a 'pouch'—such as is visible on many kangaroo depictions—could be another distinctive feature rather than an example of extreme schematization.

From all these characteristics, we can recognize in this motif the depiction of a canine, probably a dingo. In her study of Laura (Cape York) rock-shelter paintings, Rosenfeld (1982) has shown that many representations

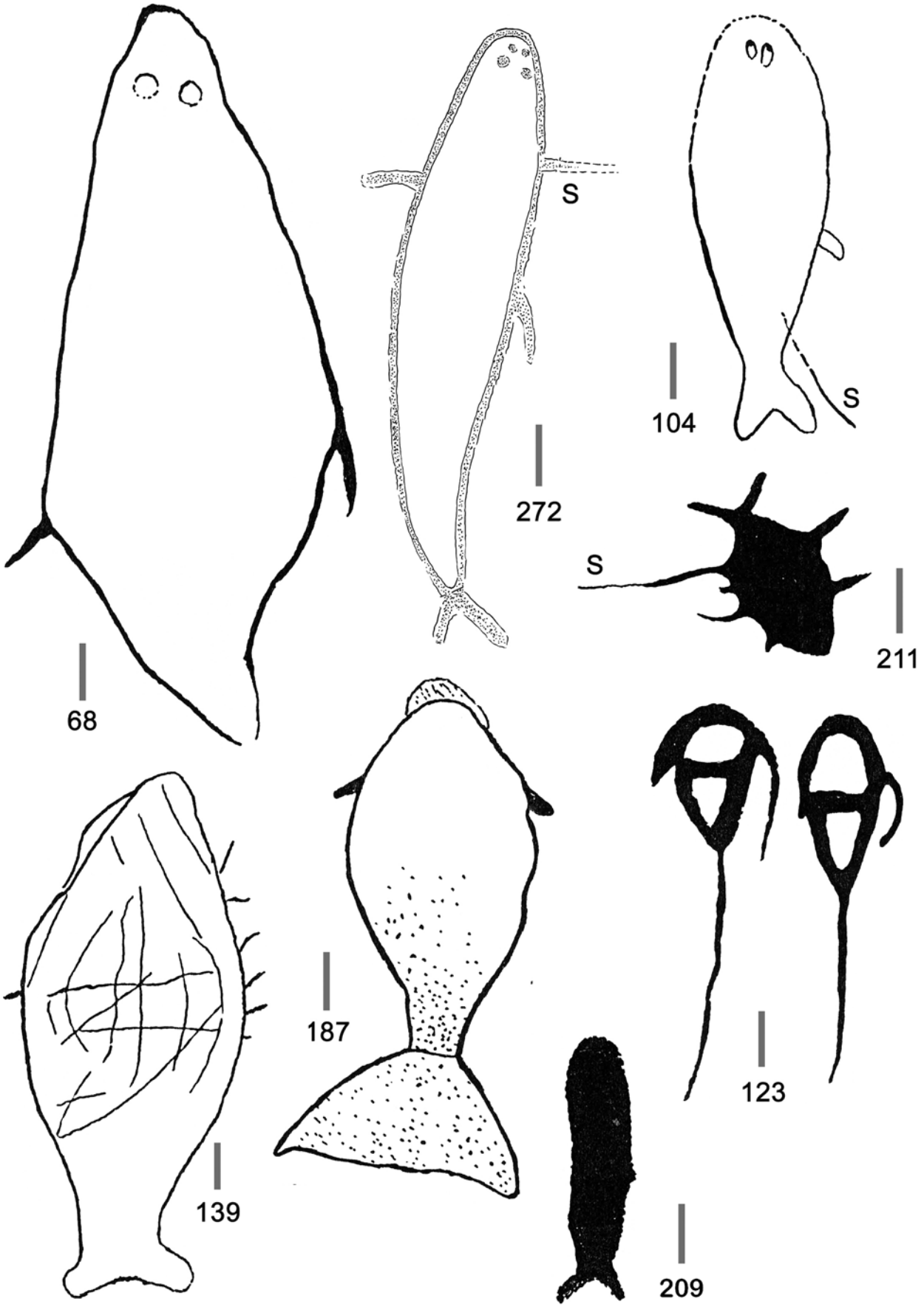

Figure 4.23. GTVE. Depictions of fishes and other marine animals; 187: 'dugong'. Note 'spears' ('S') associated with Motifs 104, 211 and 272. Scales: 100 mm.

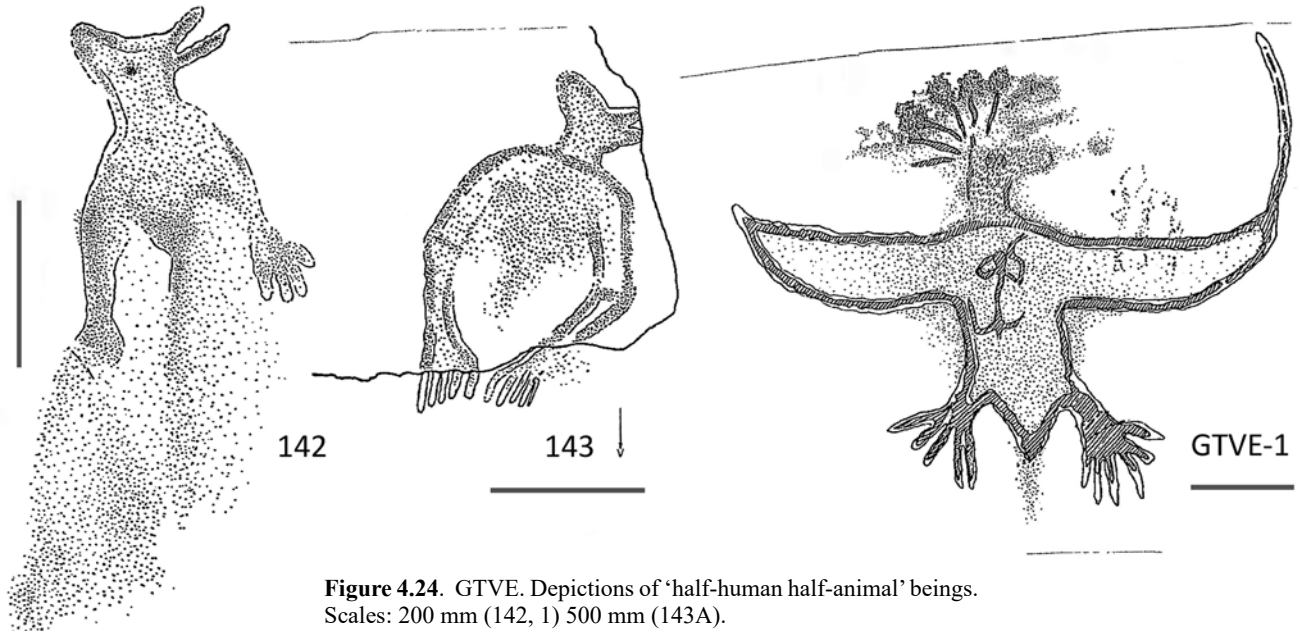

Figure 4.24. GTVE. Depictions of 'half-human half-animal' beings. Scales: 200 mm (142, 1) 500 mm (143A).

displaying characteristics unique to the dingo had, however, limbs of unequal length like those of kangaroo (Rosenfeld, 1982: 205). At Dampier, as at Laura, the standards of graphic images for macropods seem to have been imposed on the spirit of kangaroo hunters, when the animals were other than their usual game.

GTVE-1 {p. 346}: The Eagle with 'ceremonial headdress', is a large (0.94 high by 1.15 m wide), distinctive motif, visible from afar. It is located on the Southern Slope, opposite the shell mound. It depicts a bird whose general form and pose are those of an eagle, possibly a Wedge-tailed Eagle, a common species in this region, or a White-bellied Sea-Eagle.[15] The 'legs' of this motif are equipped with five and six strong 'talons' (Fig. 4.24: 1 and 4.27).

However, several human characteristics are obvious: the 'head' is topped by a 'ceremonial headdress' made of radiating 'tassels' on 'sticks', the same kind as that of many 'human' motifs characteristic of Gum Tree Valley. In addition, the 'wing' is extended by a deep curve. According to Aboriginal informants, including Mr Bunbdabar Williams, asked in my presence about particular places by linguist Dr Frank Wordick (Fig. 1.7), this 'bird' motif depicts a mythological eagle in the pomp and pose of a corroboree dancer extending his arms and holding a stick in his hand as do corroboree dancers today.[16]

Some interesting observations on the carving techniques employed in achieving this complex pattern, and the repetition of certain anatomical details, have shown that the motif has been re-marked by successive generations over a long period (Lorblanchet, 1980: 462, 477). I shall return to this point.

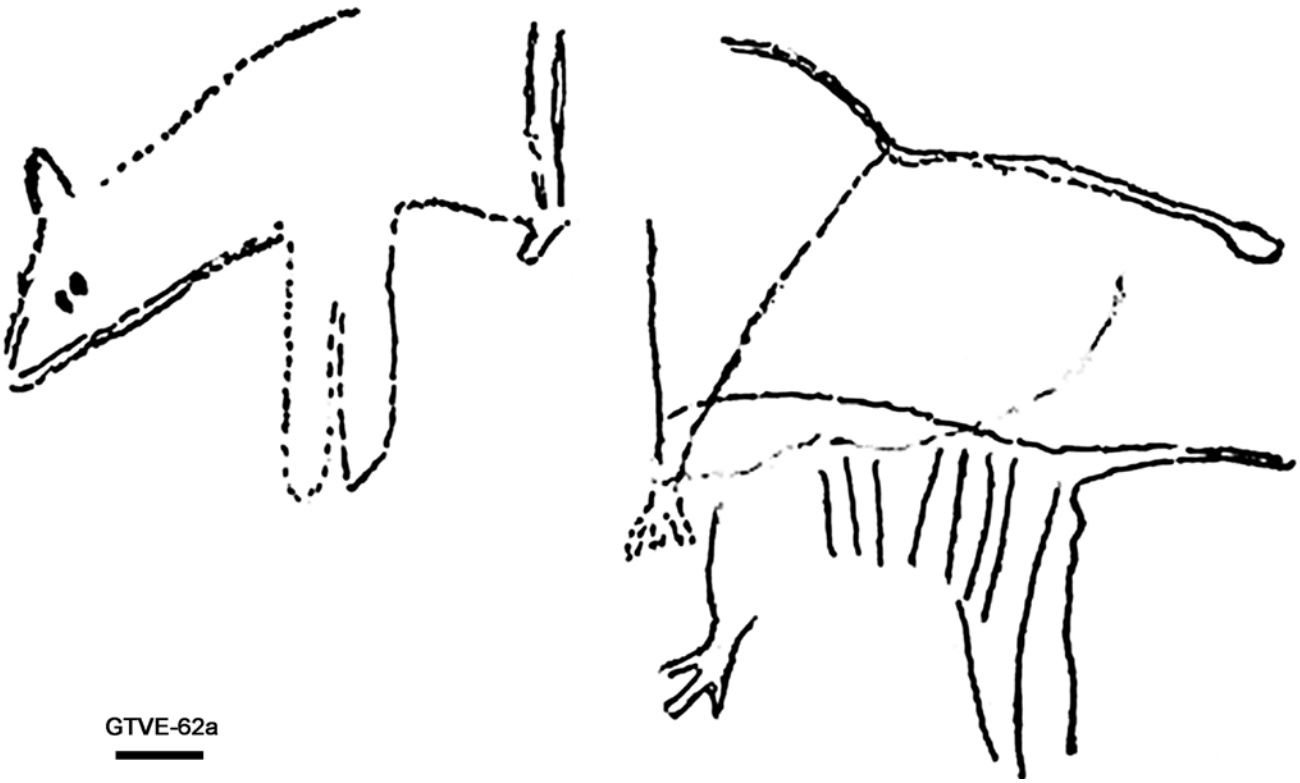

Figure 4.25. GTVE. Depictions of possible Thylacines. Tracing made by Ken Mulvaney and Graeme Ward, August 2011. Scale: 100 mm.

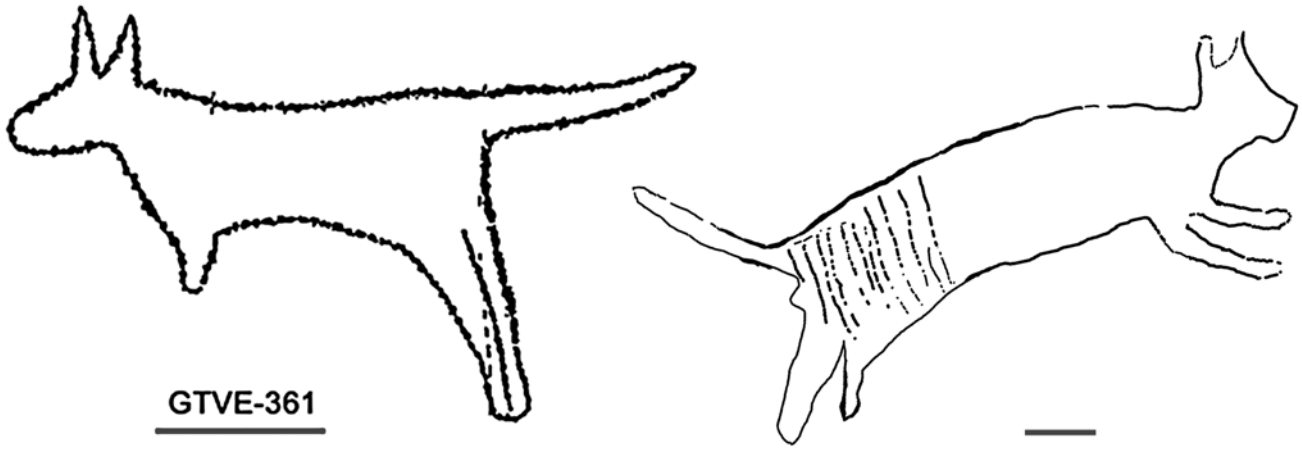

Figure 4.26. GTVE. Left: Depiction of possible dingo (GTVE-361); right: possible Thylacine (tracing made by Ken Mulvaney July 2014). Scales: 100 mm.

Two possible representations of 'male kangaroo' (Fig. 4.24: Motifs 142 and 143B: 760 and 1000 mm in length respectively) are located in a commanding position above the Southern Slope, about 10 m from each other. The second (GTVT-143B), turned towards the valley and the midden, is visible from afar. Both unusual motifs have a distinct kangaroo-like 'head' (Motif 142 has an 'eye') in profile on a full-frontal 'human torso'. The two 'arms' and 'hands' with grooved 'fingers' are particularly clear; by contrast, the lower part of the motif has been neglected.

Depictions of eggs

Four clusters of deeply pecked big punctations (dots) were identified in the GTVE sample area. Two are located on the Southern Slope (GTVE-11, -153) and two on the Northern Slope (GTVE-268, -300). Each has about 10 or 12 punctations in cupules of 30–50 mm in diameter. This is probably a depiction of a bird's nest. Groupings of dots accompanying depictions of turtles and turtle tracks from Skew Valley, which can be interpreted as 'turtle nests', in fact, contain a greater number of punctations.

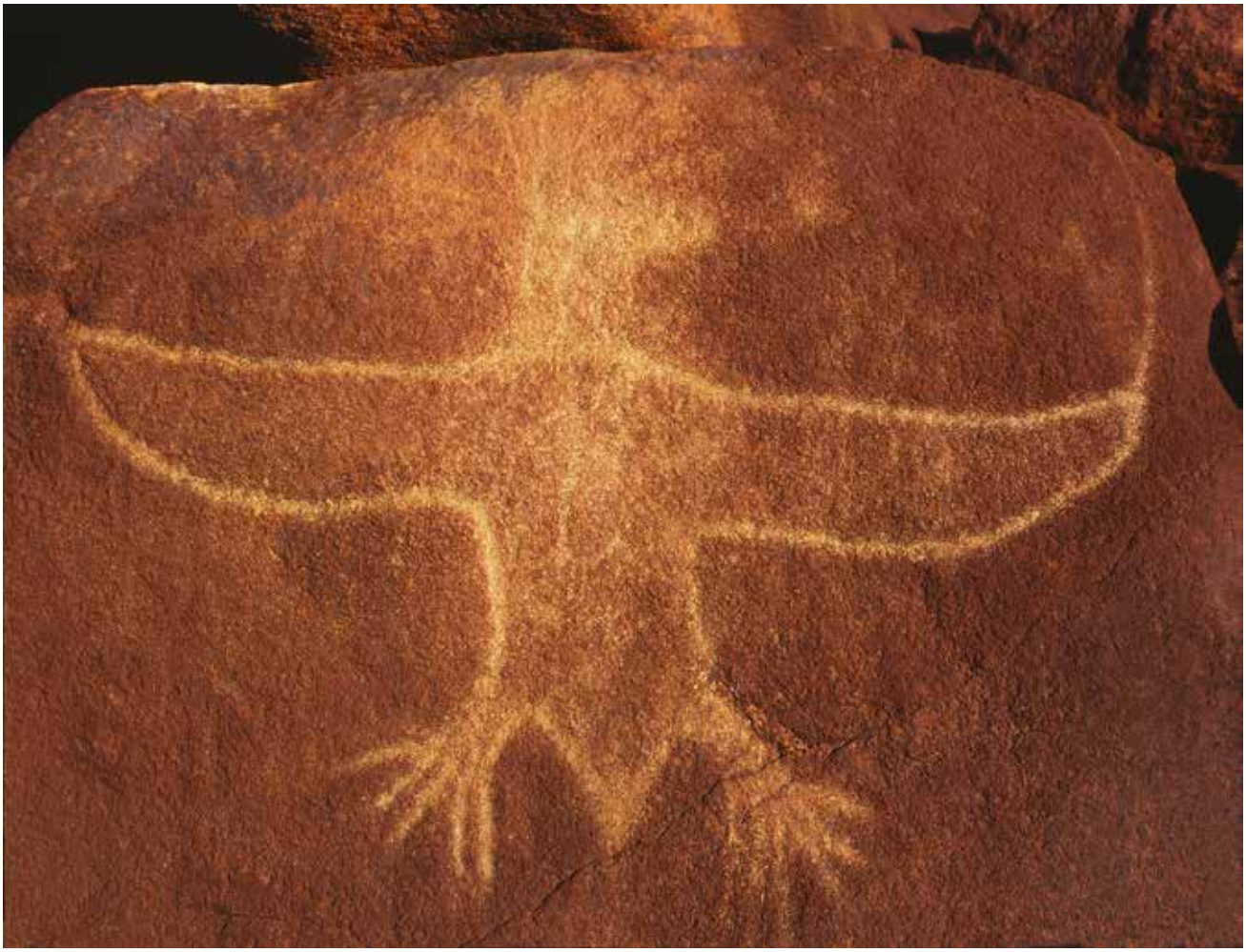

Figure 4.27. GTVE-1. The Eagle with 'ceremonial headdress'. Scale: wingspan about 1.15 m.

Depictions of animal prints

Depictions of macropod prints

While depictions of macropods are relatively numerous in the GTVE area, 'macropod prints' are not very abundant. Six prints of 'macropod hind feet' were recorded; no 'paw-prints' were seen. All 'prints' were recorded in pairs. Two pairs are located on the Northern Slope (GTVE-271 {p. 394} and -282) and one pair on the Southern Slope (Motif 60).

Whereas the total length of the actual footprints of kangaroo and wallaby on the ground during walking and jumping varies between 50 and 100 mm depending on the species, the footprint motifs at GTVE are all larger than that. For example, the dimensions of Motifs 271 (0.23 × 0.15 m and 0.20 × 0.15 m) are double the actual dimensions (cf. Lorblanchet, 1985: 76).

Depictions of bird prints

Twenty-two tridentate petroglyphs, including 13 on the Northern Slope and nine on the Southern Slope, were recorded at GTVE. These motifs depict prints of large birds, probably Emu, and are of a type traditional in Australia. Unlike 'macropod prints', they are either single (GTVE-103 {p. 373}, -198, -261, -271 {p. 394}, -340), in pairs (GTVT-344), in threes (GTVT-298), or in rows of six prints (GTVE-287 {p. 397}). This last, a series of 'tracks', reproduces the path of a bird. It is oriented perpendicular to the mapped contour; that is, it goes in the direction of the valley slope (Fig. 4.28: 200–205).

The other series (GTVE-287 {p. 397}), which is 5 m to the west of the shell mound, consists of six 'prints' in a straight line on the edge of a block tilted down the slope, and may be interpreted as being of a 'bird' moving down the slope and heading for the midden. The first series (GTVE-200 to -204) is also formed by six 'prints' placed on different blocks arranged in rows about 10 m long and separated by intervals of 1.50–2.60 m (Fig. 4.28). In this case, the movement represents a climb to the summit.

Thus, the two series reflect the passage and perhaps the race (where the 'footprints' are placed on separate blocks), of an Emu crossing the valley. It is even possible that these two series, located on opposite sides, are inter-connected and that they illustrate the same event, the same myth, but, of course, we have no evidence to support this.

The dimensions of these motifs are fairly homogeneous: their lengths range from 130–180 mm, which correspond to the average length of an actual footprint of an adult Emu. Yet GTVE-204, which ends the first series, is larger. It measures 300 mm, but its size is normal: it depicts the extended footprint of an Emu at rest, sitting on its heels, while all others are simply depictions of impressions of the toes of an animal moving.

Curiously associated with a circle, GTVE-103 {p. 373}, of the simplest trident type, measures 320 mm in length. It is probably the depiction of a 'giant' animal, as several replicas were featured in the assemblage of Gum Tree Valley. I shall return to this point.

Depiction of turtle tracks

Only one depiction of a turtle track, commonly seen in Skew Valley, was observed at GTVE. There are three parallel lines of 250 mm in length accompanying a depiction of a small turtle (GTVE-303).

Geometric patterns

Geometric motifs are those simple forms that do not allow immediate identification as being intended to depict natural items, and whose shape is close to a geometric form derived from the point, the line, or from a simple pattern such as a circle, triangle, etc.

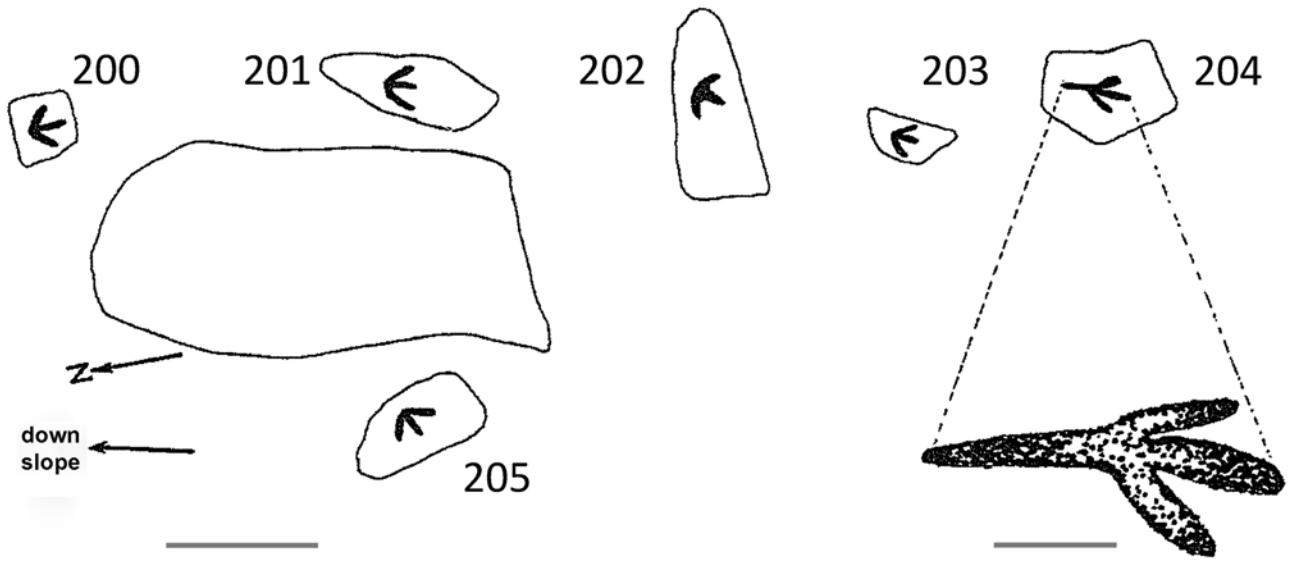

Figure 4.28. GTVE-200 to -205. Depiction of alignment of Emu prints climbing the side of the Southern Slope. Scale: 1 m. GTVE-204: 'print' of a 'bird' sitting on its 'heel'. Scale: 100 mm.

Circular forms

Six circular motifs were counted in the GTVE sample area. They are of various types, a simple circle (Fig. 4.29: 103), two radiating circles (Fig. 4.29: 2, 140), two motifs formed of concentric circles (Fig. 4.29: 219; GTVE-100) and one spiral form (Fig. 4.29: 256). These types are themselves very varied in detail. The radiating circles contain 35 and 37 rays. The spiral is doubled as if two coils were nested one inside the other. One of the motifs consists of three concentric circles with parallel lines in its centre. Their diameters range from 150 mm for a simple circle to 500 mm for one of the radiating circles.

Arc-like forms

Thirty-eight arc-like motifs were recorded (Fig. 4.30). They are single motifs; their isolation distinguishes them from arciform motifs held by a 'hand' or worn in the 'waist-bands' of the 'human' motifs that are probably depictions of boomerangs. Many of these single arcs also probably represent boomerangs, especially when their form closely resembles that of actual boomerangs, or when series of parallel arcs resemble a set of stacked weapons (Fig. 4.30: 258).

A formal statistical analysis based on the assemblage of arciform motifs of Gum Tree Valley and Skew Valley would clarify the determination of these motifs, all provisionally classified as 'geometric'. The length of their chord varies from 190–400 mm and their heights from 55–165 mm. Some are large (average thickness of 40–60 mm); others are thin or even simple lines (thickness of 10–30 mm).

As elsewhere in the Dampier region, the GTVE arcs are either single (five examples), or, more often, multiple and nested together (33 instances). These multiple arcs are doubles (seven cases), triples (twice), quad (twice) or quintuple (once). When orientation is recognizable (placement on a vertical surface), they always have their convex side turned upwards.

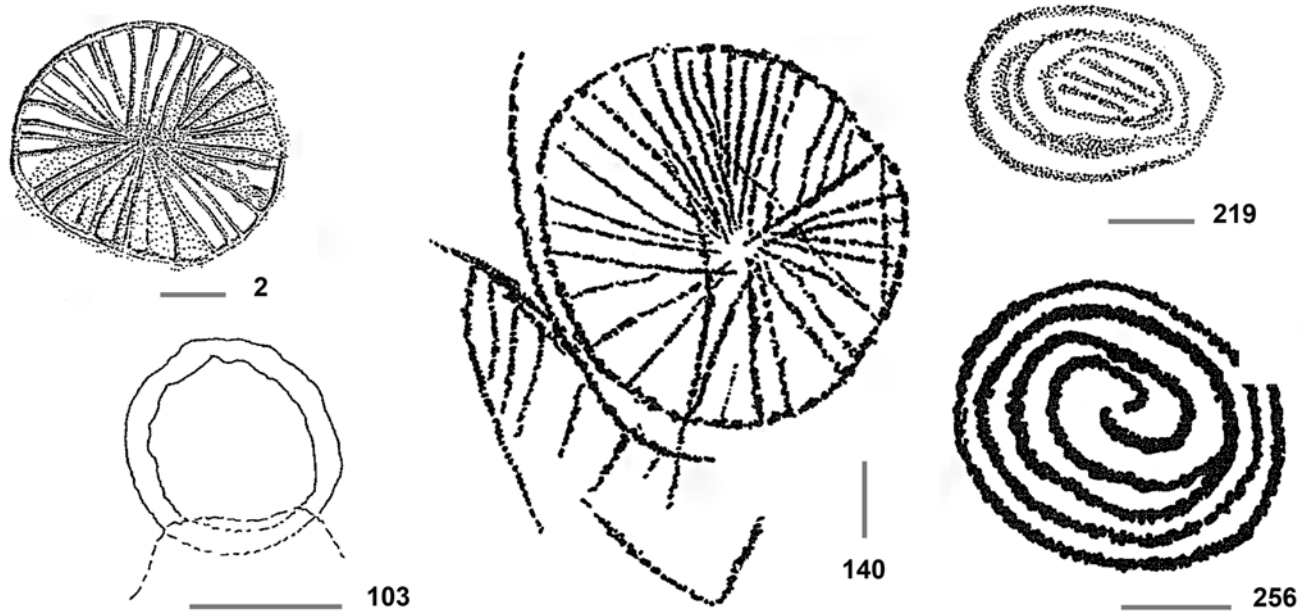

Figure 4.29. GTVE. Geometric motifs: circles and triangles. Scales: 100 mm.

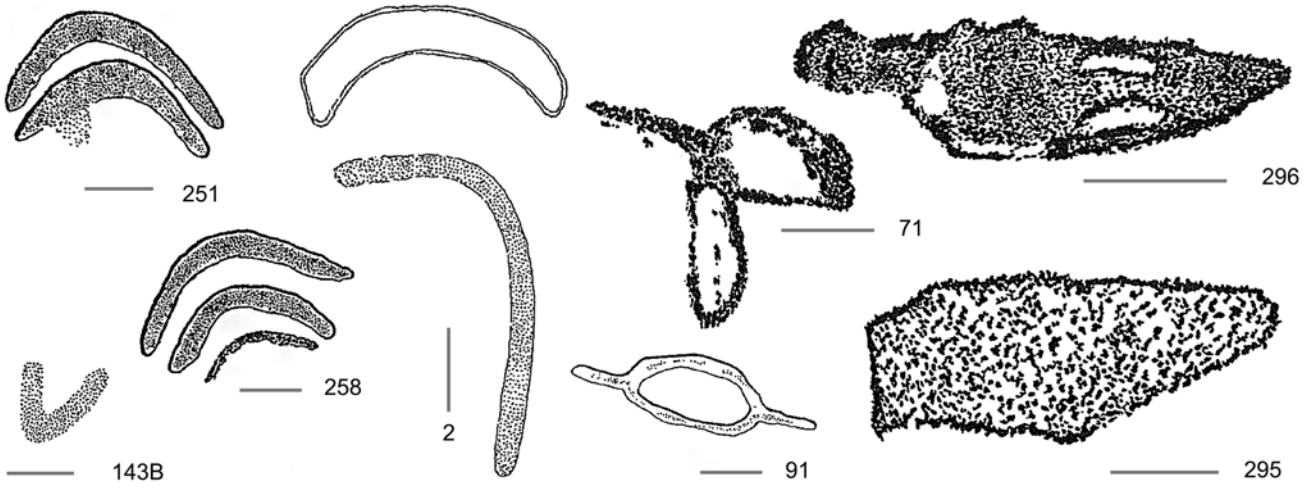

Figure 4.30. GTVE. Geometric motifs; 2, 251, 258: arcs; 71: bi-lobate; 91, 295, 296: ovals; 143B: motif in form of a 'V'. Scales: 100 mm.

Figure 4.31. GTVE. Depictions of possible tails of marine creatures GTVE-2, -80. Scales: 100 mm.

Bi-lobate forms

The GTVE Group has four bi-lobed motifs. One (Fig. 4.30: 71; Fig. 4.33), with its unequally balanced lobes and its appendix suggests quite accurately the shape of a stingray or shark liver. Its length is 320 mm and width 260 mm.

Triangular forms

Five triangles were found among the GTVE petroglyphs. These are large linear motifs in the shape of an isosceles or equilateral triangle, with sides of 800 mm to one metre (Fig. 4.31). The sides of these shapes are always concave and their tips rounded.

They may be depictions of the great Manta Ray or may be simple geometric forms. One (GTVE-297) is depicted with a transverse median line. Their shape resembles also the Dugong's caudal fin (as visible on Motif 187). It is possible that these strange triangles represent a cetacean's caudal fin—whales show their tails often and this triangular form could be a seasonal symbol for the return of this migratory cetacean.

Oval forms

This category, of which seven examples were recorded at GTVE, lacks homogeneity. The word summarising them is probably 'diverse': some have an oval crossbar at the middle (Fig. 4.34: 286, 330), while others have an undifferentiated morphology (Fig. 4.30: 295), and another has an appendage at each end (Fig. 4.30: 91). GTVE-296 {p. 398}, fully pecked, has two 'eyes' and a 'tail' with a strong resemblance to that of a fish.

Their lengths range from 300–400 mm and widths from 200–130 mm. Some petroglyphs are made with linear pecking, and others are fully pecked.

Linear forms

There are only seven examples of linear motifs at GTVE. This category is probably as heterogeneous as that of the oval forms. It is a case of more-or-less curved lines which may be remnants of partially vanished depictions (for example, GTVE-5 {p. 350}), or they may depict sticks varying in length from 700–70 mm (Fig. 4.32: 68, 258).

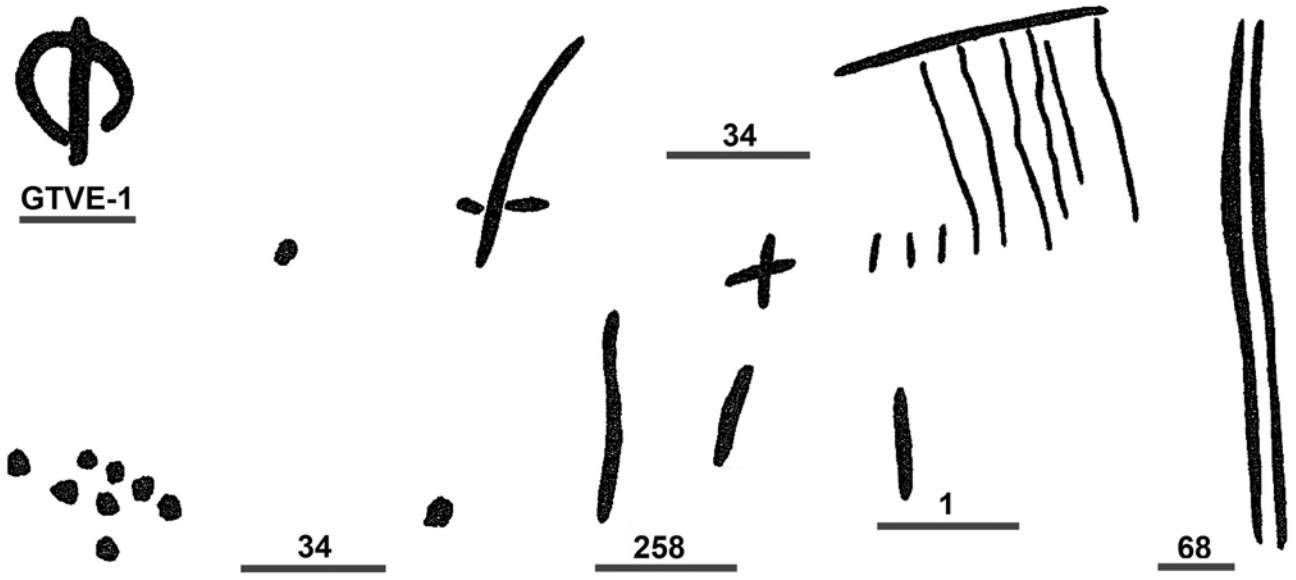

Figure 4.32. GTVE. Various geometric motifs; 1: 'phi'-like motif; 34: cruciform and pectiform motifs; 34: punctation; 1, 68, 258: lines. Scales: 100 mm.

Punctations

Small dots, arrayed in clouds—as distinct from the groupings of large punctations depicting eggs—are rare at GTVE. Ten were found on a carved surface GTVE-34 {p. 359} (Fig. 4.32: 34), and two on a 'kangaroo' (GTVE-318 {p. 402}). They seem randomly placed.

Other geometric forms

Panel GTVE-1 {p. 346} shows, to the left of 'The Eagle', a motif in the form of a 'phi' (Fig. 4.32: 1; 150 mm long). On carved surface GTVE-34 {p. 359} there are two cruciform-shapes and a pectiform (comb-shaped) sign or 'rake' associated with 'human' motifs (Fig. 4.32: 34; from 50–200 mm long).

Distribution of geometric motifs

Geometric motifs exist on both slopes of Gum Tree Valley. As with all the other motifs they tend to be more numerous (especially the arcs) on the Northern Slope of GTVE. The distributions of various categories of geometric motif are shown in Figs 4.33–4.35.

Indeterminate motifs

Indeterminate—unidentified—motifs are very numerous in the GTVE Group. A total of 223 was noted; they are clearly the most numerous motif category, and they are especially abundant on the Southern Slope, which has 171, whereas the Northern Slope has only 52. Such a division is not surprising: it simply reflects the imbalance in the distribution of all petroglyphs that are more frequent in the south than the north.

Three categories of indeterminate motifs

Category 1. Old and poorly conserved petroglyphs. These are linear motifs that can be perceived today as vestiges of features whose identification is no longer possible. For example, a motif under the left 'wing' of 'The Eagle', or the central petroglyph of GTVE-3 {p. 349}. Another is found at GTVE-104b, located to the left of the 'fish'; it is a deeply patinated linear motif. This category represents about one fifth of the total of indeterminate motifs.

Category 2. Some clearly visible but nevertheless mysterious and unidentifiable motifs: for example, GTVE-336 {p. 401}, which is in the form of a cocked hat. This category accounts for about one tenth of all indeterminate motifs.

Category 3. Light, diffuse and irregular outlined spots or small patches that were obtained by rubbing the rock surface with a stone block. One example is GTVE-104 {p. 371}, made on top of the 'fish' motif GTVE-93 {p. 371}. This indeterminate petroglyph is a separate motif independent of the depiction of the fish and other items on this panel). This category represents about 70% of the total of indeterminate motifs.

These productions seem to have no figurative intention. Rather, they seem to be a kind of 'preparation' or 'appropriation' of the surface. In some cases, motifs were made on top of such patches, perhaps a form of motif renovation (e.g., GTVE-104 {p. 371}). These patches of diffuse rubbing or hammering on top of the figures also may be 'ritual marks' (cf. Chapter 7: *Descriptions of carving techniques*). Moreover, some of them reveal at their edges some vestiges of features belonging to an older petroglyph: for example, the upper left of GTVE-2 {p. 347} includes some curves covered by an abraded patch. This motif has been destroyed by friction. Some of these traces were made probably to delete existing images. I return to this interesting phenomenon in the section on 'Superimposition and Chronology of Carving Techniques' below.

Distributions and associations of various motifs at GTVE

Internal associations

In studying groups of petroglyphs from other areas of Skew Valley and Gum Tree Valley, I have already distinguished internal associations of subjects within a panel and external associations of motifs placed on different panels.[17] The same approach is adopted here with the various motifs of the Eagle Group (GTVE). The average number of images per panel (including indeterminate motifs) is 1.6.

Intra-thematic groupings

The only themes that are repeated often on a panel as a single theme are 'humans', 'birds', 'fish', 'animal prints', and the 'arc' category. The frequency of repeats is provided in Table 4.16. The repeated 'human' motifs are most often 'stick figures' and sometimes the 'diverse humans'. By contrast, the 'ghost-like figures' are single images and always occupy the entire surface of the panel.

The repetitions of the 'human' motifs are most often a simple accumulation of unrelated individuals seemingly without figurative or narrative intent. In some cases, however, repetitions may combine toward the realization of a scene as in Fig. 4.36: GTVE-72 {p. 365} shows three 'men' perhaps depicting individuals lined up for a ceremony; GTVE-182 {p. 385} depicts a coupling; and GTVE-312 {p. 399} has a large motif 'protecting' two smaller ones beneath its 'arms', perhaps expressing a relationship of domination or some family structure.

The 'macropod footprints' are always in pairs, whereas those of 'birds' are often alone. The theme of multiple, tiered arcs probably embodies a figurative intention; it may be intended to represent boomerangs, hunting weapons or musical instruments (used to beat time) when they are present in pairs.

Table 4.16 shows that 'animal' motifs are repeated very infrequently, whereas some geometric images and some 'prints' often are present as multiple iterations on the same surface; that is, they often are repeated. It also shows that the 'human' motif category is in an intermediate situation: 'human' motifs are sometimes (neither rarely nor often) repeated.

Inter-thematic groupings

The Sauvets' (1979: 345) definition of 'Index of Association' is "the average number of themes found associated with a given theme". The corpus of GTVE motifs is set out in Table 4.17; it shows relationships among various subjects and enables comparison of the frequencies of inter-thematic relationships.

The Index of Association remains fairly low for all GTVE images and, in general, depictions of 'men' and 'animals' are involved in few associations with a small number of themes, whereas the geometric categories are in richer associations containing a greater number of themes. The linear forms, punctations and the 'other geometric' category have the strongest indices. The same geometric motifs tend to recur in multiple instances within each association.

It is the 'humans' category that has the widest variety of relationships because it is associated with 12 different other subjects. 'Arc-like forms' and 'linear forms' and 'other geometric' categories are associated with six different themes. Other subjects, especially the various 'animal' and 'print' motifs show many fewer associations.

Ultimately, these tables indicate that it is 'human' and some geometrical motifs that are most frequently related with other themes, and are associated with the widest variety of other subjects.

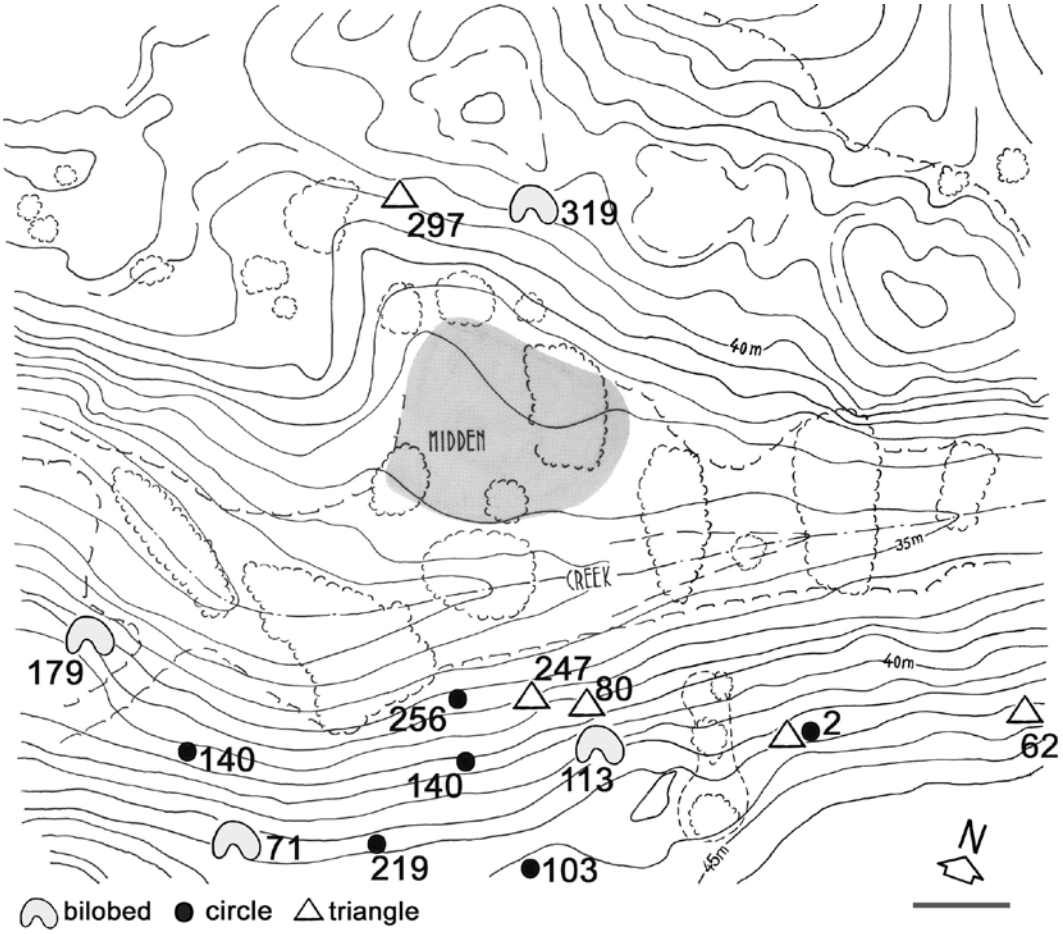

Figure 4.33. GTVE. Distribution of geometric motifs (circles, triangles and bi-lobate). Scale: 10 m.

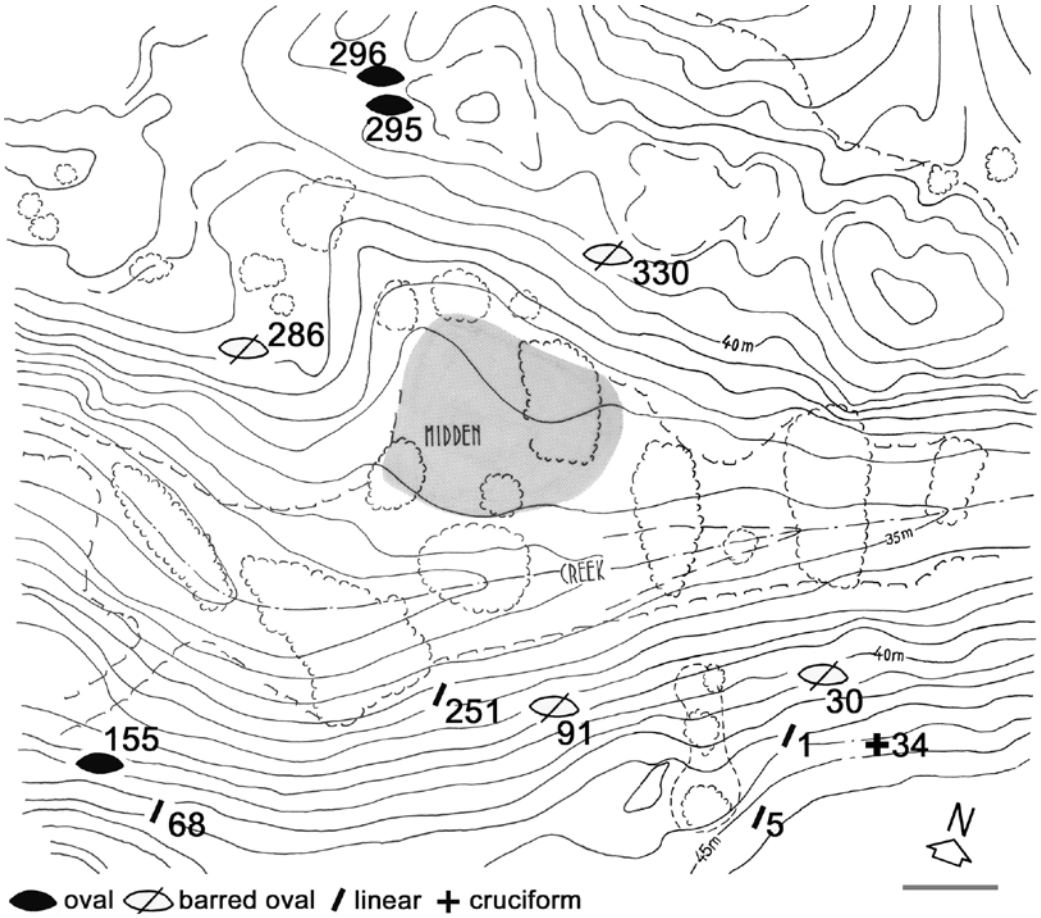

Figure 4.34. GTVE. Distribution of geometric motifs (ovals, barred ovals, lines and a cross). Scale: 10 m.

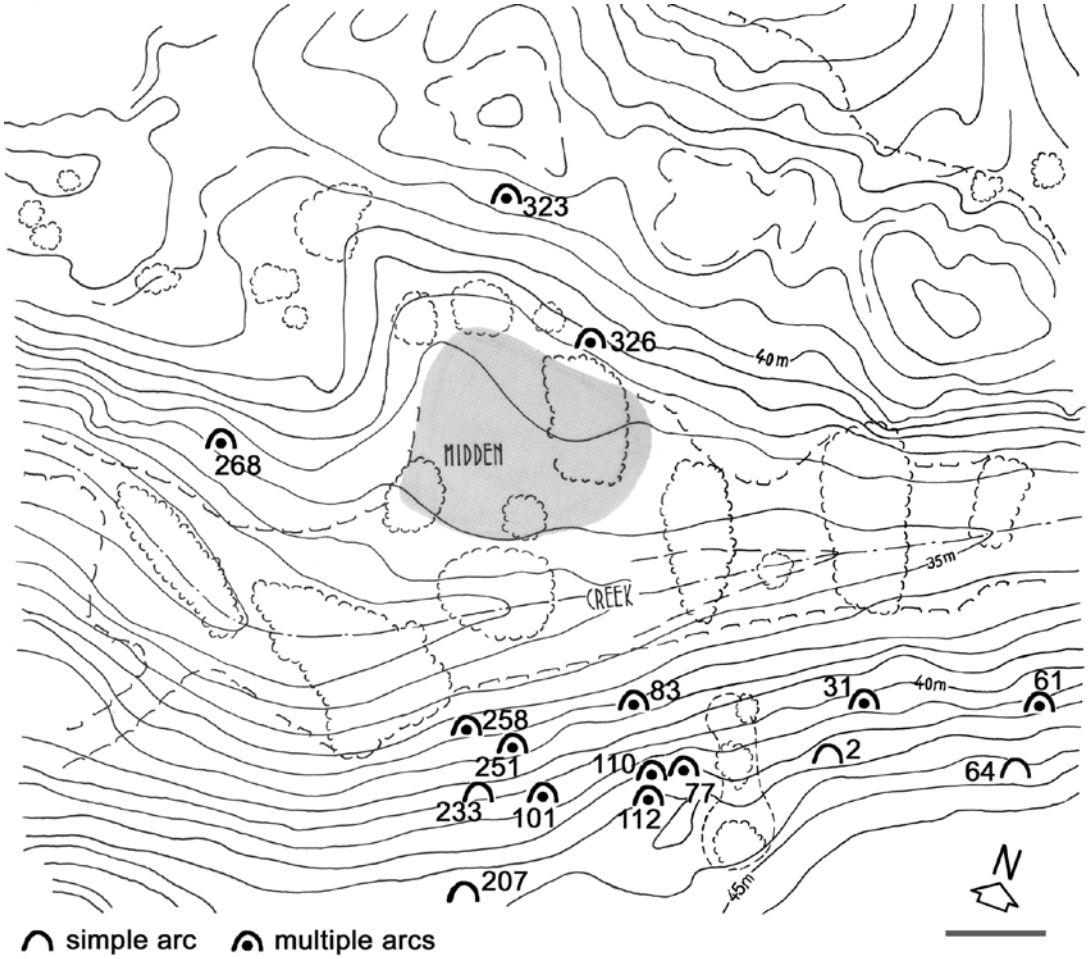

Figure 4.35. GTVE. Distribution of geometric motifs (simple and multiple arcs). Scale: 10 m.

External associations

The distributions of motifs have been mapped as equi-density curves (Fig. 4.37). These maps show areas of highest concentration of motifs (the area of maximum density is indicated by dark shading). They relate to the formation of sub-groups A, B, C and D on the Southern Slope, and E, F, G and H on the Northern Slope, as shown on the general map of density of petroglyphs (Fig. 4.4).

The most striking feature revealed by these maps is the median concentration along a north-south axis (Areas B and F) of almost all the motifs that are grouped on both sides of the midden. By contrast, the 'macropod' and 'macropod print' categories have maximal lateral concentrations (west to east). The petroglyphs of 'kangaroo' and 'wallaby' have therefore a slightly different distribution from that of other motifs. These differences are verified by the iconographic composition of various areas:

- **Area A** (around The Eagle-with-headdress, GTVE-1 {p. 346}) is characterized by a high proportion of 'animal' motifs (19% of all petroglyphs in this area), with a high proportion of 'macropods' themselves (13% of all petroglyphs in this area). In other zones, the percentage of 'animal' motifs is much lower (between 6.6 and 11%); and
- **Areas E and F** on the Northern Slope are distinguished from Areas A and B on the Southern Slope by a larger number of 'animal prints'. A feature common to all GTVE areas is an abundance of 'humans' whose proportions range between 20 and 35% of the total number of motifs.

The rock support at GTVE

Dimensions

As in other areas of the Dampier Archipelago, the size of the gabbro blocks has influenced the character of the GTVE petroglyphs. In fact, the average maximum length of all blocks (carved or not) in the sample area, west of The Eagle carving, on the Southern Slope is 780 mm, with a range of 180–2600 mm (Table 4.18). The average size is greater than that of granophyre blocks of Skew Valley, but it is less than that of large gabbro blocks characteristic of the Top of Gum Tree Valley.

The average maximum length of GTVE carved blocks is 1270 mm. As elsewhere, these measurements demonstrate *selection of blocks* by the rock carvers: only large blocks have been targeted. This clearly explains some gaps in the distribution map of motifs. A few metres west of 'The Eagle', a small ravine widens into the southern sides of the valley. This slight depression, set with three bushes, is lined with small blocks whose size makes them unsuitable for carving. The ravine thus results in a significant interruption in the spread of petroglyphs, even though there are many rocks are suitable for carving. It marks a separation between the two major areas, A and B.

Moreover, the average length of the GTVE petroglyphs assemblage is 560 mm. This average is higher than the petroglyphs of Skew Valley and even with those motifs at the Top of Gum Tree Valley, which are on still larger blocks. The GTVE motifs are often large; they occupy an average 44% of the length of their support rock, whereas in other parts of the region petroglyphs generally occupy about one third the

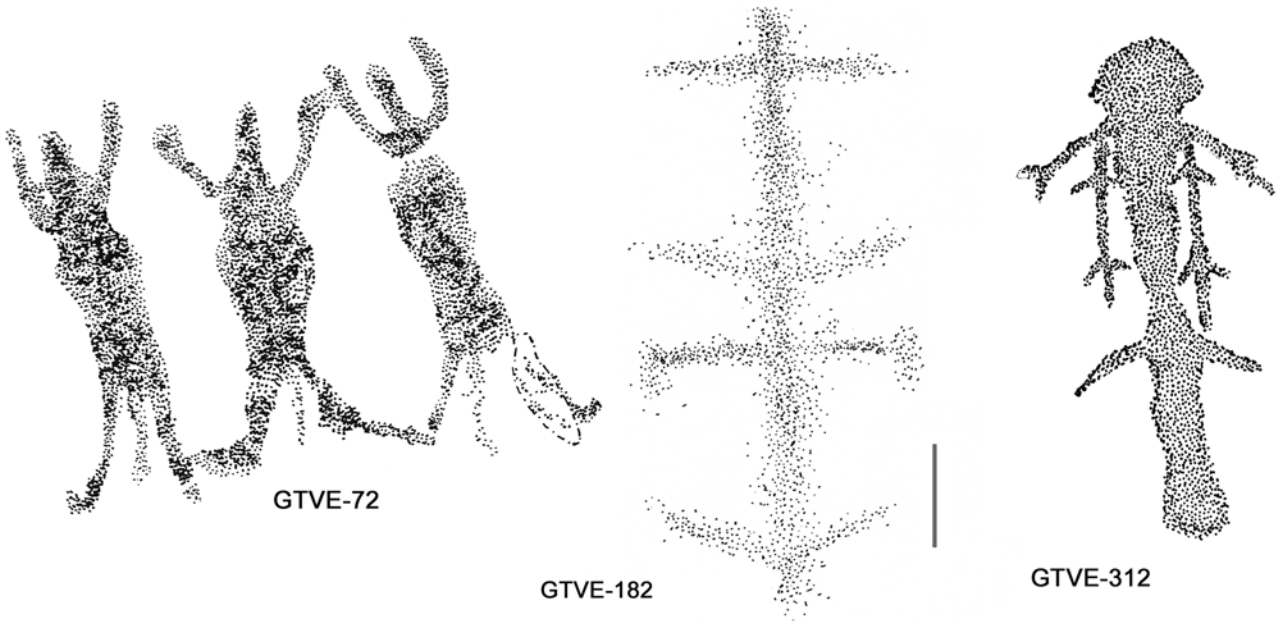

Figure 4.36. GTVE. Associations of 'human' figures depicting scenes. Scale 100 mm.

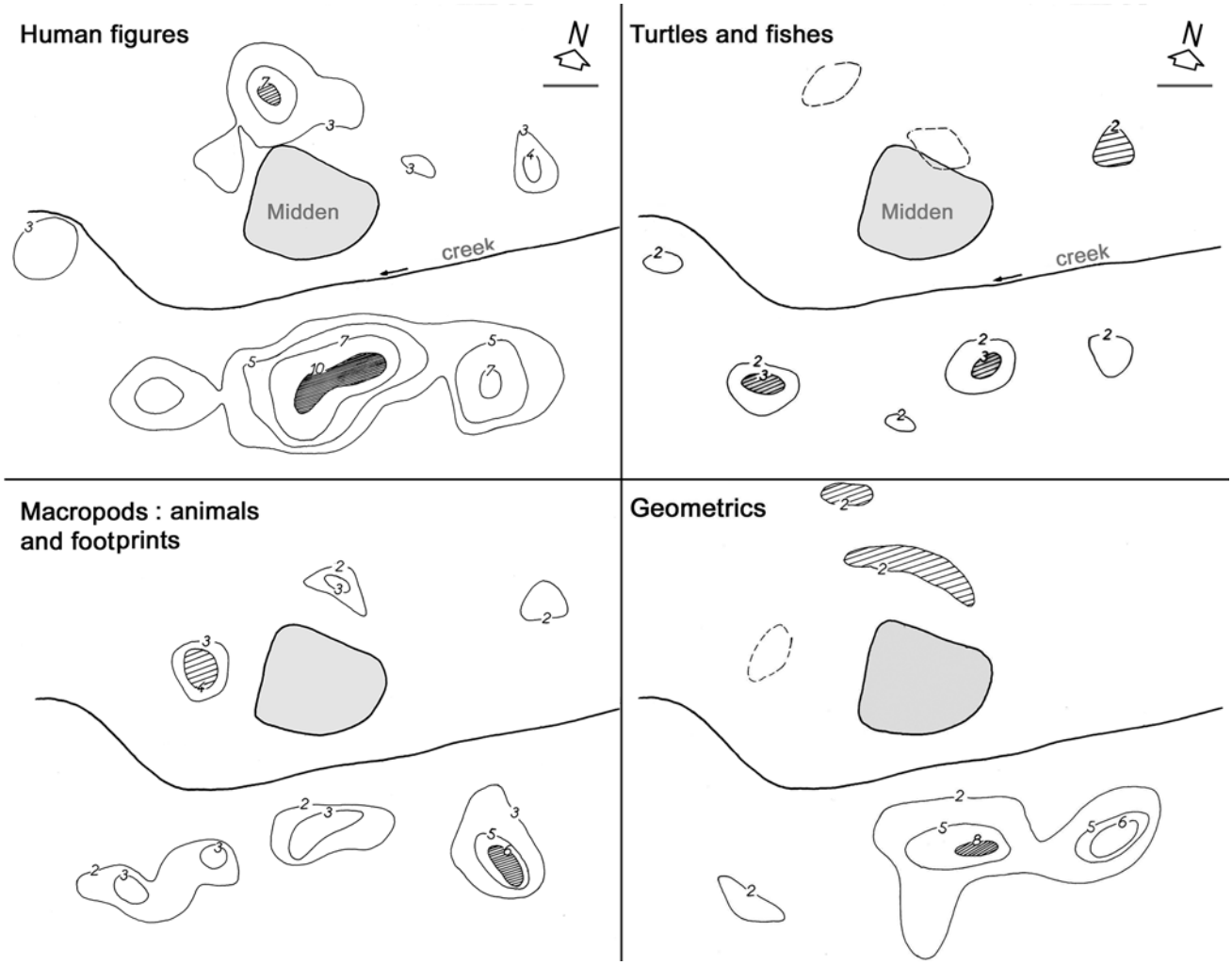

Figure 4.37. GTVE. Comparison of the distribution of various motifs (equi-density curves). Scales 10 m. (Compare Fig. 4.4. GTVE. Map of densities of petroglyphs.) Numerals indicate the number of occurrences of each category of motif. The lines in which the numerals are embedded (the 'equi-density curves') indicate the arrears within which each category of motif is concentrated.

length of their support rock. The petroglyphs therefore are more likely to fill the area they are afforded. This trend is evident, for example, in the depiction of 'ghost-like humans', which tend to 'frame the whole field'. But it is also evident for many 'animal' motifs: the 'kangaroo' (GTVE-318 {p. 402}), the largest GTVE motif (1950 mm long), is stretched across the whole length of the blocks, which, as we have seen, gives it somewhat abnormal proportions.

Shapes

The example of GTVE-318 {p. 402} clearly shows the influence of the shape that the rock support has had on motif production. Adapting motifs to the blocks frequently results, as we have seen, in an abnormal depiction of the 'tail' of the 'kangaroo', because this is controlled more by morphological obstacles than by a concern for realism. The harmony and agreement of graphic form and rock form is often surprising. Two perfect examples illustrate this: The 'phantom-human' motifs (GTVE-78 {p. 366} and -79 {p. 368}) are placed so perfectly within the limits of their block that they acquire a kind of volume and resemble steles or statues. By contrast, as a rule, 'spears' depicted as stuck into the 'body' of a 'kangaroo' often go beyond the limits of a panel surface and extend onto adjacent faces of the block.

A series of small blocks (GTVE-200 to -206) separated by large gaps, each bearing an 'Emu print', has been used to suggest the run of one of these large birds climbing the slopes of the valley.

Orientations of carved surfaces

The orientations of the carved surfaces on both sides of GTVE have been identified and mapped (Figs 4.38, 4.39; Table 4.19). As is characteristic of all Gum Tree Valley assemblages, the map reveals the privileged orientation of the petroglyphs to the thalweg; that is, towards the area of movement and residence, where the culturally important shell midden occupies the centre of the site.

On the Southern Slope, nearly 35% of the carved surfaces face toward the north (from NNW to NNE) and about 18% face towards the northwest. Many of these petroglyphs are visible from afar. They are visible from the creek and shell midden; 'The Eagle' (GTVE-1 {p. 346}), for example, a major motif, is clearly visible throughout the day for an observer standing on the shell mound (Fig. 4.1). The visibility of other motifs is enhanced at certain times by movement of the sun.

By contrast, approximately one fifth of GTVE petroglyphs are placed on the upper surfaces of slabs. They then only become apparent when one approaches to within a short distance of them—of the order of a few metres. These motifs on the sub-horizontal surfaces may be regarded as 'hidden'. They are visible neither from the bottom of the valley nor from the shell midden.

On the Northern Slope, less steep and lower than the Southern Slope, the placement of petroglyphs on the upper surfaces of the blocks is exceptionally dominant: it represents nearly two-fifths of the entire assemblage. In addition, when the carved surfaces are vertical or inclined they are oriented primarily toward the south (17% of the assemblage); that is, towards the valley and the shell midden.

Additional data detail the variations in orientation and therefore visibility of different motifs:

- I have calculated percentages for the orientations of the motifs according to the eight sectors of the compass and added the percentages of motifs placed on the upper surfaces of slabs (Fig. 4.38). For most depictions on the Southern Slope, the number of motifs visible and oriented toward the north and northwest generally far exceeds the number of motifs concealed on the upper surfaces of blocks. This is so for depictions of humans, animals, and for the indeterminate motifs; and
- By contrast—always on the Southern Slope—most 'prints' and geometric motifs are different from other motifs in that a horizontal support was preferred (Fig. 4.38). More than half of both 'prints' and geometric motifs are on the upper surfaces of blocks (Table 4.19).

The same general trends were recorded on the Northern Slope: patterns of orientation of the 'animal prints' and the geometric motifs are again reversed in comparison to other petroglyphs.

To complement these observations, the numbers of the different representations—upright, inclined and horizontal (top of the block)—were recorded (Table 4.19). 'Prints' and geometric motifs again stand out from other representations in their preference for a horizontal position.

The ratio of the total number of vertical configurations to that of horizontal ones was calculated. This 'vertical index' is also a 'visibility index' (Fig. 4.39) since carvings made on a vertical surface are most visible from a distance.[18] It appears that the 'prints' and geometric motifs are the only motifs whose index is less than 1; 'human' depictions have the highest index.

The map of orientations of the GTVE petroglyphs (Fig. 4.39) also shows that the carved horizontal surfaces are more numerous at the top of the slopes than at the bottom of slopes, where, in contrast, the abundant vertical motifs are oriented towards the stream bed and habitation.

Ultimately, the following observations were made:

- The predominant orientation of the carved surfaces towards the valley and the shell mound provides further confirmation of the close relationship that exists between many of the petroglyphs and the habitation of the shellfish gatherers. To this point of relative chronology some remarks on the role of motifs can be added: some representations seem, indeed, to be exposed intentionally to all eyes. This is notably the case for 'human' figures; and
- By contrast, some motifs evade notice by placement on the upper surfaces of blocks, preferably at the top of slopes where they are even more difficult to detect, or at least require one to shift oneself to contemplate them: they cannot be seen by simply passing along the bottom of the valley. This is true of many 'prints' and geometric patterns.

Thus, I consider that there are two types of representations. Some allowing free access and others more limited access. Such a notion needs discussion, however, because it is also possible that other intentions may be manifest in the carvers' choices. Simple cases of naturalistic explanation

Table 4.16. GTVE. Intra- and inter-thematic associations.

	total themes	number of single themes		number of repeated themes			themes in association			
themes	n	n	%	n	%	NMIR	n	%	IA	NMIA
Hp	0	0	0.0	0	0.0	0.0	0	0.0	0.0	0.0
H	88	56	63.6	21	23.8	3.0	11	12.5	1.4	2.4
AK	36	33	91.6	0	0.0	0.0	3	8.3	1.3	2.0
AO	3	1	33.3	1	33.3	2.0	1	33.3	1.0	1.0
AS	4	4	100.0	0	0.0	0.0	0	0.0	0.0	0.0
AT	11	10	90.9	0	0.0	0.0	1	9.0	1.0	1.0
AP	8	6	75.0	1	12.5	2.0	1	12.5	1.0	1.0
AA	2	1	50.0	0	0.0	0.0	1	50.0	2.0	2.0
AA(HO)	1	0	0.0	0	0.0	0.0	1	100.0	3.0	8.0
AA(HK)	2	2	100.0	0	0.0	0.0	0	0.0	0.0	0.0
AOF	4	0	0.0	3	75.0	10.5	1	25.0	1.0	2.0
EK	3	0	0.0	2	75.0	2.0	1	33.3	1.0	1.0
EO	14	10	71.4	2	14.2	4.5	2	14.2	1.0	1.5
ET	1	0	0.0	0	0.0	0.0	1	100.0	1.0	1.0
CC	6	4	66.6	0	0.0	0.0	2	33.3	1.0	3.0
GAR	16	4	25.0	7	44.0	3.1	5	31.0	1.0	3.2
GB	4	4	100.0	0	0.0	0.0	0	0.0	0.0	0.0
GT	5	3	60.0	0	0.0	0.0	2	40.0	3.5	4.0
GO	7	7	100.0	0	0.0	0.0	0	0.0	0.0	0.0
GL	7	1	14.2	0	0.0	0.0	6	85.8	2.1	3.6
GP	2	0	0.0	0	0.0	0.0	2	100.0	1.5	3.5
GA	3	0	0.0	0	0.0	0.0	3	100.0	2.0	6.3
MA	196	156	79.6	14	7.1	2.0	26	13.3	1.4	2.4
		N	%	N	%	NMIR	N	%	IA	NMIA

key			
Hp	'human print'	EK	'print/s of kangaroo'
H	undifferentiated 'human'	EO	'print/s of bird'
AK	'animal': 'kangaroo'	ET	'print/s of turtle'
AO	'animal': 'bird'	GC	geometric: circular form
AS	'animal': 'snake'	GAR	geometric: arc-like form
AT	'animal': 'turtle'	GB	geometric: bi-lobate form
AP	'animal': 'fish'	GT	geometric: triangular form
AA	'animal': other	GO	geometric: oval form
AA(HO)	'animal': 'Man-Bird'	GL	geometric: linear form
AA(HK)	'animal': 'Man-Kangaroo'	GP	geometric: punctations or dots (smaller, different to 'eggs')
AOF	'animal': 'eggs'	GA	geometric: other forms
		MA	other, undetermined motif
IA	Index of Association (mean number of themes associated with a given theme)		
NMI	mean number of individuals		
NMIR	mean number of repeated individuals		
NMIA	mean number of individuals associated with the theme		

may account for the vertical representation of 'humans' (humans being perceived as elevated in reality because they are standing).

'Animal prints'—usually carved on horizontal surfaces—also seem to mimic real animal tracks on the ground, especially when repeated and organized as on a journey. Perhaps the depiction of seven of eleven turtles on the tops of rocks corresponds also to a fisherman's dominant view?

Yet the situation of many geometric motifs—for example, all the concentric circles—on horizontal rock surfaces seems difficult to ascribe to simple figurative intentions. Also, some very schematic representations, those which we call 'arboriform' and that could be regarded as depicting 'humans', are always on horizontal surfaces of blocks. The separation of the two categories of depictions made earlier can be maintained. Whatever the real position in nature of their subjects, some motifs are on vertical surfaces and are easy to see by all, whereas others are on horizontal surfaces are more difficult of view, suggesting more restricted access.

The two interpretations may also not be mutually exclusive: In the execution of petroglyphs, simple factors related to psychological perception should be combined with motivations, simply mythological or magical, controlling the distinction between a secular art and sacred art.

Table 4.17. GTVE. Comparison of frequencies of inter-thematic relationships.

	H	Hp	AK	AO	AS	AT	AP	AA	AA (HO)	AA (HK)	AOF	EK	EO	ET	GC	GAR	GB	GT	GO	GL	GP	GA	GH	MA
H	25	–	1	1	1	1	–	1	–	–	–	–	–	–	1	2	–	–	–	1	1	2	–	17
Hp	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
AK	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	1	–	5
AO	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
AS	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
AT	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
AP	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
AA	1	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	1	–	1	–	1
AA(HO)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
AA(HK)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
AOF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
EK	–	–	–	–	–	–	–	–	–	–	–	3	1	–	–	–	–	–	–	–	–	–	–	1
EO	–	–	1	–	–	–	–	–	–	–	–	1	3	–	–	–	–	–	–	–	–	–	–	2
ET	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
GC	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
GAR	2	–	–	–	–	–	–	–	–	–	1	–	–	–	1	13	–	–	–	1	–	–	–	1
GB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
GT	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
GO	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
GL	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	–	–	2	–	1	–	2
GP	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	–	–
GA	2	–	1–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	3	–	1
GH	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MA	17	–	5	2	1	–	1	1	1	–	–	1	2	–	1	1	–	2	–	2	–	1	–	–

Table 4.18. GTVE. Dimensions of carved blocks and of petroglyphs in the sample area west of 'The Eagle' on the Southern Slope compared with all GTVE petroglyphs (mm).

Dimension	all rocks	carved blocks	GTVE petroglyphs
average maximum length	780	1270	560
maximum length	2600	2800	1950
minimum length	180	450	110
range of variation	2420	2350	1840
standard deviation	231	283	311

Table 4.19. GTVE. Orientation of petroglyphs of the Southern Slope.

	'Humans'		'Animals'		'Prints'		geometrics		unidentified		totals	
orientation	n	%	n	%	n	%	n	%	n	%	n	%
north	37	37.3	11	21.6	3	23.0	11	18.3	56	35.6	118	31.1
northwest	22	22.1	12	23.5	2	15.3	4	6.6	27	17.2	67	17.5
west	12	12.2	6	11.7	0	—	4	6.6	24	15.3	46	12.1
southwest	0	—	0	—	0	—	1	1.6	0	0.0	1	0.3
south	0	—	1	2.0	0	—	2	3.3	1	0.6	4	1.0
southeast	0	—	0	—	0	—	0	—	2	1.3	2	0.5
east	5	5.1	6	11.7	0	—	6	10.0	6	3.8	23	6.1
northeast	12	12.2	5	9.8	1	7.7	1	1.6	19	12.2	38	10.1
upper surface	11	11.1	10	19.7	7	54.0	31	52.0	22	14.0	81	21.1
totals	99	100.0	51	100.0	13	100.0	60	100.0	157	100.0	380	100.0

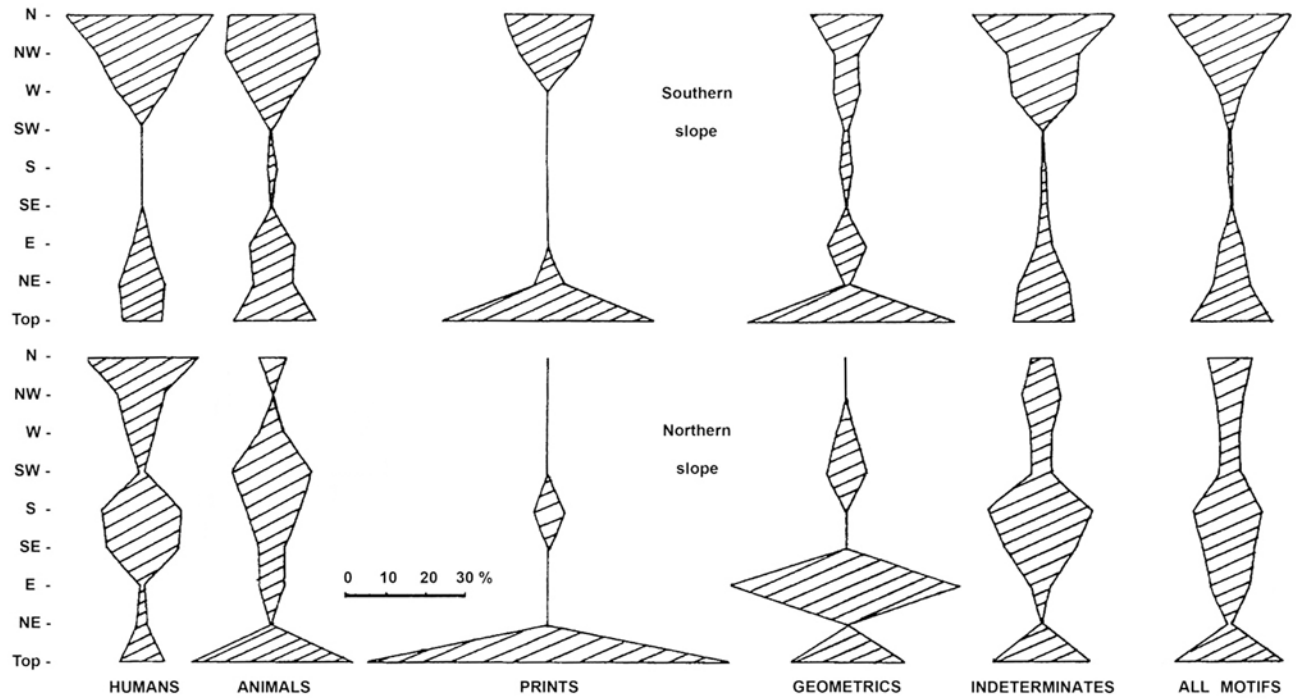

Figure 4.38. GTVE. Diagrammatic representation of differing proportions of orientations of the petroglyphs according to the subjects.

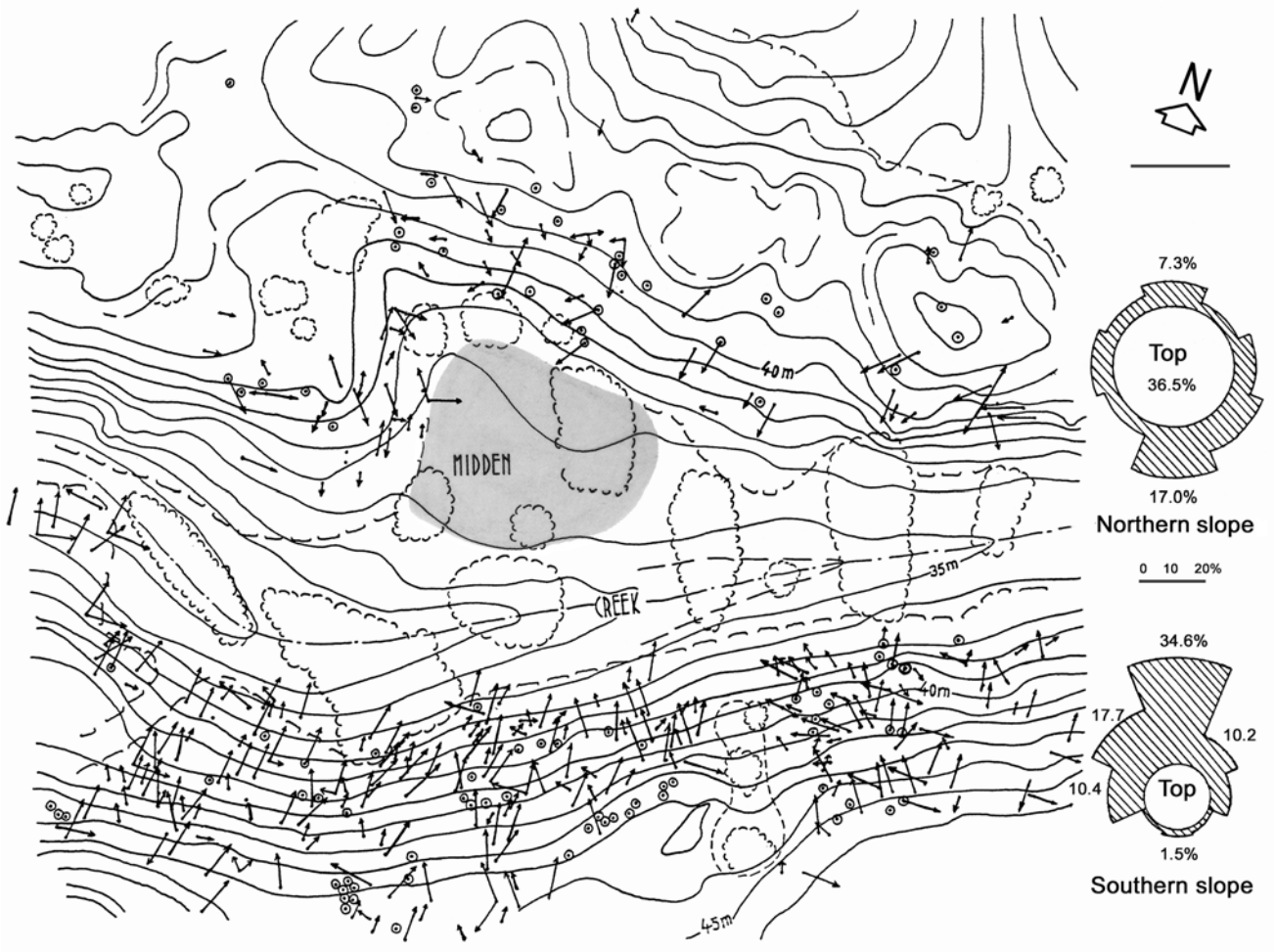

Figure 4.39. GTVE. Map showing orientations of the petroglyphs, and (at top) proportions of orientations (and for upper surfaces of blocks) for Northern Slope and Southern Slope of valley. Scale: 10 m.

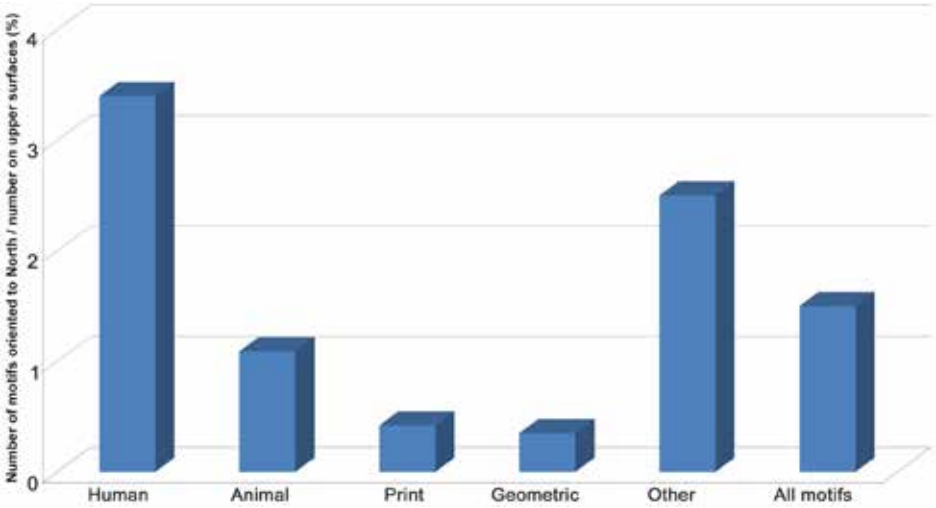

Figure 4.40. GTVE. Southern Slope visibility index. Vertical axis = ratio of number of motifs oriented to north to number of motifs on top of slabs. Horizontal axis = motif category.

Carving techniques and patination observed at GTVE

Carving processes and their respective importances

The GTVE petroglyphs exhibit a very wide range of carving techniques. They include the following types:

1 **Deep pecking—Linear**. Linear pecking is formed by an alignment of coarse punctations, sometimes touching, sometimes separated, with a diameter of a few mm to a centimetre.
2 **Deep pecking—Complete or infill pecking ('intaglio')**. Infill pecking produces petroglyphs in silhouette. As with deep linear pecking, it produces a deep and roughly pecked surface formed by contiguous or separated punctations. McCarthy (1961) called it 'intaglio'; we retain this term.
3 **Deep regular grooving**. Generally, deep regular grooving is the technique used to make outlines and, more rarely, interior details. The grooves are ten to 20 mm wide and five to eight mm in average depth. The base is often smooth and flat. The standardized width of the grooves shows that this outline results from repeated working.
4 **Superficial hammering or abrasion in diffuse patches**. Here the surface is very superficially hammered. The resulting image is clear, but its outlines are blurred. This technique was used to make spots and poorly defined motifs. In many cases, they appear to have been produced by dressing or grinding, that is, by vigorous friction of a stone on the surface, rather than by real hammering.
5 **Superficial pecking**. The effect of superficial pecking is much finer and dense than intaglio (2) and more precise than hammering-grinding (4). In contrast to the first, it is shallow. To obtain a contrasting colour effect, it is sufficient to remove the surface of the weathering crust. Sometimes, however, the pecking causes, locally, a very slight depression. Some motifs even have outlines formed slightly deeper by superficial grooves, less pronounced and less regular than the deep grooves of (3). This fine, shallow pecking commonly is found either as a linear outline forming a thin ribbon, or as a silhouette; then it covers the whole surface of the motif.

In the GTVE assemblage, these five carving processes are of differing importance as is shown in Table 4.20 and Fig. 4.41.

Superimpositions and chronology of carving techniques

Twenty panels of the total of 364 (5.5%) have interesting overlays—superimposition of motifs upon others—allowing a chronological sequence of carving techniques to be established. As we shall see, this timeline is verified further by contrasting patination.

Some examples will clarify the observations made:

1 On Panel 1, the left 'wing' of 'The Eagle' (the main petroglyph made in deep regular grooving) covers another motif in linear pecking that is now deeply patinated and indistinct. To the right of 'The Eagle', other motifs and 'human' figures in linear pecking are also deeply weathered and difficult to read. They are much paler than the depiction of the 'bird';
2 On Panel 2, an old patinated circle in linear pecking is partially damaged by a patch of grinding. At the base of the panel, an arciform motif ('boomerang') in very faded linear pecking is partially covered by a superficially pecked 'boomerang', which also covers the ground surface;
3 The other surface of Panel 2 shows a large fluted triangle superimposed onto an older (patinated) stained patch that has almost destroyed a deeply weathered, linear motif;
4 On the large complex Panel 3, an indeterminate initial linear design has been cut by the 'paw' of a large 'kangaroo' made in regular groves. The 'kangaroo' was then partially covered by a ground patch and its grooves have been locally renovated. Finally, on the head of the 'macropod', a 'snake', formed in fine superficial pecking, has been superimposed;

Table 4.20. GTVE. Carving techniques.

type of carving	proportion of petroglyphs (%)
1 deep linear pecking	13.0
2 infill pecking (intaglio)	7.0
3 deep regular grooving	9.3
4 hammering-grinding or abrasion	17.0
5 superficial pecking	53.7
	100.0

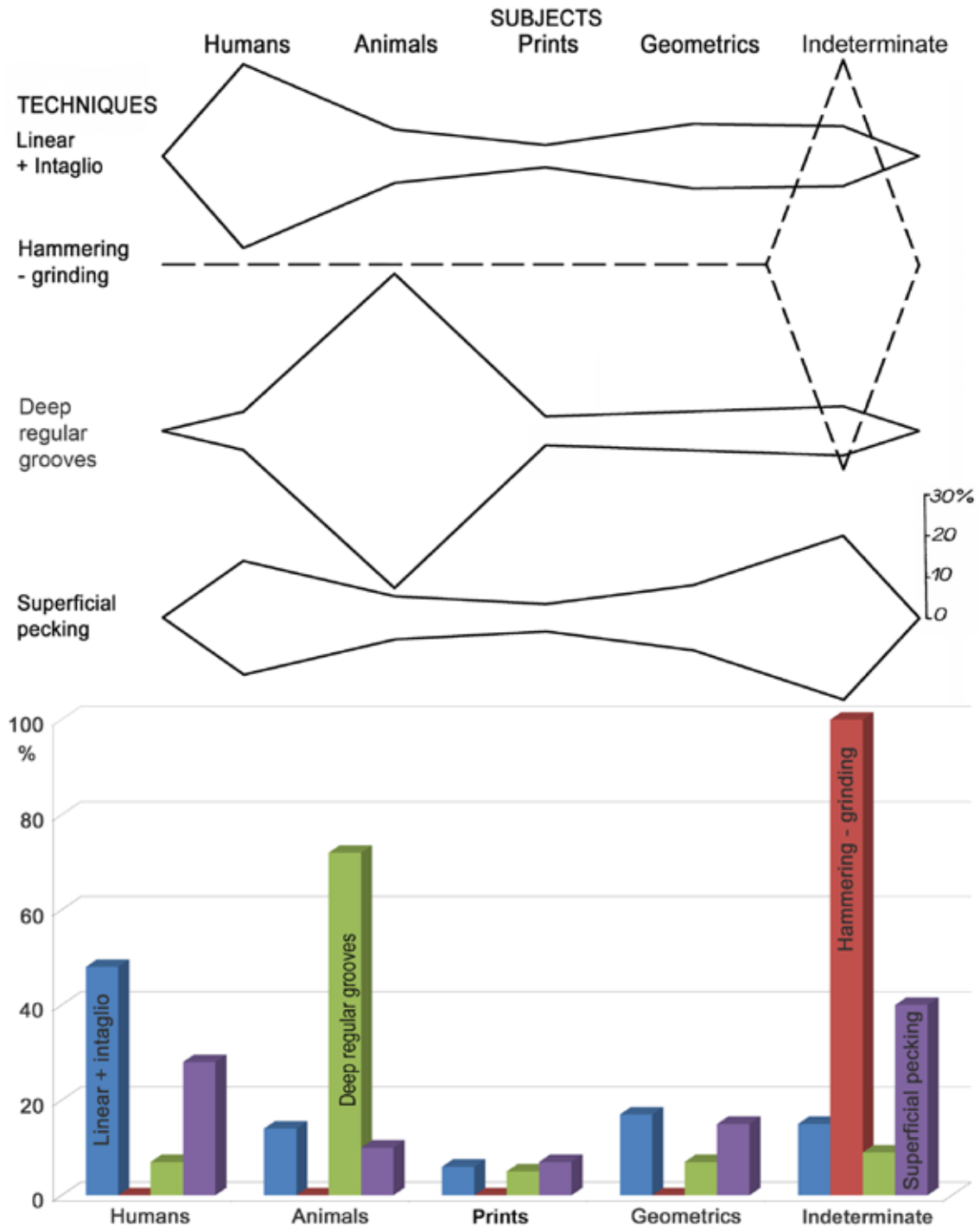

Figure 4.41. GTVE. Proportions of carving techniques according to the different subjects.

5 The large grooved 'kangaroo' of Panel 7 covers linear carvings whose few remaining traces are deeply weathered;
6 On Panel 9, a 'human' figure with round 'penis', done in fine superficial pecking, covers a complex network of patinated linear motifs difficult to see (GTVE-128);
7 The linear forms GTVE-13 and -14 are partially erased by a ground patch;
8 On Block 34, a 'human' motif in intaglio, re-marked with light pecking, has been superimposed on some linear 'human' motifs; and
9 Blocks 151 and 158 show rubbed areas that have damaged traces of pre-existing linear marks, etc. (GTVE-130 {p. 375}).

Although superimpositions only sometimes concern motifs made by the same technique and with the same patination (examples are Blocks 68, 187, 223), in most cases they indicate that *the techniques of superficial surface treatment are more recent than those of the deep carving techniques.*

This is certainly consistent with the conservation conditions: only deep carvings are preserved over long periods. If, in ancient times, hammering, grinding and superficial pecking were practised, it is likely that they were quickly attenuated and probably erased by erosion. However, an initial conclusion is called for: *Deep carving was not practiced recently; this technique was only used in earlier times*.

The chronological sequence summarized in Table 4.21 emerges from the study of superimpositions.

Table 4.21. GTVE. Sequence of carving types. (* Both deep carving processes are sometimes contemporary and associated).

phase	type of carving
1	deep linear pecking*
2	infill pecking (intaglio)*
3	deep regular grooving
4	hammering-grinding or pounding-abrasion
5	superficial pecking

The observation of patination reinforces this chronology: the ground patches are, for example, of relatively clear colour (of more-or-less contrast with the support block), while the linear patterns are now deeply weathered and the same colour as the surrounding rock.[19] It is, however, difficult to establish with certainty the relationship between Techniques 3 (grooving) and 4 (hammering-grinding). In most cases, hammering seems to be later than the grooving (an example is Panel 3), and it usually appears as a clearer patch than many motifs of grooved outlines, which are deeply weathered. Panel 2, however, is an exception: a grooved triangle has been superimposed onto a ground patch; but this patch is old, since it is patinated. It seems that the latest grooves were contemporary with the application of the grinding. The state of patination of the ground surfaces indicate that this process of erasure was used until recently.

Carving techniques and visibility

The techniques of surface treatment are most apparent when the carved surface is bathed in a diffuse and attenuated light; that is, when they are in the shade before the appearance or after the diminution of sunlight at dawn or dusk, under a cloudy sky or when the panel is in the shadow of neighbouring blocks. Bright sunlight and the vertical rays of the sun at midday tend to reduce the contrast, thus causing the hammered, the ground, the abraded and the superficially pecked motifs to disappear, especially when they are slightly weathered. By contrast, linear and intaglio motifs appear most clearly in the oblique light of sunrise and sunset. Due to this fact, most of the oldest pecked linear carvings were traced at night with artificial, oblique light.

These simple observations show that only recordings and studies involving a long presence on the site at all times of day (and sometimes at night) permit the recording of many petroglyphs. Rapid work exploring large tracts of land, and depending only on photographs, is likely to lead to largely biased and incomplete recordings, and necessarily result in incorrect observations. Factors such as superposition and variations in the orientation of rock surfaces under different angles of the sun's rays further complicate the visibility problems associated with differences in carving techniques and patination. When making our inventory of GTVE petroglyphs, we noted the time of best visibility for each motif. For example, linear motifs GTVE-13 and -14, highly weathered and partially covered by a ground 'stain', are visible in winter at about 1400 hours because the rock surface is then struck by an oblique light; the rubbed area is, by contrast, clearest at 1000 hours in the winter when the wall is in shadow. Similarly, on Panel 34, only the central, superficially pecked petroglyph is visible throughout the day; the wall remains continuously in the shade of neighbouring blocks except between 1130 and 1200 hours (in winter) when sunlight hits the rock: it reveals immediately all the other motifs while the central motif disappears.

Carving techniques and subjects

Figure 4.41 shows the calculation of percentages of different themes according to the carving techniques.[20]

Deep linear carving and intaglio. These two carving techniques (which are sometimes associated) were first used, as the patination shows, very long ago. Dominant motifs are of 'humans' (45%), 'prints' are few, and other motifs are in roughly equal proportions ranging between 15 and 17%. 'Humans' carved using the deep linear technique frequently were depicted as stick figures and sometimes in 'phantom' form; some of the largest kangaroo motifs appear to be very old because they are deeply patinated—but most of these have been re-marked repeatedly. All arboriforms were carved using the deep linear technique (and are deeply weathered). Among the geometric motifs, all the circles are linear-carved forms, and deeply patinated.

Deep regular grooves. The motifs with deep regular grooves are fewer in number than the preceding technique. They are distinguished by an exceptional preponderance of 'animal' motifs, mainly of 'macropods'. Other motifs in this technique are very few. Deep regular grooves are therefore restricted to large depictions of 'kangaroo', which seem very old because they are deeply patinated; their frequent re-marking (below) also suggests that they have existed for a long time.

Hammering and pounding-abrading. These techniques (found on 69 panels) were used mainly for indeterminate motif. The hammering/pounding/abrading technique was used for all of the indeterminate motifs, and also for a small number of 'humans' and 'animals'. It was found that the ground or lightly hammered surfaces often destroyed pre-existing, linear-carved petroglyphs, which exist today in only a few traces. Sometimes, superficially pecked motifs were later executed on these newly ground areas. Thus, it appears that some *old motifs have been erased and that, on the freed-up surface, new motifs were drawn with new carving techniques*. This re-use of rock surfaces took place at a relatively early date and after a long interval of time when, during the same period, carving techniques shifted from linear grooving and intaglio to superficial pecking, and patination had developed. This is a peculiarity of the GTVE Group.

Superficial pecking. Superficial pecking is both the most frequent and the most recent technique: it was used to make 340 of the sample of 450 GTVE motifs especially studied. The themes matched to this carving process are like those of the linear-carving and intaglio, with a large proportion of 'human' figures (28.5%) dominating the other subjects. Superficially pecked motifs, however, are distinguished from some old motifs and intaglio by a clear increase in the proportion of indeterminate motifs, probably done more rapidly and with less care being taken.

Re-marking (renovation)

A total of 39 petroglyphs (6.6%) of GTVE petroglyphs have been re-carved (Lorblanchet, 1980). They are among the most spectacular depictions of the Group; several show very clear re-marking.[21]

Careful observation during the survey found that 'The Eagle' motif (Panel 1) had been re-used and probably re-marked at different times. The regular grooves, which vary in depth from five to ten mm, have a smooth, flat, and very clear bottom, and sides that, by contrast, are much eroded, showing the same characteristics as the surrounding rock; that is, covered with dark-brown pits of weathering. Such differences between the sides and bottom of the groove

indicate that 'The Eagle' was first traced with a broad and deep contour at an earlier time (patination and erosion of sides), and that the contours were re-worked several times. The petroglyph was re-marked or refreshed, a simple white band being inscribed each time in the bottom of the groove that repeated friction has made smooth. The sequence is shown in Fig. 4.42 below.

In addition, the 'The Eagle' has three 'eyes' formed by small circular depressions. The two upper cupules, having recently been smoothed and vigorously rubbed, stand out clearly on the yellow 'head', while the lower cupule, being the same colour as the 'head', has not been smoothed over and is difficult to see. It is likely that, during successive re-markings, the 'eyes' were slightly displaced.

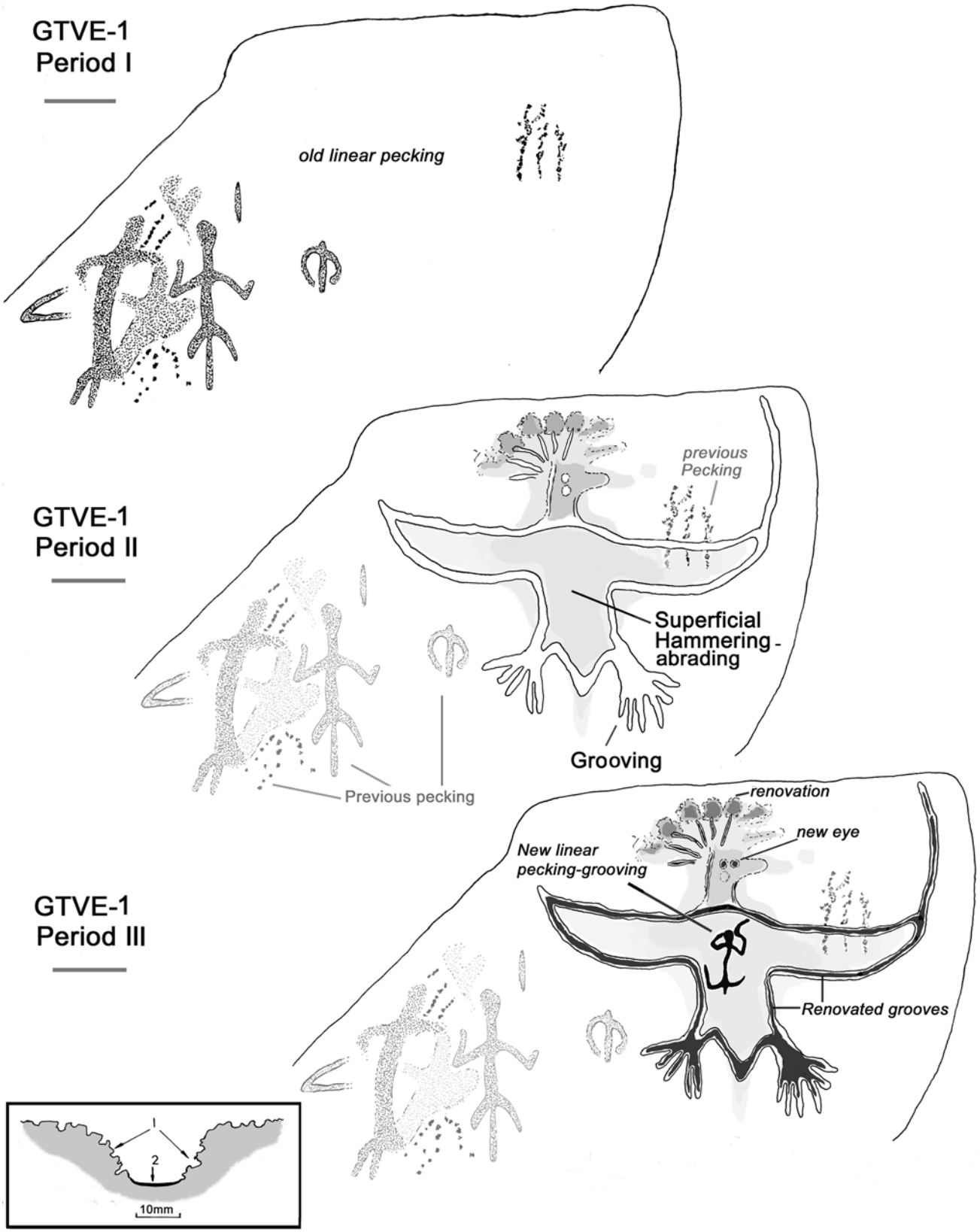

Figure 4.42. GTVE-1. Superimposition of techniques, motifs and re-marking (three periods). Scales: 200 mm. Period I: Use of linear pecking and intaglio. Period II: Grooving technique plus superficial hammering-abrading used to form the 'body' and 'head' of The Eagle. Period III: Grooving technique plus superficial hammering-abrading used to form the 'body' and 'head' of The Eagle. Inset: Schematic section of the groove of The Eagle. Scale 10 mm.

An interesting detail to note is the incorporation of a new technique—superficial abrasion by abrading or hammering—in the renovation of motifs, while the technique used for the original drawing was the carving of a groove. This reveals an interesting overlay of carving technique on the same motif. This can be identified as the following phases as shown in Fig. 4.42:

- Period I: Use of linear pecking and intaglio for the original motif;
- Period II: Grooving technique plus superficial hammering-abrading used to form the 'body' and 'head' of 'The Eagle'; and
- Period III: The previous carvings are faint; patinated grooves of 'The Eagle' are renovated, as well as parts of the 'headdress'; the ends of the 'claws' are not fully re-marked over their whole length. A new pecked-grooved stick figure is added to the 'chest' of The Eagle.

The slopes of the first grooved outline are brown and deeply patinated with many tiny erosion cupulae (Inset 1). The bottom of the groove (2) is flat, smooth and regular, re-carved several times and worn. A whitish ribbon on this bottom groove reveals recent renovation of the figure

Similarly, the wide and deep contours of a 'kangaroo' (Panel 3) have been re-marked, principally the 'paws', so that there appears to be extra 'paws'; one of the 'feet' now has seven 'toes', while, in reality, the kangaroo foot has only two toes. Such a multiplicity of contours shows that the motif has been re-drawn several times by adopting slightly different marks. Moreover, as with The Eagle, the last marking (by abrasion) stands out clearly on the dark patinated background of the old grooves. These two examples suffice to describe the most characteristic re-markings.

Of the 39 renovated motifs, 12 depict kangaroo, six human motifs (including four 'phantoms'), one human foot, and two animal-men ('man-kangaroo' and 'man-eagle'). Among other 'animal' depictions we counted one 'snake', one 'Emu' and an unidentified 'animal'. Prints are represented by four 'bird prints', and the geometric motifs by three arc-like forms, one oval, and a circle. There are an additional six indeterminate motifs.

This observation does not match the general proportions of the different themes at GTVE. 'Animals', especially 'kangaroo', are significantly over-represented, while 'human' figures are unusually few. The few hybrid forms have also been re-carved. Re-use of motifs has not happened randomly. The motifs were selected; this suggests that they may have had particular importance, such as the 'half-animal', 'half-human' depictions for which a mythological significance is likely. Most renovated petroglyphs are large and prominent. Half, notably all 'kangaroo' motifs, have been executed in a fluted outline.

Re-marking (renovation) is manifested by a clearer mark appearing over a prior, darker and more patinated record. It is discernible, of course, only when the second trace does not completely eliminate the first. It is unusual for the entire original petroglyph to be re-carved. Only four cases (of 39) of full renovation were recorded (GTVE-79 {p. 368}, -82 {p. 369}, -143B {p. 381}, -264 {p. 393})—three 'kangaroo' and a 'phantom-human'. In all other instances, it is a matter of very partial re-marking, especially on the 'head', but rarely the 'tail', 'genitalia' or 'legs'. Most 'kangaroo' that have been re-marked are 'wounded animals', but the 'spears' embedded in their 'bodies' generally have not been re-carved.

Unusually (there are only three instances), renovation results in multiple lines ('eyes' and 'legs'), as a result of the repeated design not having been accomplished exactly in the same place. Examples of this type of re-marking have been given above. A complex sequence of re-marking is illustrated in the several parts of Fig. 4.43.

Distribution of motifs according to carving techniques

Table 4.22 compares the distributions of GTVE motifs against the use of the various carving techniques. To simplify, rather than multiplying distribution maps, it suffices to note the presence or absence of each technique in the sub-groups of the sample area, which have been designated Groups A to H. The '×' inscribed in a circle (⊗) indicates the greatest concentrations, '×' signifies repeated or multiple instances, while the dash (-) indicates a weak presence (that is, only one or two examples, usually a single presence). Groups A to D are located on the Southern Slope and the others on Northern Slope.

Thus 'superficial pecking' has the largest distribution: it was recorded in every sub-group. Conversely, the 'linear' technique and the 'regular grooving' are more restricted in distribution, being present in only four of the sub-groups.

Note that the 'linear carved' motifs are almost evenly distributed over the three main sectors where they appear, while the 'grooves' are concentrated preferentially in Group A. On the other hand, it is Group A which shows

Table 4.22. GTVE. Distribution of different techniques of carving across sub-groups.

	southern slope				northern slope				
sub-groups	A	B	C	D	E	F	G	H	totals
techniques									
deep iinear pecking	×	×		×				—	4
infill pecking (intaglio)		×	⊗	×	—	⊗		—	7
hammering			×	×	⊗	×			5
grooving	⊗	×		×		×			4
superficial pecking	⊗	⊗	⊗	⊗	×	×	×	×	8
re-marking	⊗	⊗	⊗						3
totals	6	5	4	5	3	4	1	3	31
⊗ highest concentrations; × repeated or multiple instances; — weak presence									

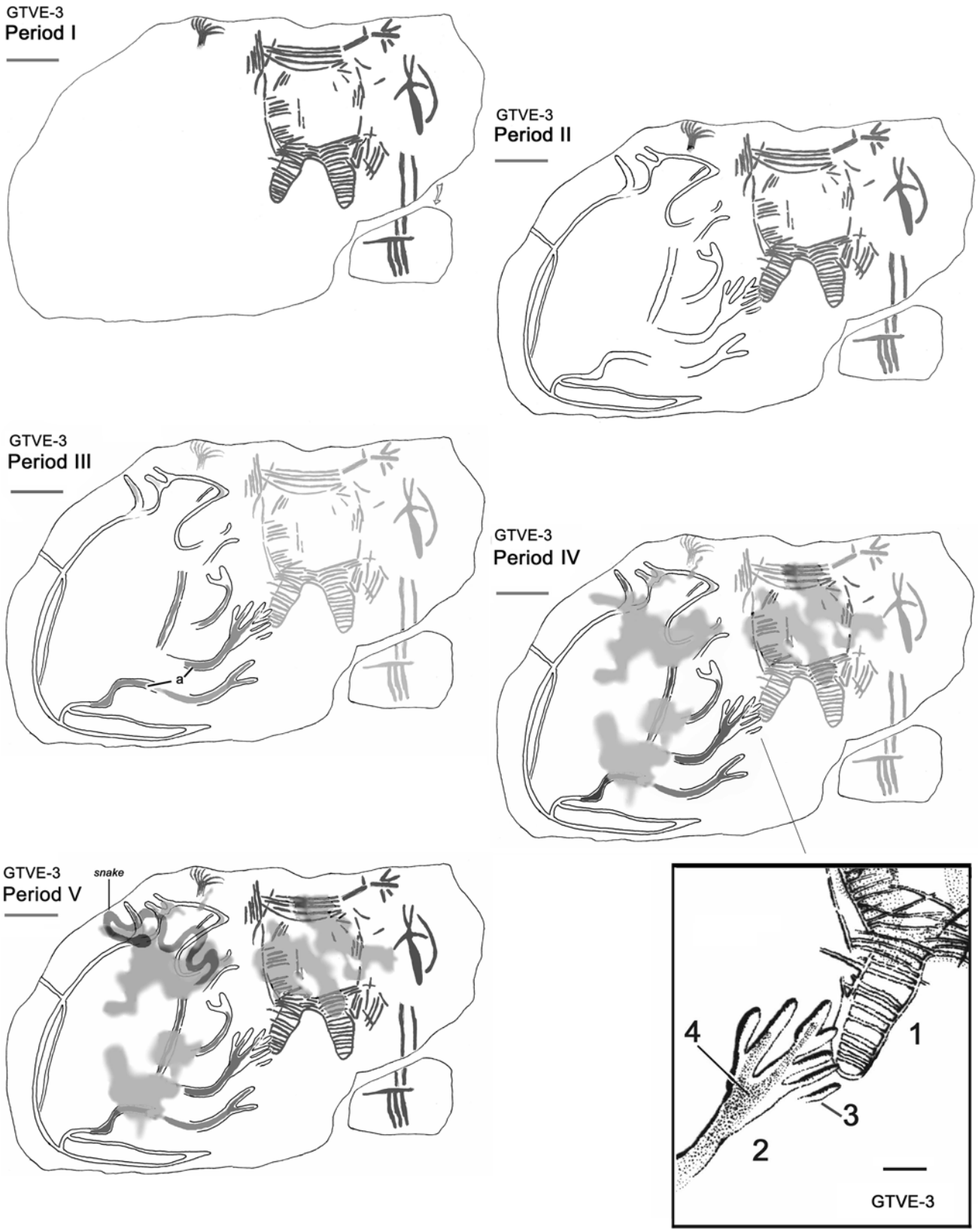

Figure 4.43. GTVE-3. Superimposition of techniques, motifs in five periods of re-marking. Scales: 300 mm.

Period I	Deeply patinated linear pecking (lower right edge broken).
Period II	Patinated large 'kangaroo' repeated grooved: three 'hind legs', three 'ears', seven 'toes' (Note that, in this illustration, the dark lines are represented darker than in actuality).
Period III	Grooves of the 'kangaroo' partially refreshed (Again, the dark lines are represented darker than in actuality).
Period IV	Large patches of abrasion (and light hammering) partly erasing previous motifs.
Period V	Addition of 'snake' (top left) by superficial pounding and abrading.
Inset	Detail of the 'hind leg' of the 'kangaroo' showing that the 'kangaroo leg' (2) is superimposed upon the linear motif (1), and that the 'foot' has seven 'toes' (3) because of the repeated carving. The final renovation (4) of the figure has only two 'toes' as in nature. Scale: 100 mm.

the greatest variety of carving techniques, and the Southern Slope (Groups A to D) also shows a greater variety than the Northern Slope (Groups E to H). Consequently, the same GTVE sectors were used regularly while the carving techniques evolved, and the predilection for the Southern Slope has been constant. Moreover, the motifs in the older 'linear' technique are both fewer and more localized than the more recent 'superficially pecked' motifs.

It was also noted that the 'linear' technique motifs were relatively dispersed and were in the majority above the 39 m contour line; that is, at the top of the Southern Slope. They thus occupy a slightly marginal position, probably because, in the areas of high concentrations, they have been obliterated by newer, different techniques. The study of carving techniques thus already shows that site usage has increased over time.

Patination: three categories at GTVE

As in other sectors of the region studied, density and contrast measurements were performed on the GTVE petroglyphs using a Mastersix cell (Gossen).[22] The measurements, however, were insufficiently numerous to allow a statistical study of patination. They simply provide the basis for a series of general comments and allowed a detailed study of certain motifs.

The variety of GTVE patination states is very wide; the range of contrast measurements is 0.60, with the values ranging from 0.0–0.60. This variation is larger than that of Gum Tree Valley Top and at Skew Valley.

Petroglyphs with a zero or near zero contrast ('deeply patinated'). 'Deeply patinated' motifs were produced by three types of carving technique:

1. Often, they are motifs made by 'deep linear pecking', such as the 'human' and indeterminate motifs to the left of 'The Eagle' (Panel 1) and the circle (Panel 2). The 'canine' (GTVE-361 {p. 406}) has a contrast value of 0.04, which classifies it as of very low contrast;
2. Petroglyphs made by 'deep infill' (intaglio), such as the 'human' with the large 'penis' (GTVE-301 {p. 399}); and
3. Petroglyphs made by the grooved outline technique, not re-marked, such as the 'turtle' and the 'human' stick figure motif of Panel 6, the large 'kangaroo' (GTVE-2h {p. 348}), and the 'kangaroo' (GTVE-8 {p. 353}).

Petroglyphs of medium contrast ('patinated') values range from 0.10–0.20. 'Patinated' motifs were also produced by three carving techniques:

1. Petroglyphs made by 'superficial pecking', including 'human' motifs (superimposed on 'deep linear' technique motifs), such as the figure with the round 'penis' on Block 9 (contrast 0.10), or the 'human' motif overlain onto 'linear' marks on Panel 34 (contrast 0.20). The 'human-kangaroo' motifs (GTVE-142 {p. 380} and -143A {p. 382}) have contrasts of 0.19 and 0.17;
2. Carved in 'deep regular grooving' (or 'fluted outline') and later re-marked. The contrast of the clearest part (showing their last use) is, for example, 0.14 for the large 'kangaroo' (GTVE-337 {p. 402}: broken into several fragments). Several re-marked 'kangaroo' have contrasts between 0.15–0.20; and
3. Some 'hammered and ground' patches have contrasts of the same value (for example, GTVE-4, -22, -288).

Petroglyphs of strong or very strong contrast ('fresh') have values above 0.20. 'Fresh' motifs have pecked or hammered surface such as the:

1. Three 'human males' on the wall (GTVE-72 {p. 365}: mean contrast value 0.32), the 'kangaroo' (GTVE-29 {p. 358}: contrast 0.29), and series of 'bird prints' (GTVE-287 {p. 397}: contrast average 0.35). The 'Emu print' (GTVE-271 {p. 394}), on a particularly dark block of gabbro, even shows a contrast of 0.55;
2. 'Phantom-human' motifs, originally covered with a 'deep infill pecking' (intaglio) or partially 'deep regular grooving' outline, were later superficially re-pecked. This is the case with GTVE-17 {p. 356} and with -343 {p. 405} (contrast 0.30 and 0.32 respectively);
3. Some petroglyphs with grooved outlines were intensively re-carved until relatively recently. Thus, the outlines of 'The Eagle' (Motif 1) have a contrast value of 0.39. The actual sharpness of this ancient motif underlines its long use and significance to residents of the Eagle Group; and
4. Some 'hammered-ground' patches show very marked contrast. The patch on Panel 2 that partly damages the linear circle, gave a contrast value of 0.60, which is the maximum recorded at GTVE. This value approaches that of the contrast of polished grindstone surfaces that abound on the site. It is also identical to the contrast values that we obtained experimentally by 'deep pecking' on a small slab of gabbro.

Densitometric sections

We used the Mastersix cell to provide independent measurements of density. Multiple measurement points along a line across a carving then could provide a 'densitometric section' that has more interesting precision; the importance of contrast can be seen (by amplitude of the curve) between different parts of the carving and between the carving and the rock. The darkest hues (ultimately black) have the maximum density and the clearest (white) have minimum density. A series of objective measurements completes and specifies the observations made during the survey of the manufacturing techniques, patination and the re-marking of lines.

An illustration of the use of densitometric sections is that made on the two 'wings' of 'The Eagle' (Fig. 4.44).

Section 1 of the left 'wing' (on the viewer's right in Fig. 4.44) of the 'bird-man' intersects two regularized contour grooves ('a' and 'b'), which results in an acute accentuated hollow. The density trace of the interior re-carved line falls to 1.08 for the lower groove 'a' and 1.11 for the upper groove 'b'. In the same section, we note that the density of the rock not covered in carving is 1.50, below groove 'b'. The contrast between the recent trace, in the bottom of the groove, and the rock support here is 0.42 (based on 1.50 less 1.08 = 0.42), which is a very high contrast.

In addition, the hollows of the 'a' and 'b' densitometric section are deep and their sides are steep because the recent, clear line inside the grooves is narrow, and because both sides of the grooves that belong to the original outline are deeply patinated and have higher densities.

Finally, it should be noted that the area 'c' in the median part of the 'wing' corresponds to a 'depressed' densitometric region; that is, it has a smaller density and is lighter in colour than the intact rock support appearing at the top and bottom of the section. This curve thus confirms the study data of carving techniques: Sector C (Fig. 4.44: Lower) is indeed

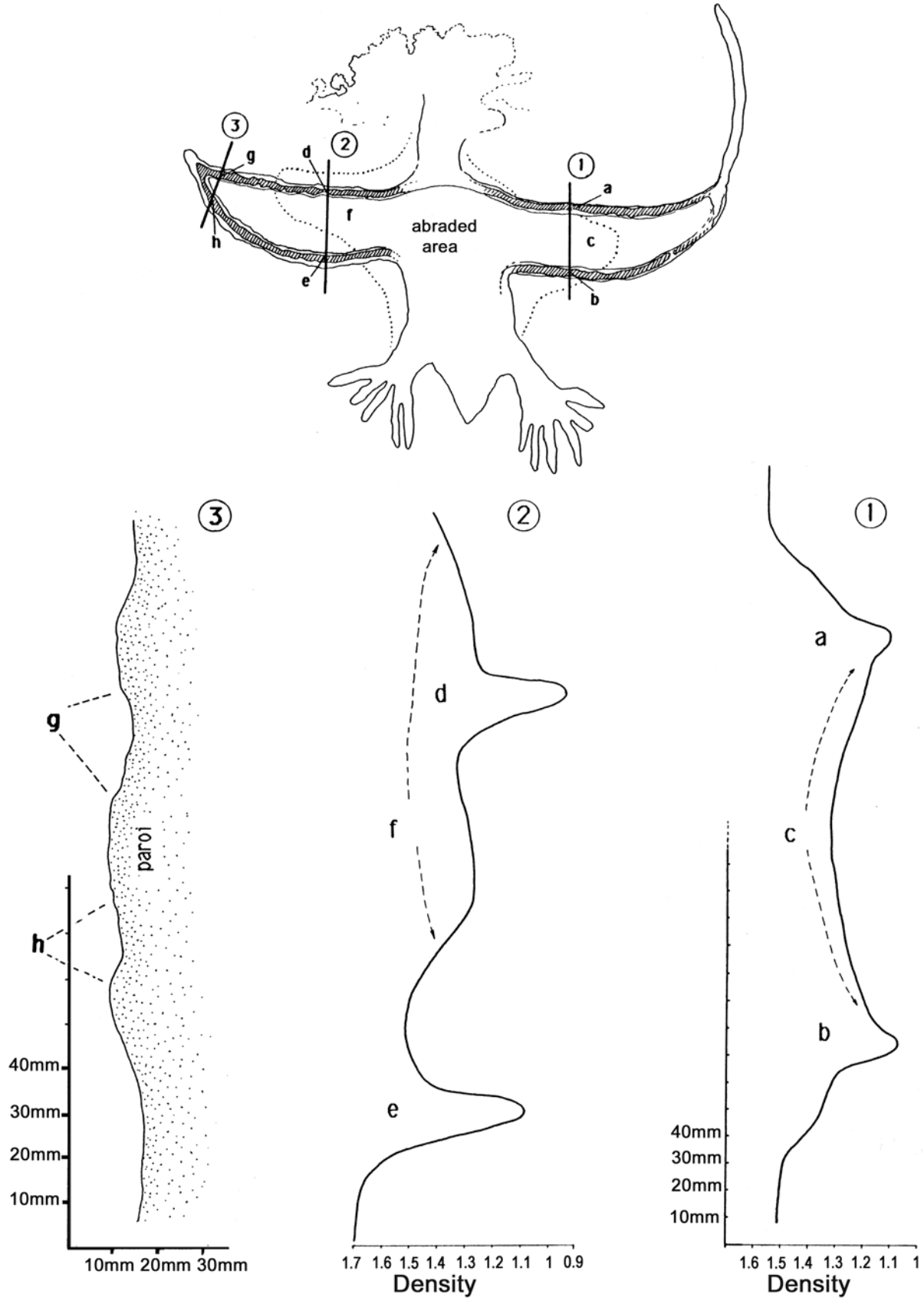

Figure 4.44. GTVE-1. *Upper:* the Eagle motif showing measurement locations; *lower: (1, 2)* densitometric sections; *(3)* section recorded with the use of the contour gauge.

a ground area of slightly lighter colour than the intact rock surface, but its density is still stronger than the recent trace of the grooved contour. The contrast measured between the ground area C and the intact rock is 0.20 in the medial part, and the contrast between the ground area and the recent trace (b) is 0.22. Below 'b', a relatively gentle slope is connected to the intact rock: it corresponds to an expansion of the ground area that overlies, at this point, the lower contour (b) of the 'wing'. The ground area could belong to a former renovation of the motif or it may be associated with the recent pecking of the outline. In this case, it would have a 'cameo' effect, a play of brown (stone), pink and white stone made using different pecking and grinding techniques that cut more-or-less deeply into the dark gabbro crust.

Section 2 shows similar phenomena, but here the ground area, denstiometrically depressed, even goes beyond and above the contour (d).

Densitometric sections of the 'left hand' of the 'human' motif (Fig. 4.45: GTVE-343 {p. 405}) confirmed the superimposition of two traces and the recent renovation of the motif. This 'hand' originally had long 'fingers', deeply grooved, as is the outline of the currently visible motif. When it was re-marked by pecking and hammering, the original trace was not fully covered; the 'fingertips' and the contours of the 'arm', very patinated, remain visible. The densitometric sections show that the contrast between the last marking and the intact rock is at maximum 0.48, and the contrast between the first carving of the 'fingers' and the re-working is of 0.23; at the same place the original groove and the rock still retain a density contrast of 0.15. This 'phantom' motif has an ancient origin, but it has been almost completely renovated with a new technique that lightens its appearance: only some extremities were unaffected by the new carving.

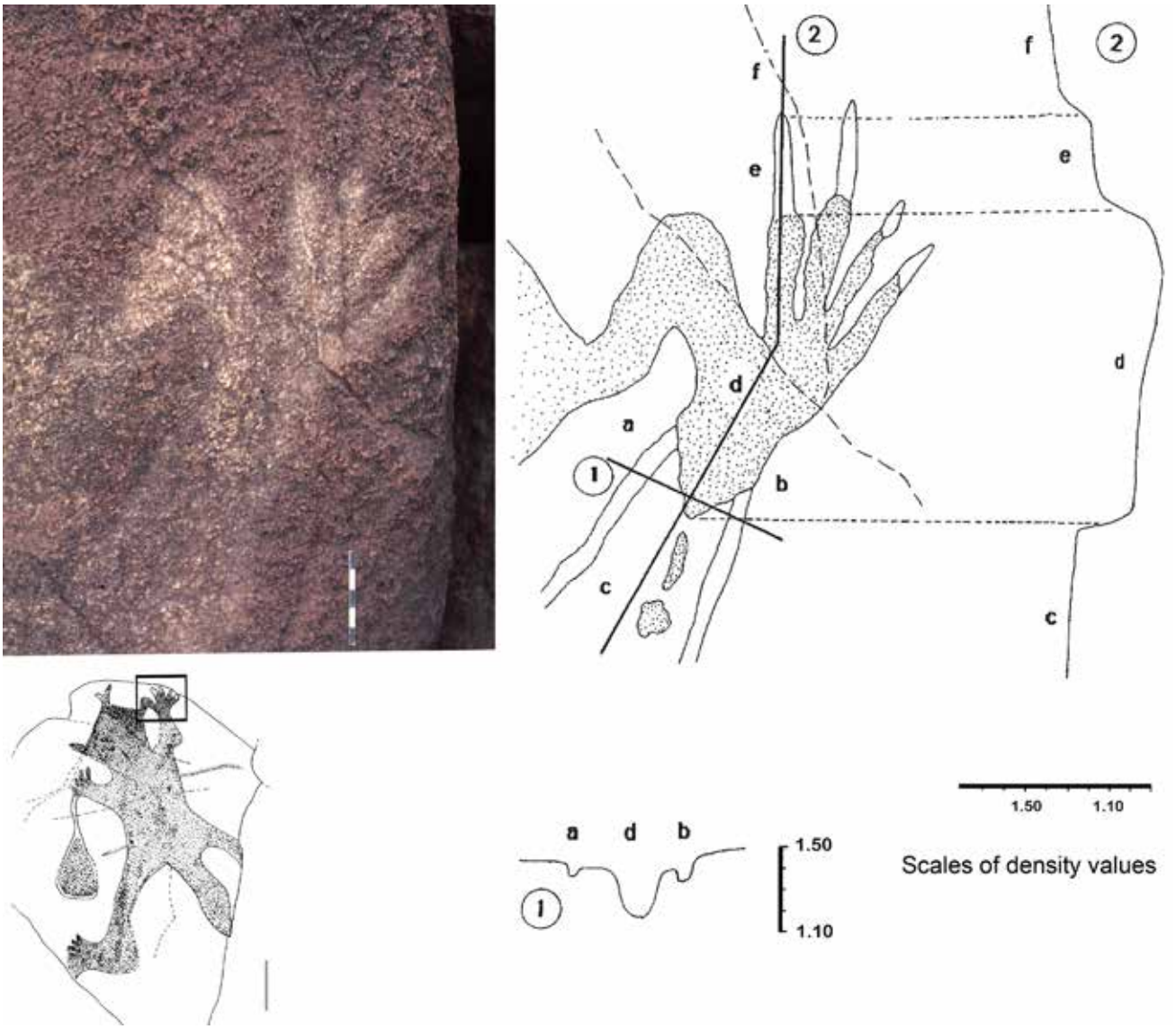

Figure 4.45. GTVE-343. Re-marking. Left upper: Photograph (detail). Scale: 100 mm. Left lower: Tracing—square situates source of detail. Scale: 200 mm. Right: Detail of the 'hand' where the densitometric sections were measured. Densitometric sections of the 'hand' of the 'human' motif (approximately same scale as the photograph). The earliest carving (a,b,c,e) has been overlain by recent pecking and hammering (d). Densitometric sections 1 and 2 highlight the differences in contrast between the two marks and between the marks and the rock medium (situated to the left, edge of the motif 'head').

Distribution of motifs according to their patination

To make a meaningful comparison, two distribution maps were drawn that showed: (A) 'deeply patinated' petroglyphs, and (B) a pooled category of carvings of 'patinated' plus those of 'fresh' appearance (Fig. 4.46). The comparison reveals a double phenomenon:

1 The 'deeply-patinated' petroglyphs were not found across the entire Group: they are concentrated on the Southern Slope and central Northern Slope.
2 In contrast, 'patinated' and more recent 'fresh' carvings were found across a larger area to the west where distribution areas of the two slopes merge to form a bridge, and define the W sub-group at the (western) entry to the site (Fig. 4.46), which appears devoid of 'deeply patinated' carvings.

In addition, nuclei of higher concentration, situated at A and F on the upper map, are found in B and E on the second map. These record, therefore, a shift towards the west of 'patinated' and 'fresh' carvings in relation to the first motifs. We noted also a partial orientation of petroglyphs towards the creek and the shell midden: from one map to the other, and from one period to another, the nuclei of greatest concentration appear to descend the slopes.

Both maps identify ancient occupation of the two slopes, of 'linear' type extending east to west, and a later period of occupation of a 'curved' type tending to 'wrap' around the shellfish cluster. During both periods, the Southern Slope maintained the greater number of petroglyphs.

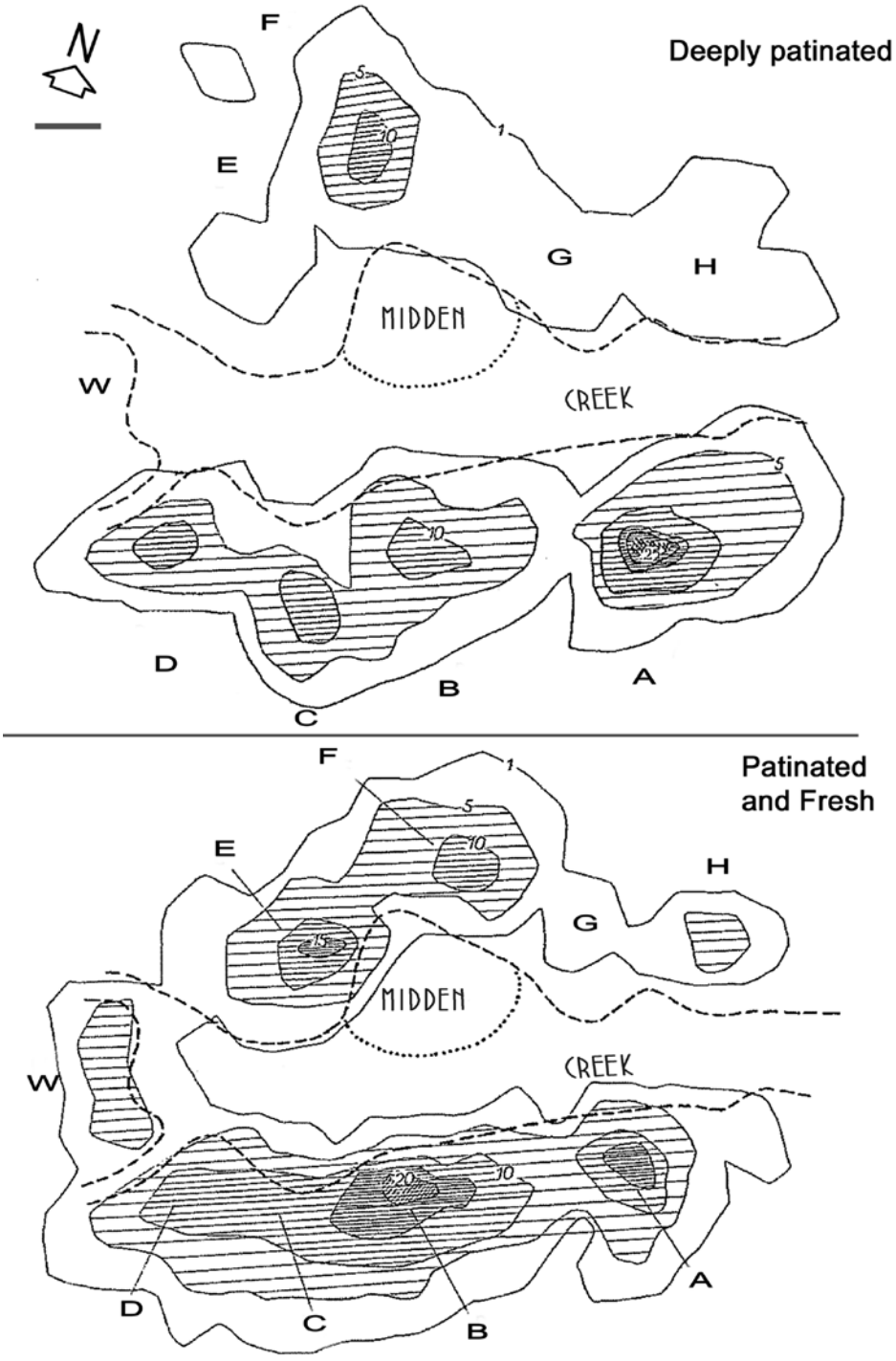

Figure 4.46. GTVE. Comparison of distributions of 'deeply patinated' (upper) motifs with those 'patinated' plus 'fresh' motifs (lower).

Conclusions from the studies of carving techniques and patination

The study of the patination complements that of carving techniques. It thus appears that the deep carvings, the intaglio forming a depression, and the 'linear' or 'fluted' carvings, are all deeply patinated and old, while surface treatments, the 'light pecking', 'hammering and grinding' are more recent; the last have a relatively fresh appearance and increased contrasts.

While some old motifs were covered by recent petroglyphs, or were intentionally erased, others had exceptional importance across the generations and were frequently re-marked: these are 'phantom-human' motifs, large 'kangaroo', and the unique motif of the 'man-eagle' with a 'ceremonial headdress' whose last renovation cannot have been remote in time.

There is a clear imbalance between the old assemblage (that comprising petroglyphs of zero or low contrast), and the more recent assemblage (composed of re-marked ancient motifs and of petroglyphs made recently). The former represents approximately one-third and the latter two-thirds of the total of GTVE motifs.

As evidenced by the variety of techniques and patination, overlays, and re-markings, none of these sets is homogeneous and cannot be attributed to a phase of short duration. Instead, each extends over a long period. The early phase is sufficiently distant in time for the contrast in appearance between motif and bed-rock to have been lost. Besides, it has developed over long enough time to allow a passing of original 'linear' and 'intaglio' techniques to the 'grooved outlines' that always cover them in instance of superimposition. The recent phase ended at a time much nearer to the present, as indicated by the fresh state of many petroglyphs whose contrast values are sometimes identical to those that can be obtained experimentally. This phase also had a long duration, as is evidenced by the heterogeneity of patination.

Cultural remains recovered from among the petroglyphs at GTVE

A stone tool assemblage of 2200 items, some bone debris, and thousands of shells were recorded at the Eagle Group. Typically, they were lodged among the blocks bearing the petroglyphs (Fig. 4.47).

Stone artefacts

The lithic assemblage included 104 formal tools, 79 cores, four blades, and at least 2000 flakes (Table 4.23). Most flakes are in coarse rock, the local gabbro. Materials brought onto the site, including a green granophyre with conchoidal fracture, quartz, chalcedony and chert, are much rarer. Details of the stone artefacts are provided in Tables 4.23, 4.24.

Among the stone artefacts, 83% are in gabbro, 11% chalcedony, 5% in green granophyre and 1% chert. Chalcedony seems to have been flaked on site since at least one core was shaped in this material. The range of tool types recorded at GTVE is summarized in Table 4.23 and Appendix B.

Table 4.23. GTVE. Types of stone tools recovered from among the petroglyphs.

type of stone artefact	number of examples
scrapers	57
notched and denticulated items	21
percussors, hammers, pounders	21
end-scraper	1
awl, point	1
chopper	1
adzes	3
microlith	1
total	104

Figure 4.47. GTVE. Artefacts and shells among petroglyphs. Scale: 100 mm.

Table 4.24. GTVE. Lithic Assemblage. Southern Slope. [Table continues on next page—Northern Slope.]

Southern Slope			
1	core (*nucléus*) with one striking platform (*à un* plan de frappe)	55	flake with notched heel
		56	edged core (chopping-tool type)
2	scraper *(racloir)*	57	flake with notched heel
3	large spherical core	58	steep-edged scraper
4	hammer-stone *(percuteur)*	59	steep-edged scraper on core
5	scraper	60	core with one striking platform
6	spherical core		61 white chalcedony adze *(herminette)*
7	large concave scraper	62	core with one striking platform
8	core with one striking platform	63	scraper on core
9	denticulated scraper *(racloir denticulé)*		64 flake scraper
10	scraper on a blade with steep and thick edge *(racloir à bord abrupt et lame épaisse)*	65	core with blunt edges and flake of Levalloisian type
11	large chert (chalcedony) flake (chalcédoine)	66	core with one striking platform
12	core with one striking platform	67	core with two striking platforms
13	large scraper	68	chalcedony piecer *(perçoir)*
14	spherical core	69	notched flake
15	scraper on a green granophyre flake	70	spherical core with blunt edges
16	flake scraper (racloir sur éclat)	71	convex flake scraper
17	scraper	72	spherical core
18	point made on flake	73	spherical core
19	pounder	74	spherical core
20	core with one striking platform (from near Eagle motif)	75	concave scraper
		76	fine core with one striking platform
21	'horsehoof' core *(en sabot de cheval)*	77	green granophyre pebble chopper *(chopper sur galet)*
22	small 'horsehoof' core		
23	spherical core (globular)	78	blunt hammer/pounder
24	small core with one striking platform	79	core with one striking platform
25	scraper		80 flake scraper
26	small chalcedony scraper	81	core with one striking platform
27	spherical core and large flake	82	dentated flake
28	flake scraper	83	dentated flake
29	notched flake *(encoche)*	84	steep-edged scraper on large flake
30	denticulated flake	85	core with one striking platform
31	scraper and flake	86	steep-edged scraper on large flake
32	'horsehoof' core	87	large spherical core
33	denticulated scraper in green granophyre	88	core with one striking platform
34	flat denticulated flake	89	large steep-edged scraper on core
35	small flake end-scraper *(grattoir sur éclat)*	90	blunt hammer/pounder (broken into two parts with one side polished)
36	core with two striking platforms		
37	spherical core	91	small chalcedony steep-edged scraper
38	large spherical core	92	green granophyre adze with patina on two faces
39	flake scraper		
40	spherical core	93	scraper on large core
41	core with one striking platform	94	chert geometric microlith (triangle)
42	spherical core	95	scraper on large sharp flake
43	core with one striking platform	96	scraper
44	thick steep-edged scraper	97	scraper
45	blunt hammer/pounder *(percuteur émoussé)*	98	blade on green granophyre
46	core with one striking platform	99	small worn chalcedony adze (slug) *(petit herminette usée (limace))*
47	notched flake		
48	blunt-edged striker (percuteur à arêtes émoussés)	100	core with one striking platform
		101	core with one striking platform
49	block of granite with blunted edges	102	pebble hammer-stone (with blow marks on edges but without polished area)
50	notched heel (*encoche sur talon*) (common type)		
		103	core with one striking platform
51	core with two striking platforms	104	scraper on large flake
52	blade with notched heel	105	large core with one striking platform
53	steep-edged scraper	106	spherical core
54	flake scraper	107	flake scraper

Table 4.24 continued next page …

Table 4.24 (continued). GTVE. Lithic Assemblage. Northern Slope.

Northern Slope			
108	core with one striking platform	146	flake scraper
109	core with one striking platform	147	spherical core
110	'horsehoof' core	148	flat scraper on flake
111	core with one striking platform and blunt edges	149	core with two striking platforms
		150	thick steep-edged flake scraper
112	small core with two striking platforms	151	spherical core
113	scraper on large flake	152	flake scraper
114	core with one striking platform	153	notched flake
115	percussor—large block with blunt point	154	'horsehoof' core' with smooth and worn base (abrading tool *(outil pour égrisage)*)
116	spherical core		
117	spherical core and chalcedony scraper	155	discoidal core
118	thick denticulated flake	156	core with two striking platforms (edge)
119	large core with one striking platform (one edge worn *(un bord usé)*)	157	blunt hammer-stone on pebble-core (carving tool *(outil de graveur)*)
120	flake scraper	158	steep-edged scraper on large flake
121	scraper on large flake with notched heel	159	spherical core
122	core with one striking platform	160	small flake with notched heel
123	chalcedony flake with notched heel	161	spherical core
124	scraper on chalcedony flake	162	core with one striking platform
125	core with two striking platforms	163	large flake scraper
126	'horsehoof core'	164	flake scraper
127	core with two striking platforms	165	small core with two striking platforms at blunt edges
128	core in two planes (edge)		
129	double-sided denticulated scraper	166	broken pebble-core with blunt edges and polished area (carving tool)
130	large pounder (blunt pestle *(broyon émoussé)*		
131	[bone fragments (to be identified)]	167	core with two striking platforms (edge)
132	core with two striking platforms	168	small chalcedony notched flake
133	scraper with steep edge	169	spherical core
134	core with one striking platform	170	flat core scraper
135	'horsehoof core'	171	large flake scraper
136	denticulated scraper	172	core with two striking platforms (edge)
137	blunted and polished hammer-stone *(émoussé et poli)*	173	large flake scraper
		174	core with two striking platforms
138	Levallois type discoid core	175	large pounder—pestle with used edges and polished area
139	steep-edged flake scraper		
140	steep-edged flake scraper	176	denticulated and notched blade
141	blunted and polished hammer-stone	177	small chalcedony core with two striking platforms
142	steep-edged core scraper		
143	steep-edged flake scraper	178	'horsehoof core' with two perpendicular striking platforms
144	blunted and polished core hammer-stone		
145	core with two striking platforms (edge)	179	small spherical core

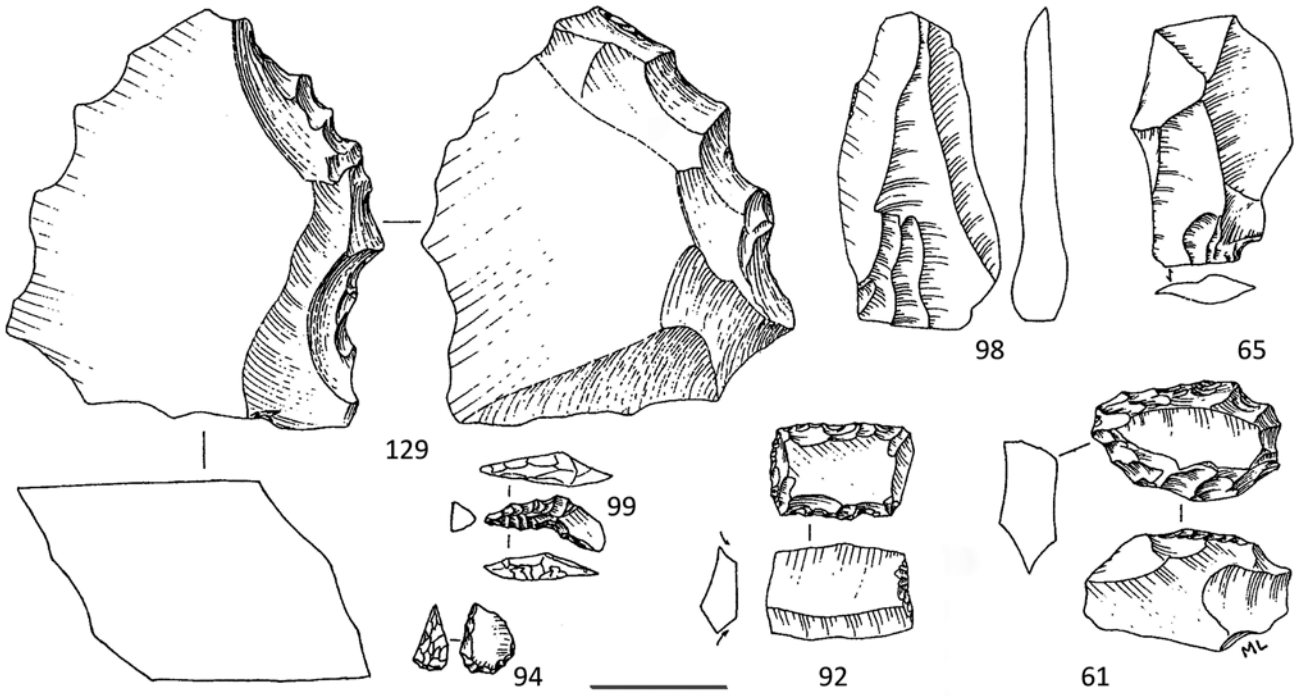

Figure 4.48. GTVE. Various stone tools recovered from among the petroglyphs. Scale: 30 mm. 129: inverse denticulated scraper; 61, 92, 99: adzes; 94: triangular microlith; 65: Levallois flake; 98: blade.

GTVE tools

Scrapers (Fig. 4.48). Scrapers were usually made on flakes; only 10% are cores. Their re-touch is flat; however, one fifth has a steep edge. They are straight or convex, rarely concave. The denticulated scrapers (5% of all scrapers) have continuous retouch gradually becoming teeth, the edges of which bear a discontinuous retouch. Almost all (97%) scrapers are made from local gabbro. The others are of chalcedony and granophyre.

Notched and denticulated tools (Figs 4.48–4.50). These tools are a common type except for the presence of notches on the heel which is unusual (Fig. 4.49: 50, 55, 52, 57, 47). Of 13 notches listed, eight are on the heel of a flake rather than of a blade. These heel-notches appear to be small concave scrapers placed on the thickest and strongest part of the support piece. They are not designed to thin down the base for ease of attachment. In fact, several show use scars and most were made on the dorsal part of the piece and not on the ventral face and the bulb of percussion.

Percussors, hammers, pounders (Figs 4.51–4.53). These are large pieces, some weighing half a kilogram. They are made from local gabbro except for that shown at Fig. 4.52: 49, which is granite. There are three different types: blocks with more-or-less rounded natural edges, which is the most

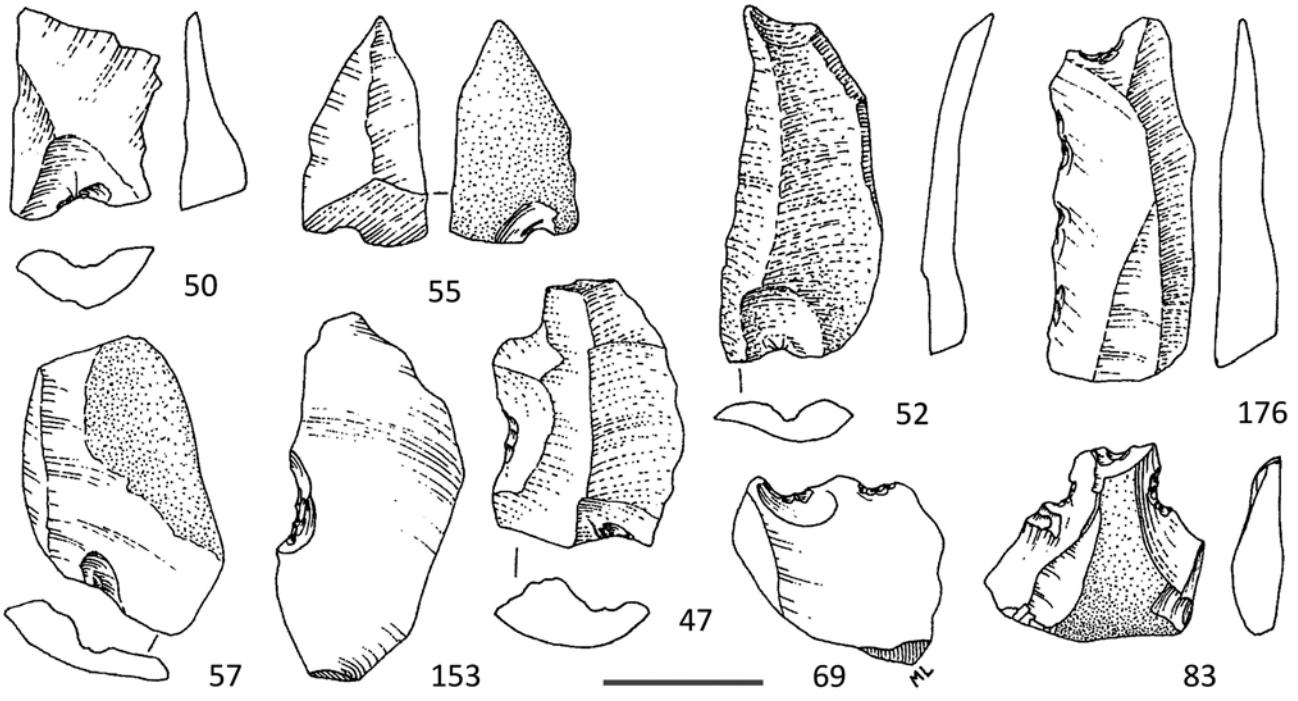

Figure 4.49. GTVE. Stone tools; notched and denticulate flakes. Scale: 30 mm.

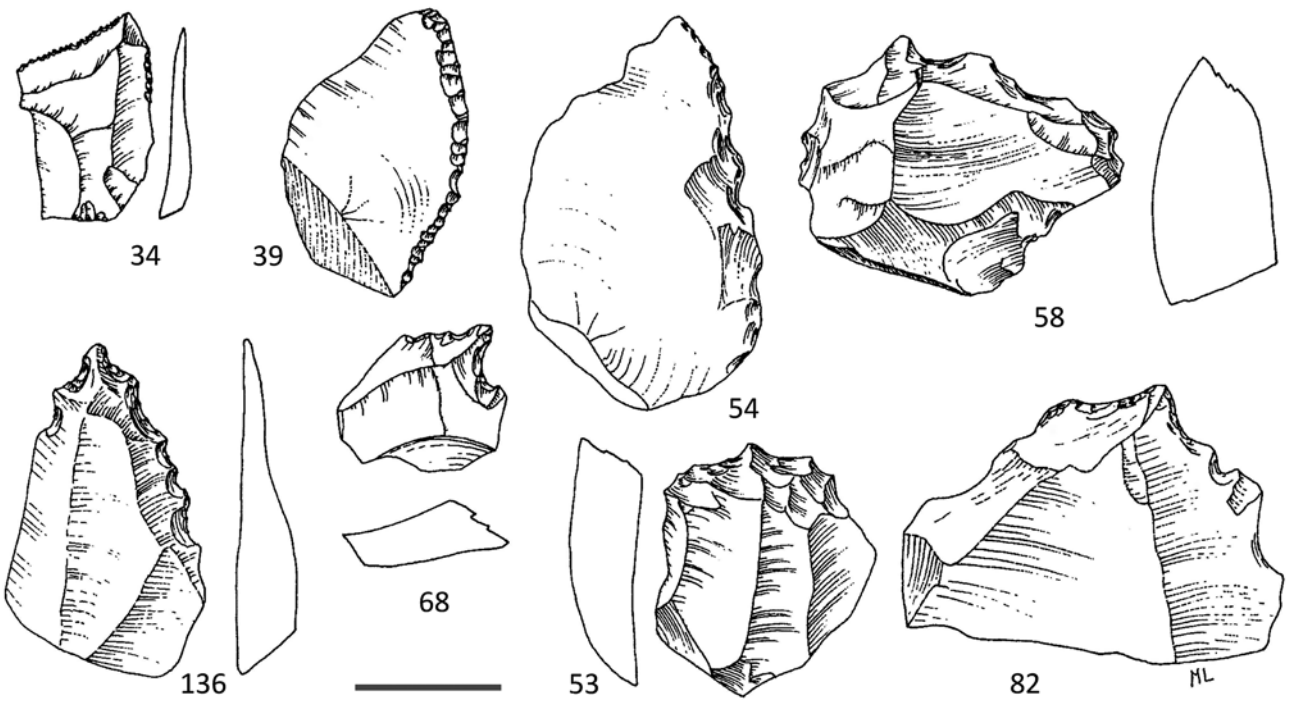

Figure 4.50. GTVE. Stone tools; scrapers and denticulated flakes (68: awl). Scale: 30 mm.

frequent case; the globular cores or re-used 'horsehoof' cores; and, unusually, pebbles (Fig. 4.53: 166). These artefacts have dulled, crushed surfaces (which attest to pecking and hammering), and polished surfaces (indicating rubbing and grinding). Only 13 pieces have dull surfaces, and six show both dull and polished surfaces. None of them is polished only.

Careful study of the surfaces with use-wear revealed that crushed or pummelled surfaces are sometimes broad (for example, Fig. 4.51: 45, 78, 90, and Fig. 4.52: 115); sometimes narrow (for example, Fig. 4.52: 141, 175; Fig. 4.53: 166). The grindstones or 'mullers' (McCarthy, 1967: 66, 1976: 60) with large working area were used in hammering or abrading on relatively large resistant rock surfaces.[23] Yet, while petroglyphs made by superficial hammering are dominant on the site, simply hammered slabs are also very numerous. I consider these percussors as carvers' tools.

Tools with blunt narrow surfaces, including edges or points (for example, Fig. 4.53: 144, 157, 166) were used for precise percussion work: they are either carving tools for making motifs by pecking, or strikers for flaking of stone, or tools used in both operations.

Finally, the blocks with polished surfaces are grinders or mortars used to crush plants on the old grindstones frequently found at the site, or, again, carvers' tools used for grinding the surfaces that were noted frequently in the Eagle Group (cf.

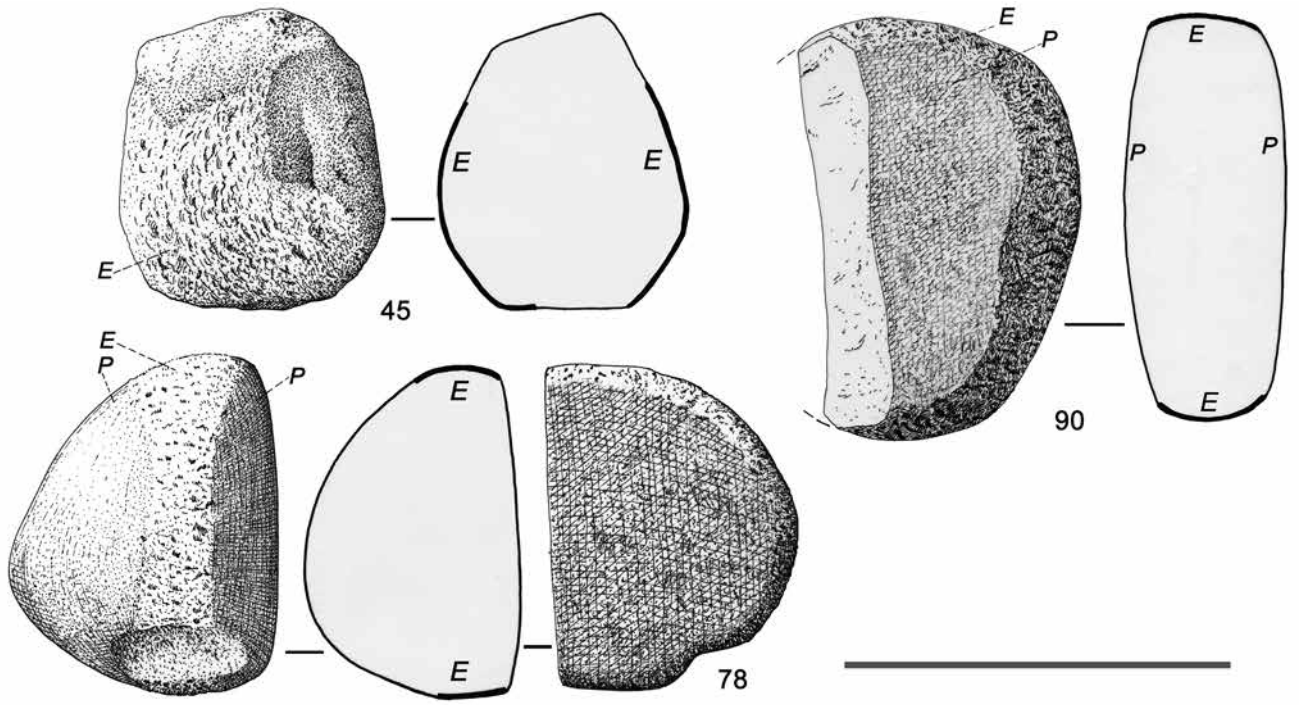

Figure 4.51. GTVE. Stone tools; 45: hammer; 78, 90: percussors and tools with polished surfaces E: blunted, crushed; P: polished. Scale: 100 mm.

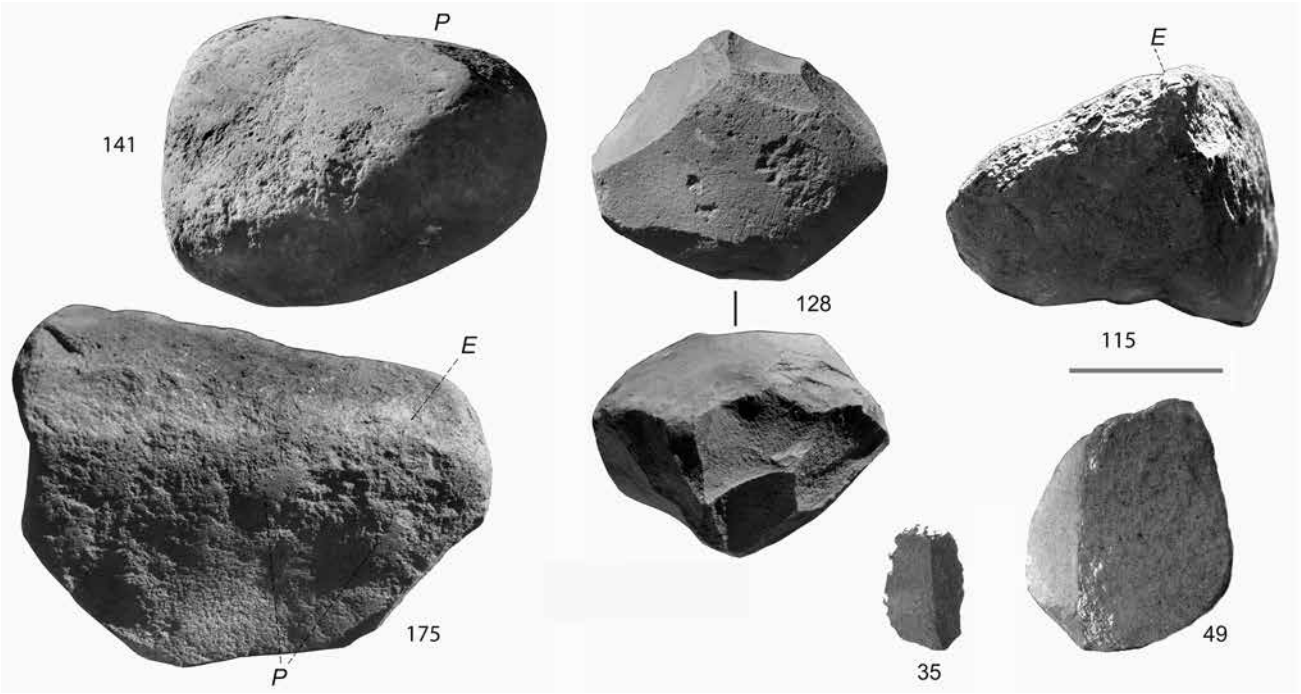

Figure 4.52. GTVE. Stone tools recovered from among the petroglyphs; 141, 175: tools with polished surfaces and hammered edges; 115: percussor with hammering perimeter. 128: core with two planes; 35: small flake scrapper; 49: block of granite with blunted edges. E: blunted, crushed; P: polished. Scale: 50 mm.

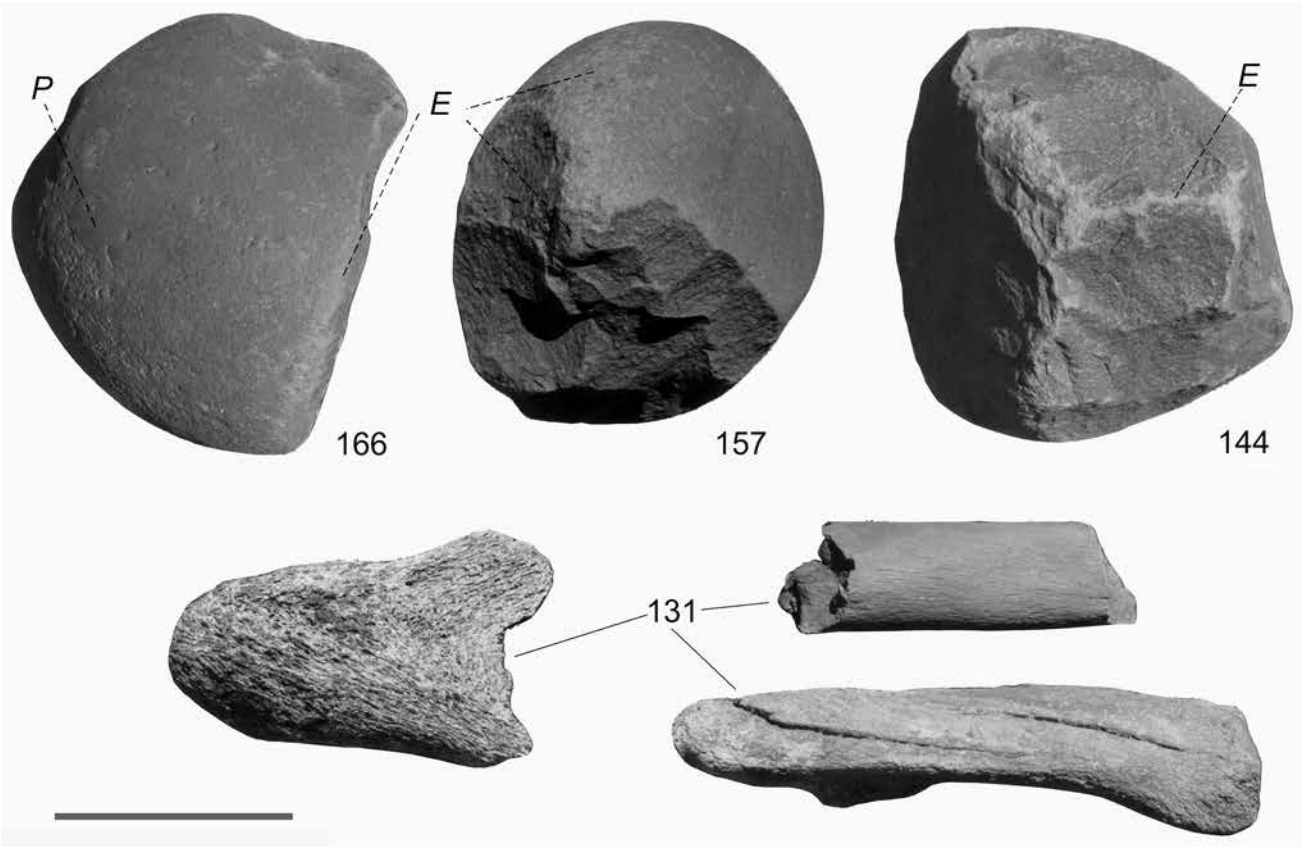

Figure 4.53. GTVE. Tools and other cultural remains recovered from among the petroglyphs; 144: core with blunted edge (hammer); 157: pebble core with point and crushed edges (hammer); 166: broken pebble with blunted edge and small polished surface—probably a tool used for pecking the petroglyphs. E: blunted, crushed; P: polished. 131: ancient bones. Scale: 50 mm.

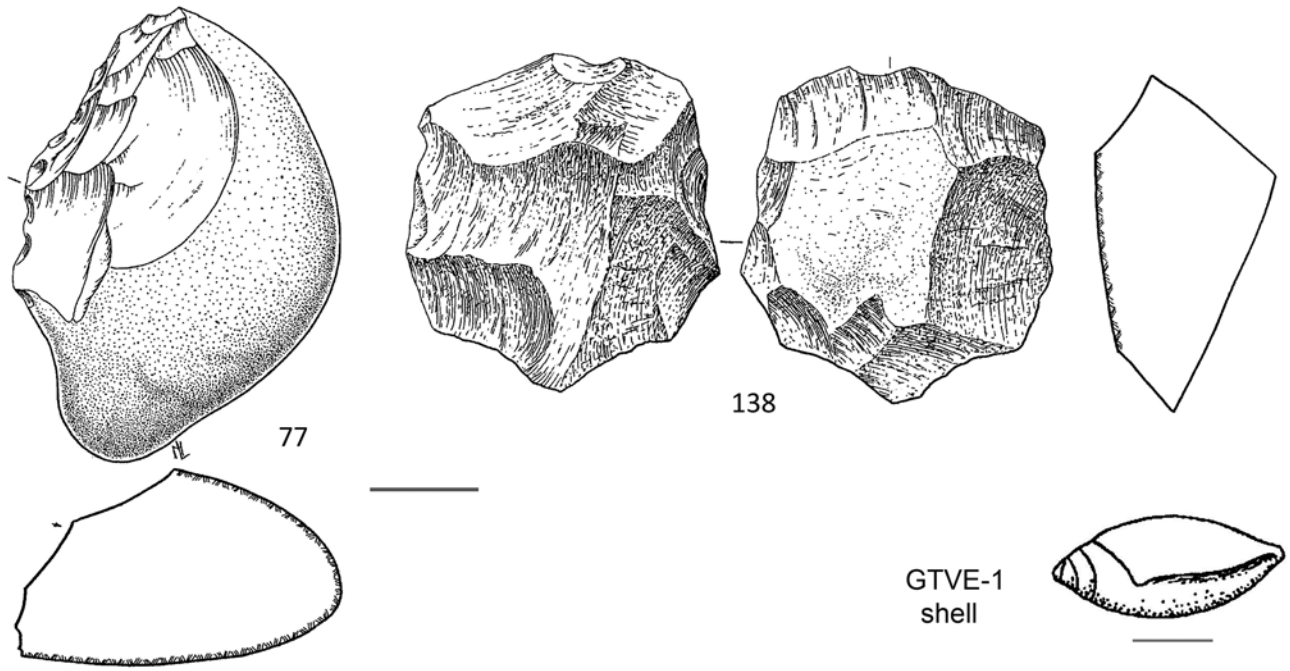

Figure 4.54. GTVE. Various stone tools; 77: chopper made from pebble of green granophyre; 138: discoidal core of Levallois type. Scale: 30 mm. Inset, bottom right: GTVE-1. Shell found at the foot of The Eagle carving. Scale: 10 mml

Chapter 6: *Cultural remains recovered from among the GTVW petroglyphs*, Fig. 6.33). They may have had a double use.

Many hammer-stones had multiple uses. This category is particularly interesting not only because it includes the instruments that the carvers used but also because they synthesize the various functions of the site: they establish a relationship between the practice of carving and actual daily activities, such as manufacture of stone tools or preparation of foodstuffs.

Other stone tools

A single end-scrapper (Fig. 4.50: 53). It is small and made from a flake

An awl (Fig. 4.50: 68). This awl (*perçoir*) has a tip with notches. It was made in chalcedony.

A chopper (Fig. 4.54: 77). This tool was made from fine-grained green granophyre.

Adzes (Fig. 4.48: 61, 92, 99). The three adzes are of a conventional type. Two were made from chalcedony, and the third (92) from fine-grained green granophyre. One, much worn and frequently re-worked, was transformed into a 'slug', with triangular cross-section (the 'burren slug' of Australian authors, McCarthy, 1976: 30, fig. 13, and Mulvaney, 1975: 82). Item 99 appears different from that pictured by Mulvaney (1975: 82, fig. 8), but looks identical to the 'burren slugs' described by McCarthy (1976: 30–31):

> … on some of these slugs a triangular portion of the striking platform remains on the butt and on others, this is trimmed off and the slug, called the *Burren* slug, is pointed at each end.

A geometric microlith (Fig. 4.48: 94). This is a small flake with a thick, reduced back, close in shape to a triangle and is the only tool made from chert.

Cores are often rough, with a single striking platform (27 pieces). There are 22 globular cores, and there are 15 cores with two striking platforms (sometimes with edges, a related kind of chopping tool). There are eight true cores shaped like a horse's hoof (the 'horsehoof cores' of the 'Australian Core Tool and Scraper Tradition'—Chapter 2, Part II: *The Lithic Units,* Fig. 7a, and *The Australian Core Tool and Scraper Tradition*).

Finally, two are discoid, one of which is a Levallois type (Fig. 4.58: 138). Levallois debitage, although rare, was found during the excavation of the shellfish mound at Skew Valley, and was reported by Bordes (*et al.*, 1983) from sites in the Murchison Valley, Western Australia.

The GTVE tool assemblage

In conclusion, the tool kit found among the petroglyphs of the Eagle Group varies little and is dominated by only three types of tools: scrapers, notched and denticulated flakes, and hammers. These items are often coarse and bulky; they are common tools in Australian prehistory, appearing in the 'Australian Core Tool and Scraper Tradition' and continuing until the ethnographic period. By contrast, adzes and geometric microliths belong to the 'Small Tools Tradition' (Mulvaney, 1969, 1975).[24]

This assemblage is identical to the tools found in the shell midden at Skew Valley. Recall that scrapers and notches existed throughout the depth of the mound, while the microliths appeared in the upper layers around 4500 years ago. By contrast, adzes were found only at the midden surface, from about 2500 years ago.

Distributions of tools

The maps (Fig. 4.55) highlight the distributions of artefacts and petroglyphs. It is notable that artefacts, like the petroglyphs, are more numerous on the south side, far from the midden (107 pieces), than on the Northern Slope (72 pieces).

Otherwise, concentrations of artefacts correspond to the concentrations of petroglyphs that are apparent on the distribution maps (Fig. 4.55; cf. Figs 4.3 and 4.4). These maps show the same concentration sub-groups (B, E, F) as the maps of petroglyphs (Fig. 4.55 cf. Fig. 4.4). The largest sub-group of carvings at GTVE, Group B, corresponds to the largest grouping of artefacts. It even appears that the

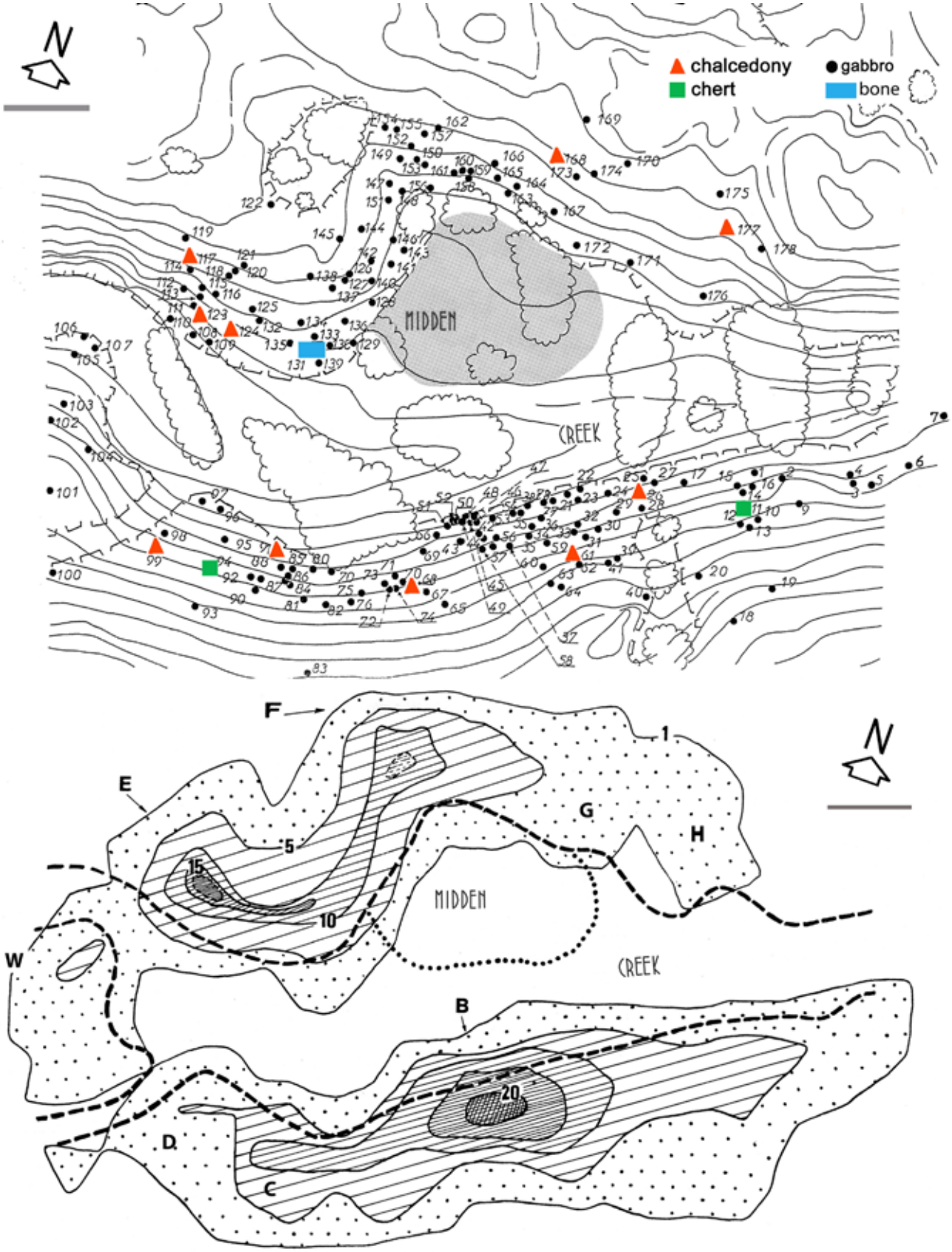

Figure 4.55. GTVE. *Upper:* distribution of stone tools and bone fragments; *lower:* densities of artefacts among the petroglyph concentrations. Scale: 10 m.

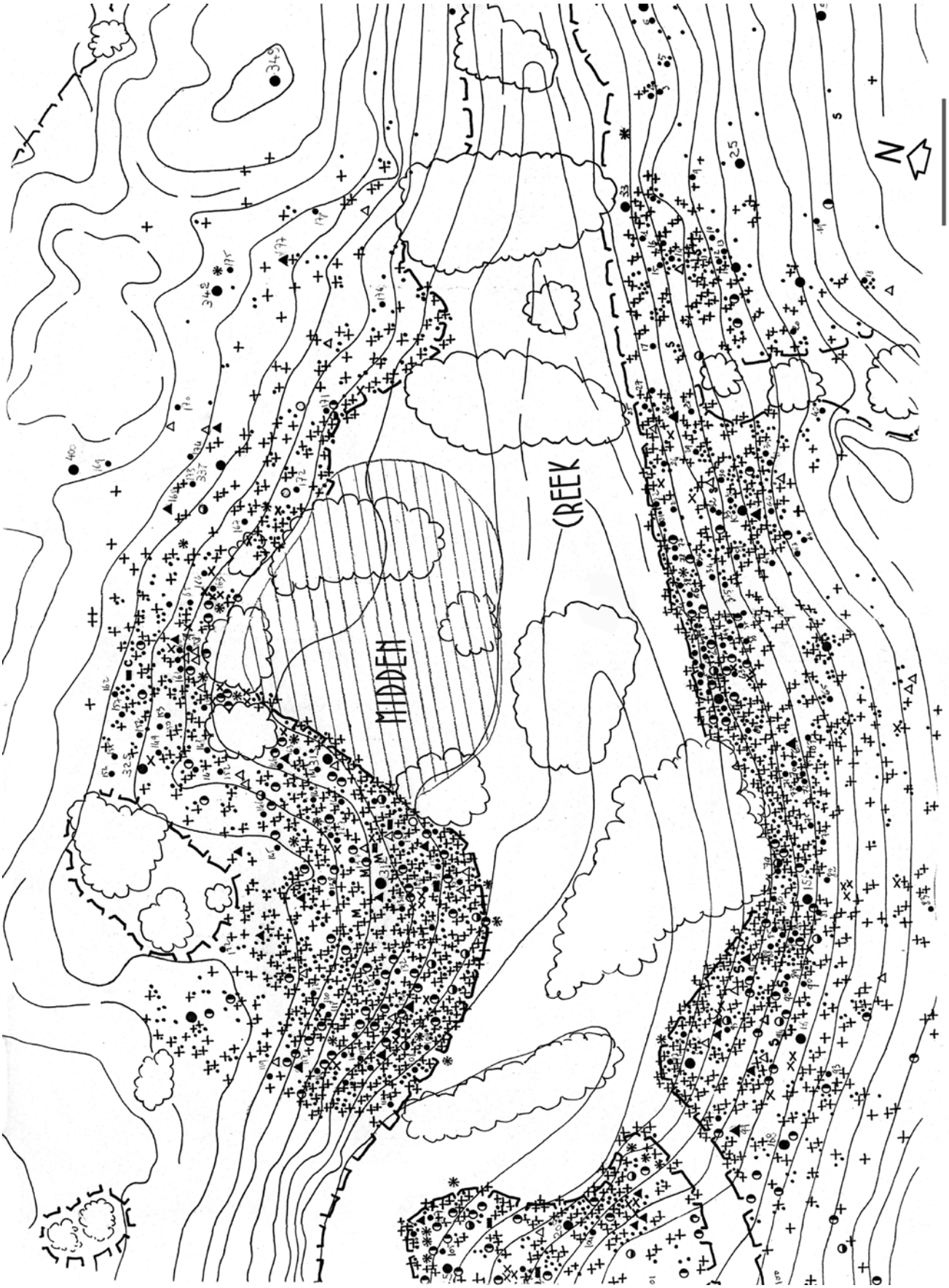

Figure 4.56. GTVE. Distribution of shells and tools recovered from among the petroglyphs. Scale: 10 mm. ● = flake; + = *Anadara*; M = murex; ◑ = *Melo amphora*; ◒ = *Syrinx aruanus*; × = *Terebralia palustris*; C = another shell type; ▲= chalcedony; Δ = quartz; - = bone; * = millstone.

main concentration of petroglyphs on the Northern Slope, Group E, matches also with the most important set of artefacts on this slope.

This quite close correspondence between the petroglyphs and artefacts could not be due to chance. I draw the following conclusion regarding chronological relationship.

Chronology

Many petroglyphs and artefacts are associated; that is, contemporaneous. Given that the tools and other artefacts are identical to those that have been discovered in the mound of Skew Valley and that they belong to the two lithic traditions ('large tools', and 'microliths') identified from our excavations at the mound, and secondly that the surface of the GTVE midden is also formed of an agglomeration of *Anadara granosa* shells, I conclude that, as at Skew Valley, many petroglyphs of the Eagle Group were made by collectors of bivalves (*Anadara*) residing in these places mainly between about 4400 and 2300 years ago according to the calibrated dates for *Anadara* in the Skew Valley shell midden. The presence of a few *Terebralia* shells among the GTVE petroglyphs could indicate that the *Terebralia* collectors used the GTVE site as well as the Skew Valley area; but only an excavation of the GTVE midden could confirm this important point. Here we find further confirmation of a close relationship between the shell mounds and petroglyphs.

Other occupation evidence

We have seen that, within the site, the places that are richest in tools are also those that are the richest in petroglyphs. The overlapping of artistic activities and daily living is again evidenced. It seems that, for several millennia, the basic climatic data presented above (Table 4.1) determined the use of the place, that is, the distribution of both the tools and the carvings. These are the warmest areas, with the best exposure, and closest to the usual access to the sites that were the most frequented, thus we could infer a winter occupation of this site.

Significance of decorated spaces

Daily life took place among the petroglyphs. Many petroglyphs could be seen and approached by the entire population. Many motifs appear to have been placed where the residents were living. The entire petroglyph assemblage of the Eagle Group was probably not 'sacred' and 'secret' as is observed elsewhere in Australia (e.g., Layton, 1992). Or at least the 'sacred' character of certain motifs could be preserved by creative means (above: 'Orientation of the carved surfaces').

A final remark is necessary, however: All GTVE petroglyphs probably do not integrate with the network of connections between the midden, the tools and petroglyphs. The old, deeply patinated, linear or fully pecked or grooved motifs seem more independent of the other features. They appear clearly on the margins, in areas of low tool density. It is indeed remarkable that the tools are especially numerous in the lower slopes, while, as we have noted, the deeply patinated linear motifs are present on the upper slopes.

Group A motifs, located around 'The Eagle', which include many linear motifs, deeply patinated, are particularly eccentric relative to the concentrations of artefacts. It thus appears that the first petroglyphs had been made at this location before its occupation by the shellfish-collectors and before the development of the midden. Some subsequently were erased, covered by other motifs or re-marked. But we do not know if these initial petroglyphs were also associated with a lithic tool assemblage. The study of the patination of the stone tools did not produce any useful results because these items have remained in cracks sheltered from bad weather. If the typology shows that most of the stone tools were used and abandoned by the shellfish-collectors, it does not exclude, however, that a few large scrapers, hammers, cores or fragments were produced by the first carvers, before the appearance of the shellfish middens.

Shell remains

The distribution of shells among the petroglyphs is shown by Fig. 4.56. One can estimate their number at about 2000. The vast majority of these shells (about 97%) are *Anadara granosa*, the rest being formed by the debris of *Melo amphora*, and *Syrinx aruanus*. Some *Murex,* a few *Terebralia* and some other rare gastropods (Fig. 4.54 lower right) complete the set. The variety and the proportion of species match the shell associations of the Skew Valley midden, where the upper horizon is also dominated by *Anadara*.

Shells are particularly numerous in the base of the central Southern Slopes, facing the midden, and on the spur of the Northern Slope overlooking the access to the Group. I found the same distribution, the same concentrations, as for the tools, and saw this as further confirmation of the association of the tools and the shell mound. It was probably the *Anadara* collectors who abandoned their tools among the petroglyphs.

I noted further that the zones of shell concentrations also corresponded to areas of petroglyph concentration. The relationship between shells and carvings was also confirmed by this distribution map (although those petroglyphs surrounding 'The Eagle' are not particularly rich in shells).

Bone fragments

Three fragments of animal bone were preserved in cracks on the spur of the Northern Slope (Fig. 4.56). They were studied by Dr David Horton, then palaeontologist at the Australian Institute of Aboriginal Studies in Canberra (Horton n.d.). A few other skeletal remains, most recent in appearance, were found to the north of the midden and at the site entrance to the west.

Grindstones

A total of 26 grindstones were identified around the GTVE shell midden. They have polished surfaces forming a slight depression (about ten mm maximum depth), located on the top of sub-horizontal natural slabs of gabbro, whose length ranges from 1–3 m. These are fixed grindstones that are different from the millstones of the central desert, which are lighter and often portable (Michael Smith, 1985, 1986). Their polished surfaces, averaging a quarter of a square metre, are rarely intense and very bright; it is often a simple flat expanse and soft to the touch, apparently resulting from friction and rather episodic, quick hammering or abrading. Many of these blocks may therefore correspond to the category of Smith's 'amorphous millstones' (Michael Smith, 1985: 29).

The distribution map (Fig. 4.57) shows that grindstones are especially frequent at the bottom of slopes, close to the creek channels, especially near the pools of semi-permanent water of the western part of the Group. Two sectors are particularly rich: the western area previously indicated, both because of proximity of water and because it is the usual gateway to the Group, and the central Northern Slope on the edge of the midden. The mortars therefore have a connection with the midden since they are located near it at the bottom of the slopes.

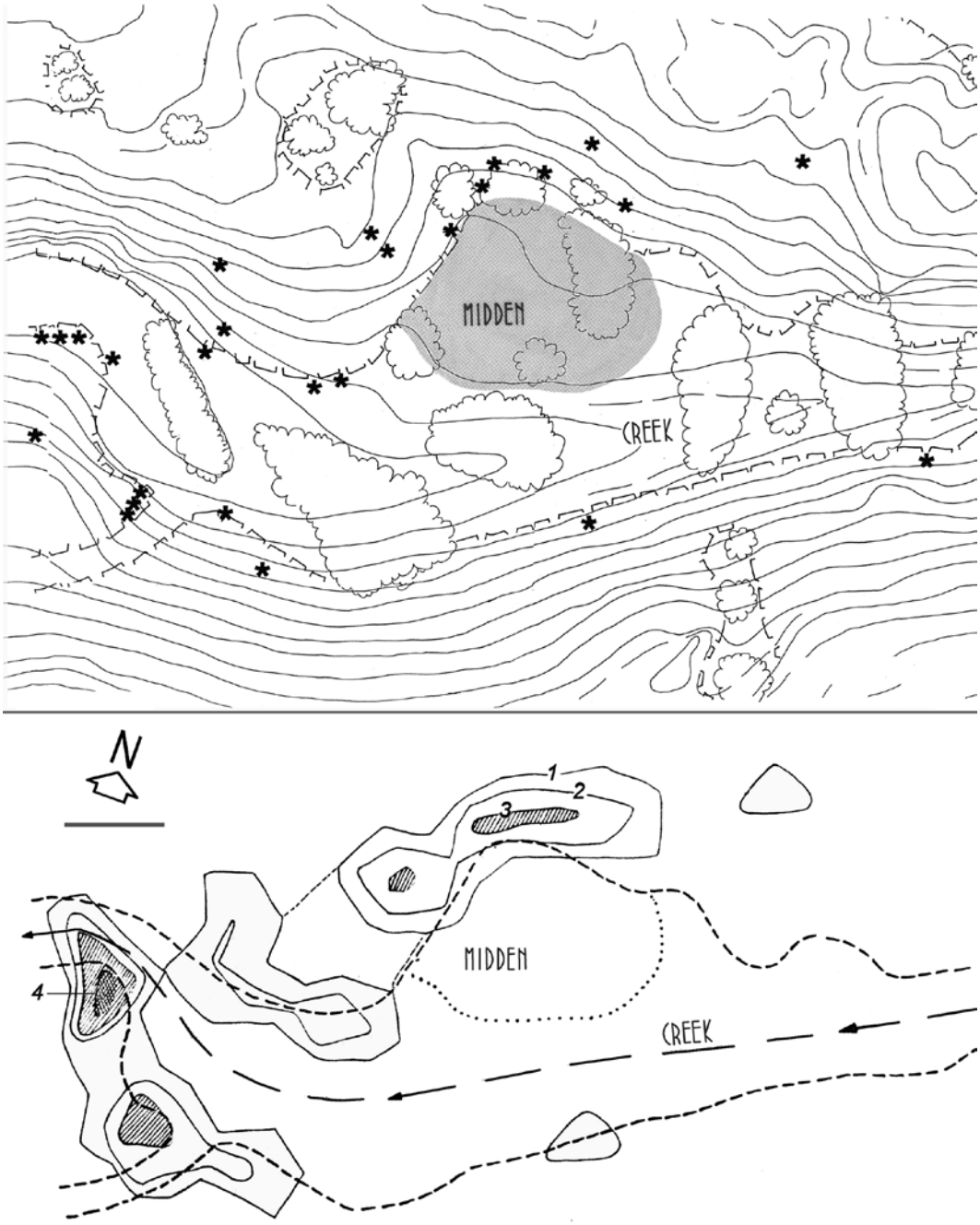

Figure 4.57. GTVE. Grindstones; *upper*: distribution; *lower*: density. Scale: 10 m.

All grinding surfaces were found in the immediate vicinity of petroglyphs but generally they were not located on carved slabs. However, two slabs found on the Northern Slope included both a carving and a polished surface: Block 280 has a human figure on a vertical surface, and fragmented Block 337 has a 'kangaroo' carved at its top along with a large polished area (GTVE-337 {p. 402}). In neither case could the relationship between carving and grindstone be established with certainty. The polished and carved areas simply present two cases of identical states of preservation.

In general, the patination that we observed on these grindstones usually is not homogeneous. None is deeply patinated, and the carved surfaces have the same contrast values as polished surfaces; this suggests that the use of these mortars extended over some time.

The significance of these stones, used particularly for crushing fruits and the seeds of wild grasses, is considerable, indicating as it does the presence of women at the site and living among the petroglyphs (Michael Smith, 1985). Assuming that the use of the mortars was mostly if not entirely the province of women, I sought to evaluate if there were any differences between the motifs near these stones that could be seen daily by women and, on the other hand, those that were in places more remote from the living areas.

The density map of grindstones (Fig. 4.57: Lower) was used to define the areas probably frequented by the female population. Within the area bounded by 'density contour 1', an inventory and the percentages of petroglyphs were established. They were compared with those motifs outside the area of the mortars, including the upper Southern Slopes, above the 41-metre contour.

The comparison (Fig. 4.58) is instructive: near the mortars, 'human' motifs dominate (their percentage also exceeded the average percentage of 'human' figures throughout the Group). However, on the upper part of the large decorated slope, it is the geometric motifs which dominate, and their proportion is higher than the Group average for this category of motif.

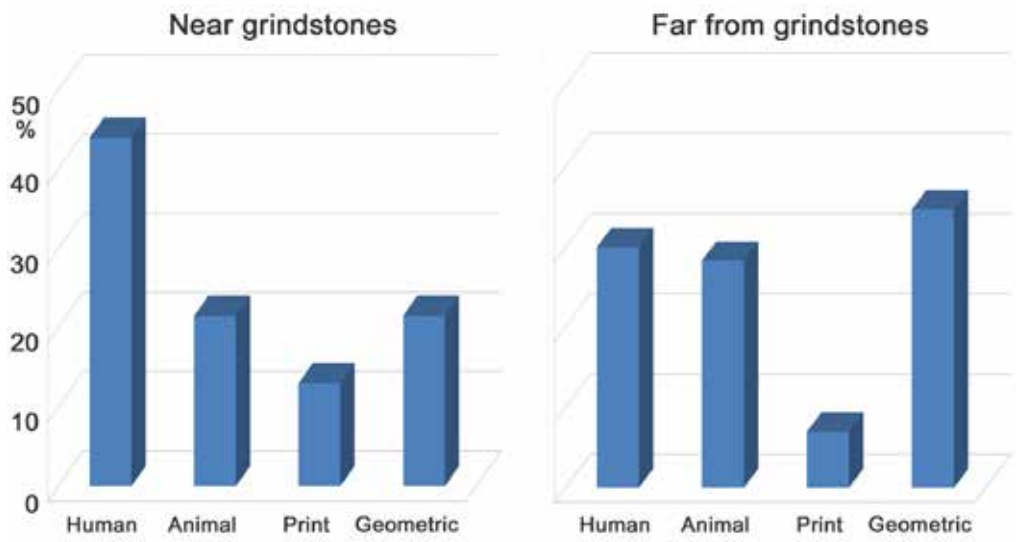

Figure 4.58. GTVE. Comparison of the proportions of petroglyphs near to, and distant from, the grindstones (upper Southern Slope).

The geometric motifs that are most distant from the grindstones are arcs, dots, and various geometrics. The variety of geometric motifs is greater in areas away from the mortars than in their vicinity. Furthermore, among the 'human' motifs, the 'arboriform' stick figures and the 'half-human half-animal' depictions (the 'man-eagle' and the 'kangaroo-men') are never near the mortars.

Conclusions about the Eagle Group

The Eagle Group, GTVE, is in the middle part of Gum Tree Valley, in an area where the slopes spread out to form a *cirque* occupied by a large shell mound surrounded by 364 carved blocks. Here there is a strong concentration of petroglyphs. It is as if the midden acted as a magnet for production of the petroglyphs.

The petroglyphs of the Eagle Group, especially numerous on the more sunlit Southern Slope, were divided into nine named sub-groups, the first four on the Southern Slope, the fifth (W) is at the entry to the west, and the last four on the Northern Slope. In the rectangular sample area of 110 × 90 m around the midden, 591 motifs ('graphic units') were recorded in detail. About one quarter depict of humans figures (23.8% with 0.3% 'human prints'). Approximately one fifth (18.7%) is 'animal' motifs, especially depictions of 'macropods' (36 examples), 'turtles' (11), 'fish' (9), 'birds', 'snakes', and hybrid 'half-animal, half human' figures. The 'animal prints' and 'tracks' account for about 5% of the total, geometric motifs for nearly 15% and indeterminate motifs for more than one third (37.7%). One third of the indeterminate motifs is badly preserved or unidentifiable and the remaining two-thirds are rubbed, non-figurative surfaces.

Almost all motifs have an axial distribution; that is, they are located at the centre of the Southern Slopes (in Group B), and at the centre of the Northern Slope (Group F) on each side of the shell mound. However, depictions of 'macropods' are unusual in having a lateral distribution: they are mainly concentrated to the southeast of the midden in Group A.

Five carving processes were used in the Eagle Group: linear pecking, infill pecking ('intaglio'), deep grooving, hammering-abrading, and superficial pecking. The first three are deep-carving techniques, while the other two are superficial.

A notable proportion (6.6%) of the petroglyphs has been re-carved, sometimes over many generations. These renovations have been selective as they relate especially to depictions of 'kangaroo', 'phantom-humans' and some 'half-animal, half-human' hybrids. Other motifs have been blotted out by superficial grinding-hammering, and this accounts for a large part of the unspecified motifs.

The largest blocks of gabbro were selected by the carvers to provide 'the canvases' for the petroglyphs. The preferred general orientation of the carved surface was towards the bottom of the valley and towards the shell mound. Such an orientation emphasises the close relationship between the midden and many of the petroglyphs. As at Skew Valley, the GTVE Group is characterized by congruence of the habitat and the decorative assemblages.

This interplay is further underlined by the presence among the carved blocks of stone tools (2200 items including 104 tools, 74 cores and more than 2000 flakes) whose distribution is broadly superimposed on that of the petroglyphs (with similar concentrations). About 2000 shells (a similar range to those in the midden), and 26 grindstones for grinding seeds and berries are also scattered among the carvings.

The entire population, including women using the grindstones for the preparation of food, seems therefore to have lived among the petroglyphs at least during one period of the site's history. The mixing of daily activities and rock art was not complete, however, and several observations have distinguished areas of specialization.

The visibility index (ratio of the number of depictions on vertical supports to the number of depictions on horizontal supports), is high for 'human' motifs but is low for geometric forms and 'tracks'. Some subjects are visible to all occupants of the site, while others tend to be hidden. The few hybrid motifs, presenting both 'human' and 'animal' characters, have an intermediate position: they appear on vertical walls but are significantly distant from the valley floor and the shell mound. Furthermore, the grindstones, which suggest the presence of women, are located a little away from the strongest concentration of petroglyphs, and some geometric motifs seem to be located at a distance from them.

Although the functions and use of the site have probably varied over time, the opposition between public and hidden imagery, even within the site, has been shown to exist for at least the period matching the development of the shell midden.

Three phases of occupation at GTVE

Comparing carving techniques and patination and their distributions at the site, as well as distributions of tools, shells and grindstones helped establish a relative chronology of three phases:

1. Initial phase. The history of occupation of the site begins with the execution of deep linear carvings or images made with infill-pecking within wide grooves. They are, in the first instance, mainly various types of 'humans' (as 'ghost-like humans' and 'stick figures'), and radiating circles, and then large grooved 'kangaroo'. The area occupied extends to both sides but it already favours the Southern Slope, especially the eastern part of the slope (Group A).

2. The second phase is marked by an accentuation of occupation, since almost two-thirds of the total depictions belong to this phase, contrasting with less than third of the first phase. This phase saw numerous erasures of old petroglyphs by 'hammering-abrading', and a series of repetitive re-markings ('kangaroo', 'man-eagle', etc.). The new images—mainly 'humans', 'kangaroo-men', 'fishes', 'turtles' and various geometric motifs—were made using 'superficial pecking'. There is a shift to use of the western areas because areas of high concentrations are no longer at Groups A and F but in Groups B and E, and we find petroglyphs appearing at the entry to the Group (W), showing that the petroglyphs now tend to 'wrap around' the central shell midden. This period is indeed that of the development of midden, the new petroglyphs being made by the collectors of shellfish (*Anadara granosa*).

3. A third-phase, diffuse and difficult to separate from the second (except by patination contrast values) seems to correspond to the exploitation of the site up until the recent period. Characteristic of this most recent occupation are depictions of 'humans' and 'bird prints' made using 'pecking' and 'shallow hammering and abrading' that result in motifs of highly contrasting and fresh appearance. Also characteristic is the continuing renovations of old 'grooved' 'kangaroo' and rare mythological motifs such as the 'man-eagle'.

Thus, as on the summit of Gum Tree Valley (GTVT), the Eagle Group contains two major petroglyph complexes. They overlap each other and their development was spread over a long period: an earlier complex prior to the formation of the shell-cluster, followed by another complex linked to the shell middens and the exploitation of marine resources and marked by fresh or slightly patinated images, particularly depictions of fish, turtles and other sea creatures.

The rare occurrence of images of 'fish' and 'turtles' in the oldest assemblage, prior to the development of the midden, points to relationships with the sea being episodic and lacking proximity to the shore. This early phase may have been Pleistocene, a period when this area was still far from the sea.[25]

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Endnotes

1 The terms 'sub-horizontal' and 'sub-vertical' designate rock surfaces that are approximately horizontal or vertical with respect to their position in the landscape—Editors.

2 'Thalweg' is a term seldom used in Australian petroglyph studies: it denotes the line joining the deepest points of a stream channel; a synonym for valley profile (AGI, 1962); the line that follows the lowest part of a valley (OED, 1973)—Editors.

3 Examples of various motif categories are included in the text figures. Illustrations of many petroglyphs prefixed 'GTVE-' may be found among the series of illustrations numbered serially and placed in Appendix A accompanying this report. Some motifs—identified, numbered, studied, traced in detail, photographed, located on maps, and sometimes included in computations reported in Lorblanchet's study—are neither included in text figures nor in the illustrative appendices accompanying each chapter due to the large number of petroglyphs at each site—Editors.

4 Archaeological identification of habitation areas, living floors, house structures is rare in Australia. King (1827: 43) mentioned seeing bush humpies on, probably, Intercourse Island, and Stokes (1846: 169) commented on the presence of bush huts; Hallam (1986) has discussed archaeological evidence of habitations in the southwest coastal region—Editors.

5 This observation derived from discussions on site (Lorblanchet pers. comm.). Wallis & Matthews (2016) have provided a wide-ranging discussion of structures built within Pilbara rock-shelters including hunting hides—Editors.

6 'Diverse humans', that is depictions of various types of human-like motifs. 'Human' forms are discussed in greater detail in Chapter 2, Part I: *Descriptions of the Petroglyphs*, and in Chapter 6: *The Woman Group Petroglyphs*—Editors.

7 Qualification of use of the term 'human prints': *(a)* These are not 'hand prints' comparable to the ubiquitous pictograms found throughout Australia (and widespread throughout the world) that are produce by blowing pigment across a hand (also done with other items such as a boomerang), or made by pressing a hand wet with pigment onto a shelter or cave wall. *(b)* Rather, in the context of this discussion of Dampier petroglyphs, 'human hand print' and 'human foot print' are shorthand terms for representations of the hand/s or foot/feet of a 'human'. *(c)* Since they are most often the depiction of part of the integral anatomy of a being, they are qualitatively different from the 'animal prints' discussed subsequently in each chapter, the 'kangaroo track', 'bird print' and 'turtle track', which represent simply the 'footprint' left in the soft ground by a passing animal—Editors.

8 Genus *Acanthophis* (Daudin, 1803) (ABRS, 2009)—Editors.

9 Representations of turtles, their tracks and eggs are discussed further in Chapter 6 GTVW—Editors.

10 Details of characteristics and habitats of putative identifications of genera and species may be sought in the annals of the *Australian Faunal Directory* (ABRS, 2009)—Editors.

11 Possibly the mangrove dweller *Carcinoscorpius rotundicauda* (Latreille, 1802) (WoRMS, n.d.)—Editors.

12 Common name of *Dugong dugon* (PLS Müller, 1776) (ABRS, 2009)—Editors.

|13 This top view is uncommon—more usually they are depicted in side profile with turned tail (KJ Mulvaney, pers. obs.)—Editors.

14 Thylacinidae, *Thylacinus cynocephalus* (Harris, 1808); CANIDAE *Canis familiaris* (Linnaeus, 1758) (ABRS, 2009)—Editors.

15 Accipitridae, *Aquila (Uroaetus) audax* (Latham, 1801), and *Haliaeetus (Pontoaetus) leucogaster* (Gmelin, 1788), respectively (ABRS, 2009)—Editors.

16 This stick has been identified by Custodians as one known as *janyjin* (dancing stick) used during corroborees. The bark is shaved but left attached to the stem, forming balls along the shaft. Smaller such pieces may be stuck into the hair of dancers or bound to the upper arm—Editors.

17 The definitions and methodology of internal- and external- relationship analyses are discussed in more detail in Chapter 6: *Distributions and associations of various motifs*, and Chapter 7: *Associations and groupings*—Editors.

18 The character and analytical role of the 'visibility index' or 'index of visibility' is discussed in greater detail in Chapter 7—Editors.

19 Note that study of patination provides one potential source of relative chronology. Type of carving is a second. Here the results of the latter analysis tend to confirm those of the former—Editors.

20 The range and specific characteristics of carving techniques are discussed also in Chapter 7—Editors.

21 Re-marking (renovation) is discussed in detail in Chapter 3, and with use of the 'contour gauge' in Chapter 5—Editors.

22 The Gossen Mastersix cell is referenced in the General Introduction and its use detailed in Chapter 2, Part I—Editors.

23 McCarthy (1976: 60, 63) used the terms 'muller' or 'hammer-muller' and 'mortar' to refer to the hand-held stone used against a larger grindstone, or millstone; cf. quern (*meules dormantes*).

24 These tool 'traditions' are discussed in detail in Chapter 2, Part II—Editors.

25 Before about 7000 years ago, that is before the marine inundation and the appearance of middens in this area, some groups of hunters could make expeditions to the coast to fish and hunt turtles, even though the coast was 10–20 km away. During the Last Glacial Maximum (LGM) the coast was as much as 100 km distant (e.g., Hiscock, 2008; Ingrid Ward *et al.*, 2013)—Editors.

26 'Horseshoe crab': a marine chelicerate arthropod.

27 Cailleux, 1952.

Chapter 4—Appendix A

Recordings of the Petroglyphs of the Eagle Group (GTVE)

In order to define the orientation of each figure, on each recording are indicated: *(a)* the north orientation when it is a horizontal panel on top of a slab, and *(b)* the vertical orientation (an arrow with a 'V') when the surface is close to the vertical. Unless otherwise indicated, all scales represent 10 mm.

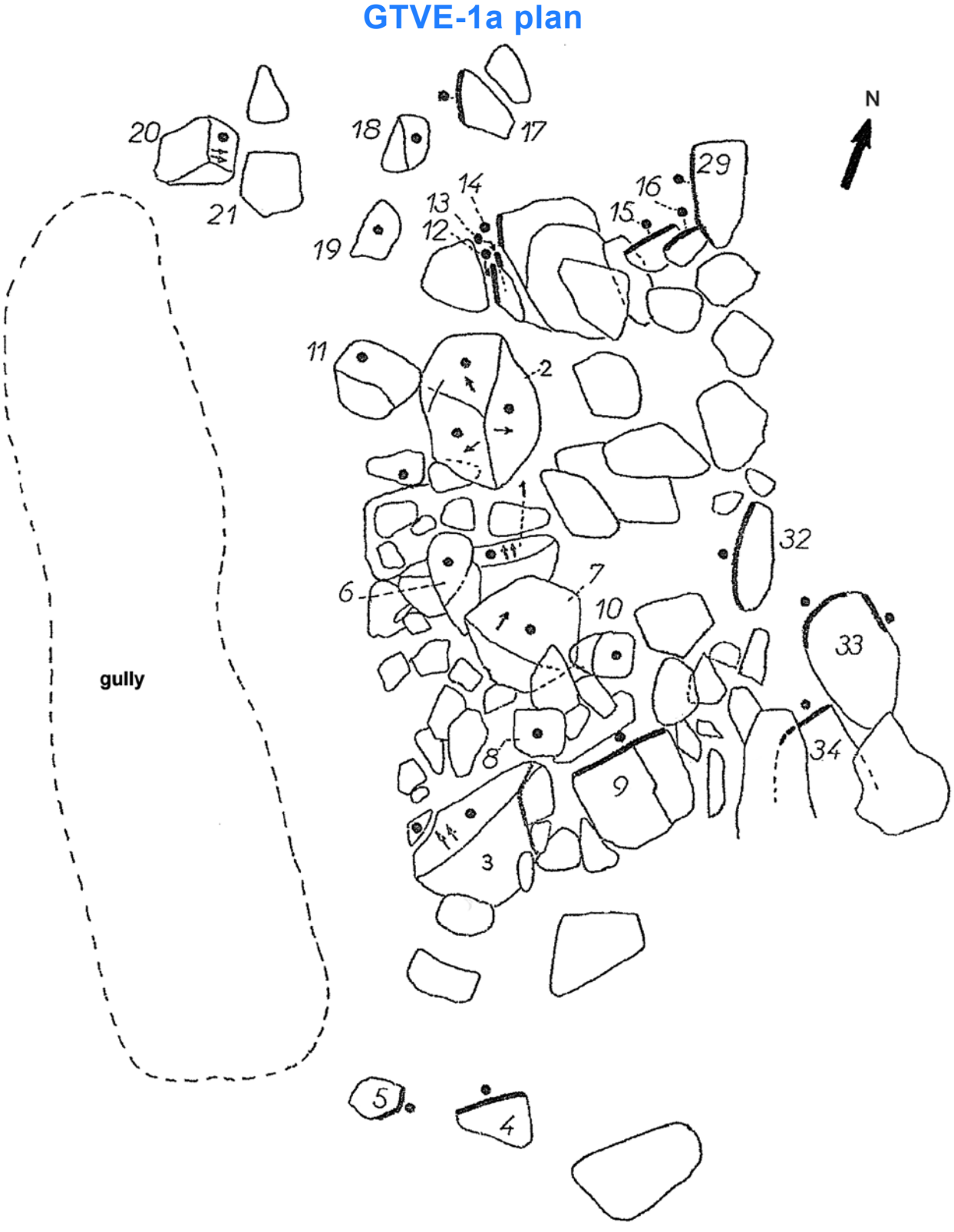


Figure 4.59

GTVE-1b ThEagle

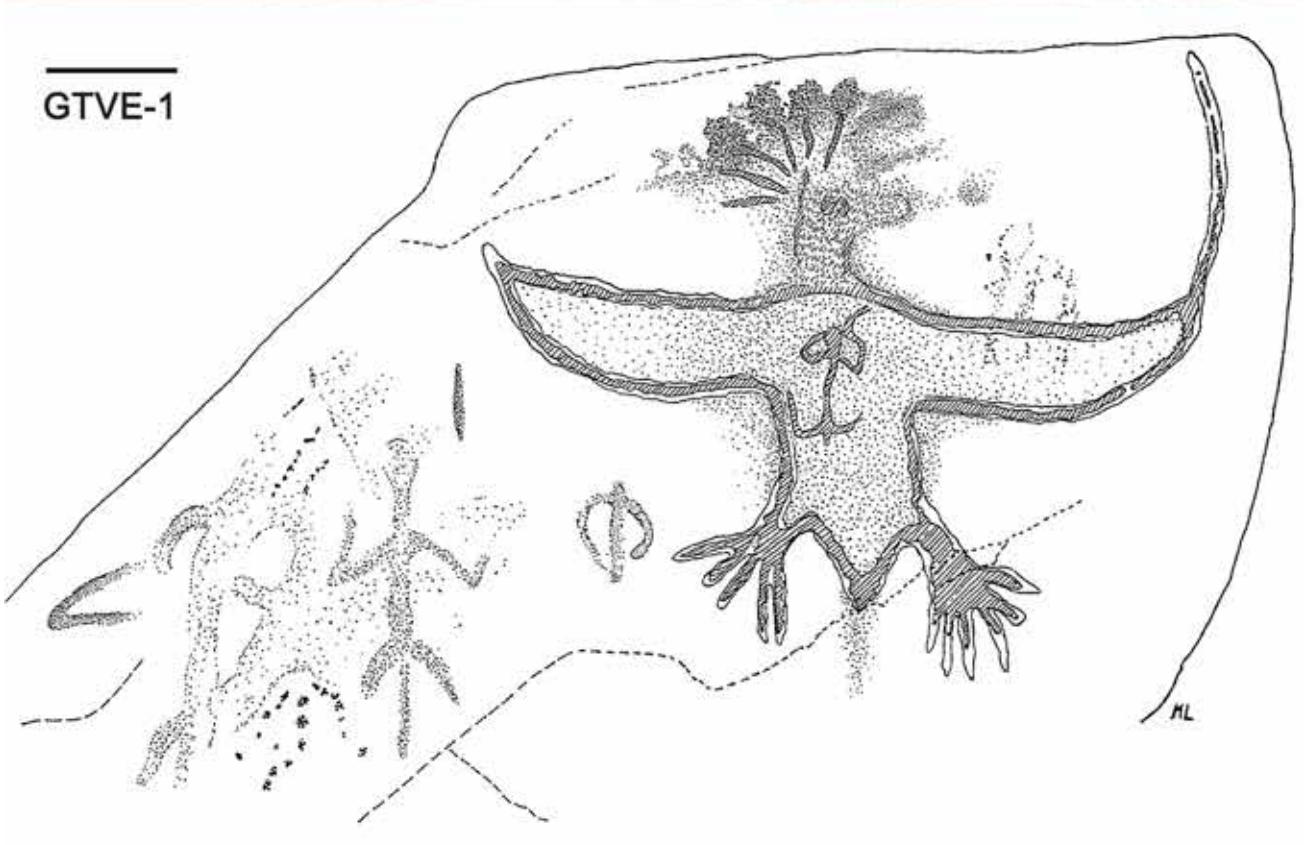


Figure 4.60

GTVE-2-1,-2,-3

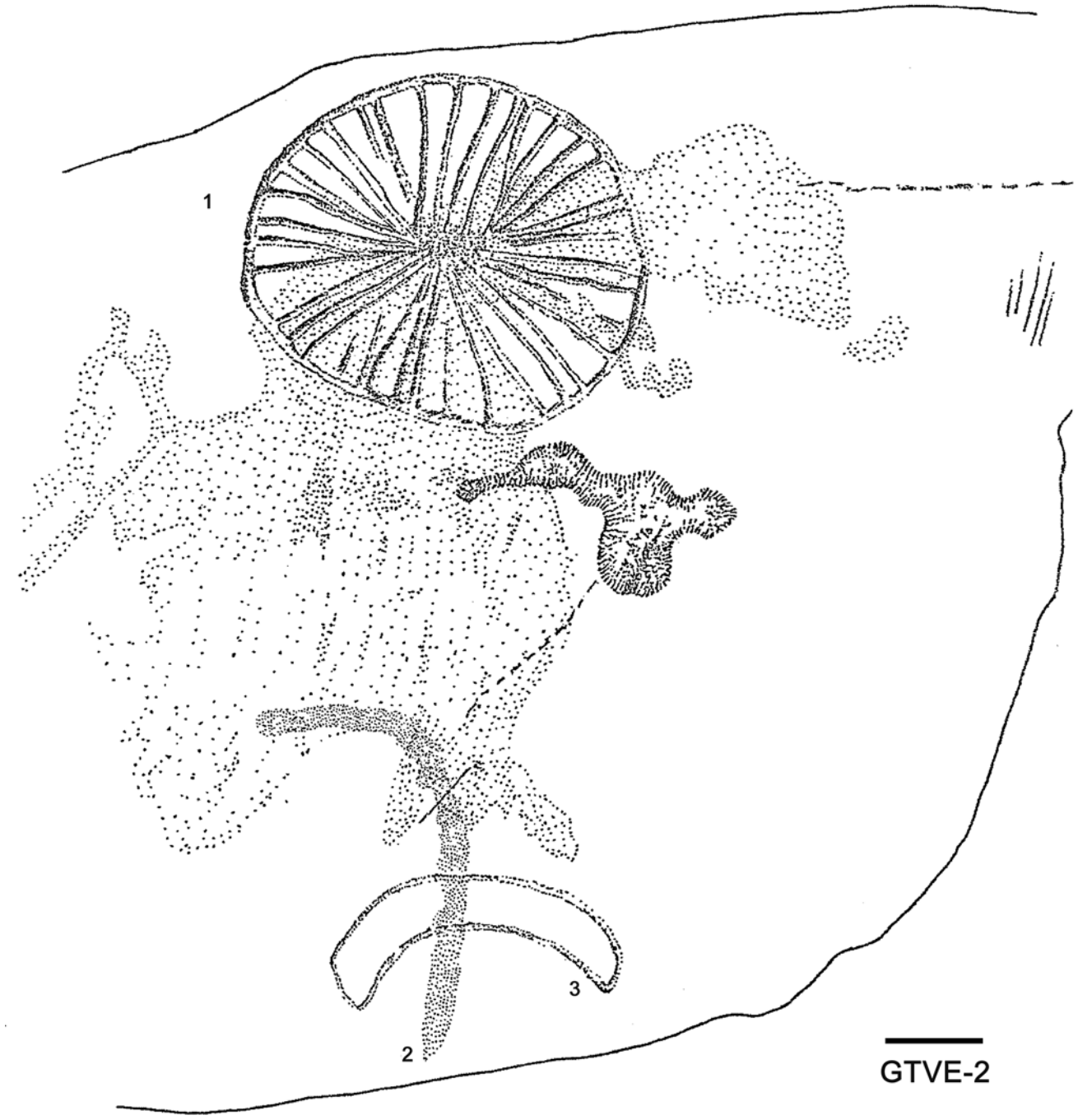
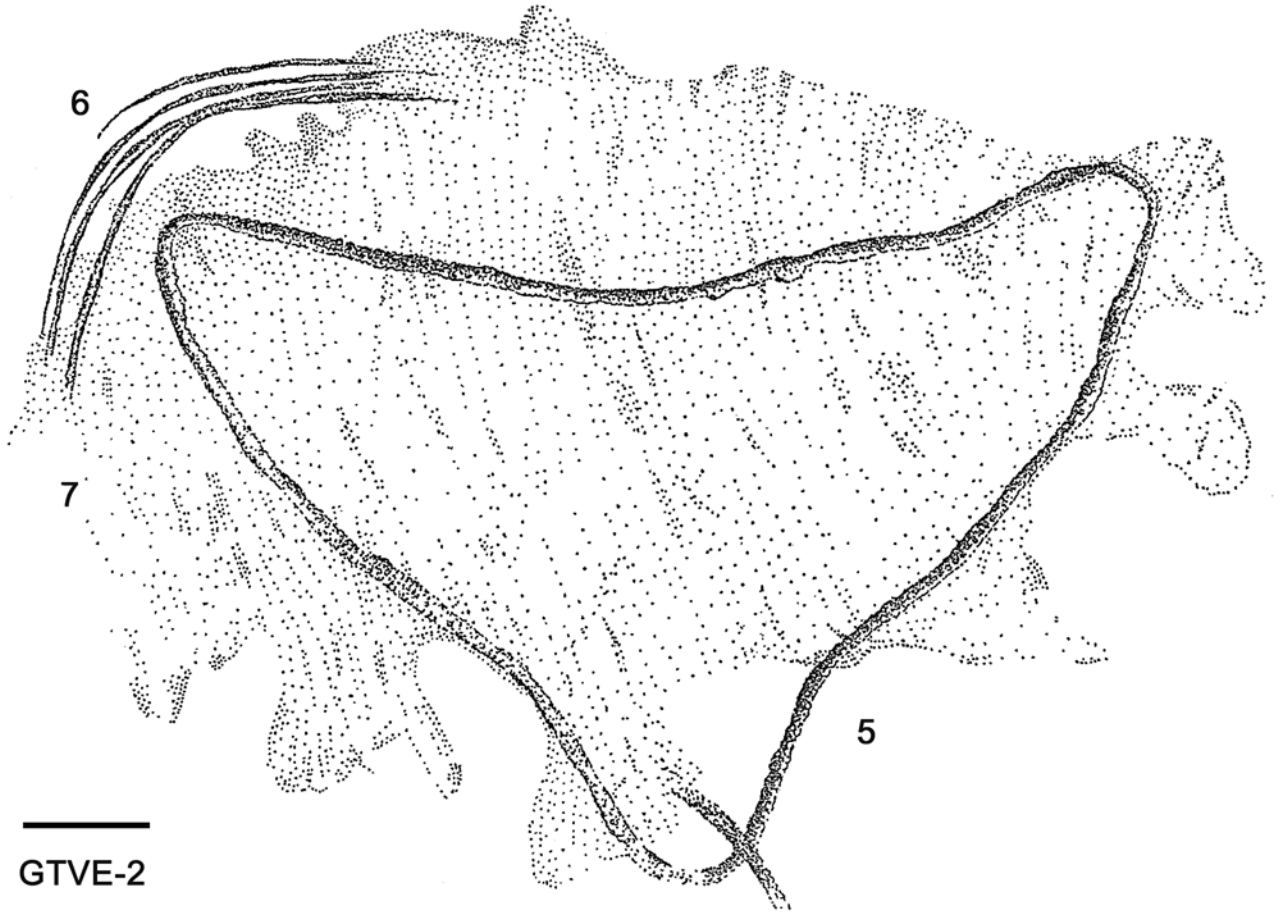


Figure 4.61

GTVE-2-5,-6,-7-8 BBCC



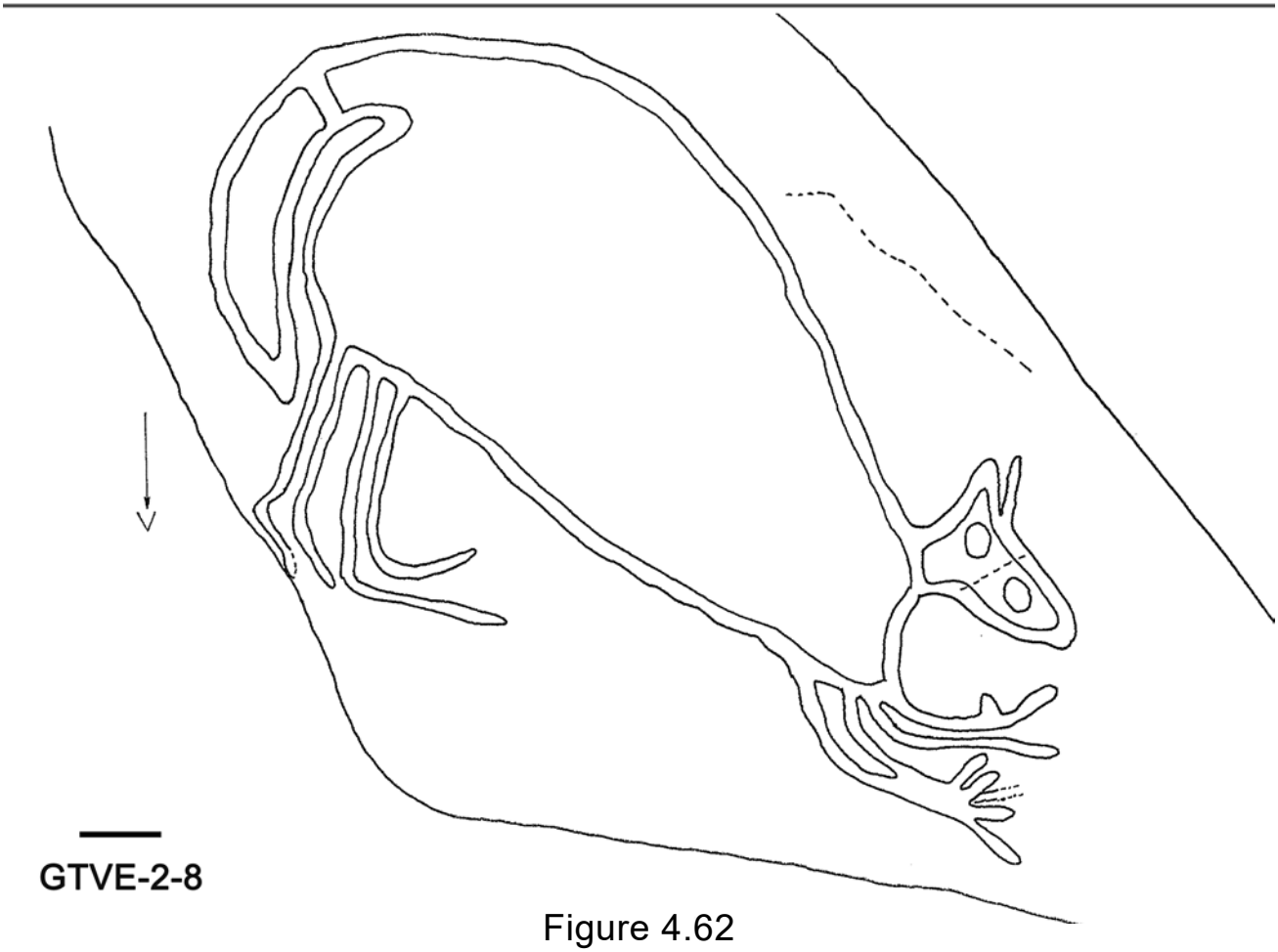


Figure 4.62

GTVE-3

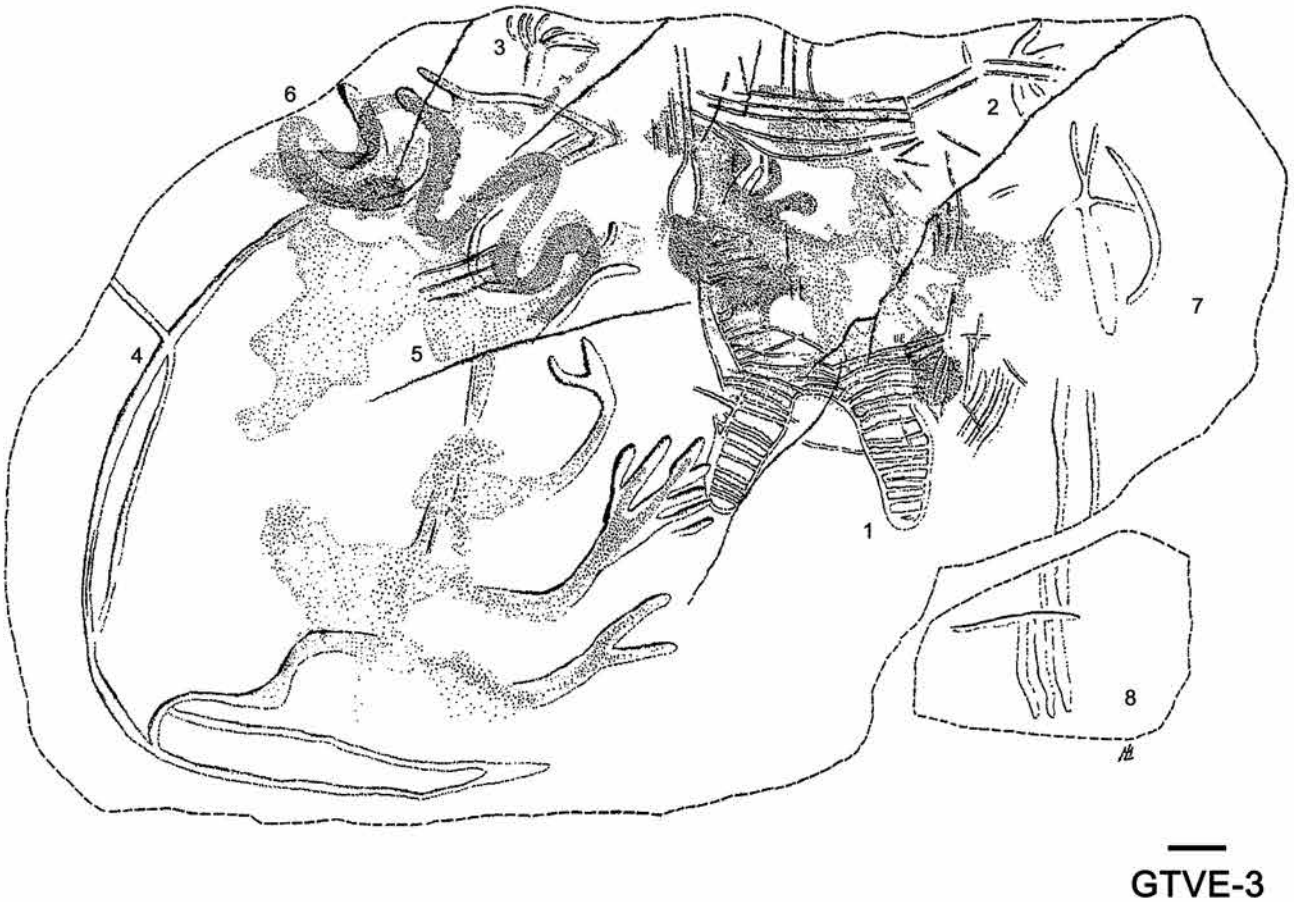


Figure 4.63

GTVE-5-1.-2

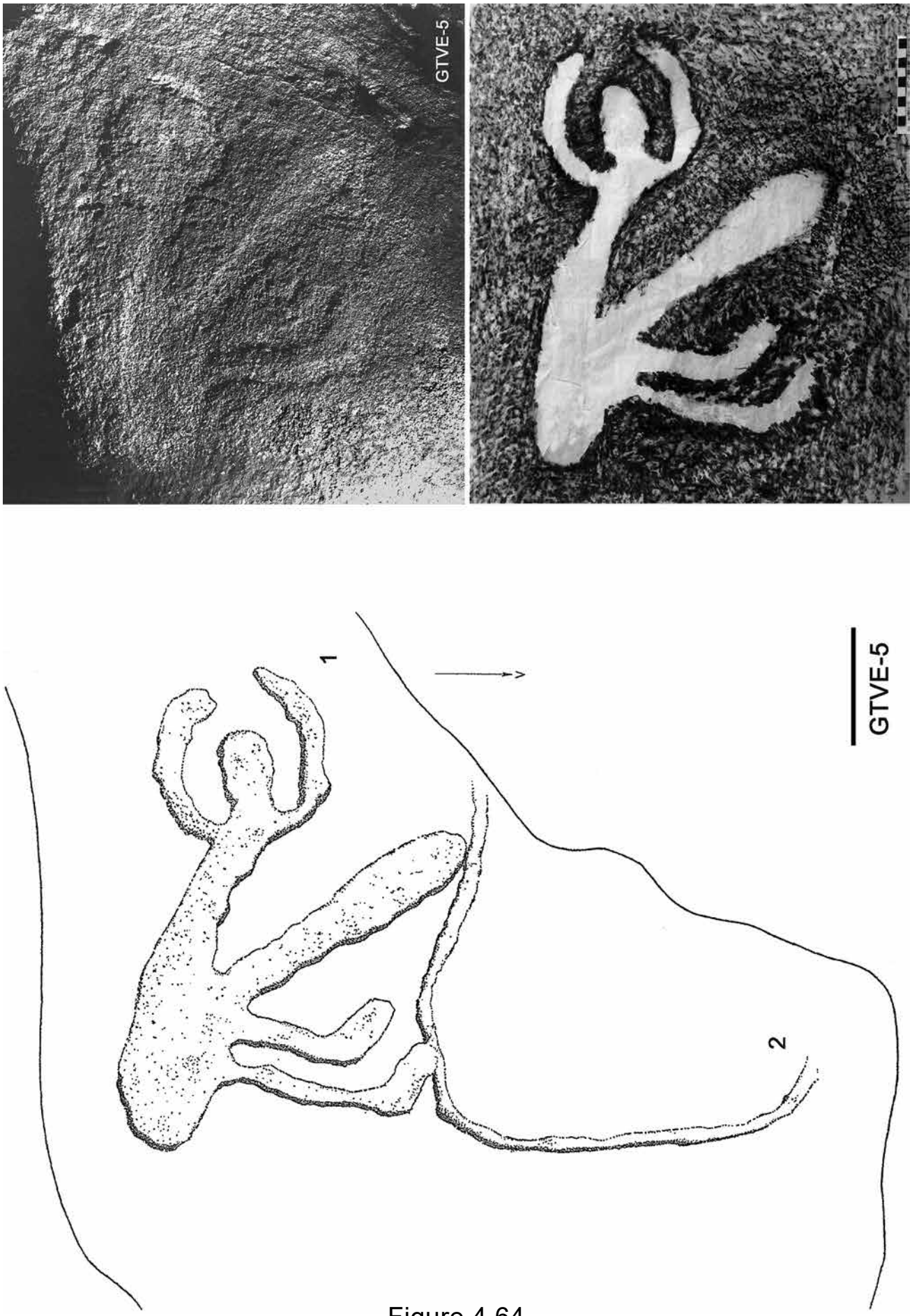


Figure 4.64

GTVE-6+10

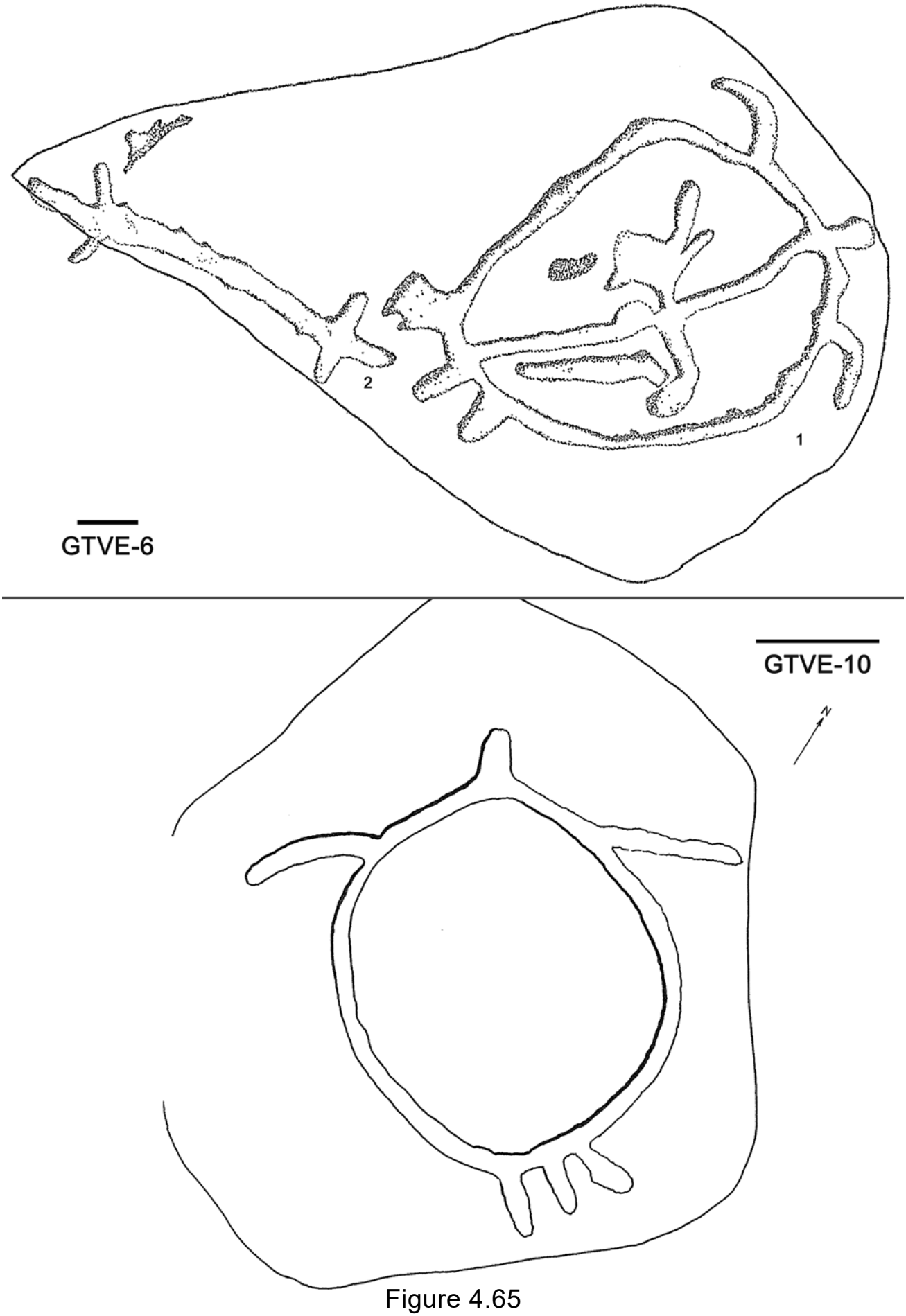
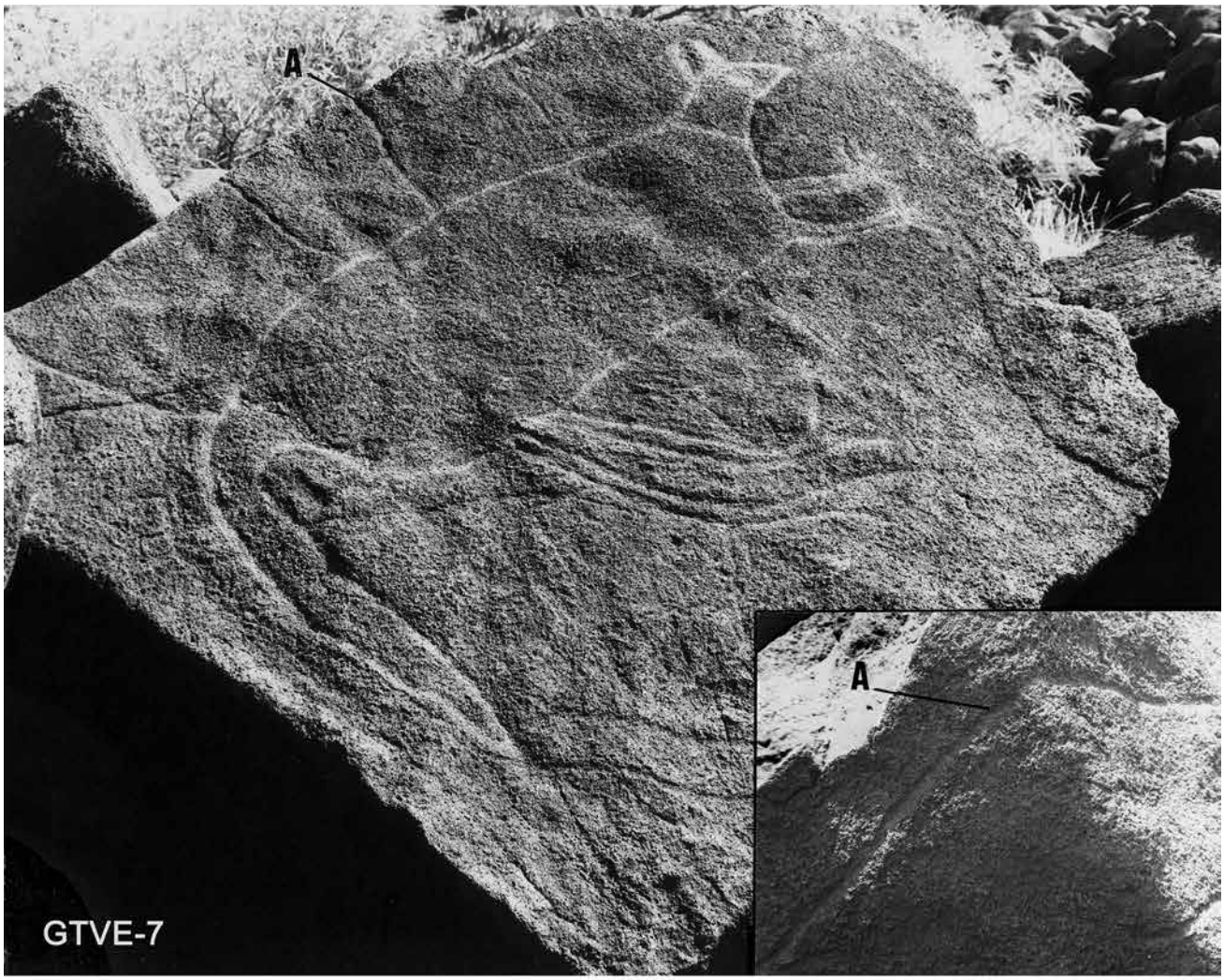


Figure 4.65

GTVE-7



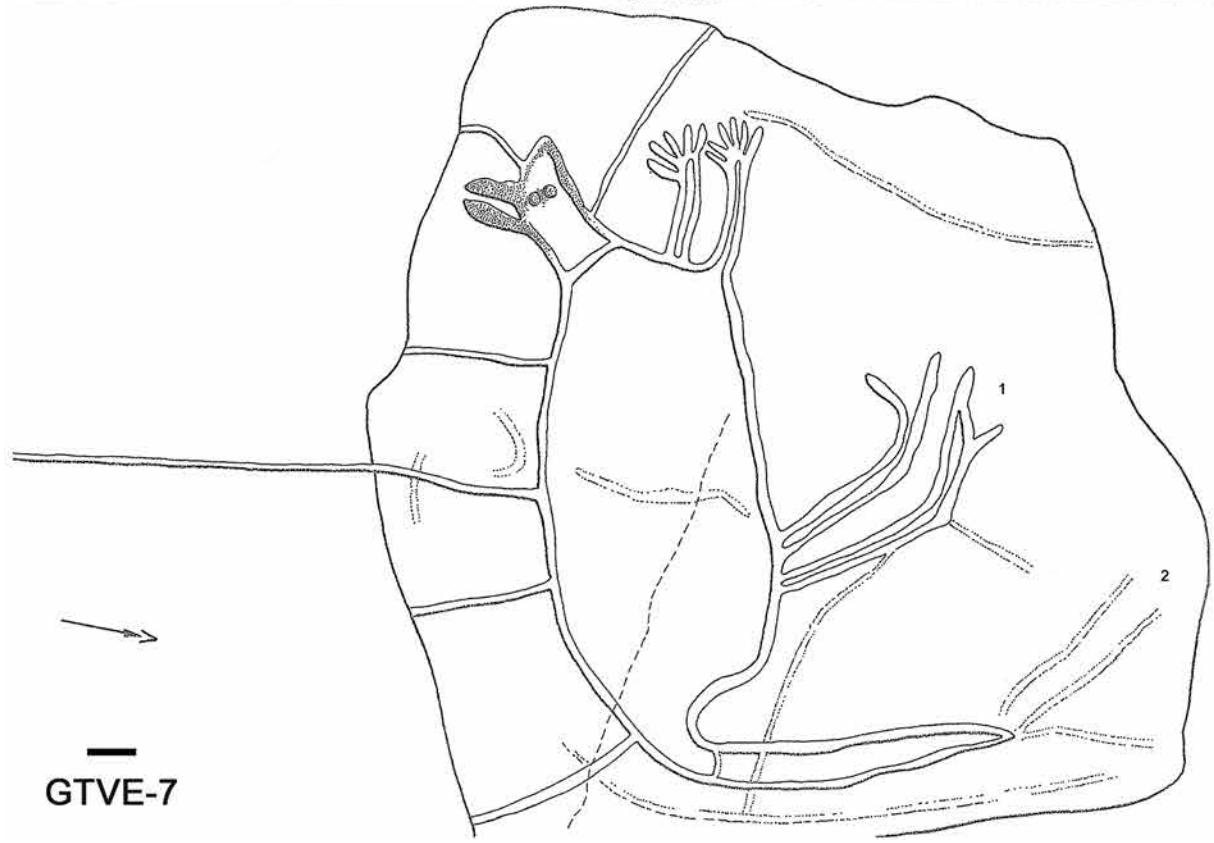


Figure 4.66

GTVE-8+32

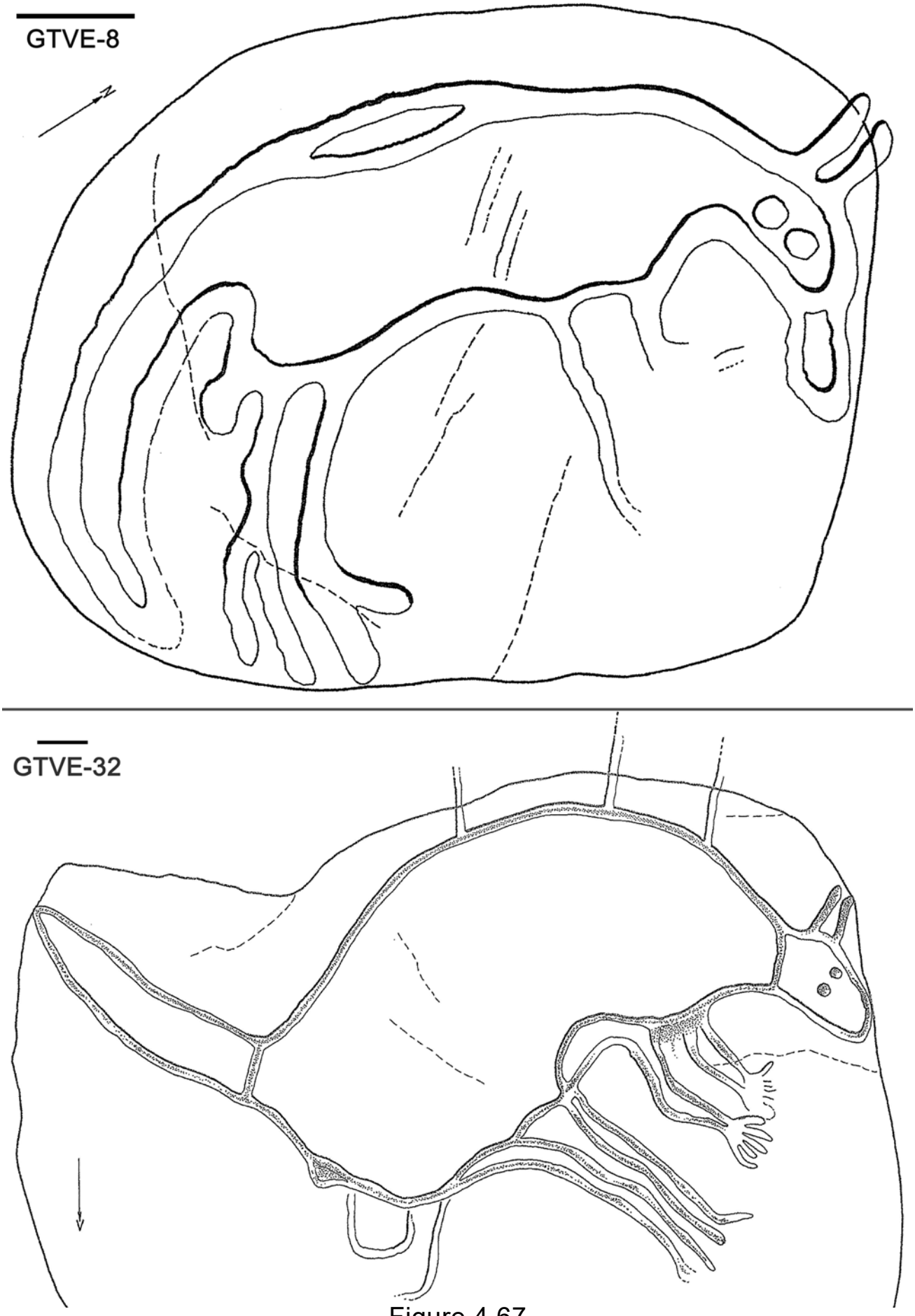


Figure 4.67

GTVE-9

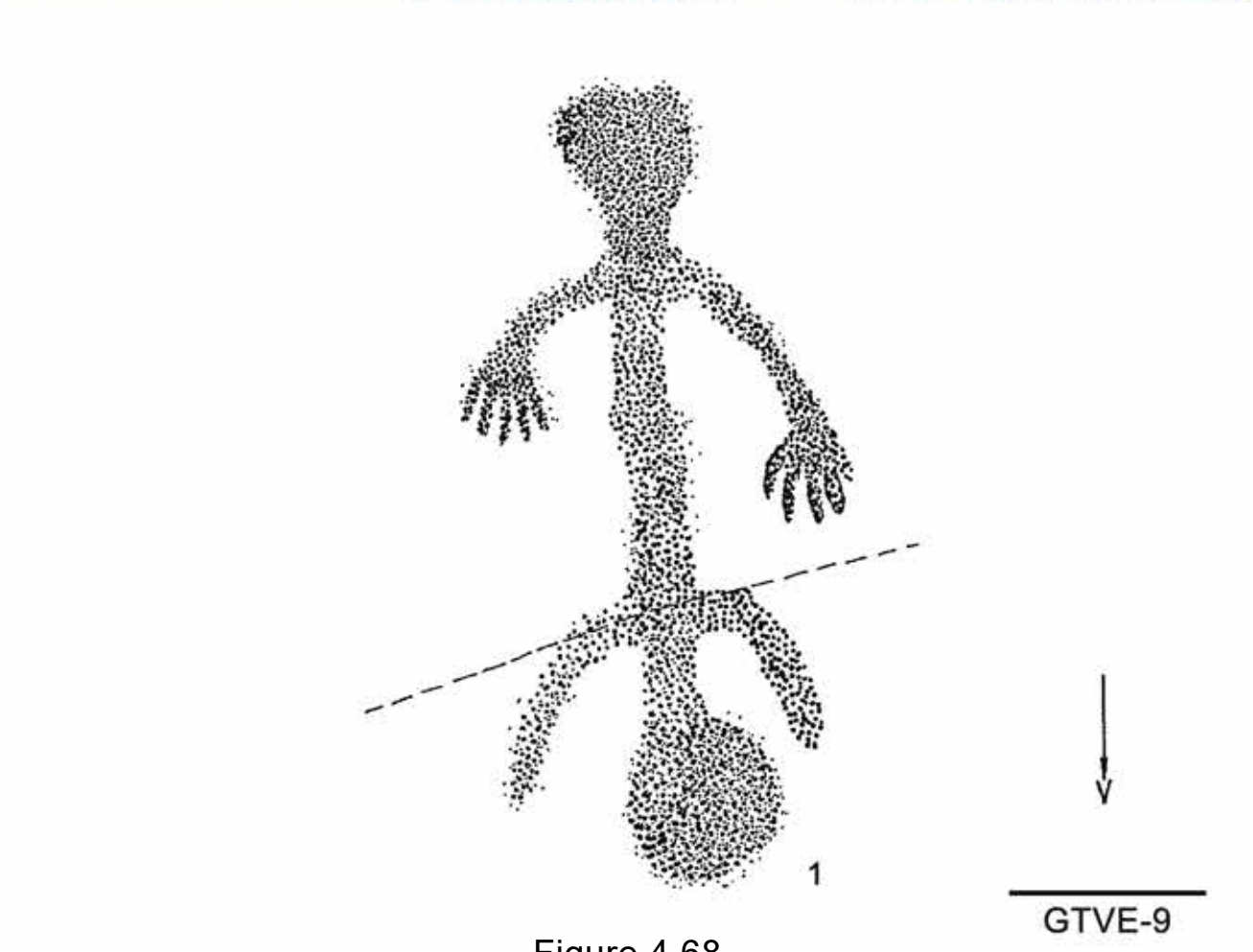


Figure 4.68

GTVE-15+16

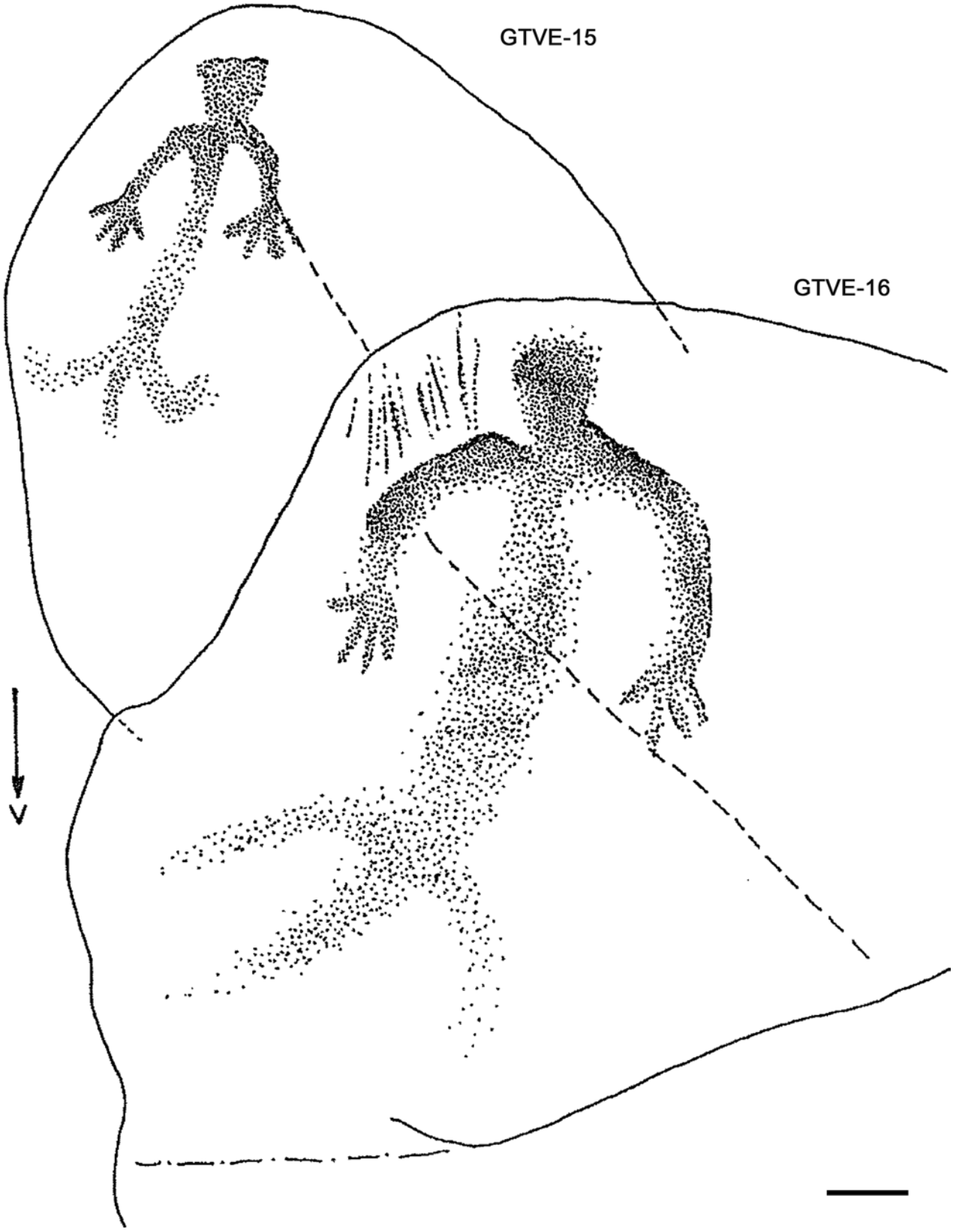


Figure 4.69

GTVE-17

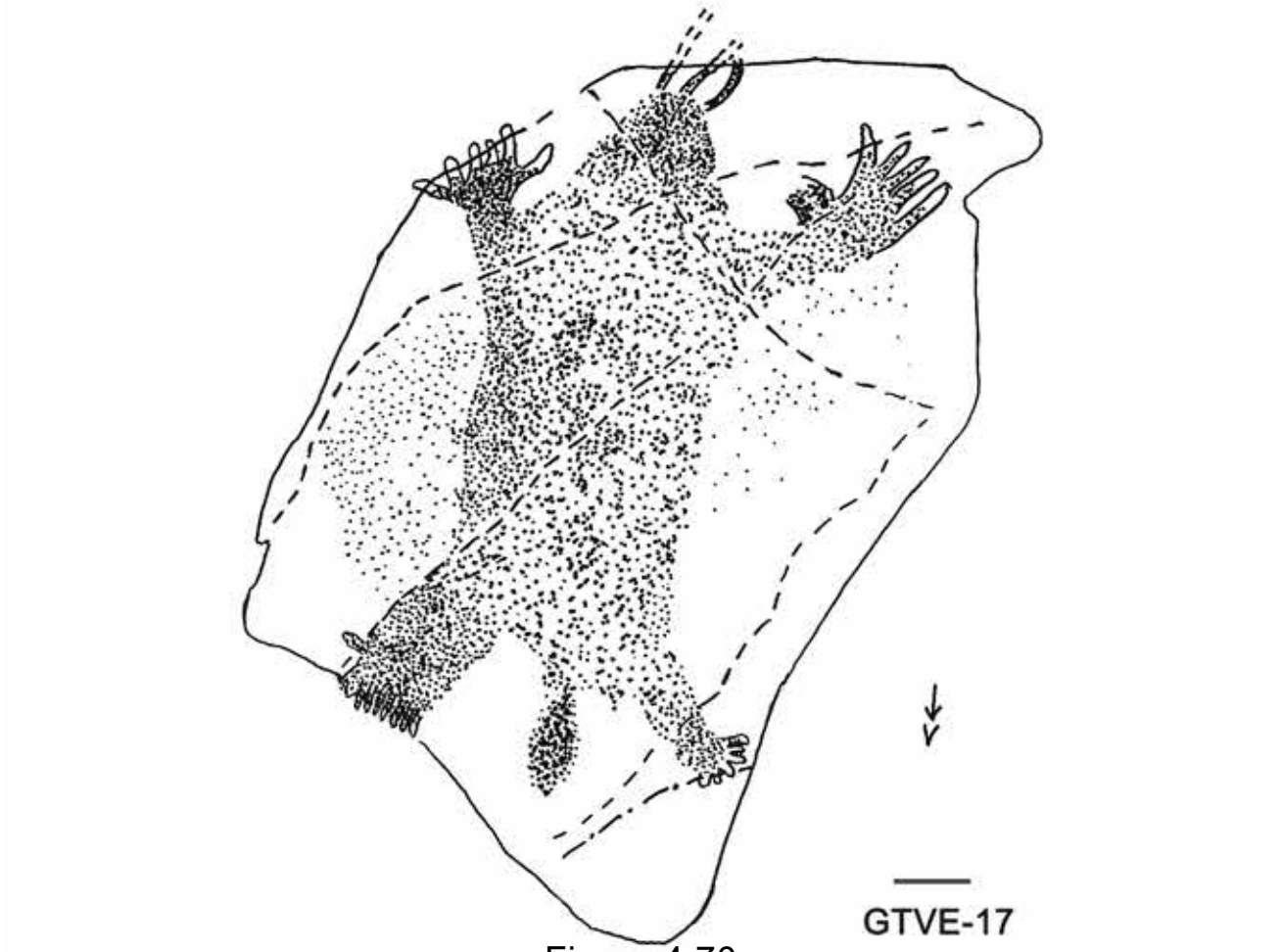


Figure 4.70

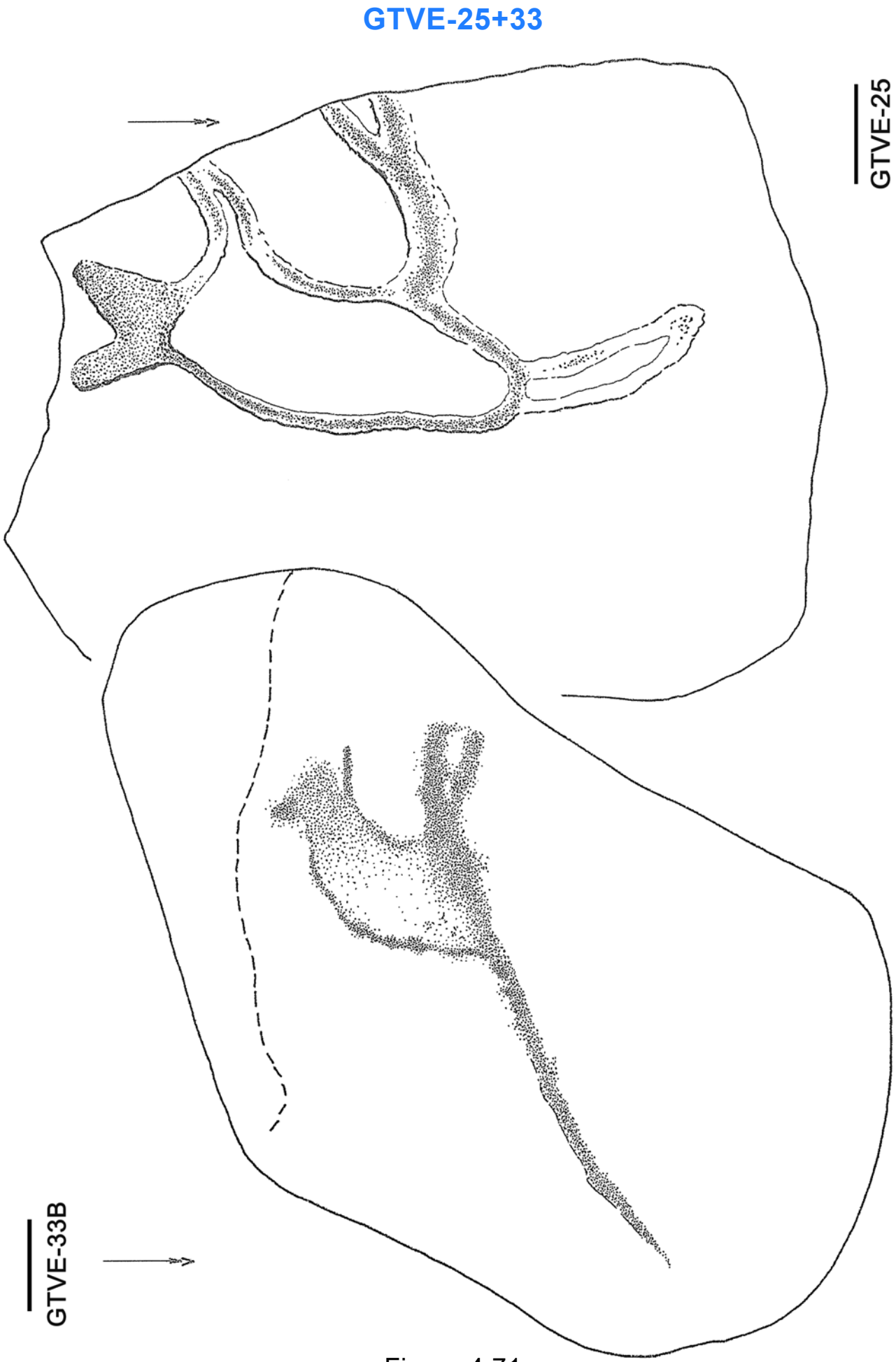


Figure 4.71

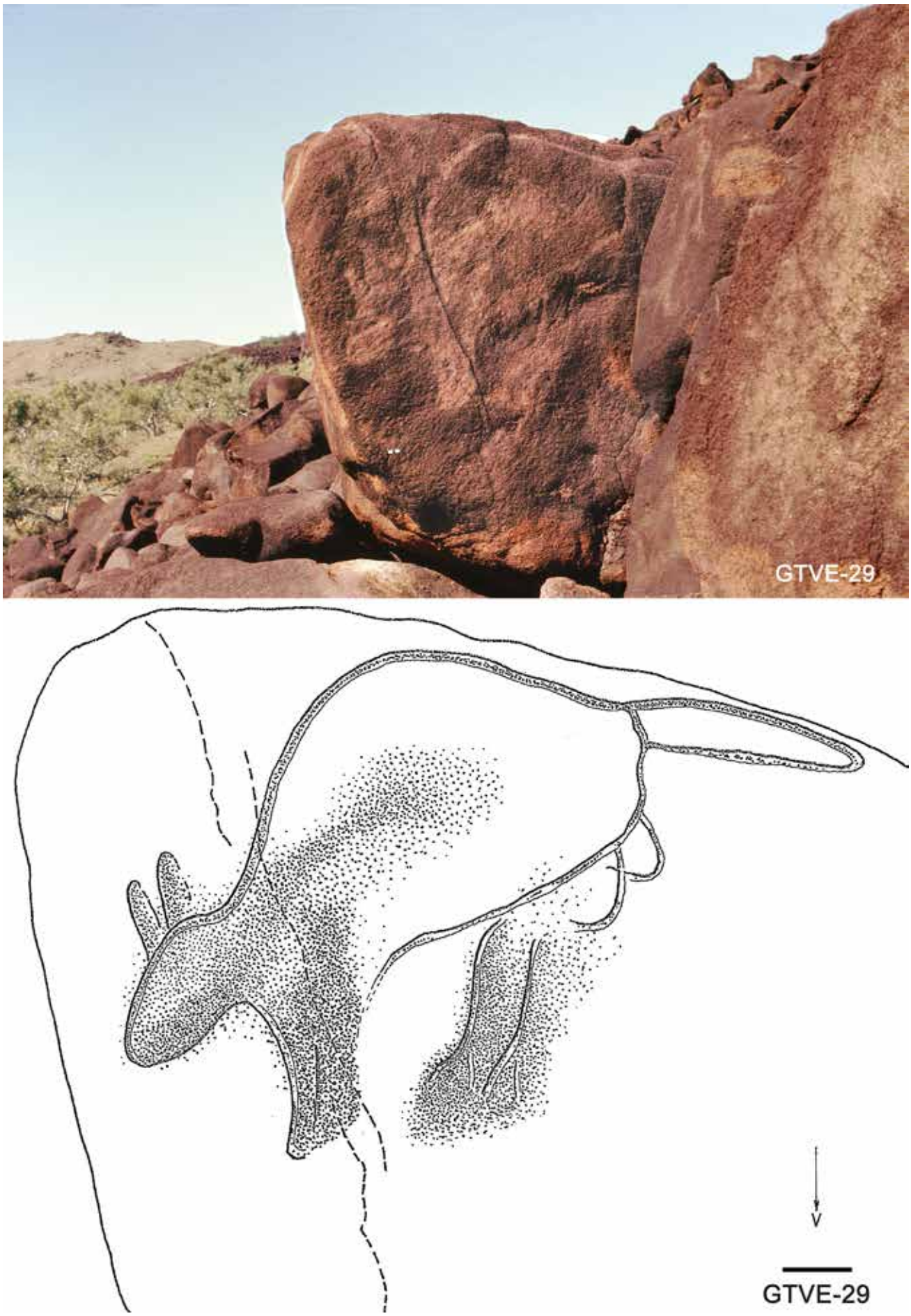


Figure 4.72

GTVE-34

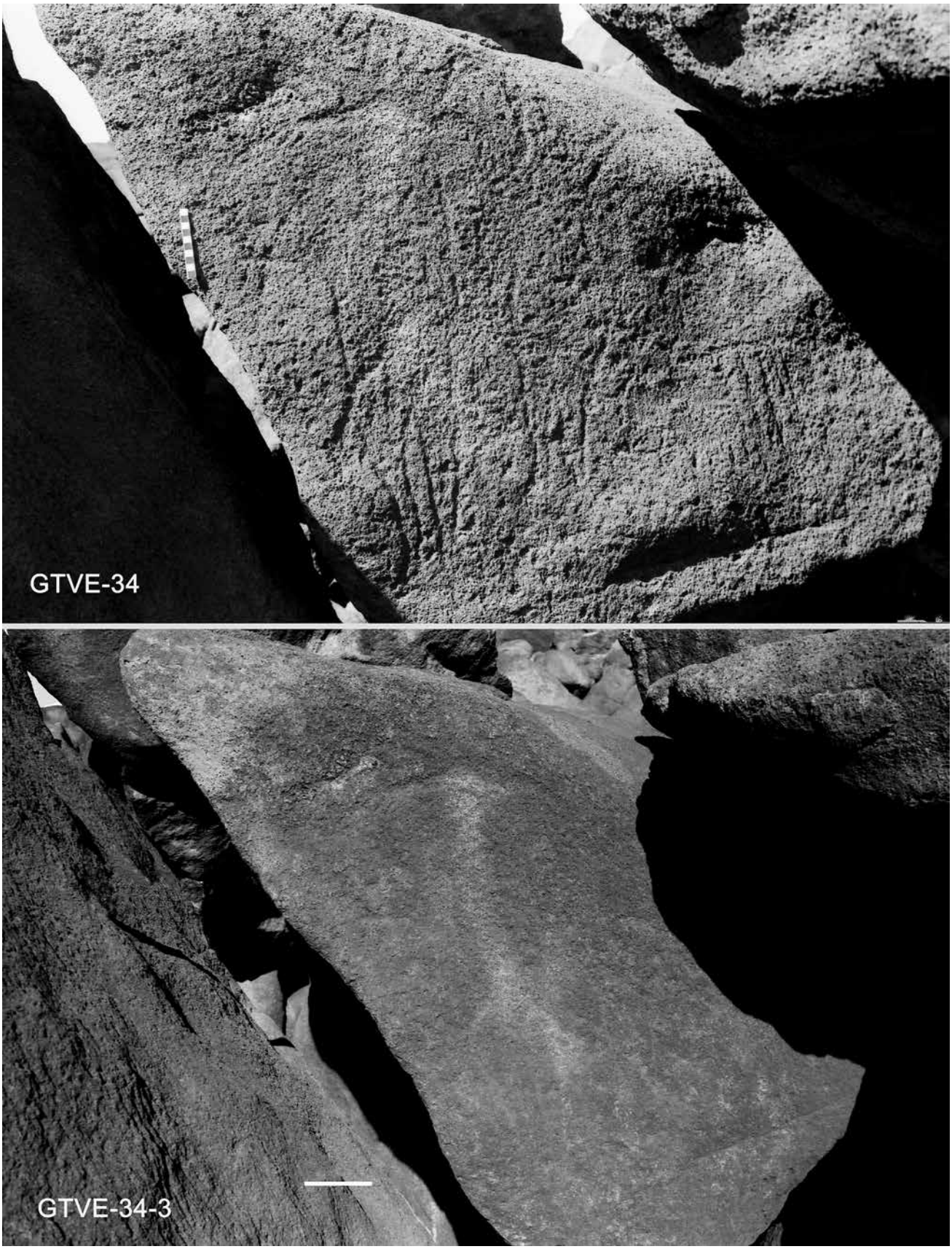


Figure 4.73. GTVE-34. Three superimposed asexual 'human' motifs, one with radiating 'headdress', and various geometric motifs. Third figure is superimposed on earlier motifs. Photographs—Upper: Full sunlight. Lower: Oblique light. The photographs illustrate the difference between two lighting conditions, and emphasize the importance of lighting and of making tracings that record all of the markings. The recording (line drawing) is on the next page (p. 360).

Figure 4.73

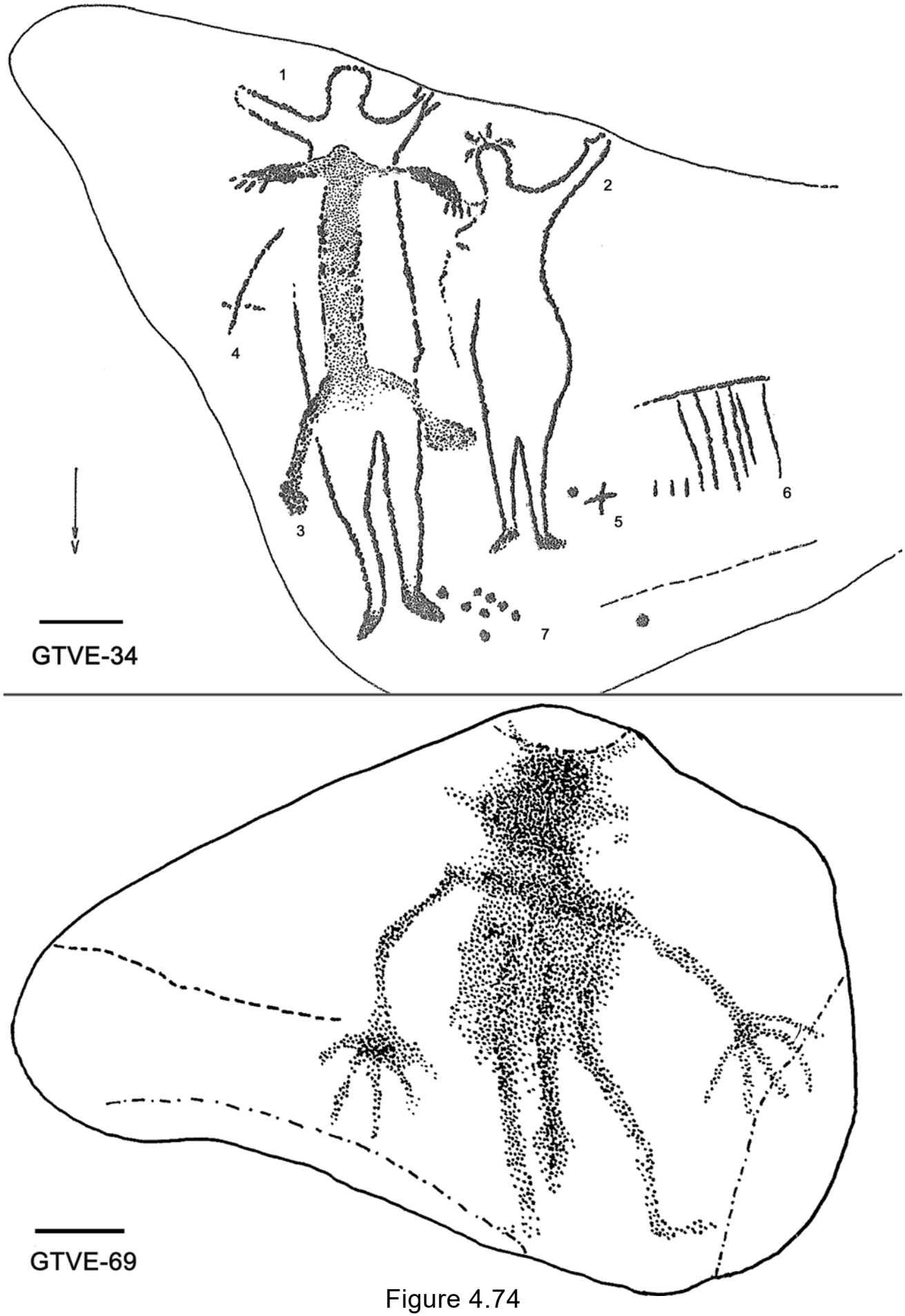


Figure 4.74

GTVE-68-2-3

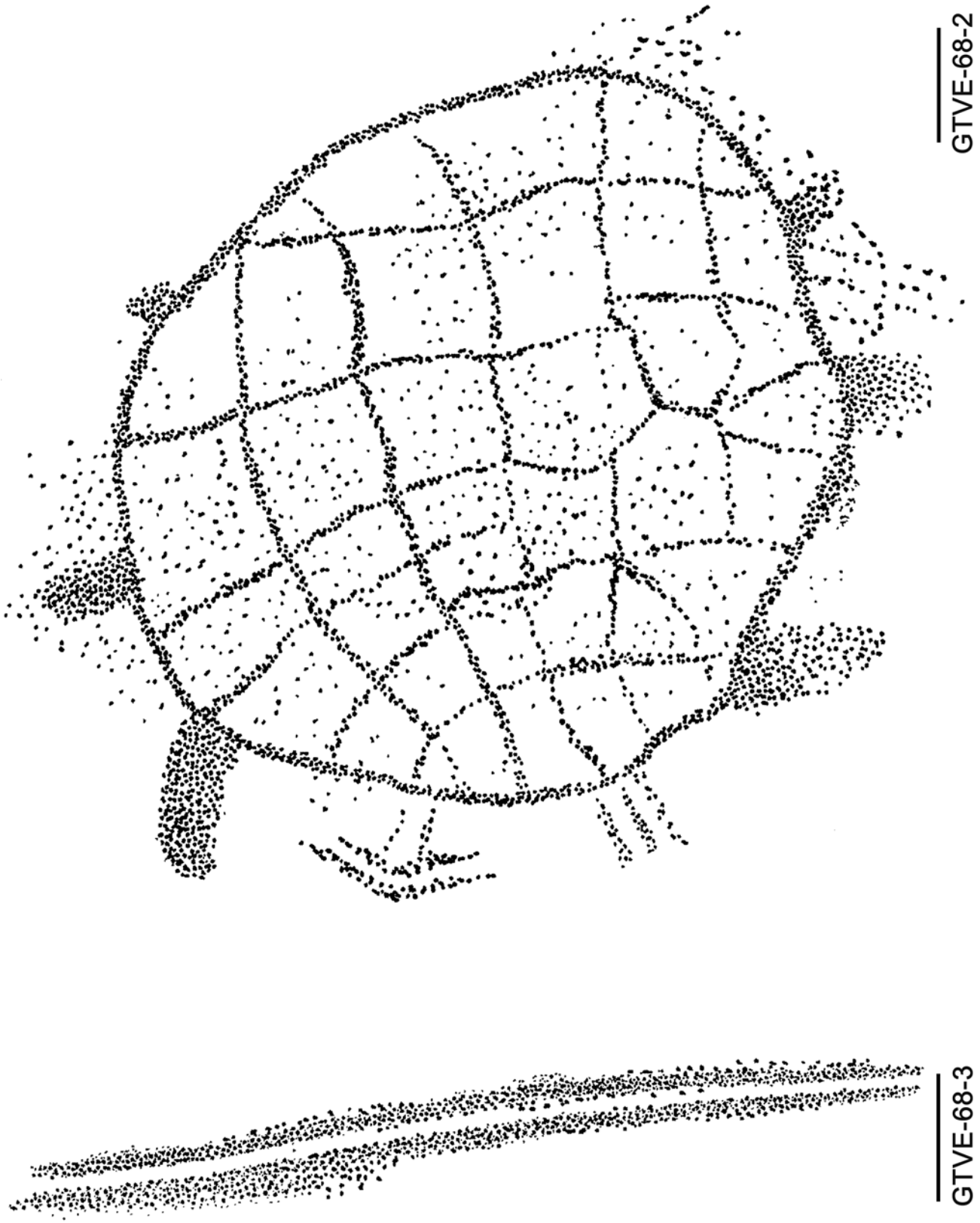


Figure 4.75

GTVE-68

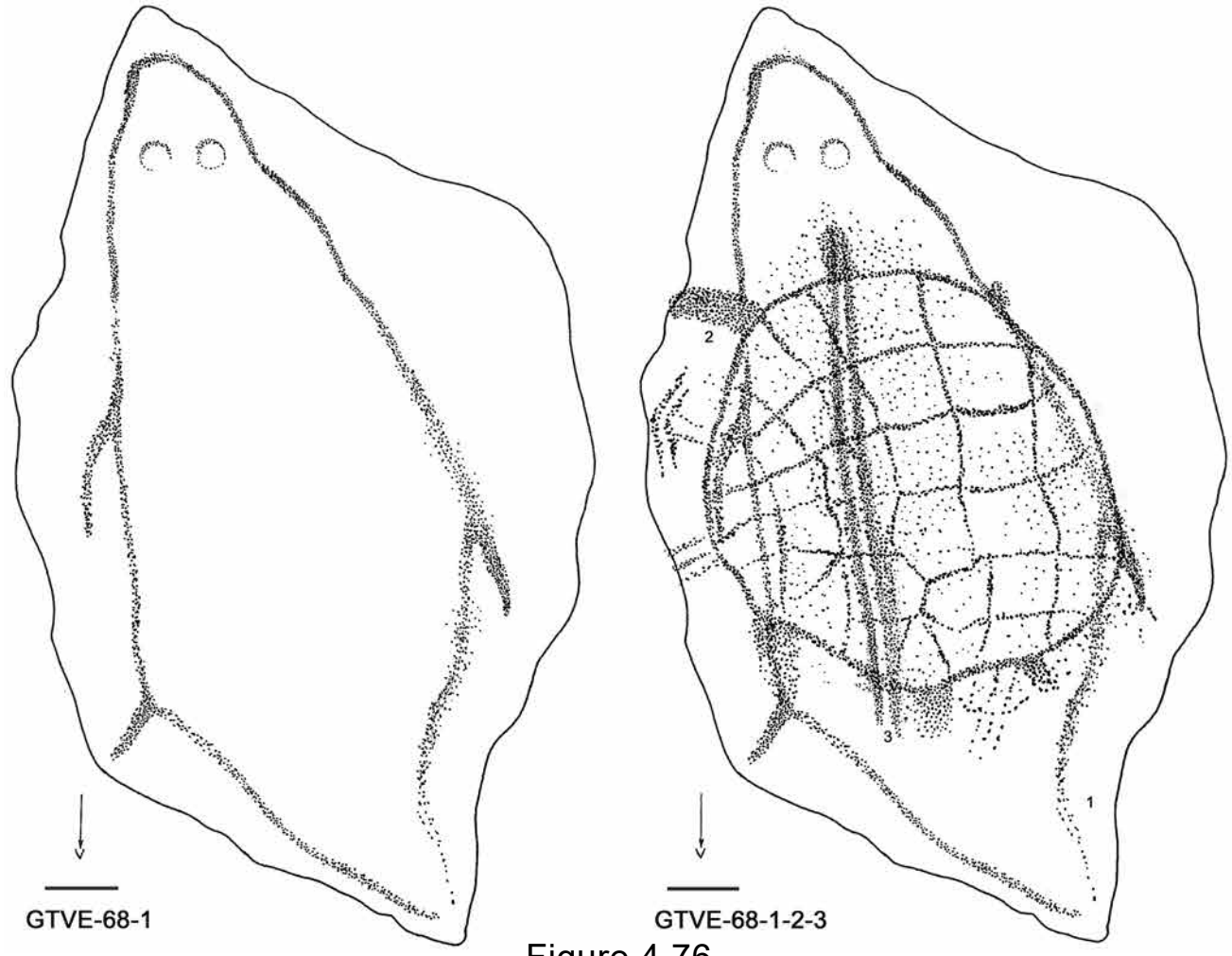
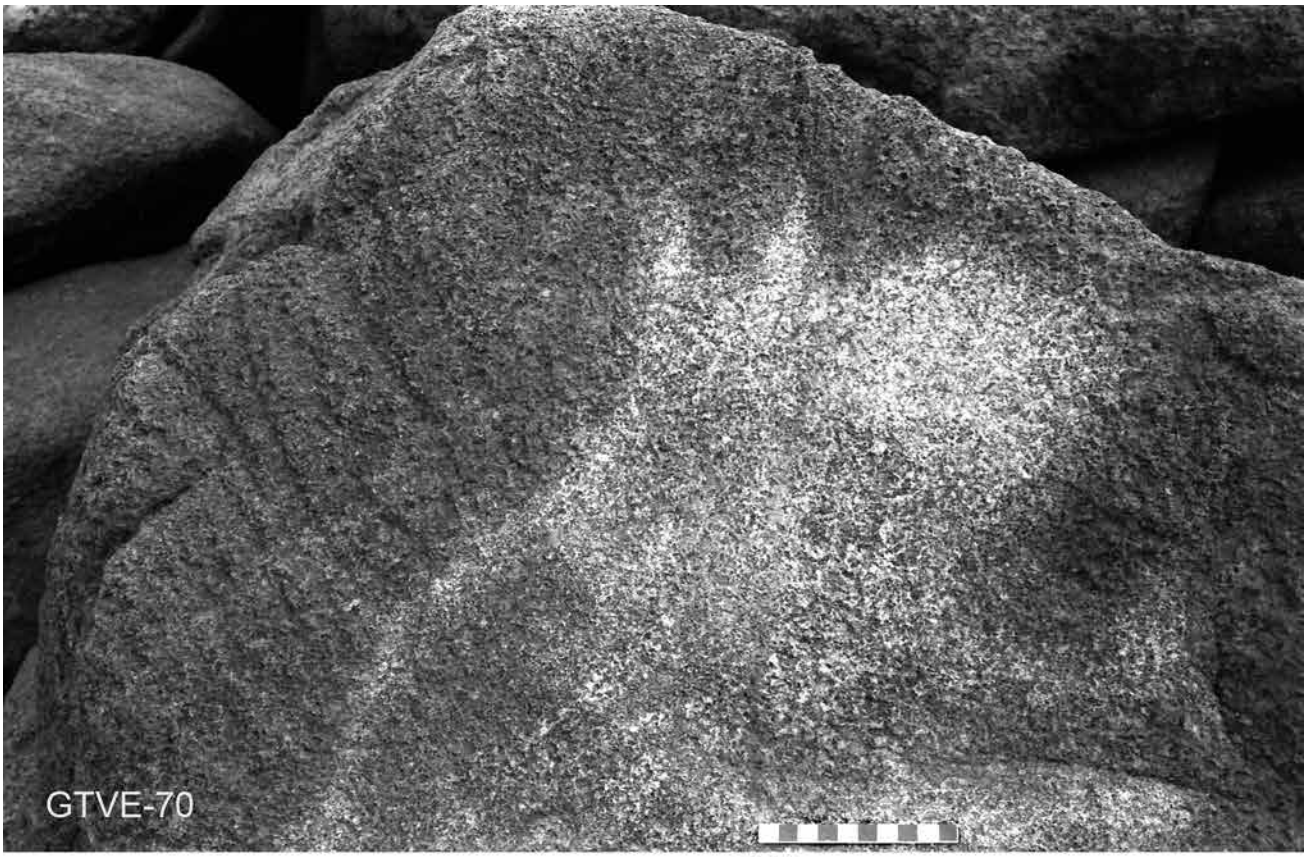
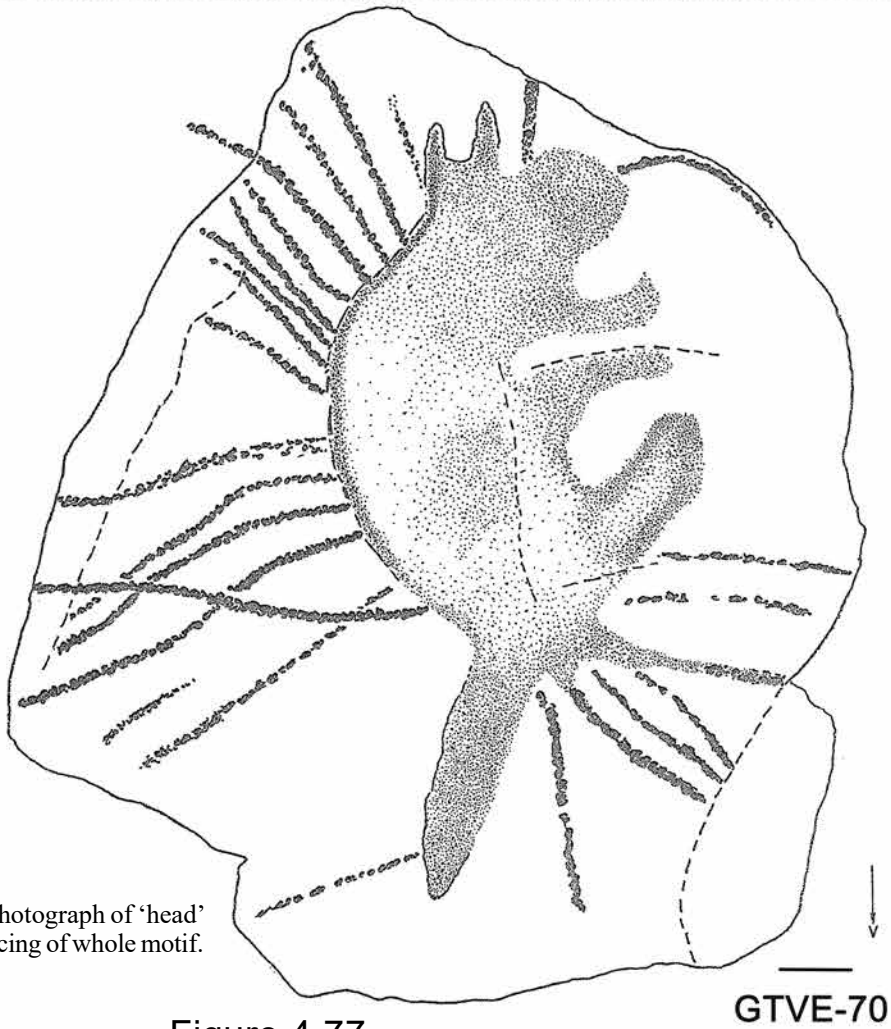


Figure 4.76

GTVE-70





GTVE-70. Upper: black and white photograph of 'head' and upper 'body' of motif. Lower: tracing of whole motif.

Figure 4.77

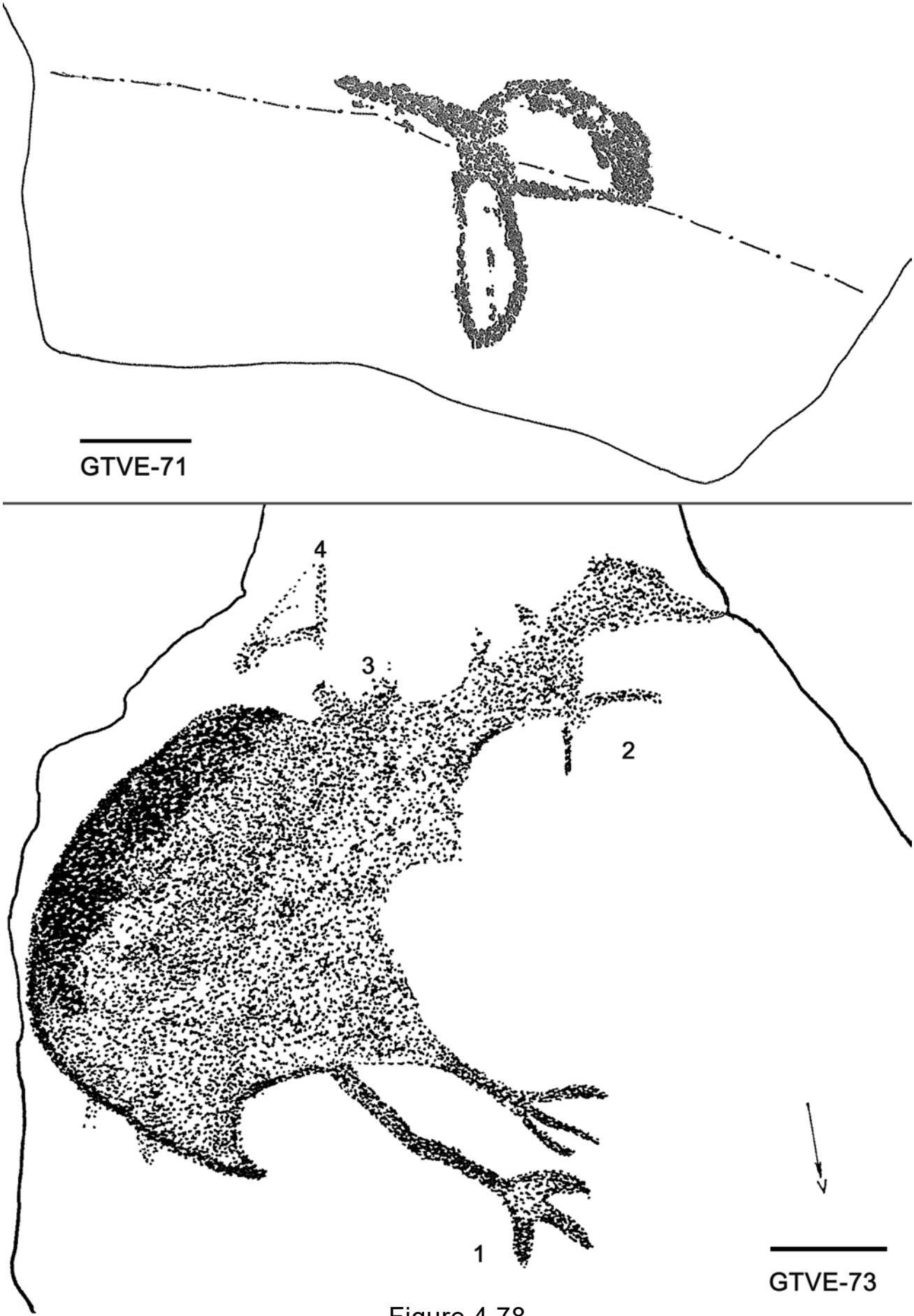


Figure 4.78

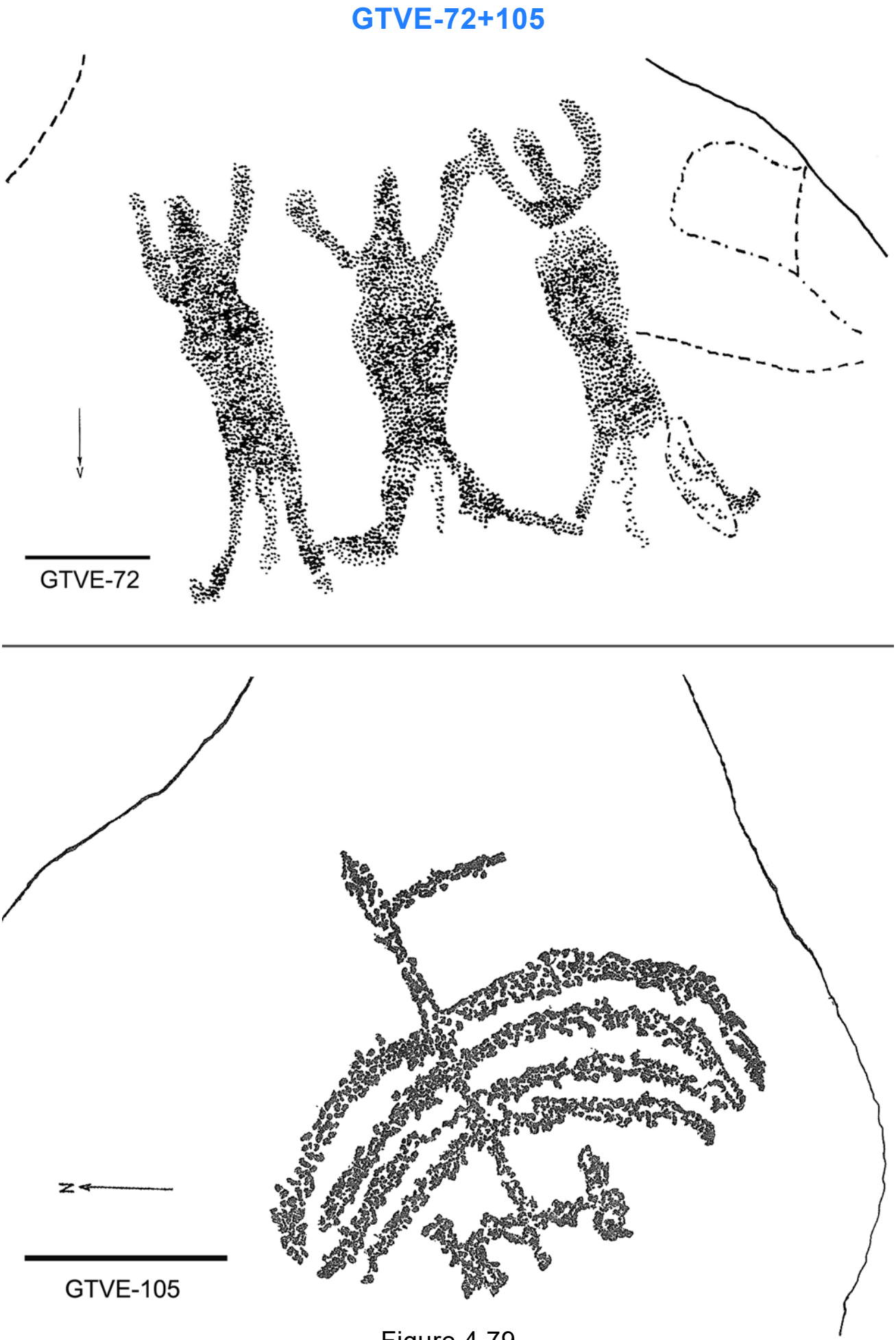


Figure 4.79

GTVE-78

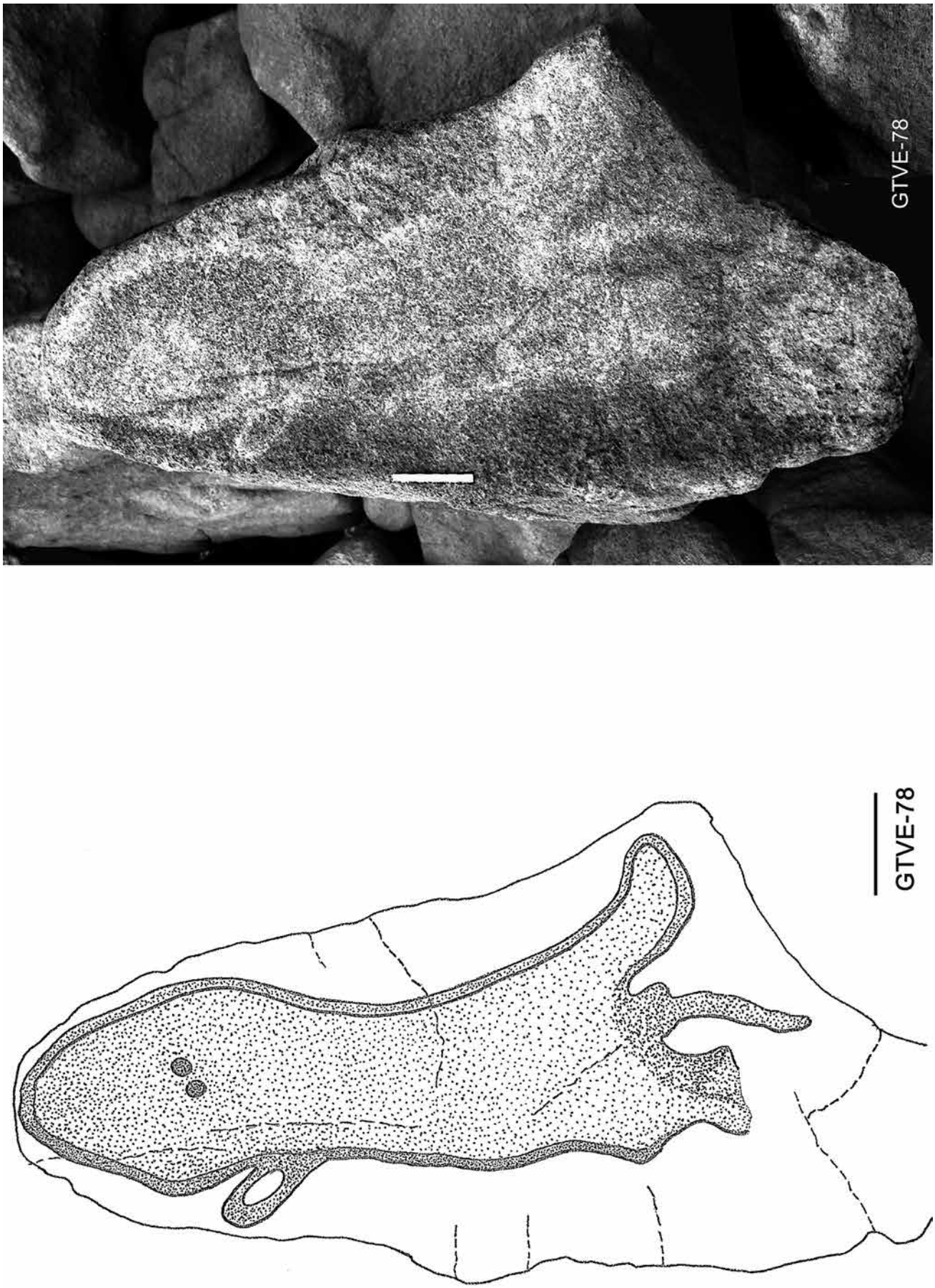
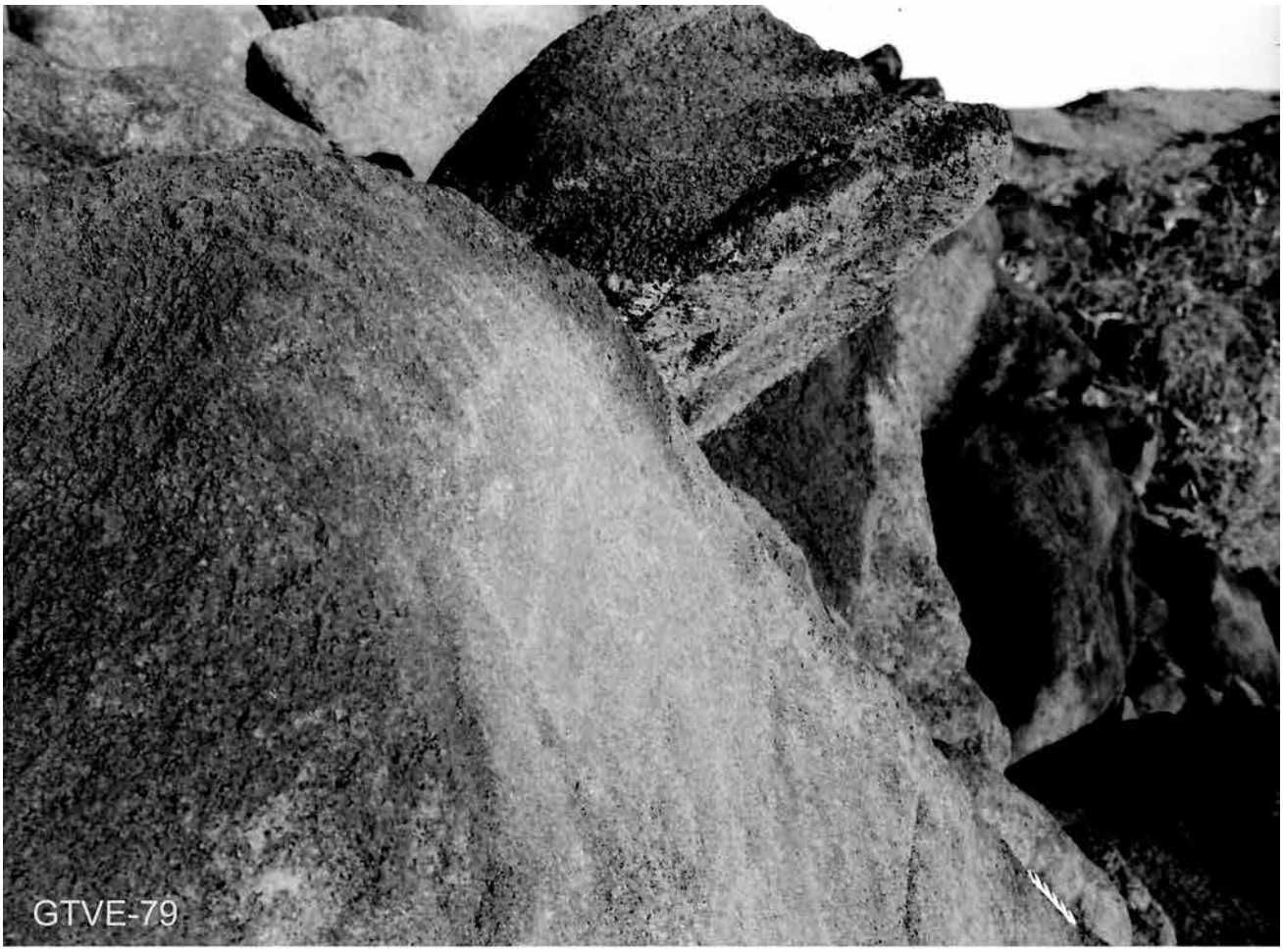


Figure 4.80

GTVE-79+80



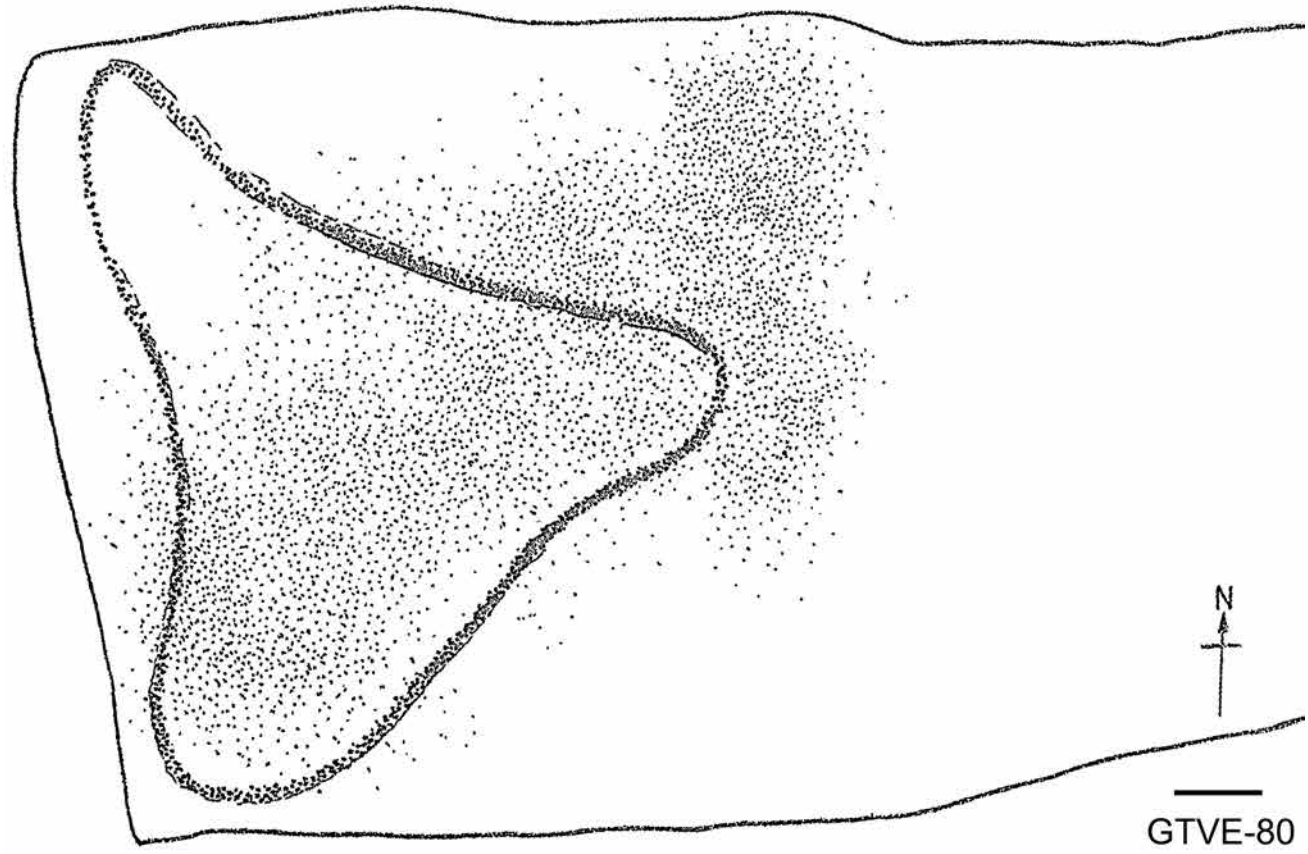


Figure 4.81

GTVE-79

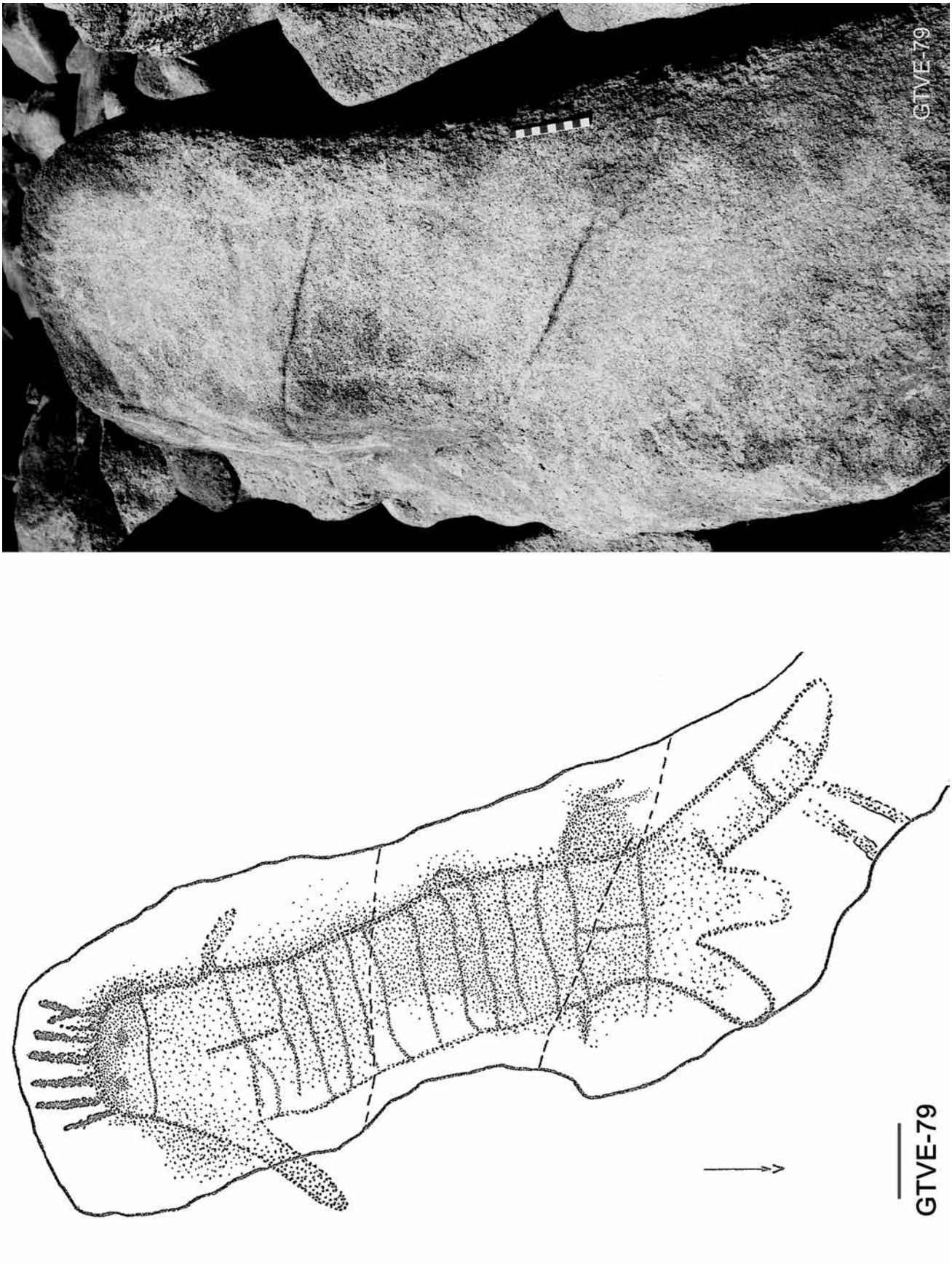


Figure 4.82

GTVE-82+92

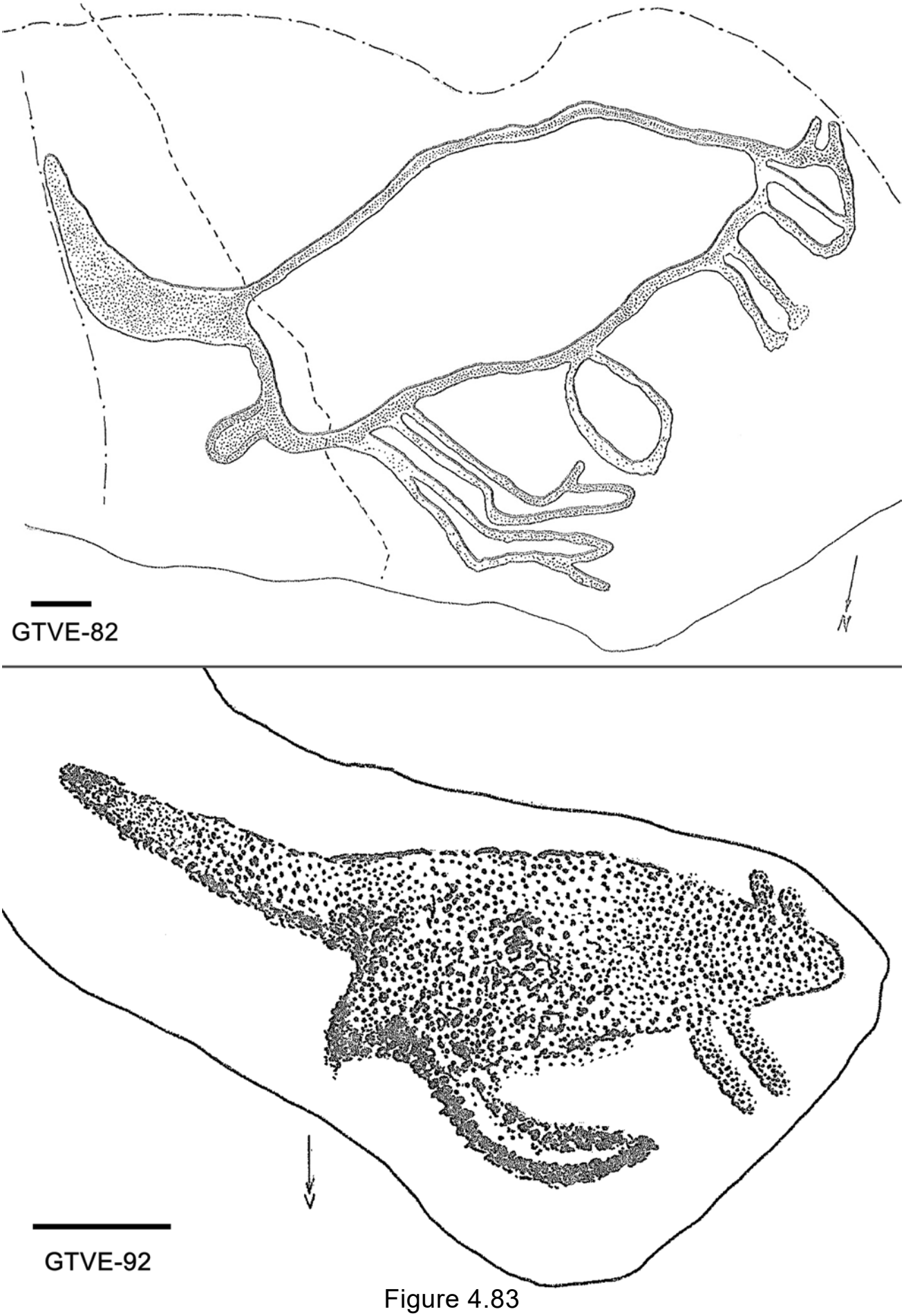


Figure 4.83

GTVE-85+91

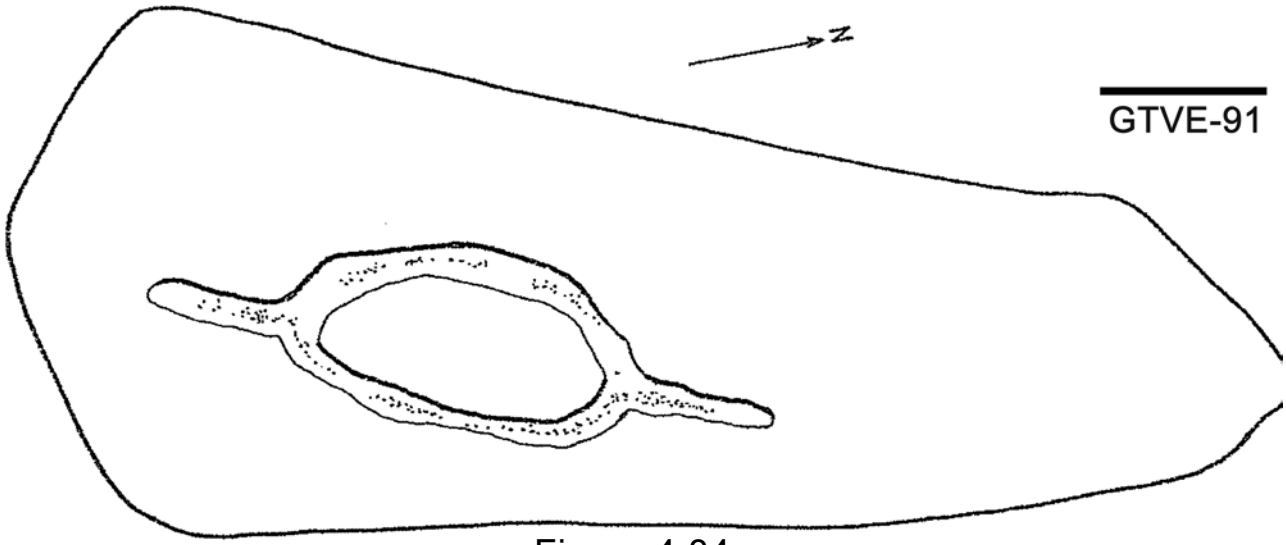


Figure 4.84

GTVE-93 (over 104)

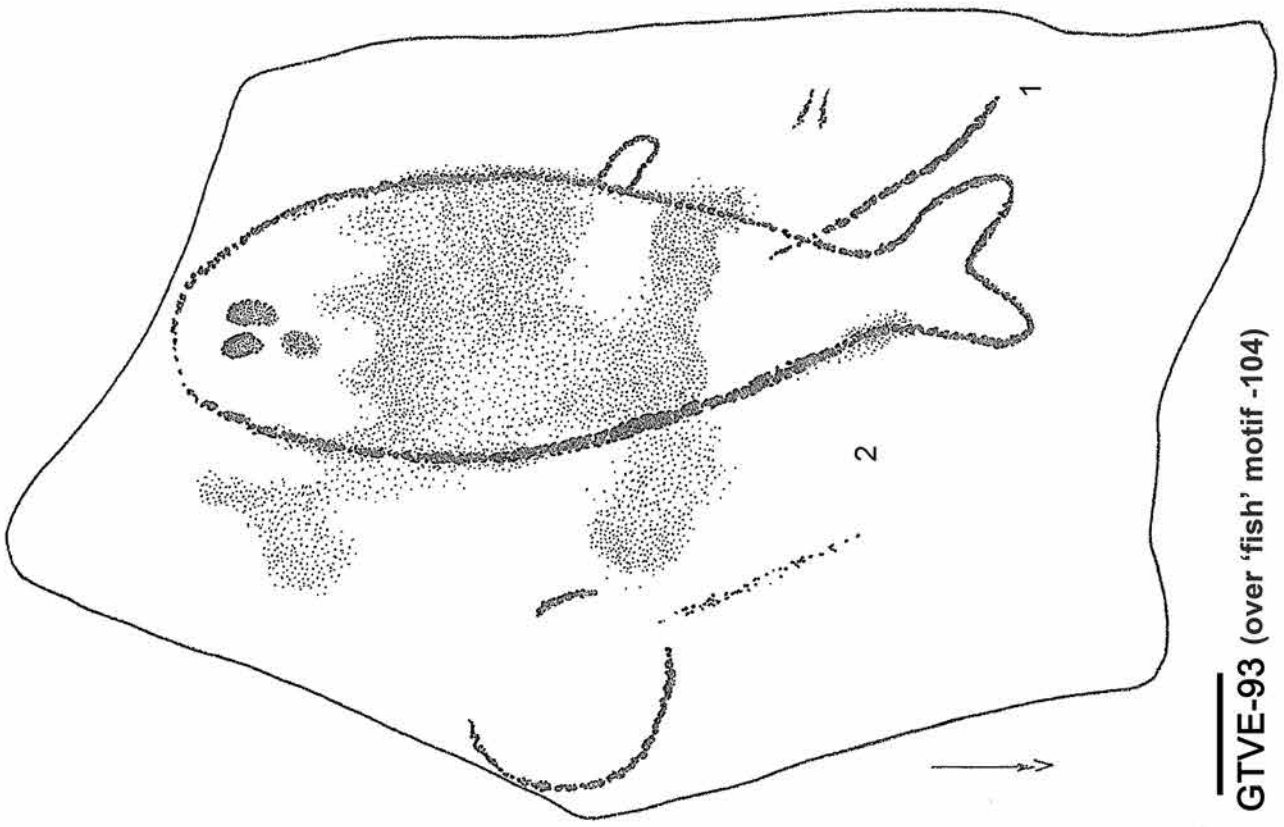


Figure 4.85

GTVE-97+123

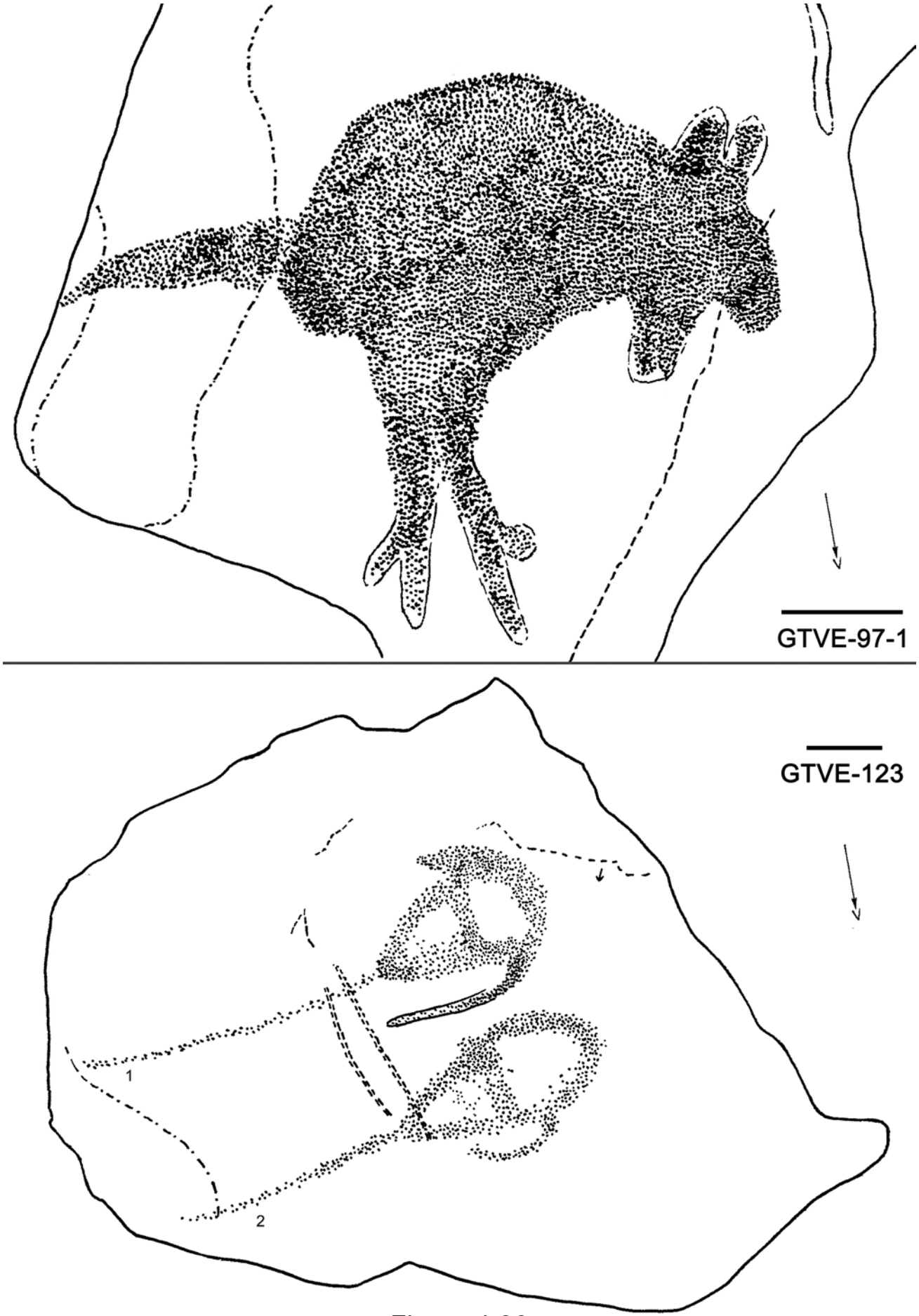


Figure 4.86

GTVE-98+103

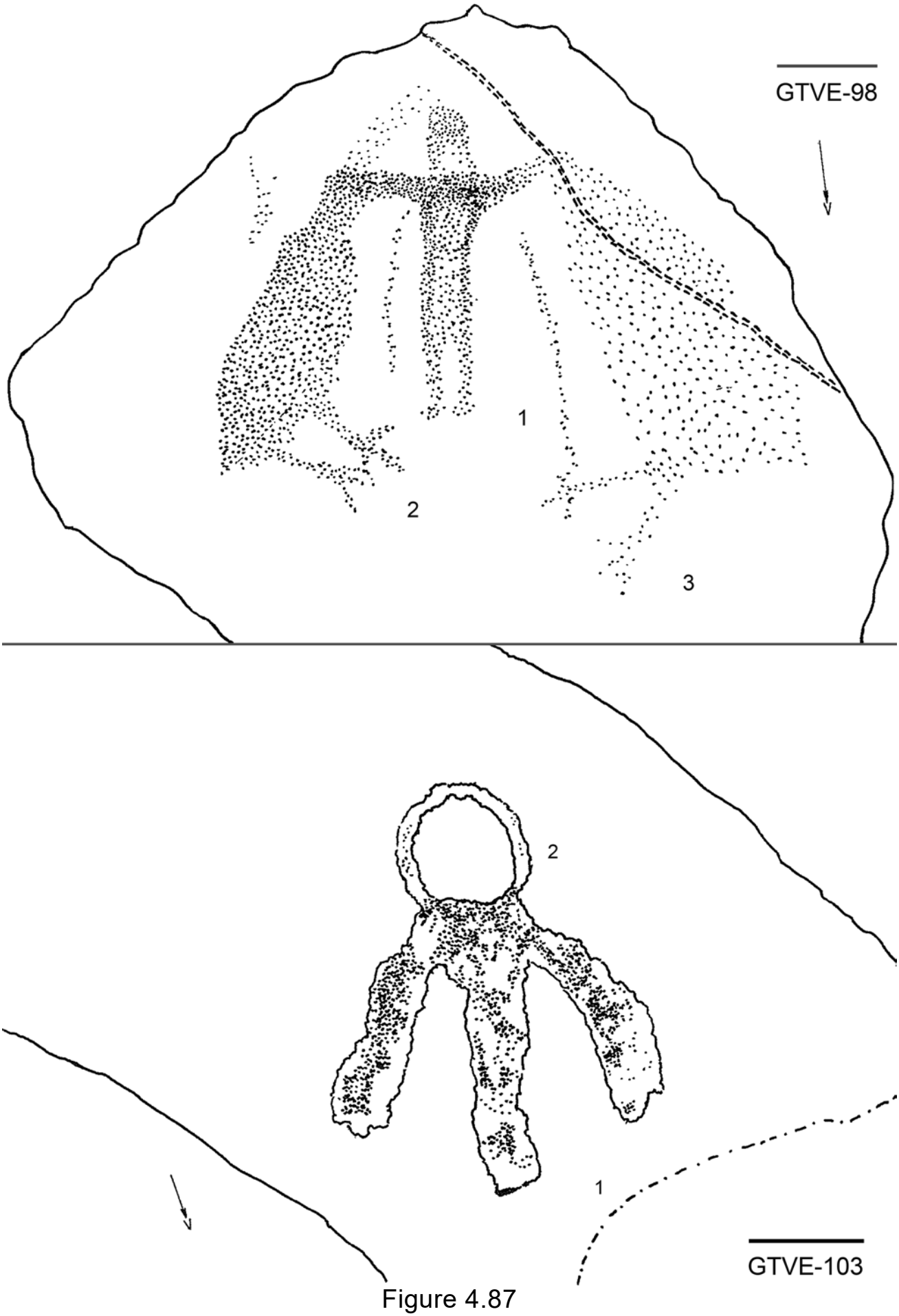


Figure 4.87

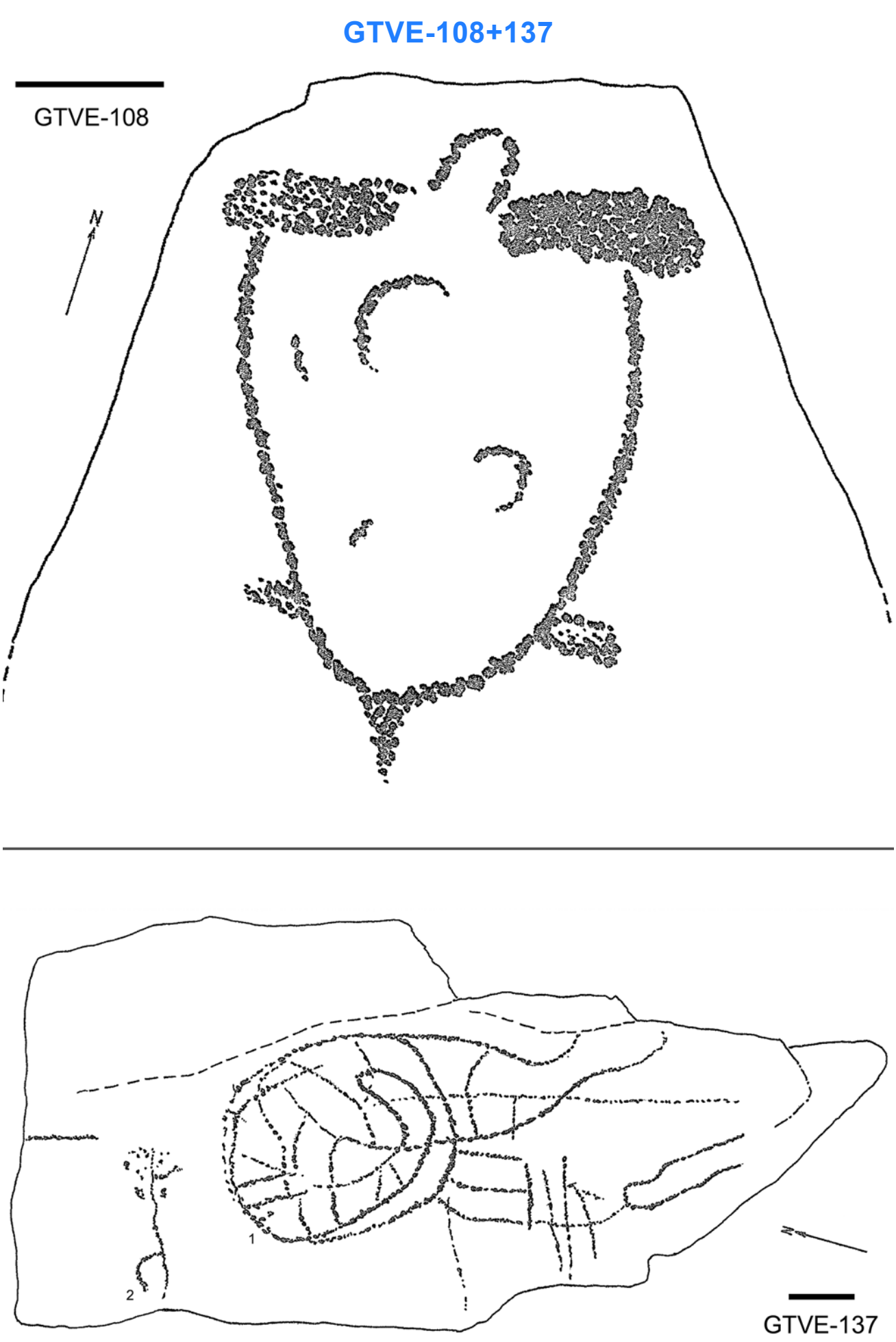


Figure 4.88

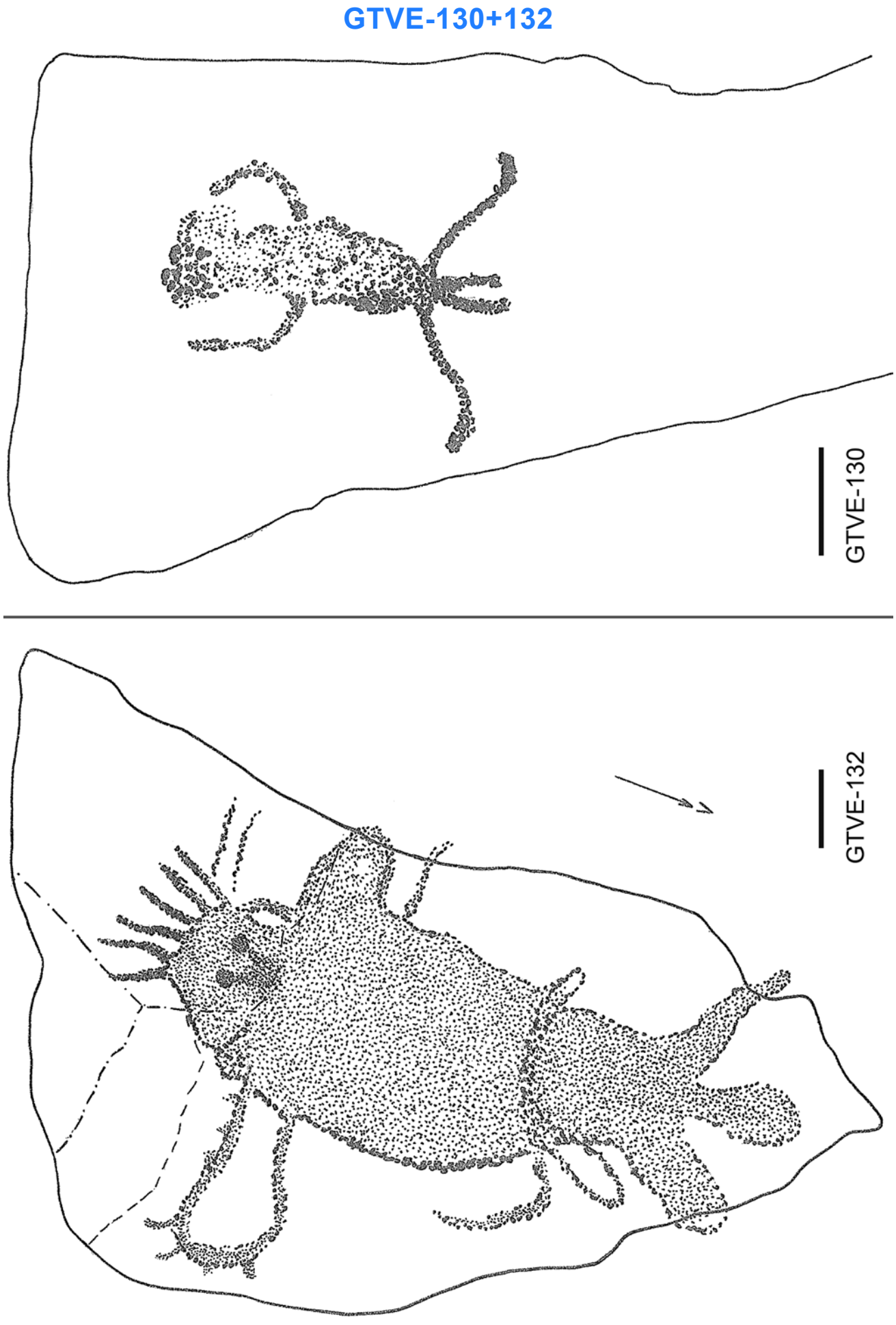


Figure 4.89

GTVE-135

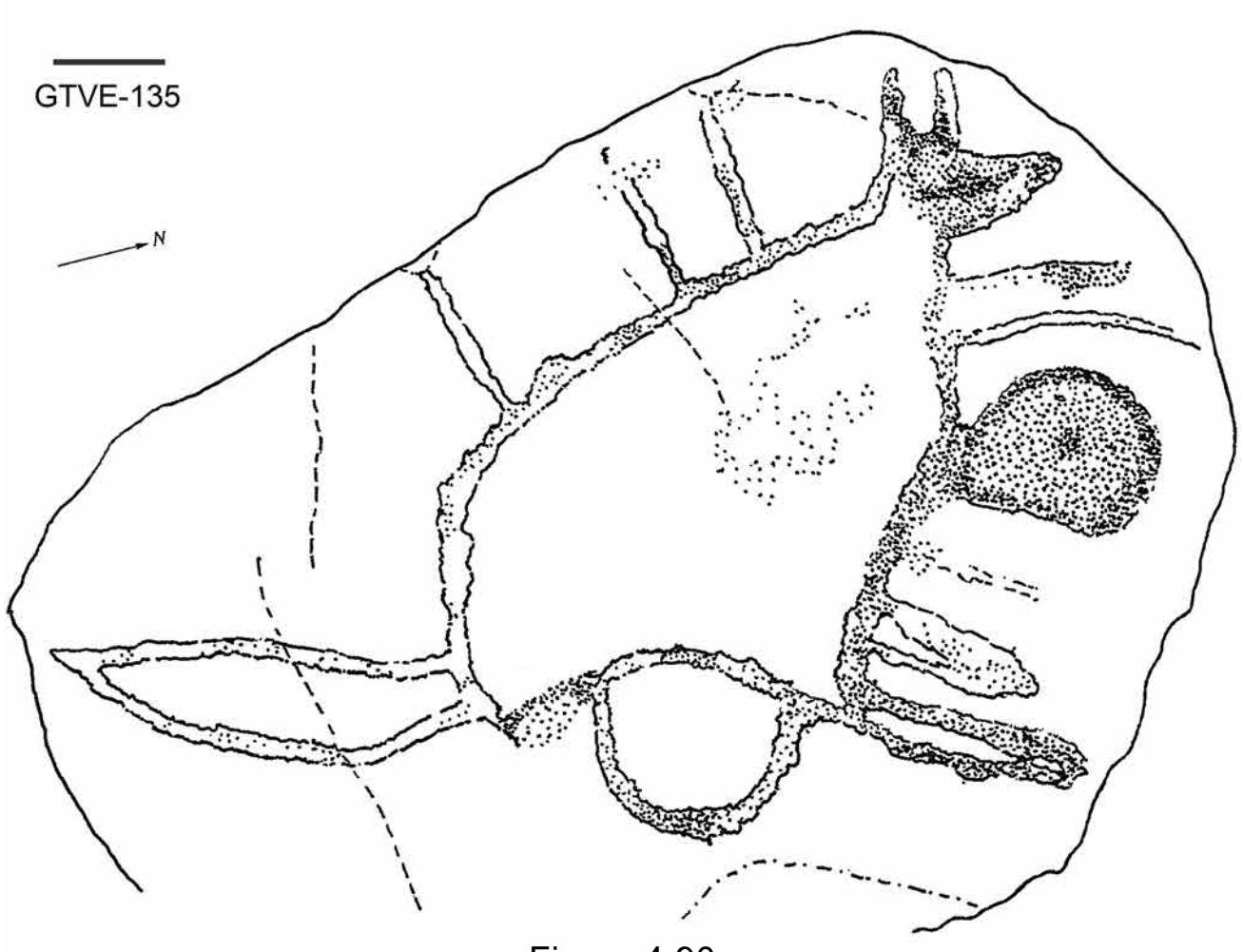


Figure 4.90

GTVE-139

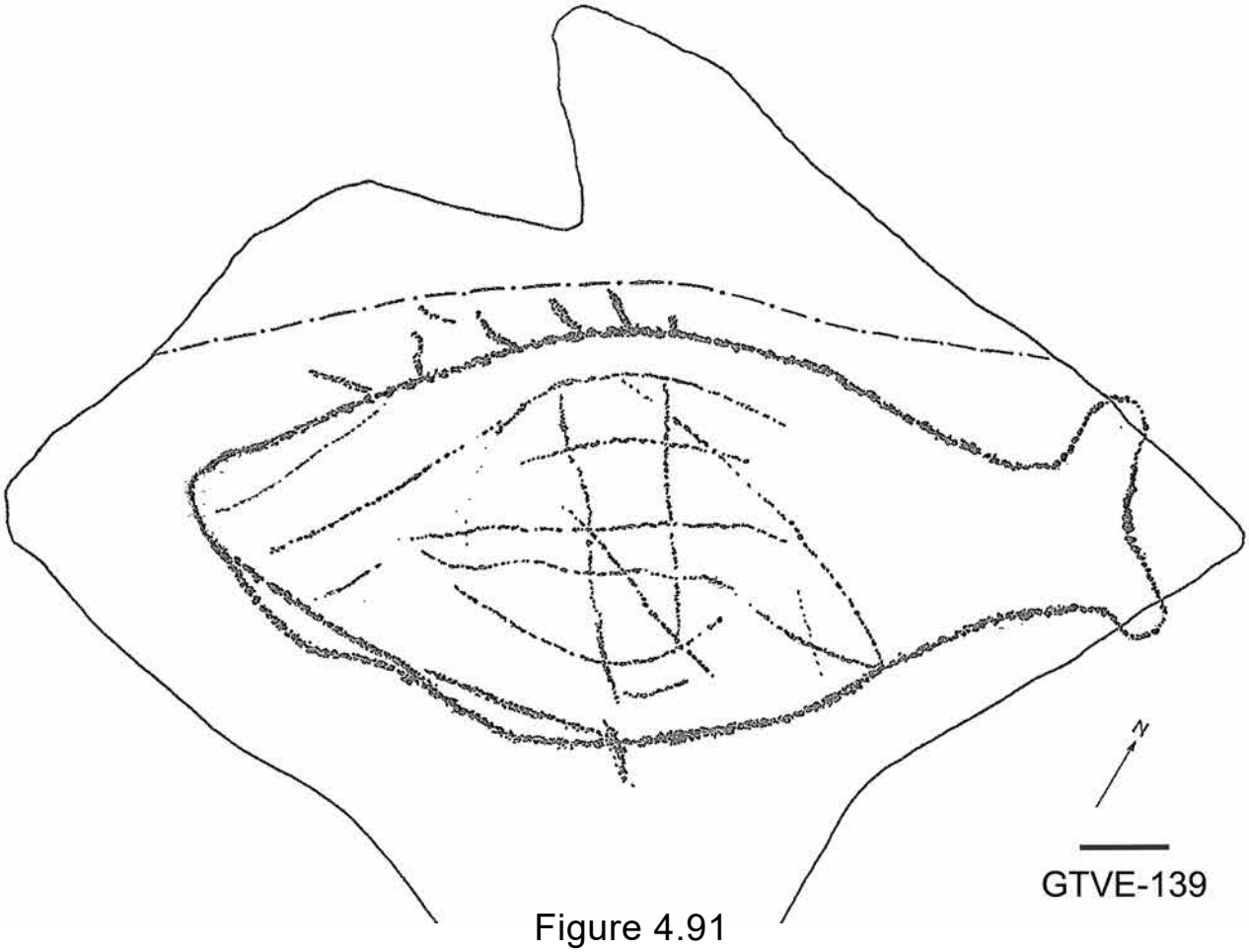


Figure 4.91

GTVE-140-1,-2

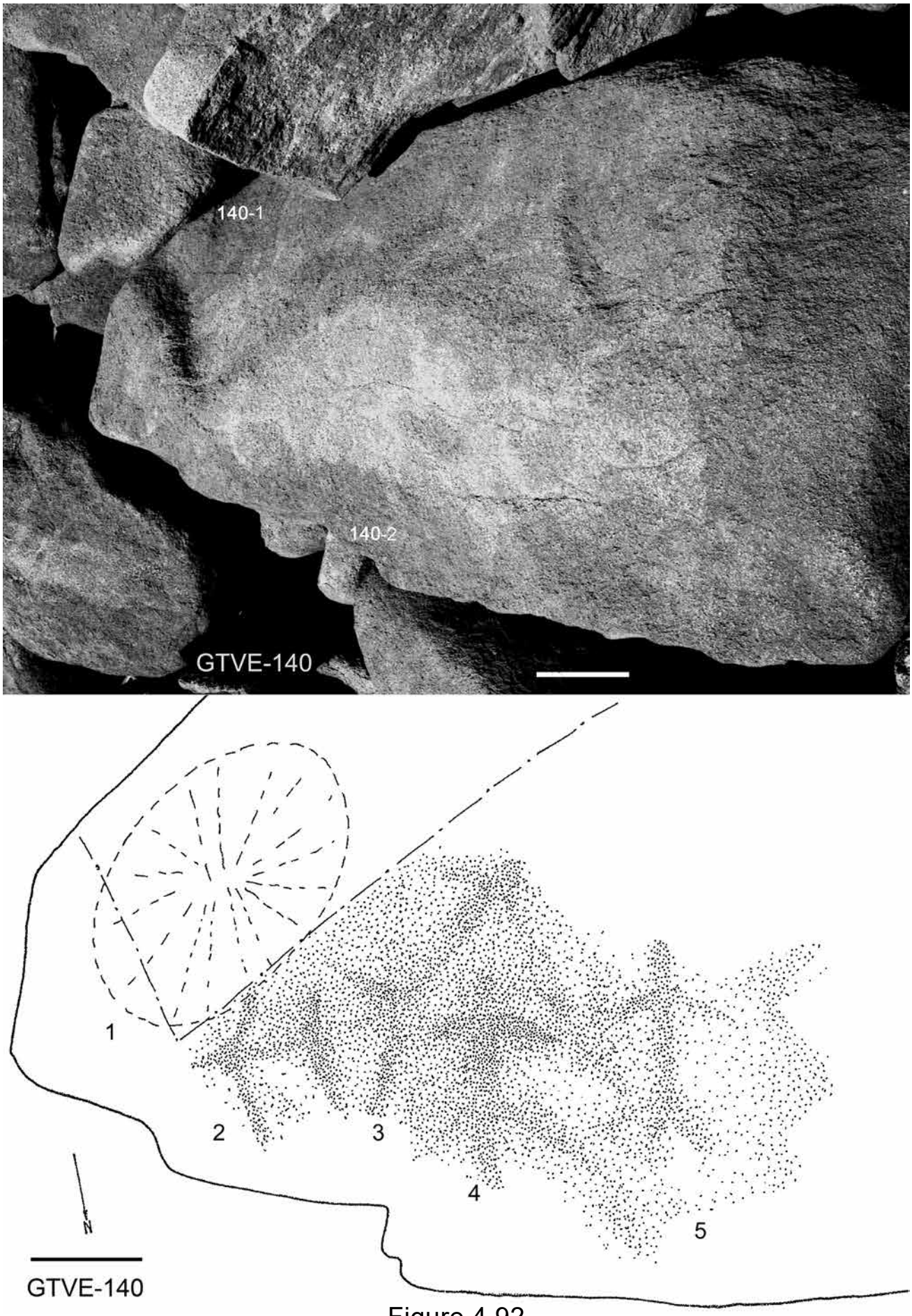


Figure 4.92

GTVE-140-1

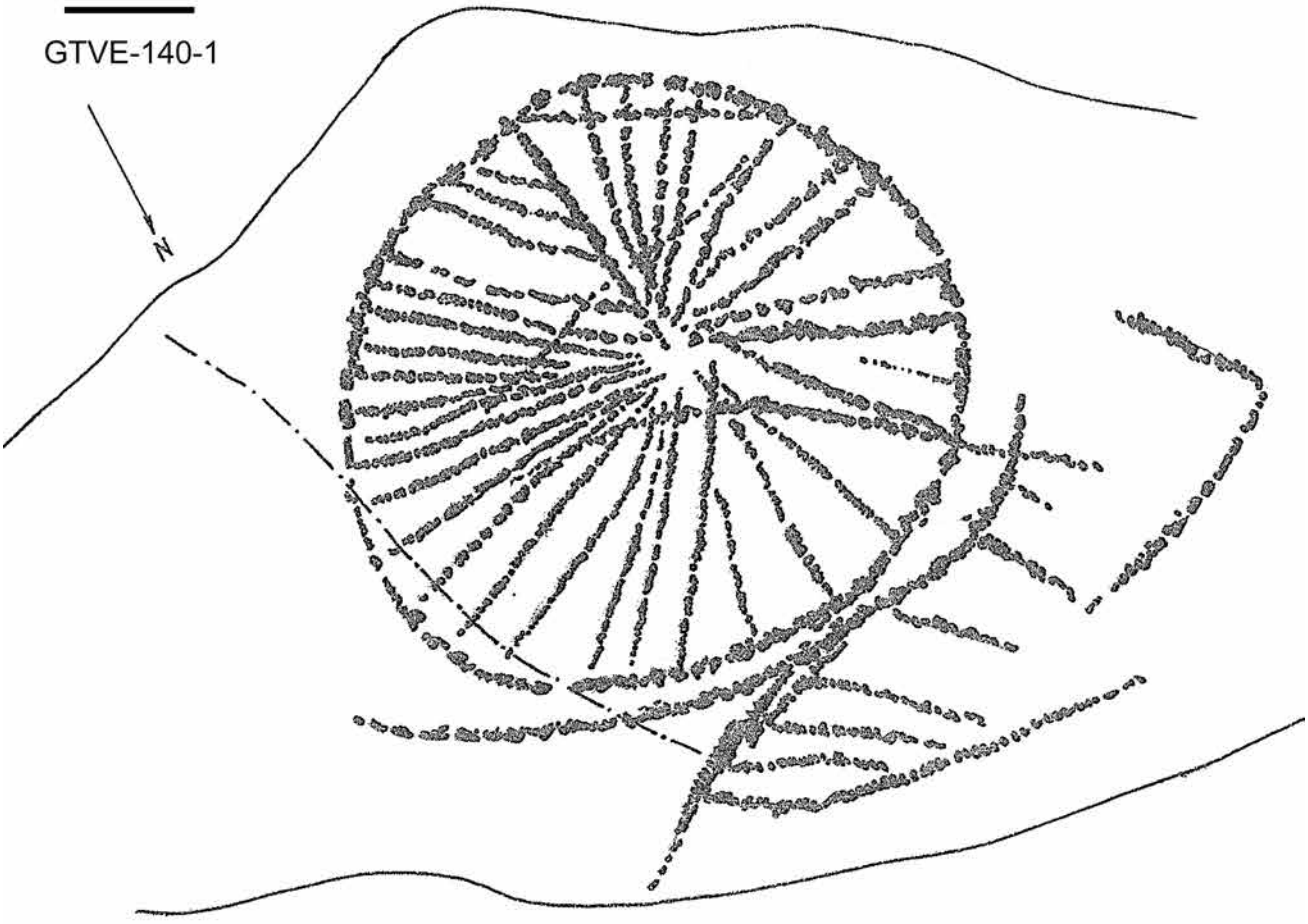
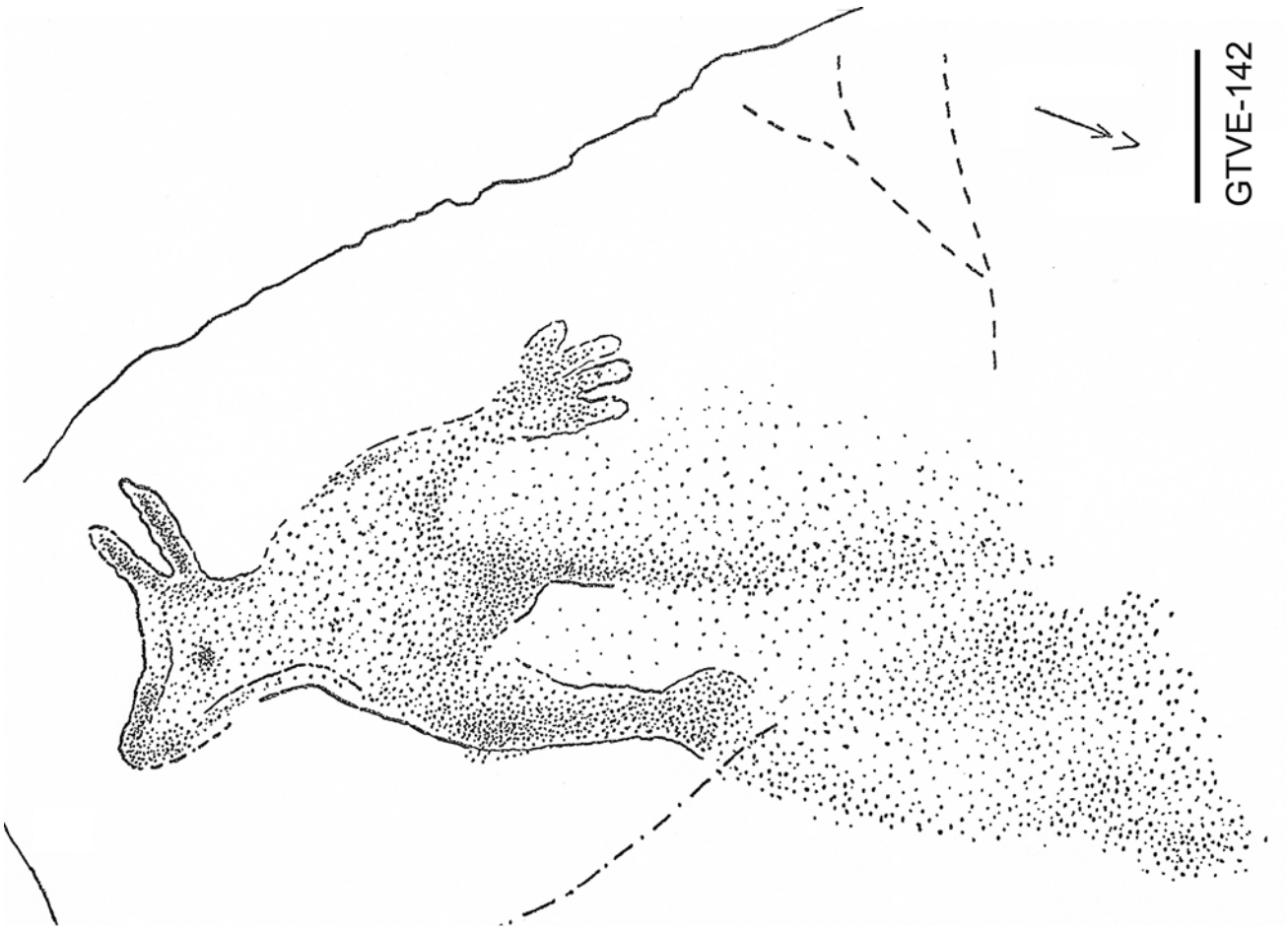


Figure 4.93

GTVE-142



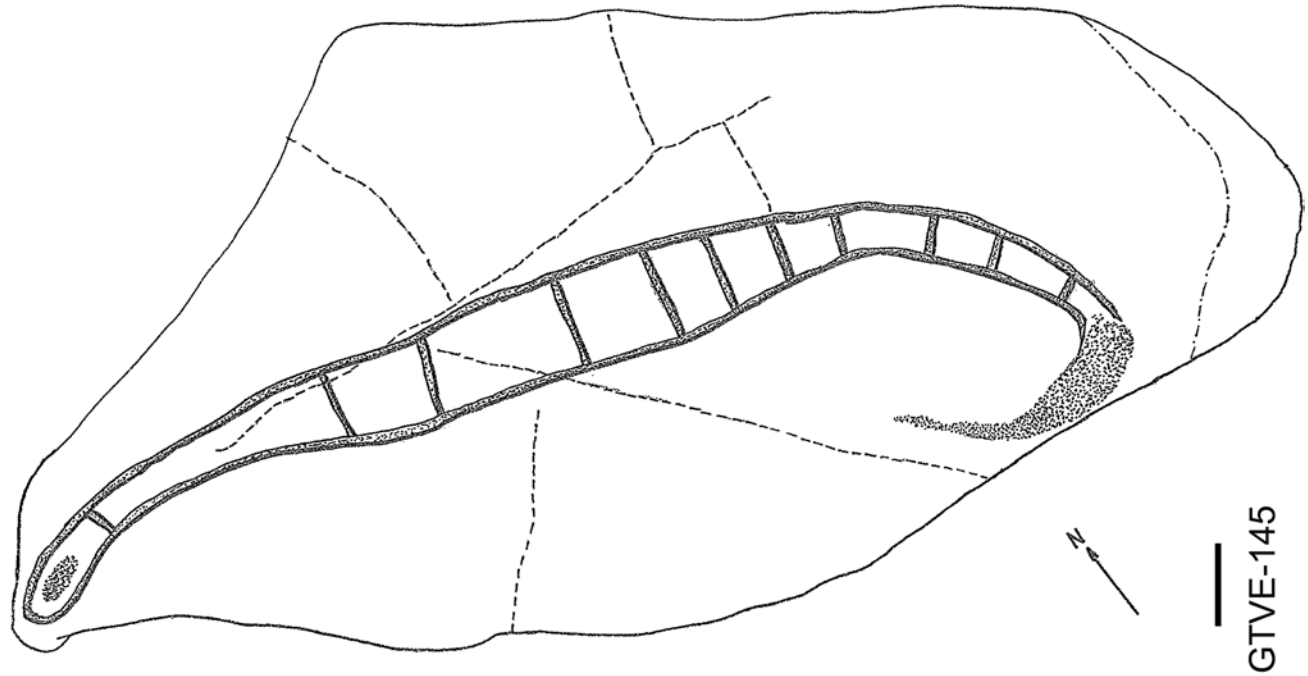
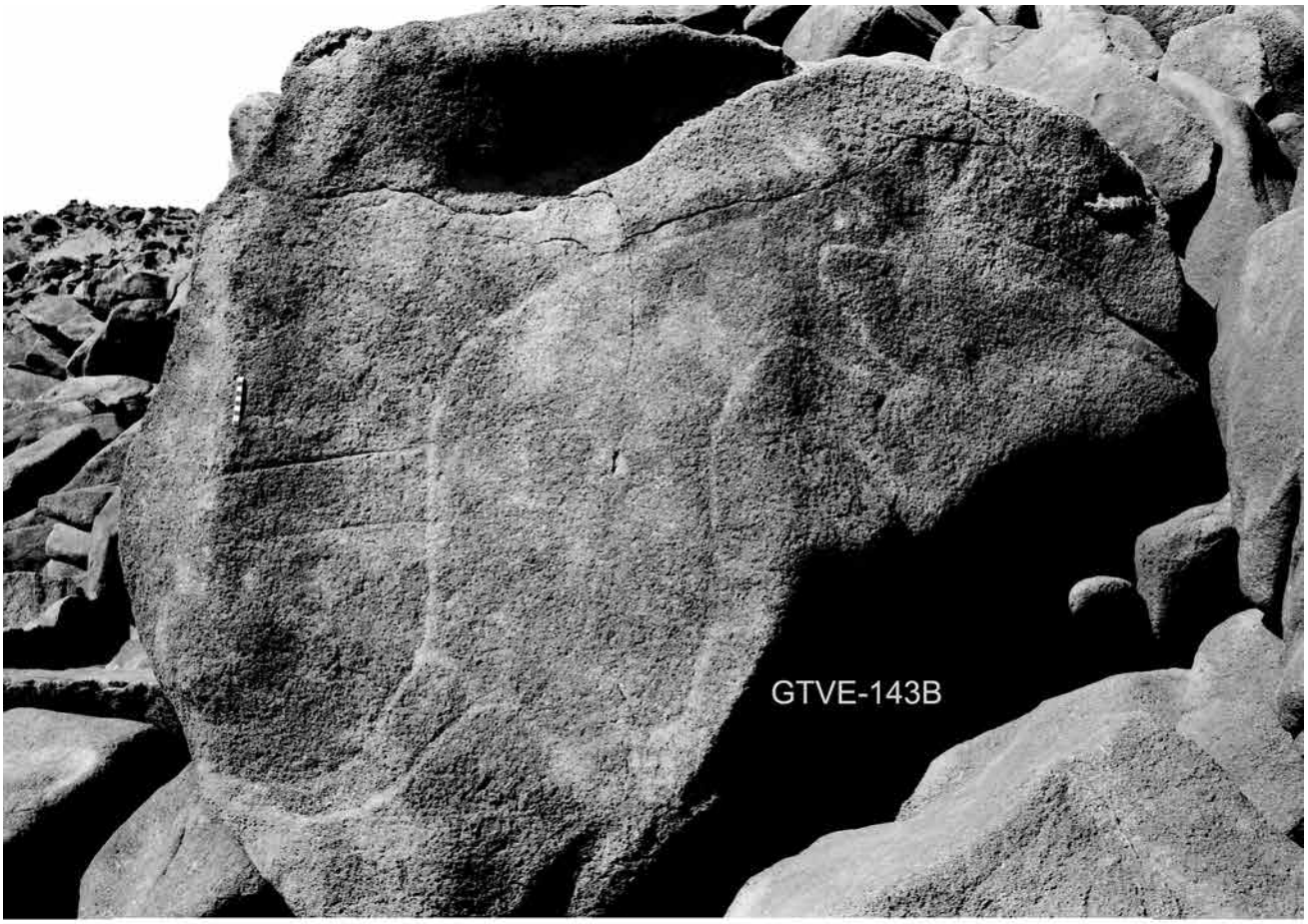


Figure 4.94

GTVE-143



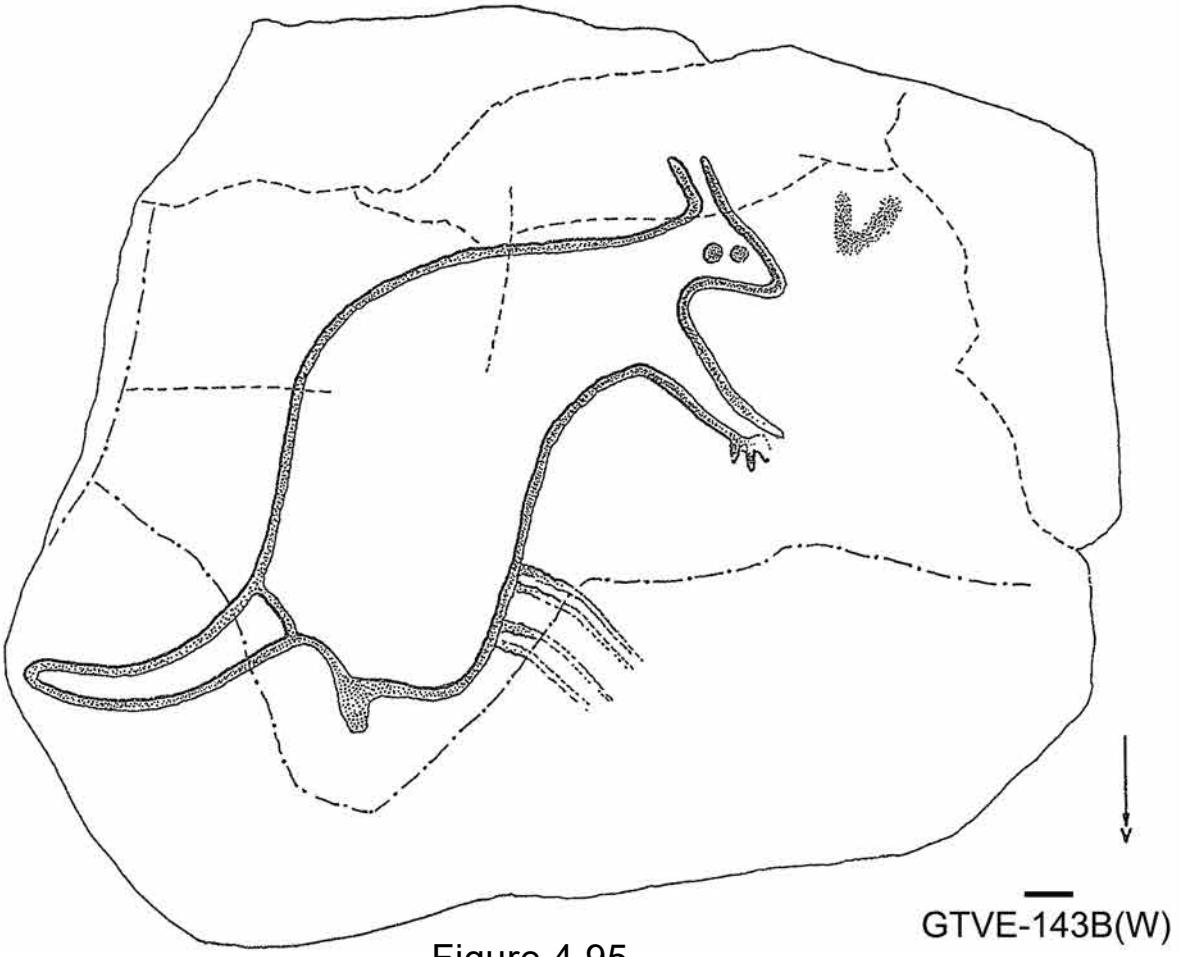


Figure 4.95

GTVE-143A

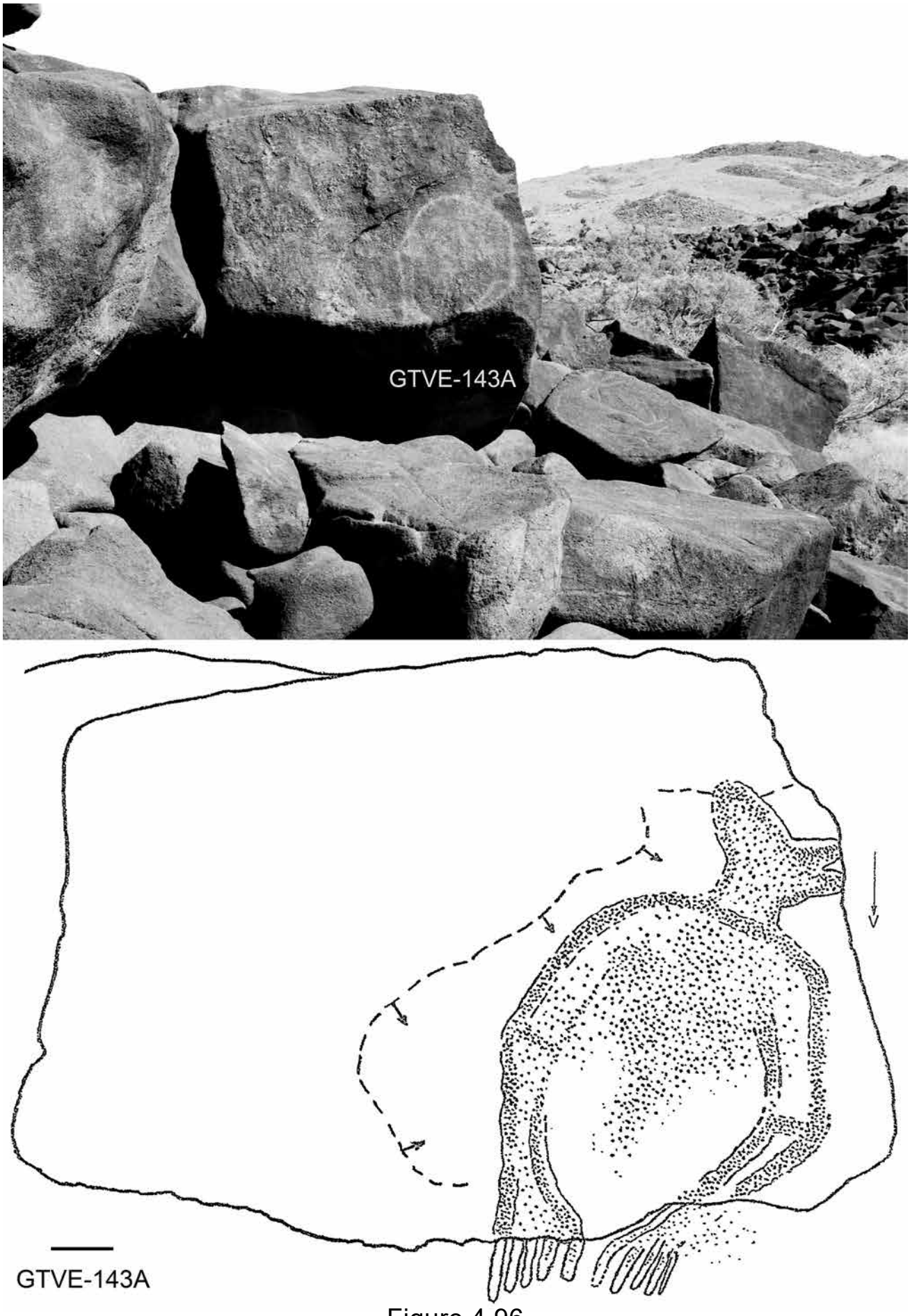


Figure 4.96

GTVE-148

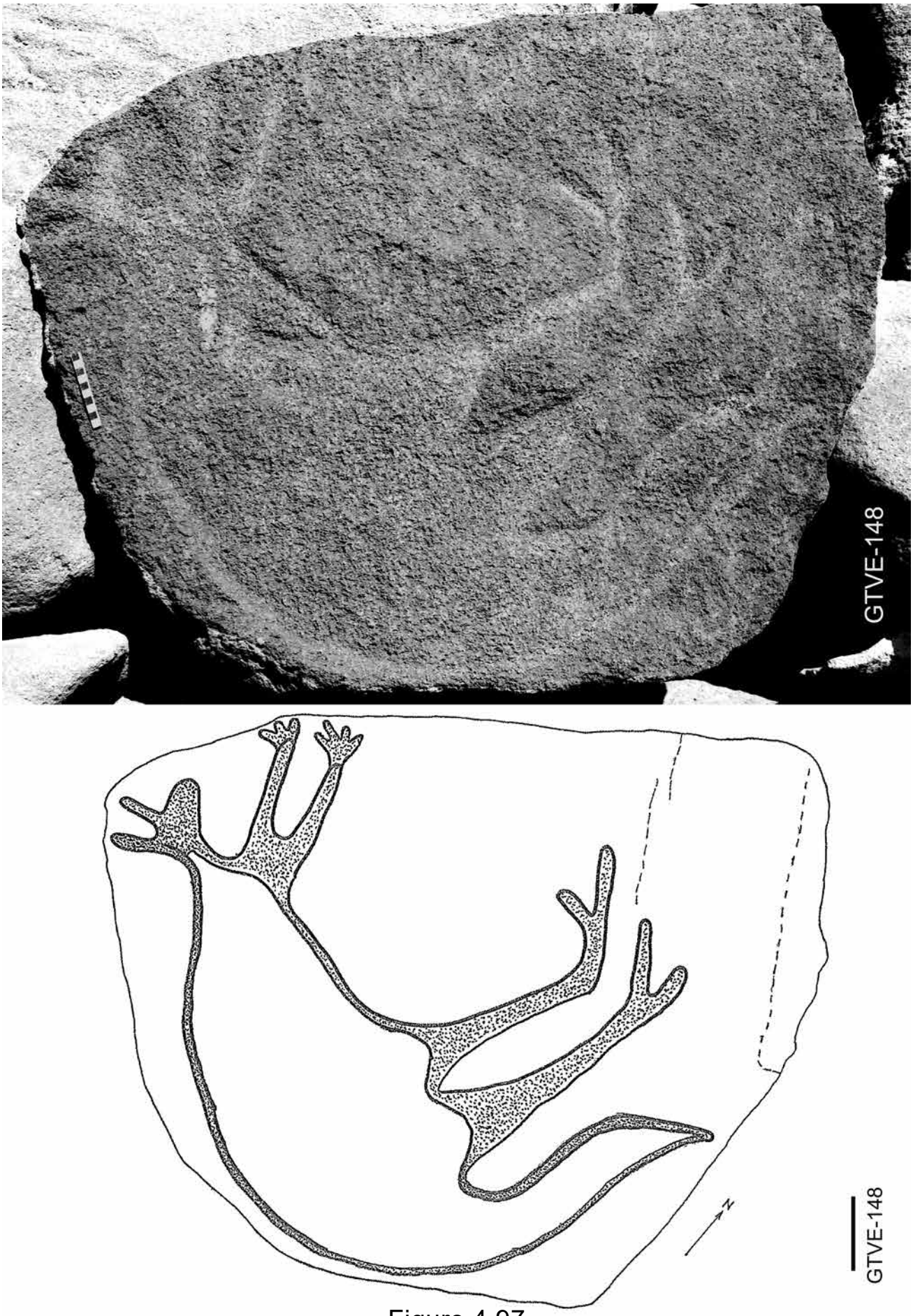


Figure 4.97

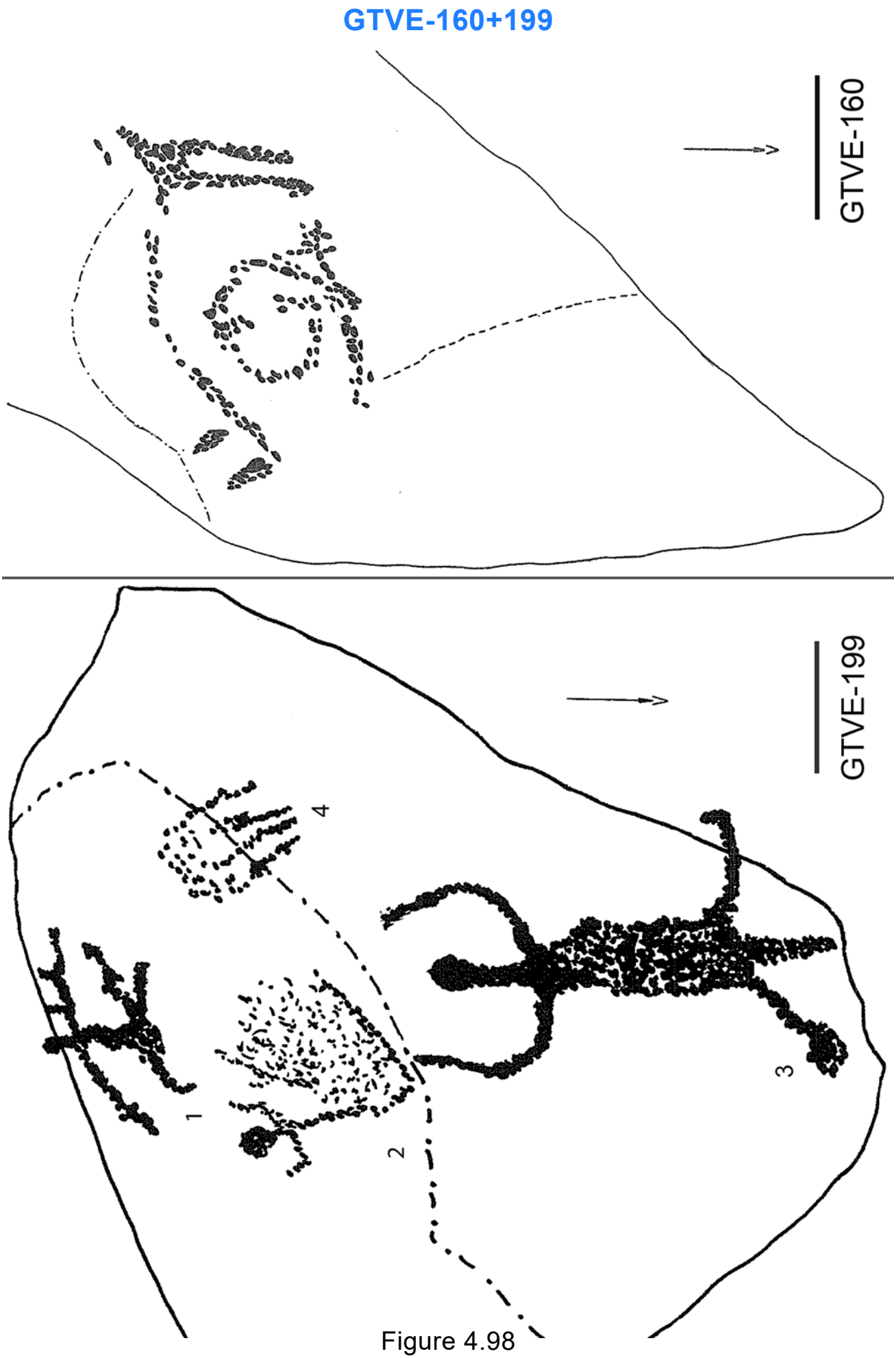


Figure 4.98

GTVE-182+191

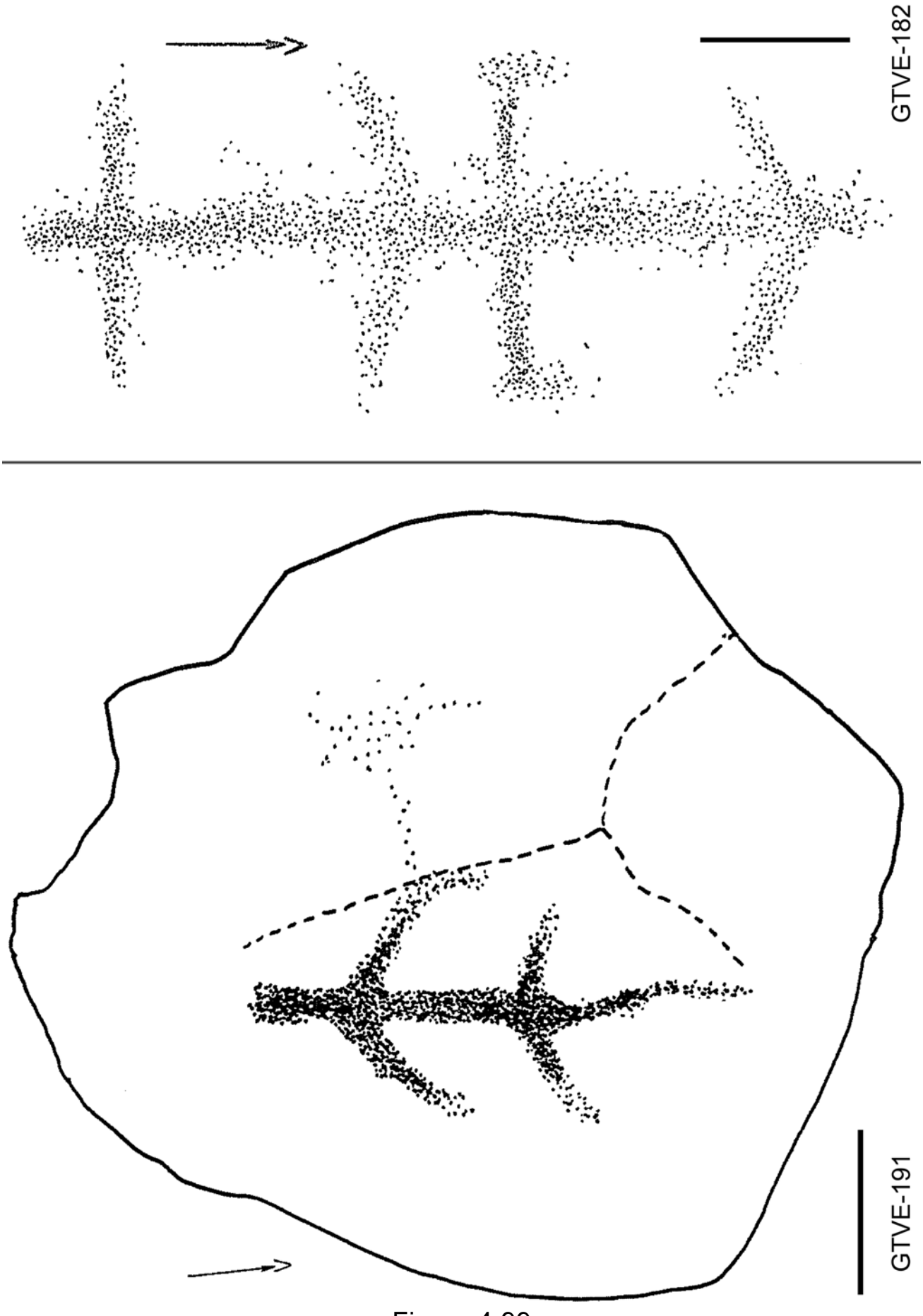


Figure 4.99

GTVE-187

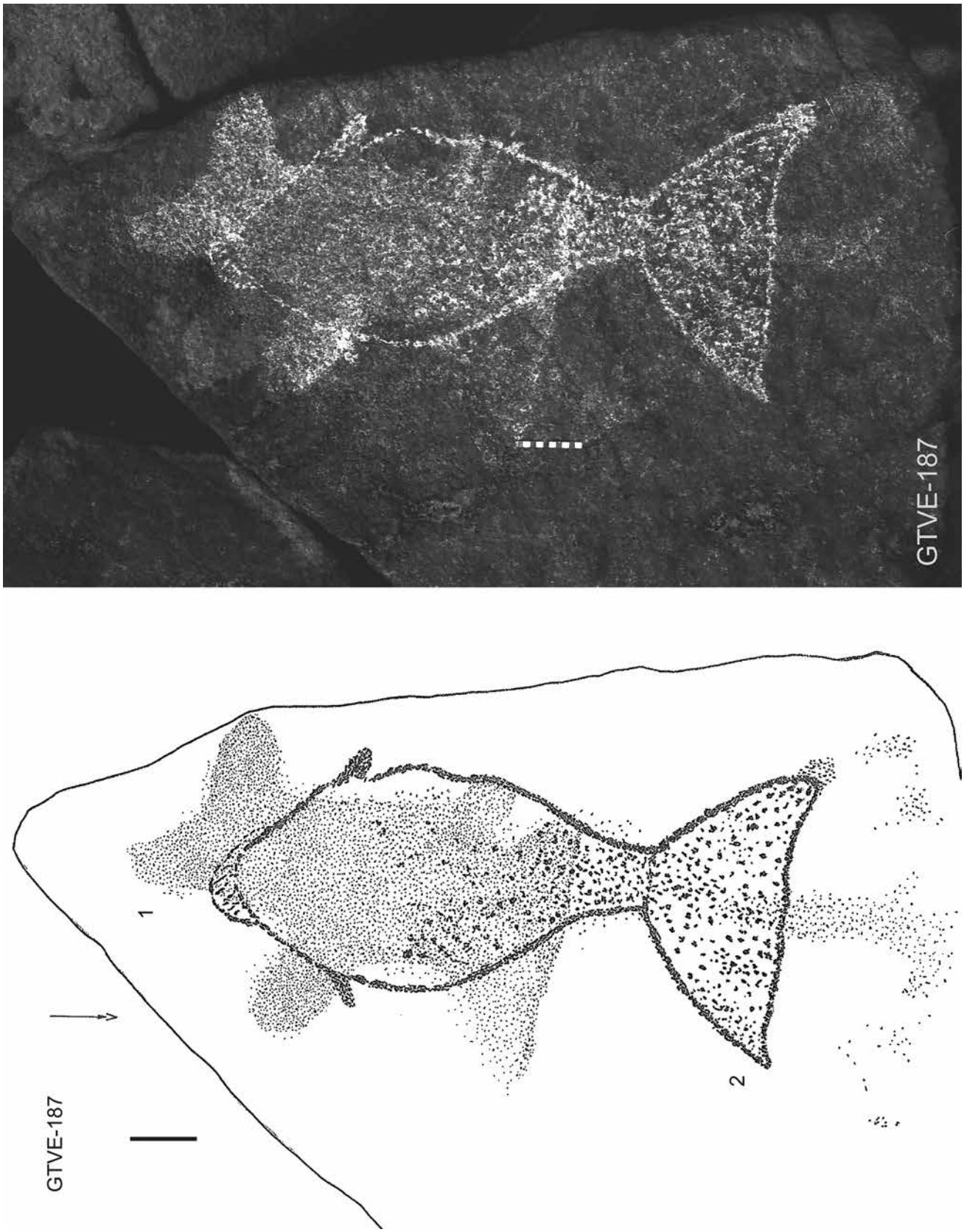


Figure 4.100

GTVE-209 +210

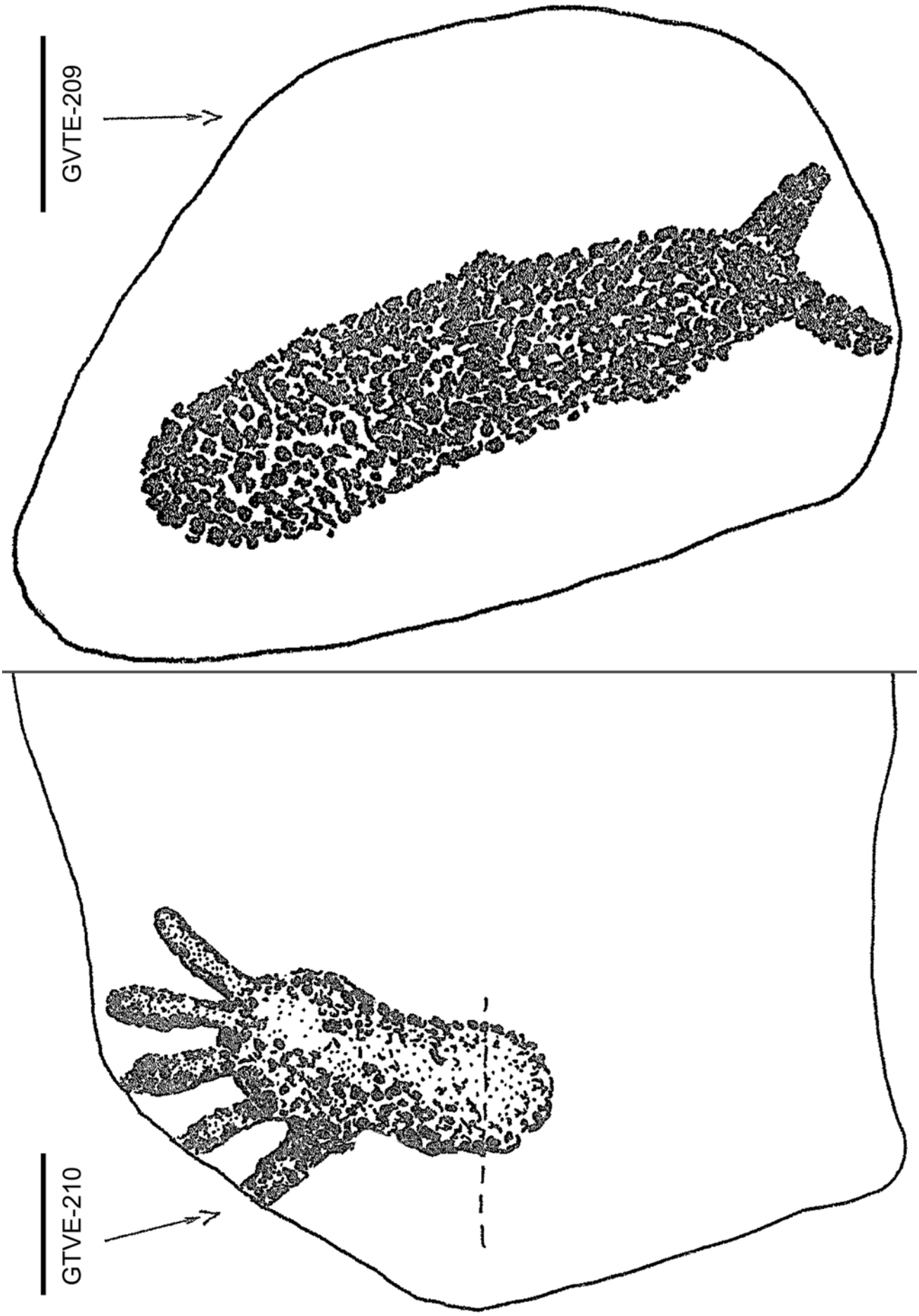


Figure 4.101

GTVE-211

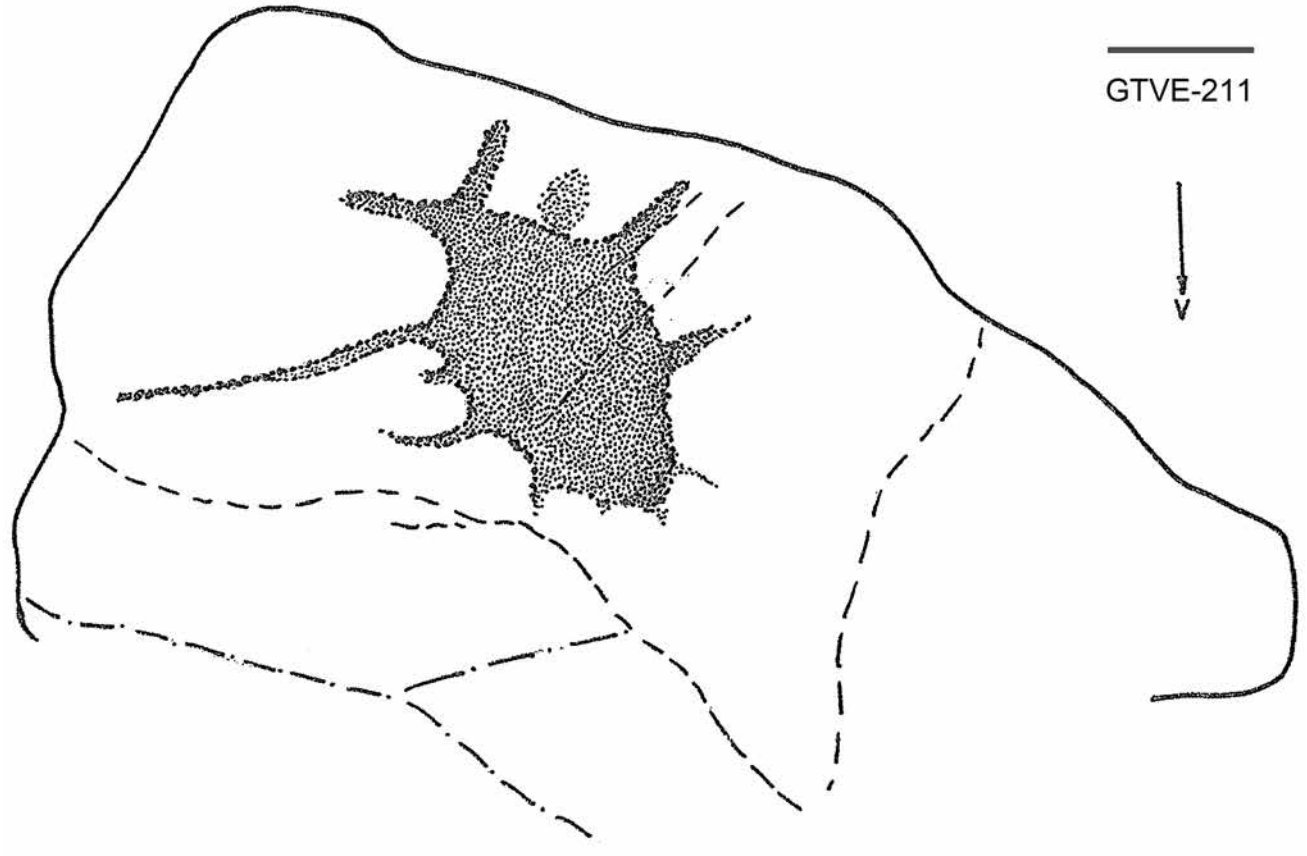


Figure 4.102

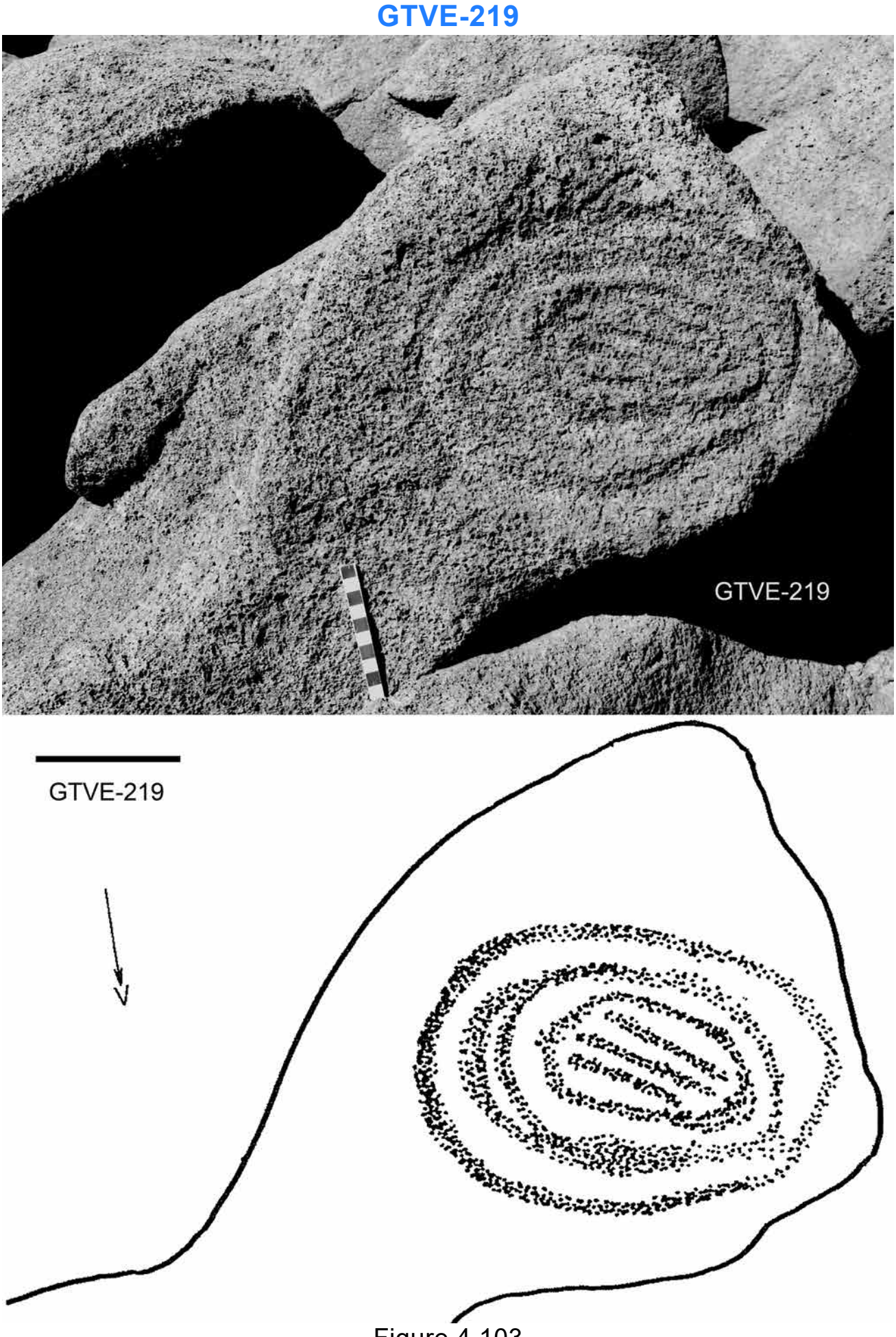


Figure 4.103

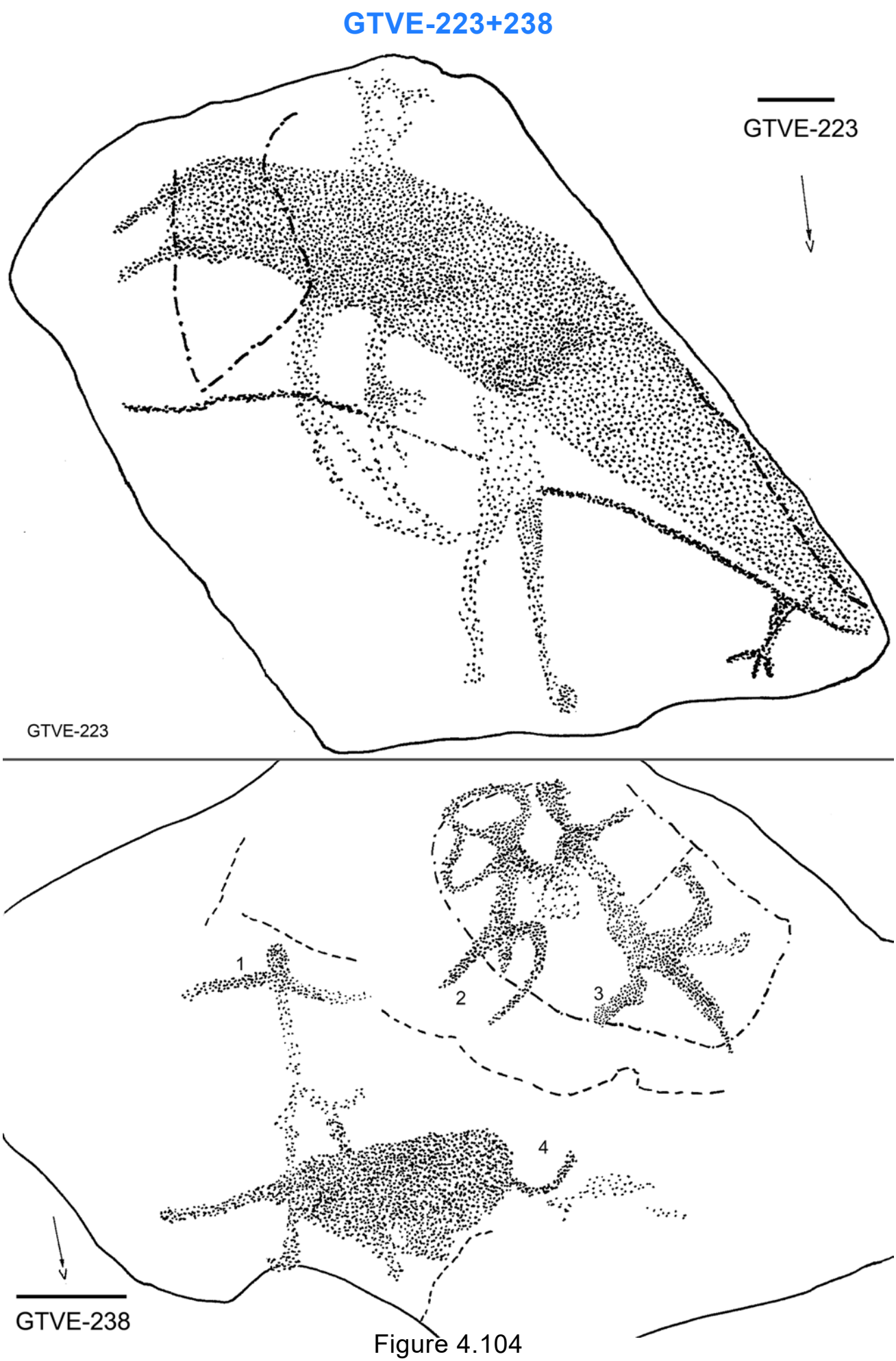


Figure 4.104

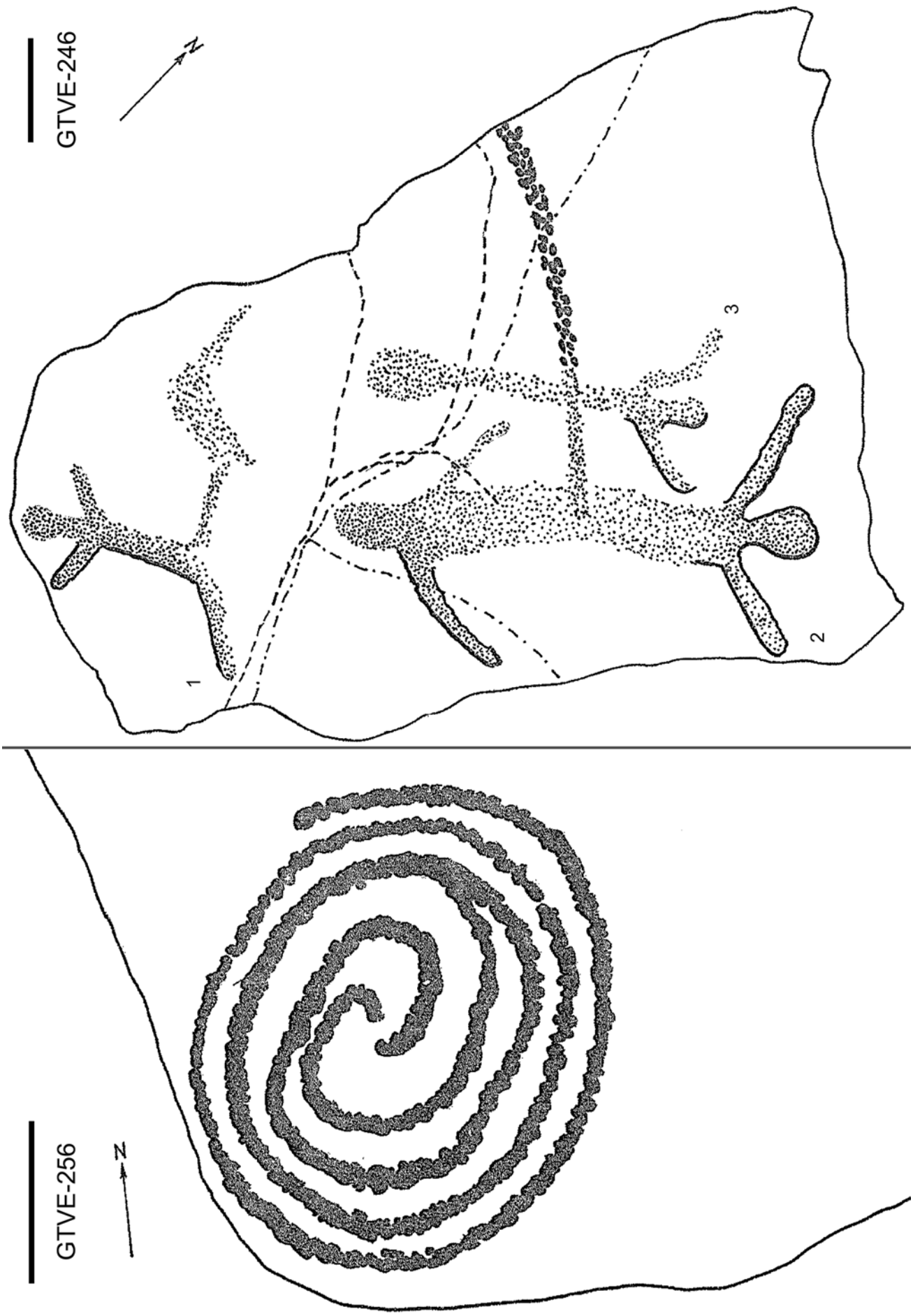


Figure 4.105

GTVE-251+258

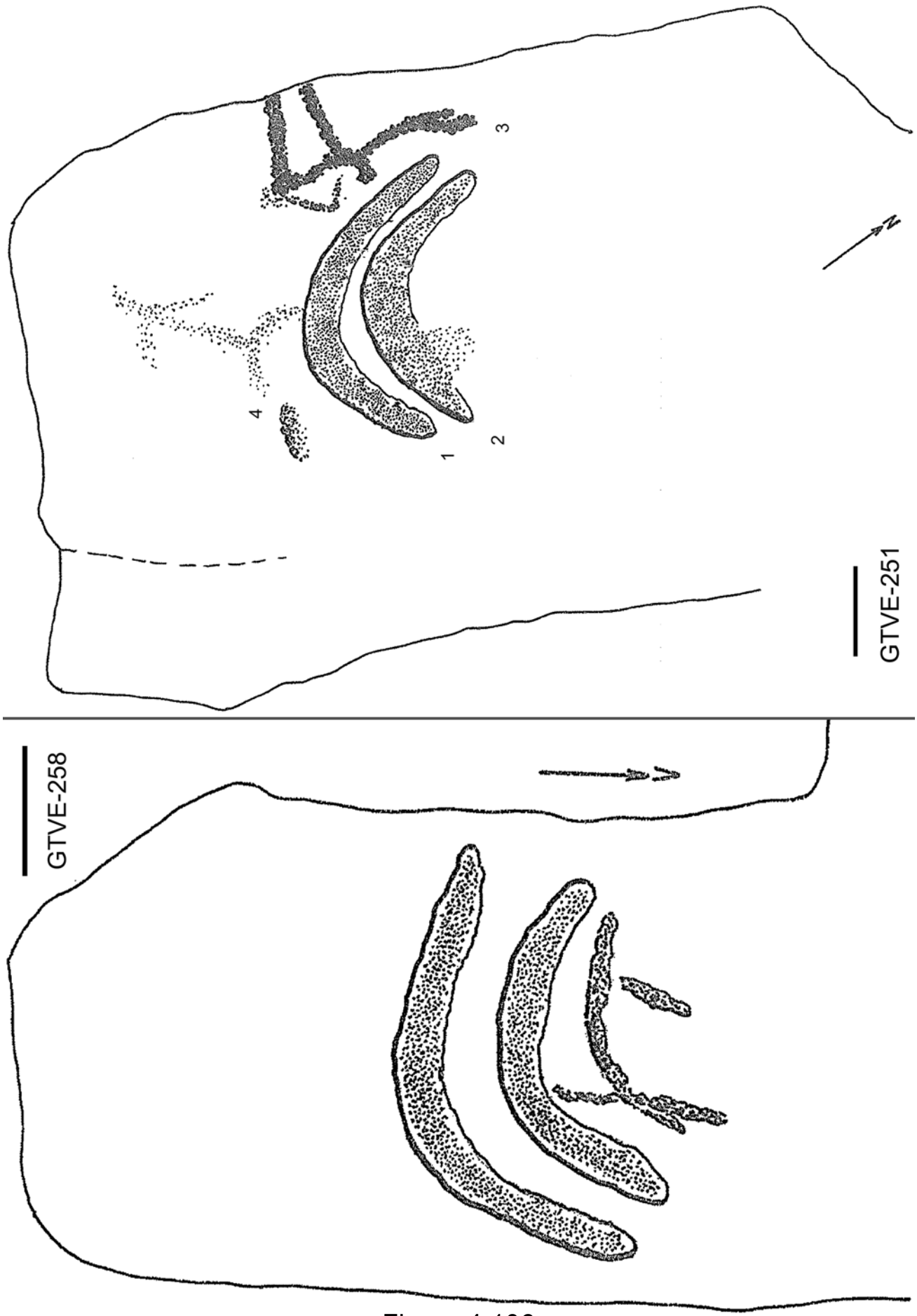


Figure 4.106

GTVE-257+264

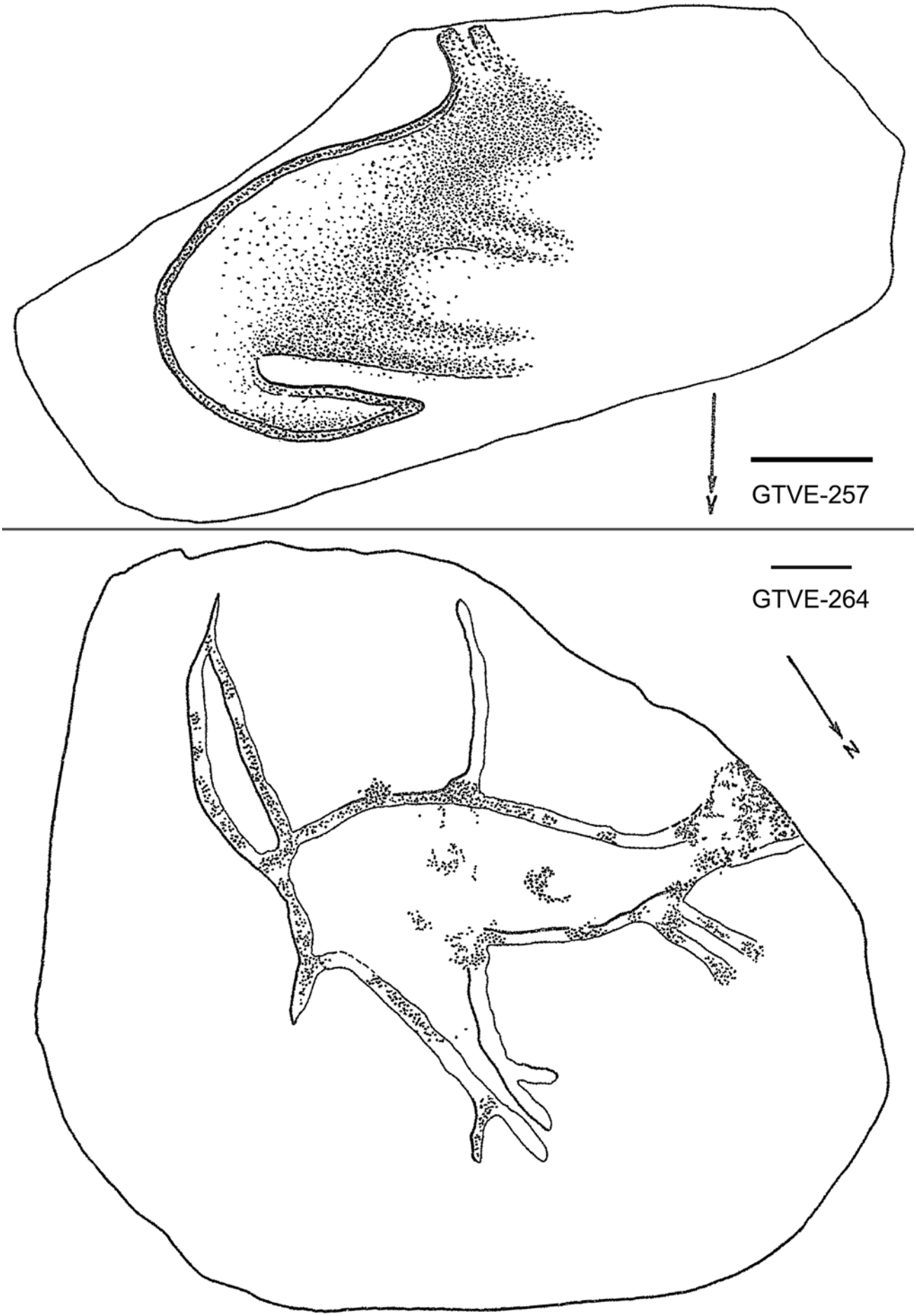


Figure 4.107

GTVE-271+284

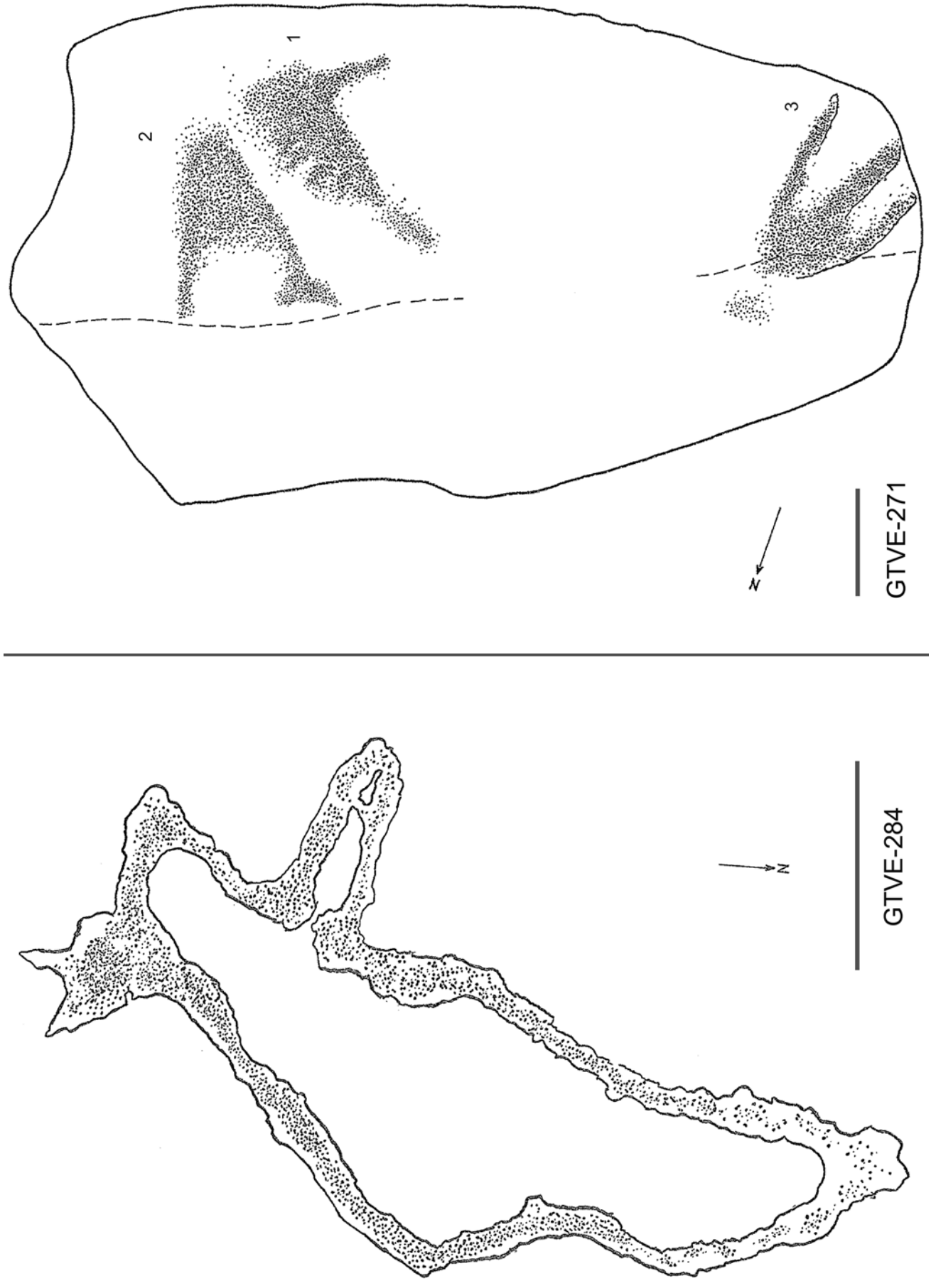


Figure 4.108

GTVE-272

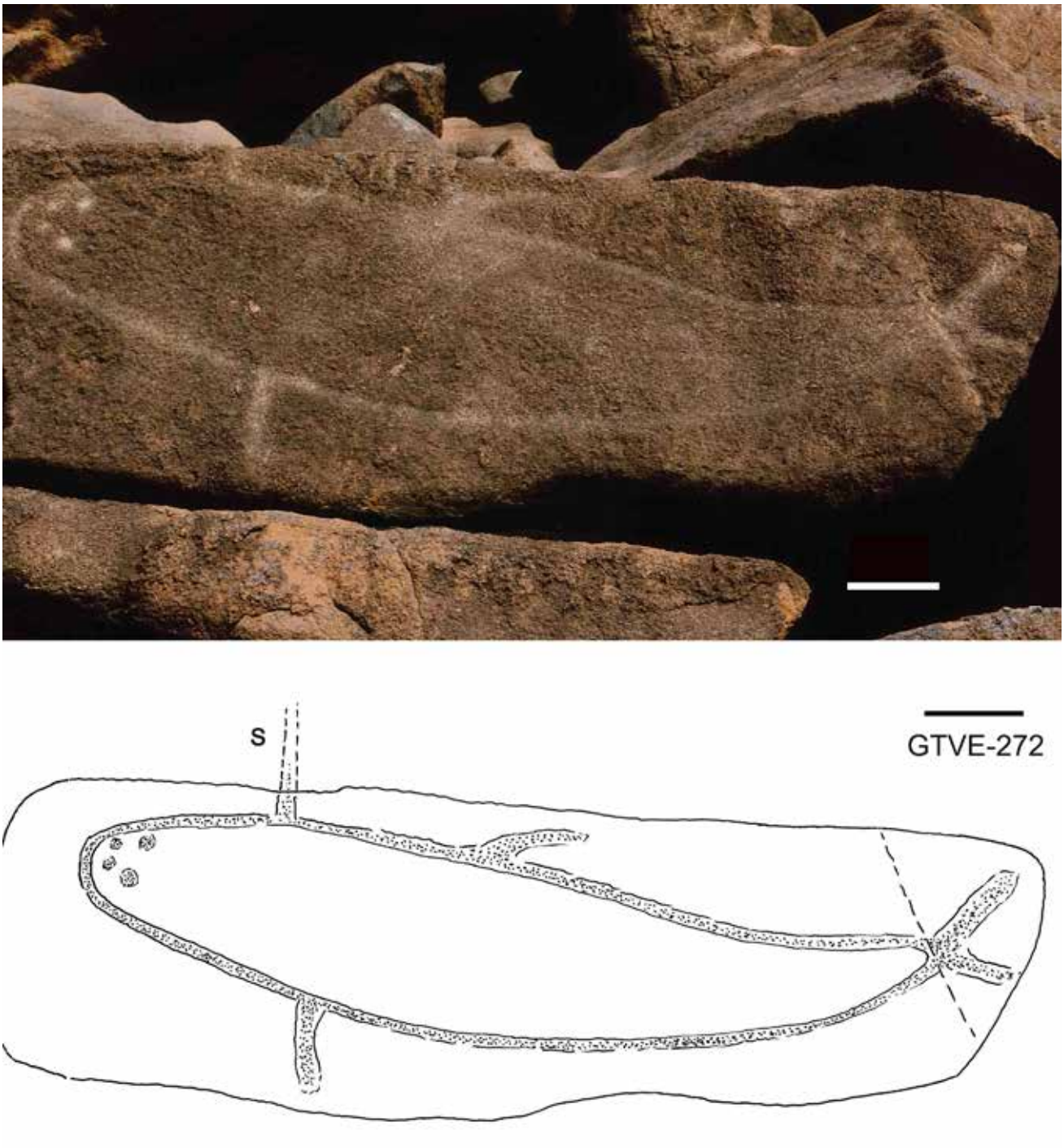


Figure 4.109

GTVE-272 undetermined

Figure 4.110. GTVE-272. Undetermined motifs. Abraded and patinated. An example of a motif formed of a rubbed and patinated surface; there is nothing identifiable on this surface, but there is a form of mark. Black and white photograph. Scale: 50 mm.

Figure 4.110

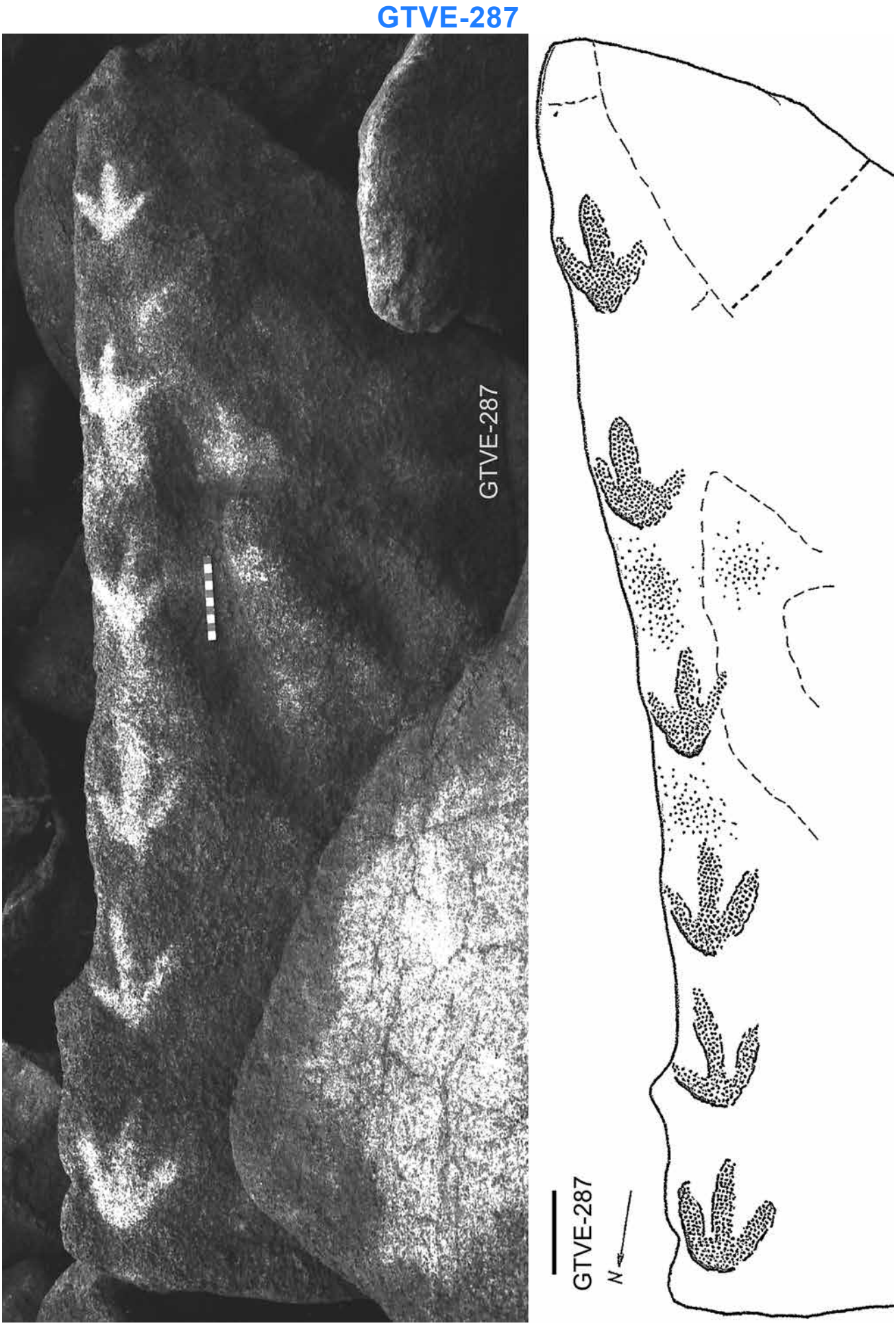


Figure 4.111

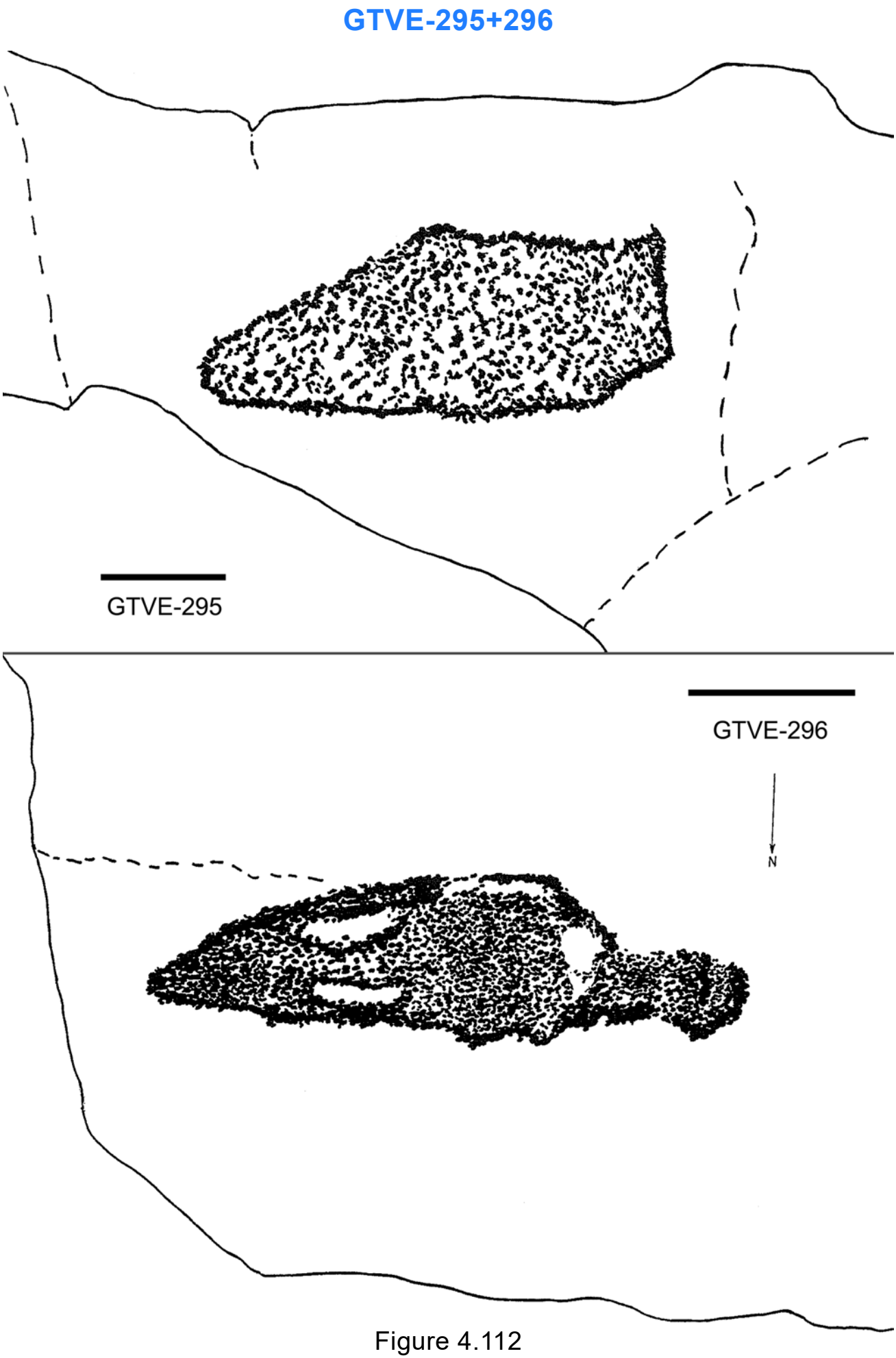


Figure 4.112

GTVE-301+312

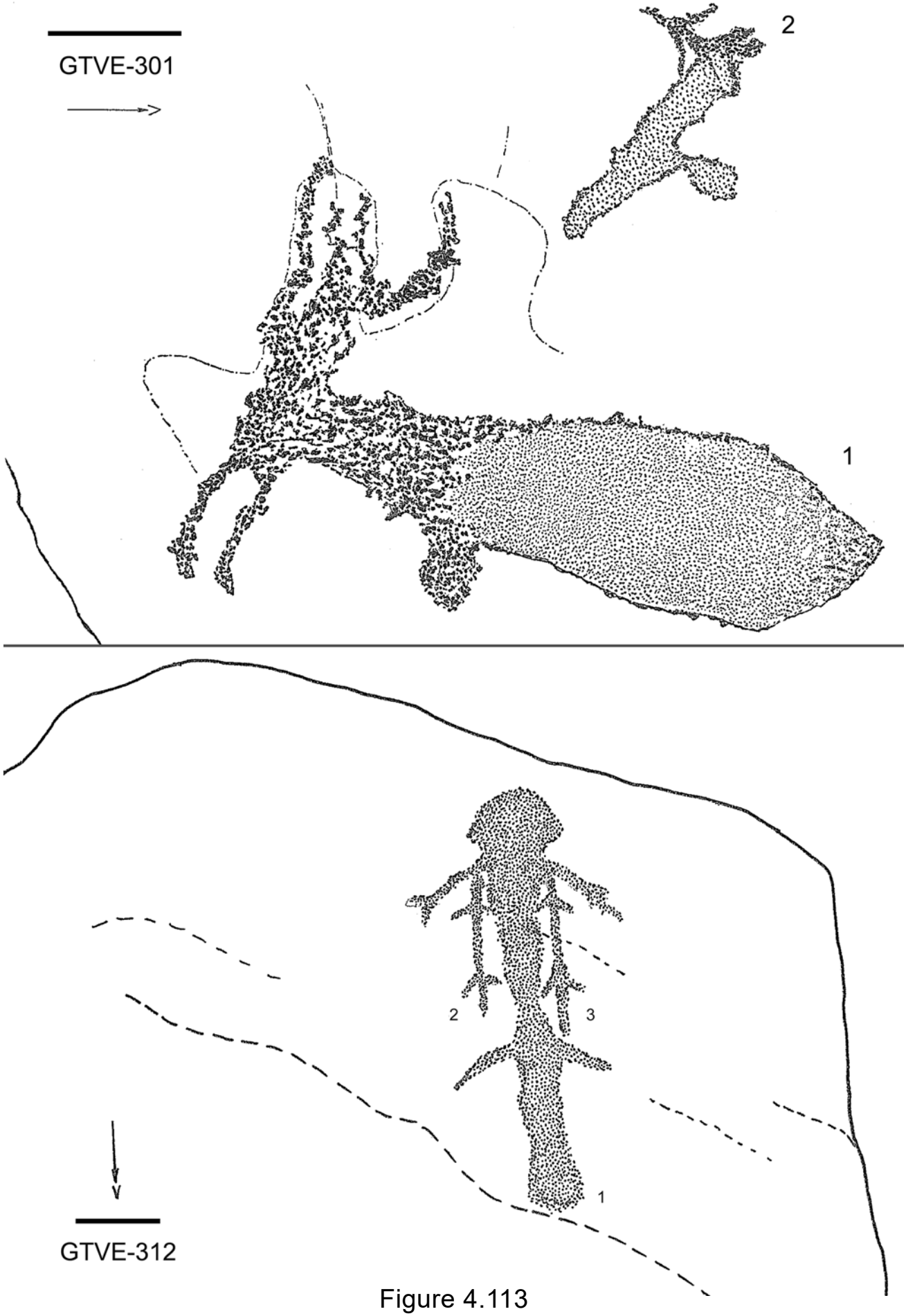


Figure 4.113

GTVE-305

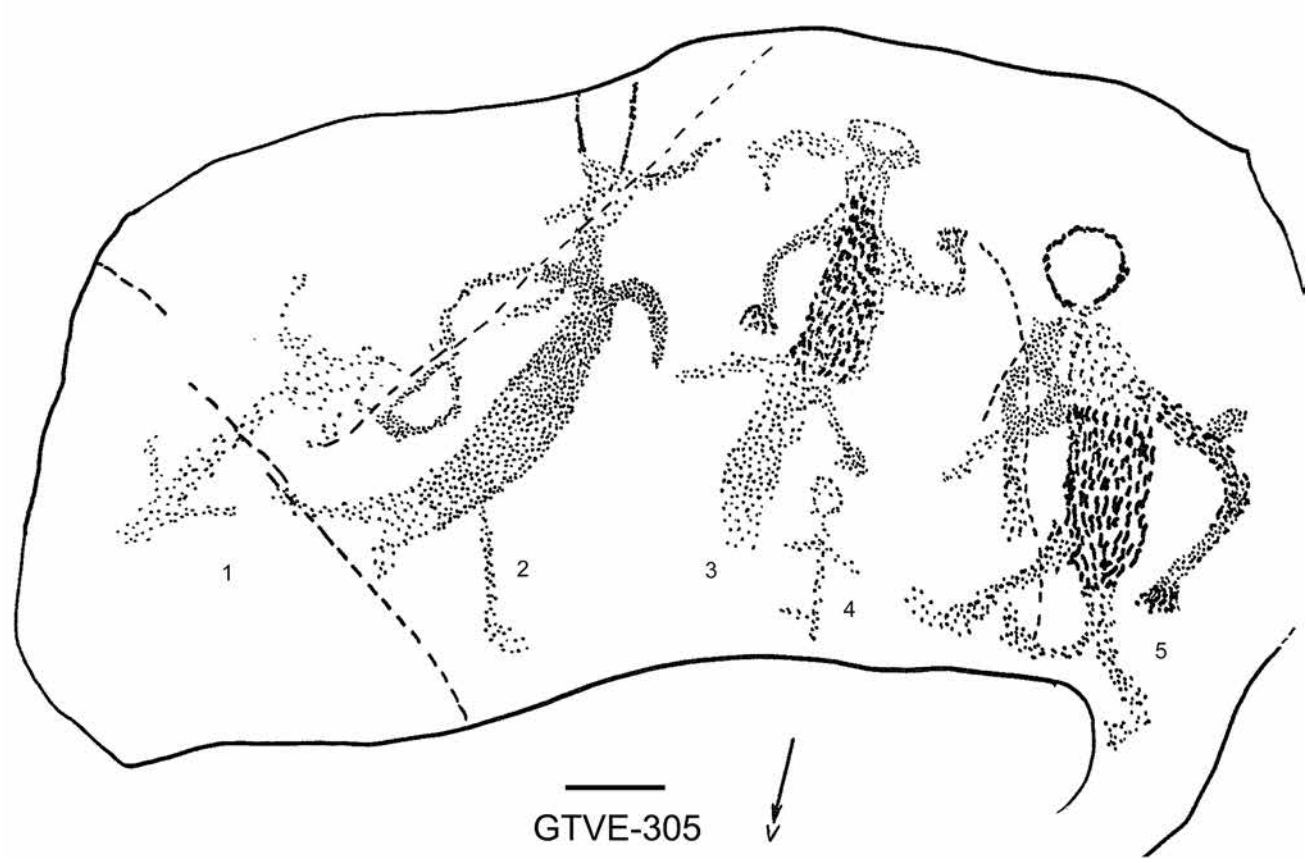


Figure 4.114

GTVE-307,333+336

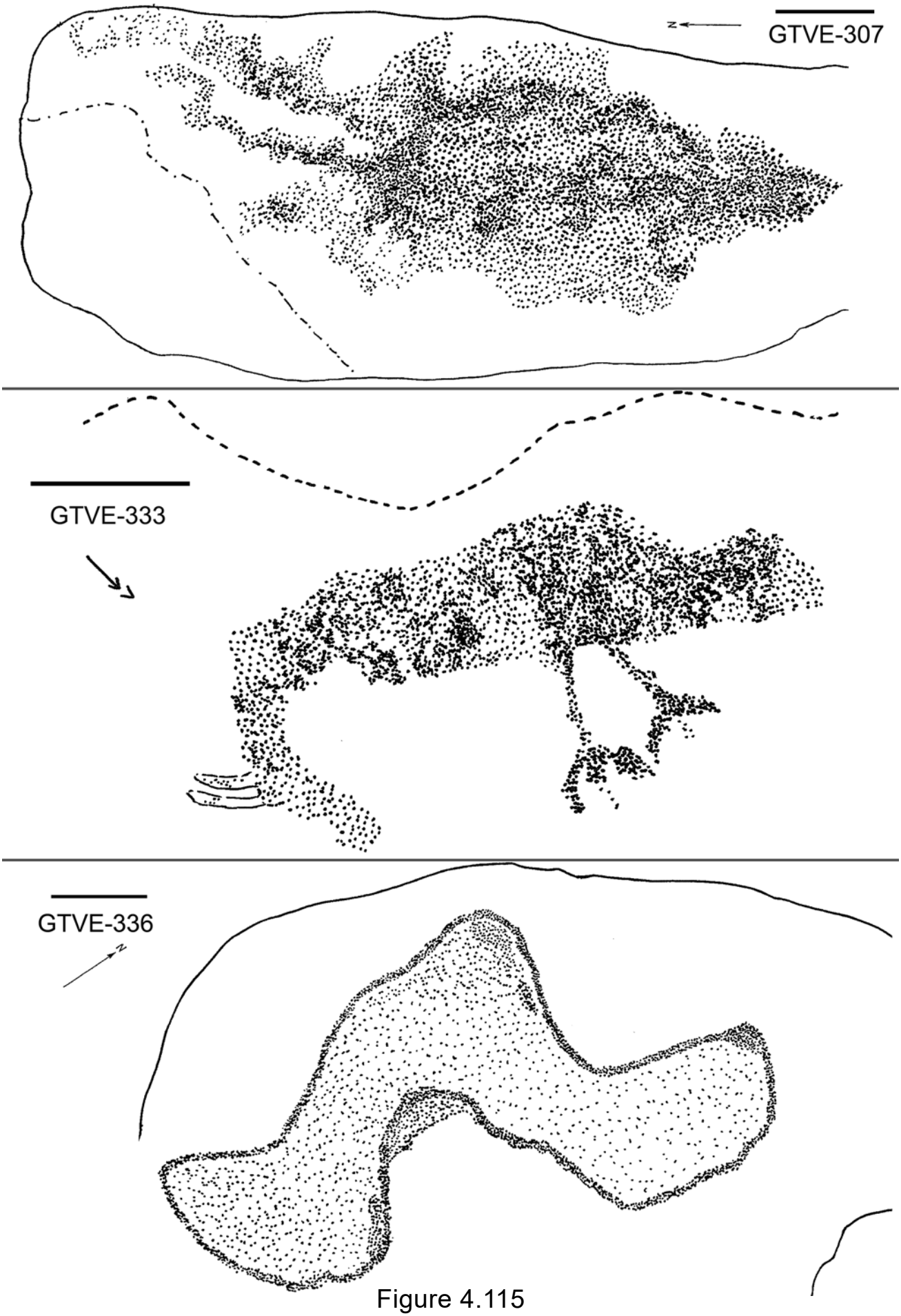


Figure 4.115

GTVE-318+337

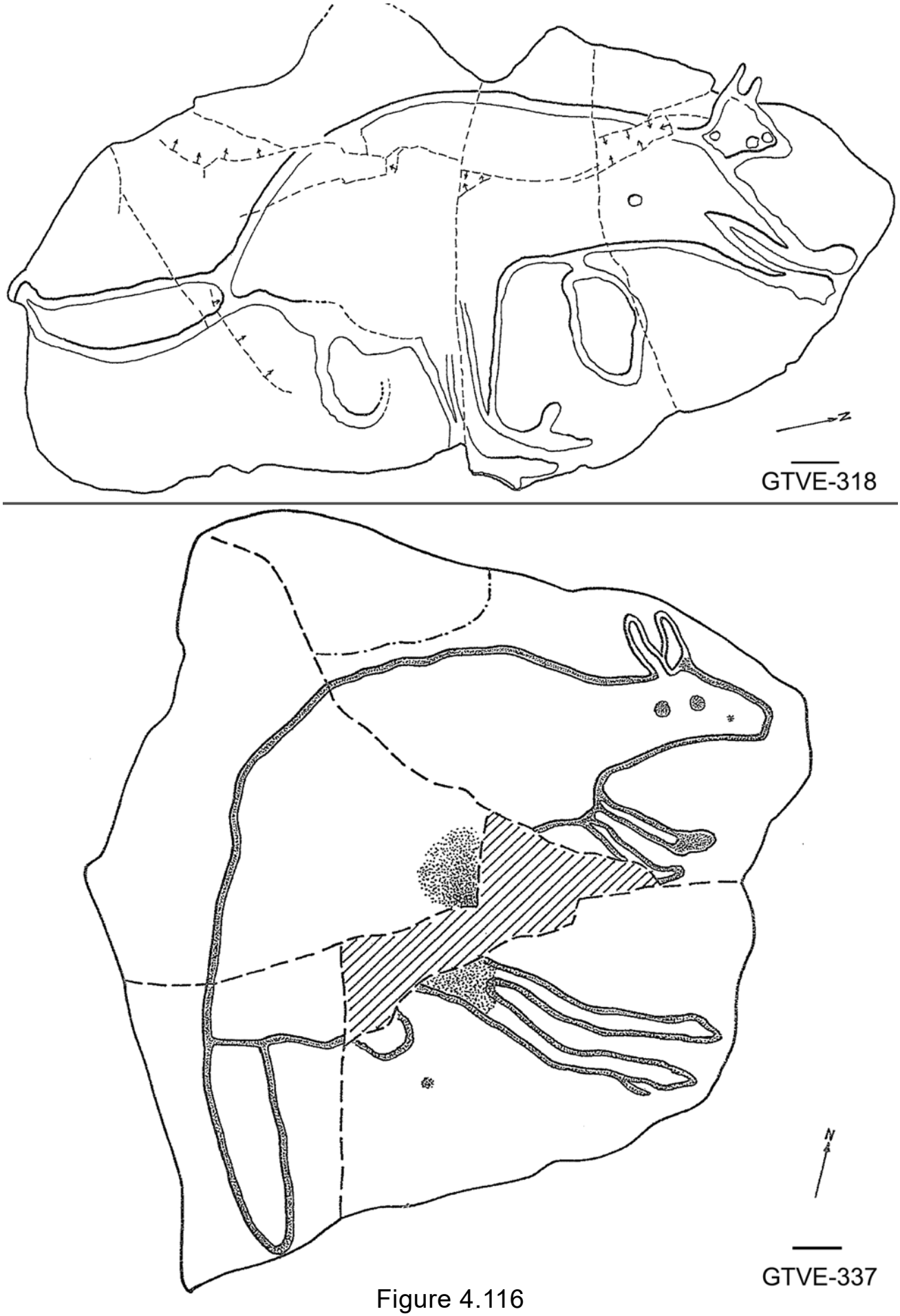
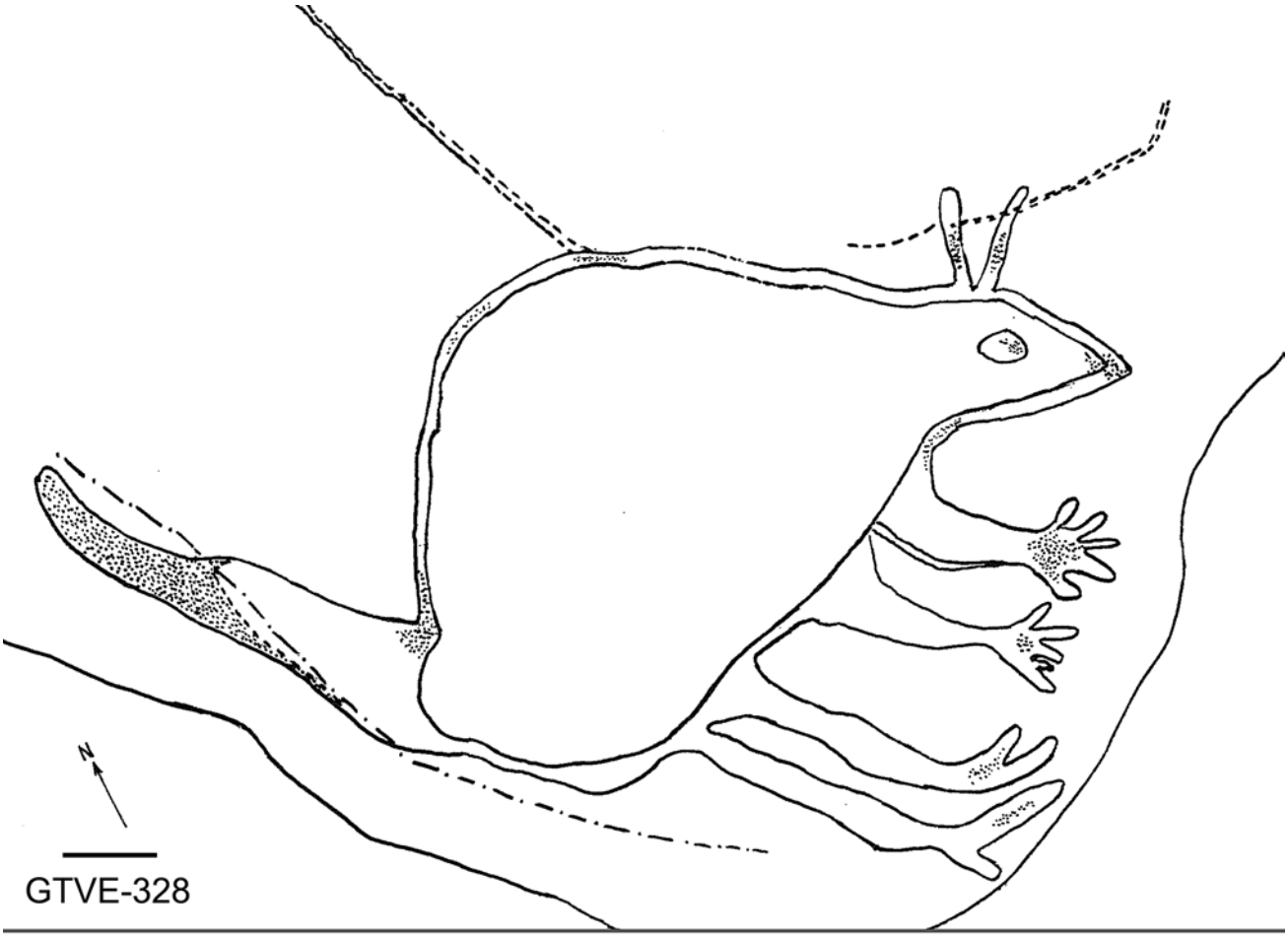


Figure 4.116

GTVE-328+342



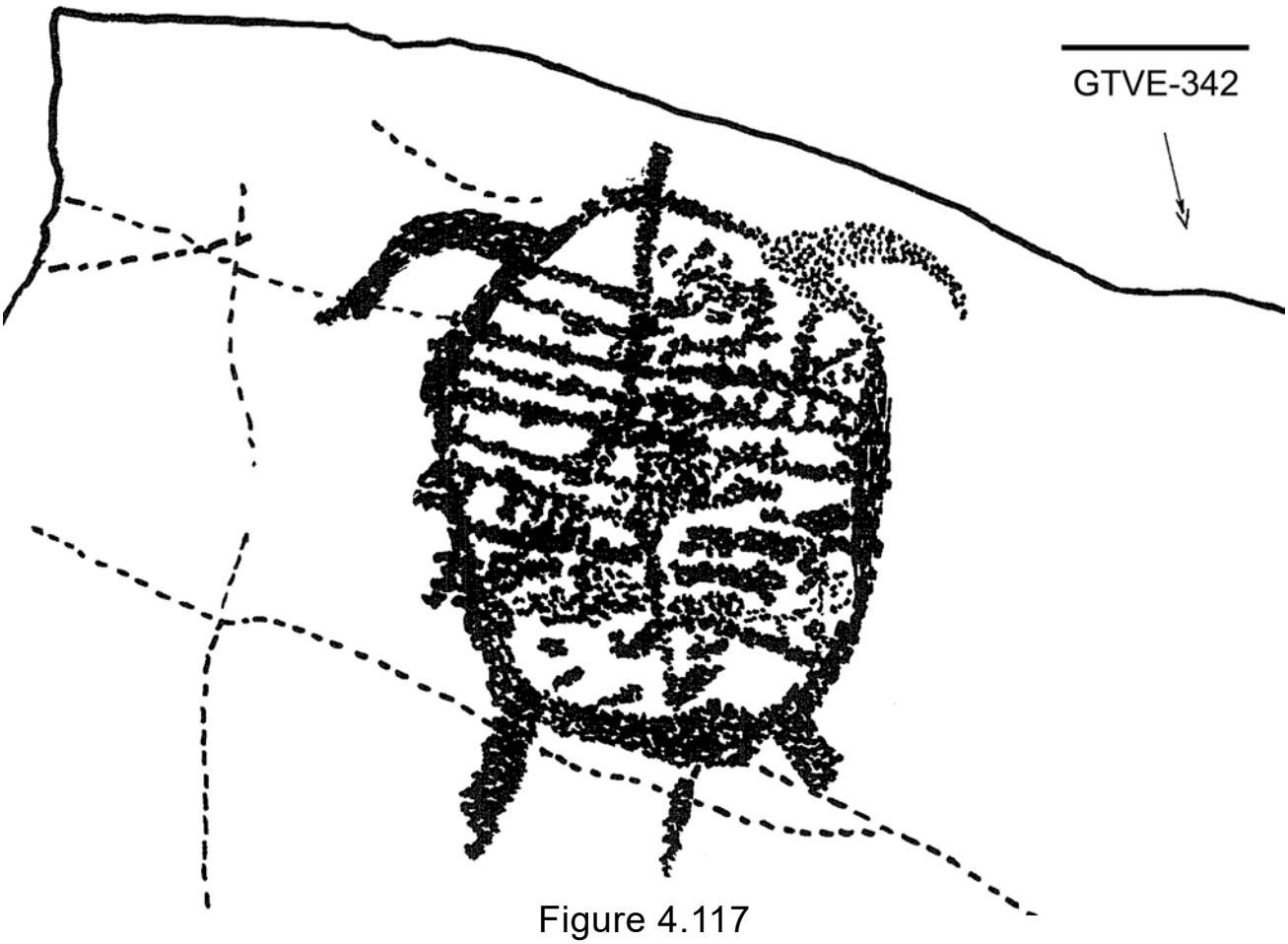


Figure 4.117

GTVE-339+359

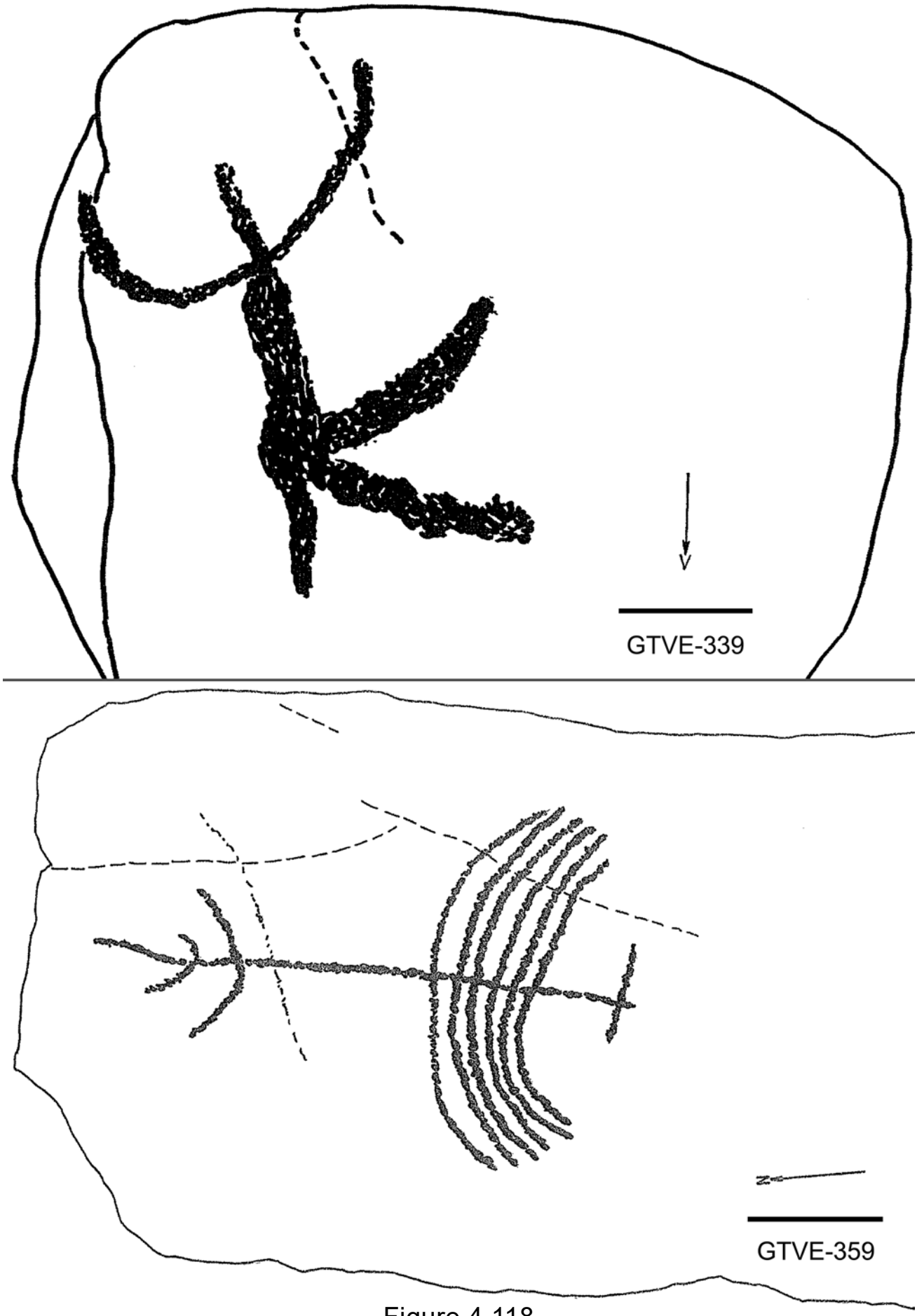


Figure 4.118

GTVE-343

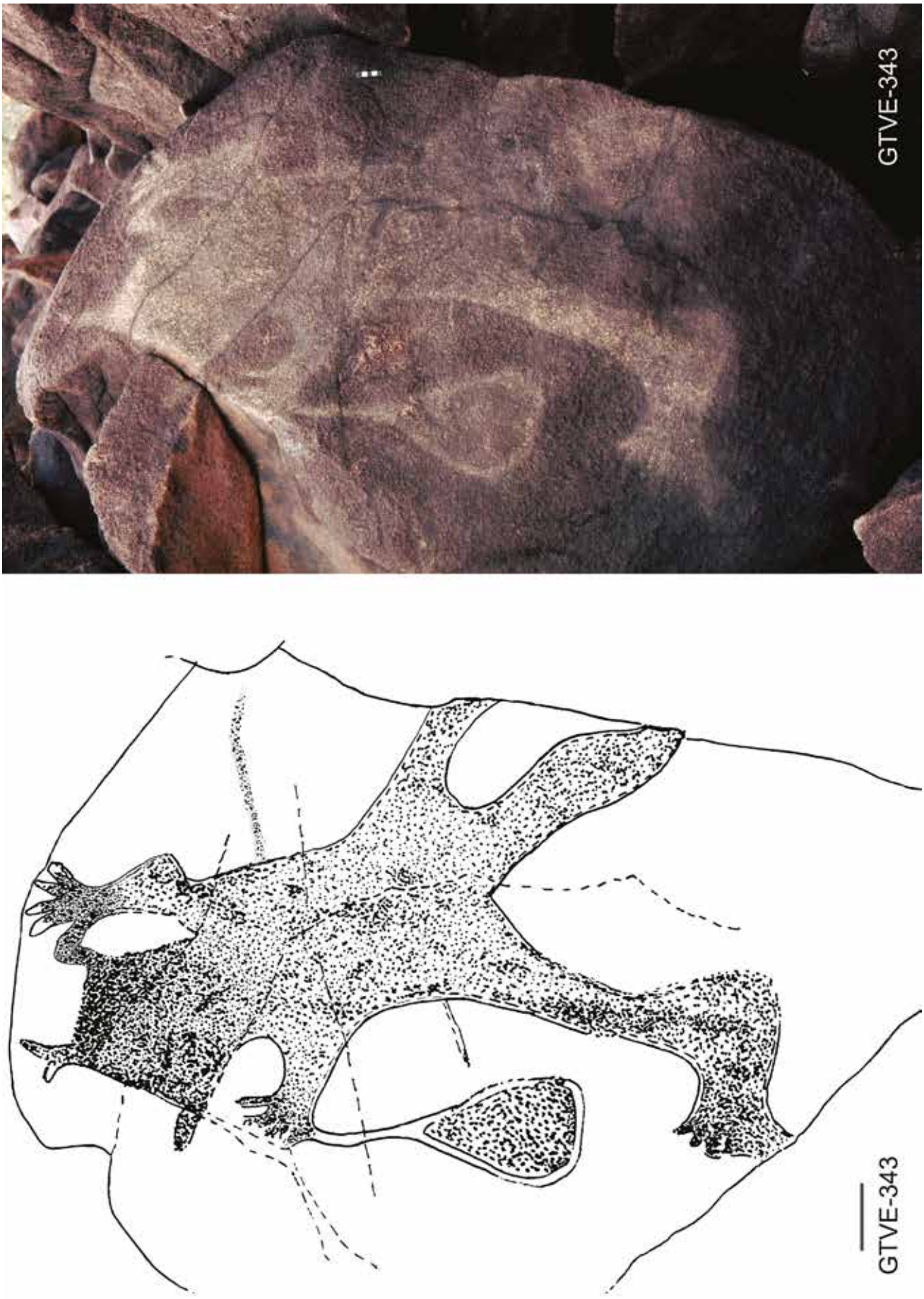


Figure 4.119

GTVE-361

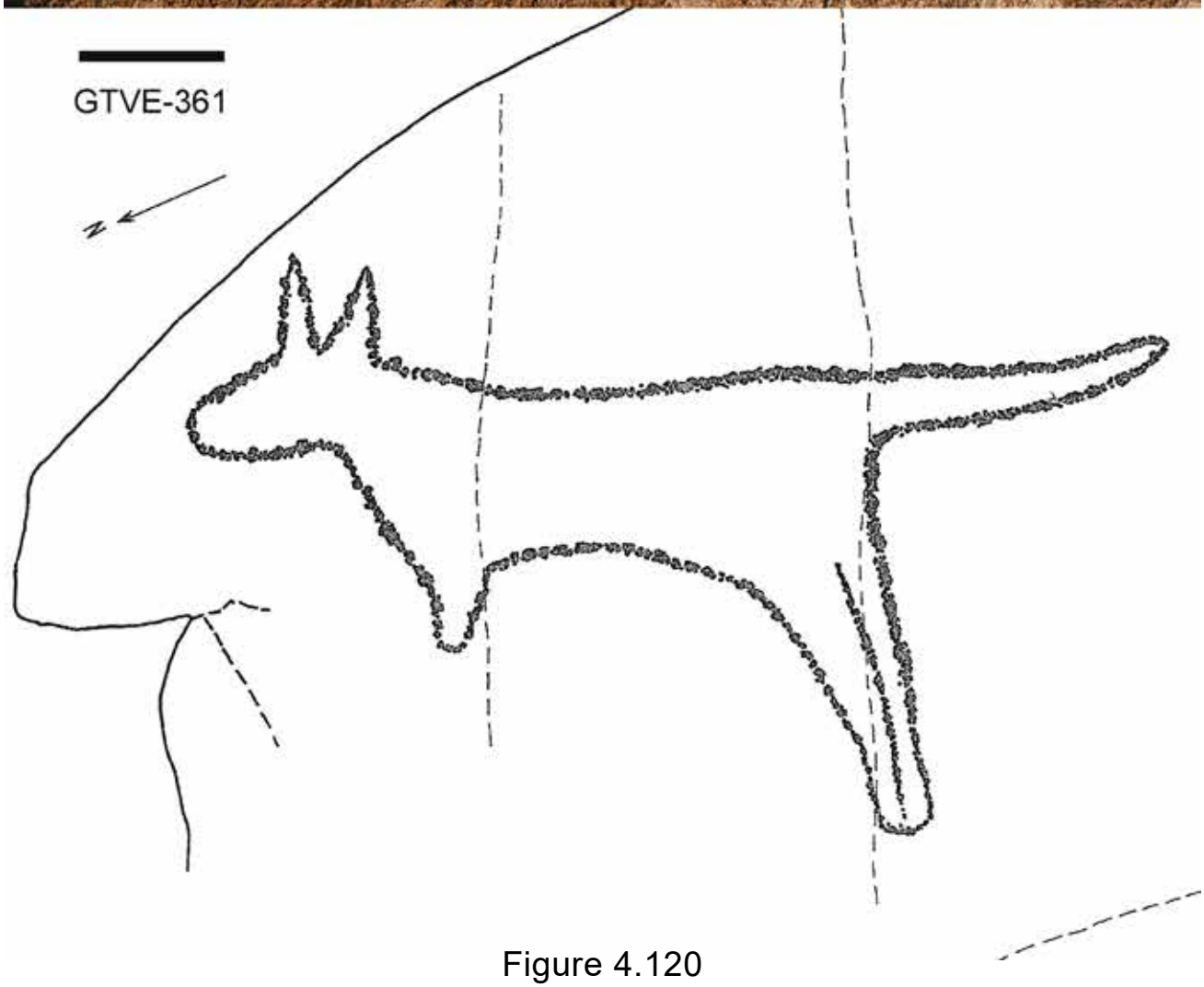
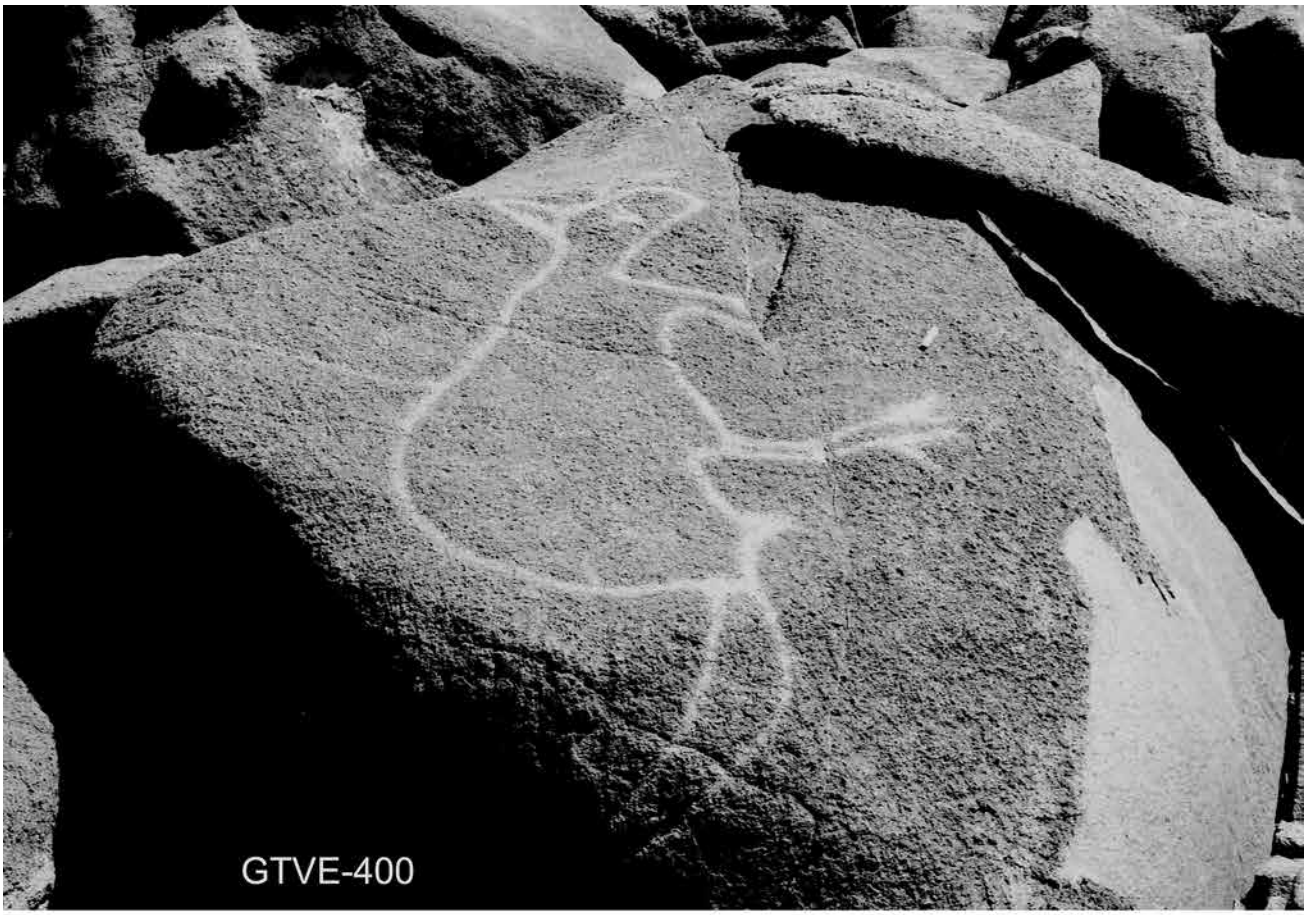


Figure 4.120

GTVE-400



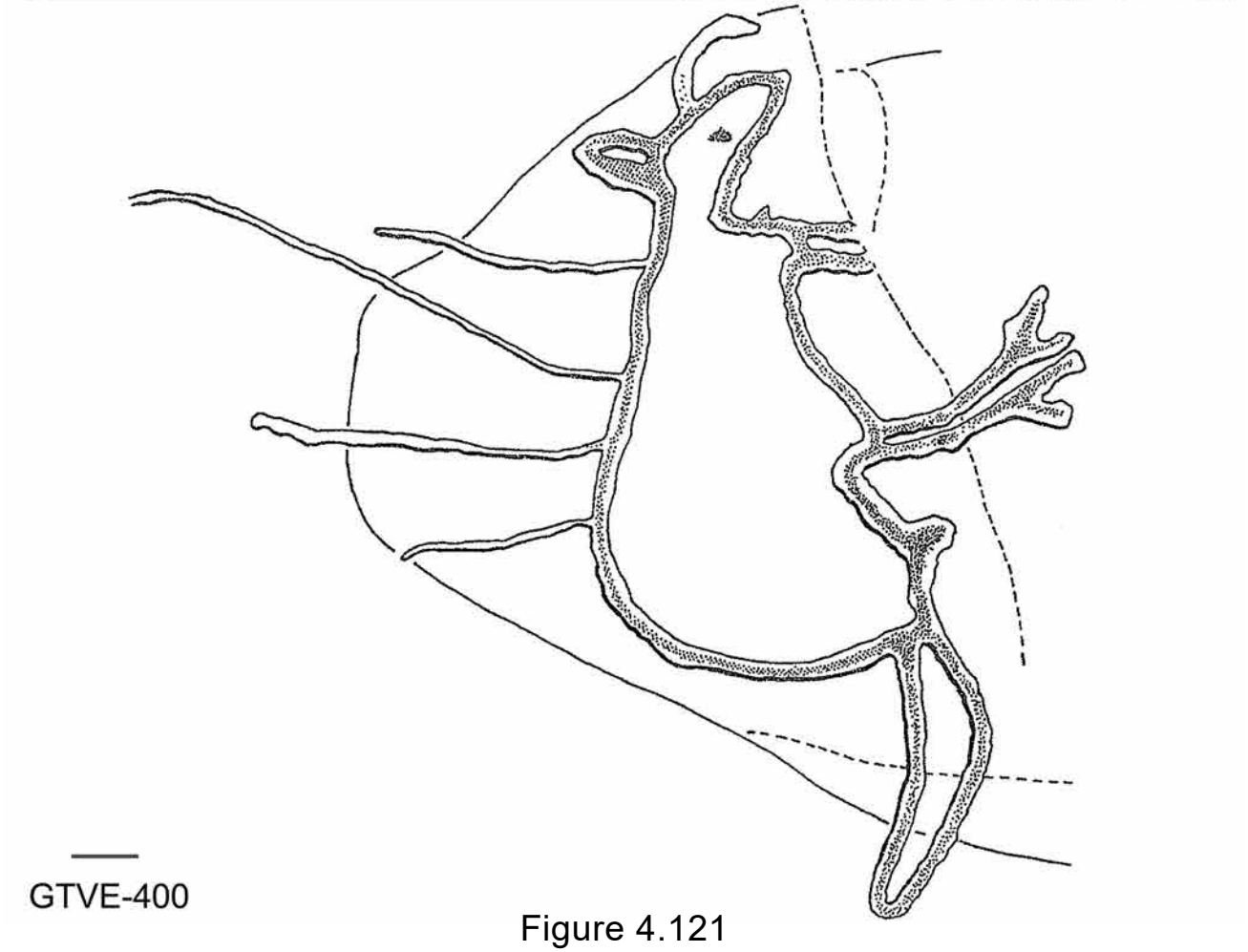


Figure 4.121

Chapter 4—Appendix B

Inventory of petroglyphs of the Eagle Group

A—Southern Slope

GTVE-1. The Eagle

This motif is dominant, visible from afar, from different parts of the valley, and from the shellfish midden. Height = 0.94 m, length = 1.15 m.
Techniques used are of two types: 'deep-grooving' for outlines producing a groove (pecked line followed by grinding of the groove by a back-and-forth movement). The treatment of surfaces by abrasion, rubbing or hammering with a stone designed to produce a simple clear area without depression in the wall, the greater or less force of friction or hammering causing a more-or-less clear colour, ranging from nearly white to yellow, as, for example, in the 'head' and 'body' of The Eagle.
The Eagle design was re-marked and refreshed on different occasions (the bottom of the groove is smoother and clearer than the sides, which are deeply patinated). In addition, the 'bird' is provided with three 'eyes' formed by wide circular shallow depressions. The two higher cupules having been re-marked recently and rubbed vigorously, stand out clearly on the yellow 'head', while the lower cupule is hardly visible. It is of the same colour as the 'head' and has not been re-marked. It is likely that, over the successive renovations of the motif, the 'eyes' were moved slightly (Lorblanchet, 1980).
Best visibility: at 1700 hours in winter. V-NNW orientation.
On the 'chest' of The Eagle: small 'male' 'human' stick figure seems to hold a 'boomerang' in the left 'hand'. Linear pecking looks fresher than the 'body' of The Eagle. H 0.19 m. Width = 0.12 m.
At the left, two stick figures in linear, patinated pecking that are hard to see. H 0.44 and 0.53 m, and L 0.25 m and 0.20 m. Two other very faint motifs are indeterminable.
Between the 'human' motifs and The Eagle, there is a small patinated motif. H 0.15 m and L 0.12 m, and a vertical patinated bar, H 0.13 m.
Block: support for all: H 1.25 m and L 2.30 m

GTVE-2. Circular and arc-like forms

An old circle (1) in linear pecking (diameter 0.43 m), with rays, partly destroyed by a more recent, slightly abraded surface (with single re-marked spot). Natural hole in the middle. On the abraded surface is a possible depiction of a 'boomerang' (2) made by a hammering technique (L 0.41 m). This crosses and covers a different form of 'boomerang' (3) made of very faded quite shallow grooves (L 0.29 m).
Block 2.30 × 1.10 m. Orientation: S-SW

GTVE-2. Linear, triangular forms

A deeply patinated linear motif (6) seems to have been almost totally erased (only the left corner is visible) by quite recent surface hammering (7). Then a triangular motif (0.81 × 0.54 m) was made with grooving (5). Patinated.
Orientation S-N (best visibility: 0800 hours in winter).

GTVE-2. 'Kangaroo'

Large 'kangaroo' (2–8), deeply patinated deep grooves that have not been recently re-marked. The general form of the 'animal' is well adapted to the shape of rock. There is a line at the 'neck' and at the base of the 'tail', which is common at Gum Tree Valley (L 1.22 m. H 0.82 m).
Block: 1.85 × 1.10 m. Orientation S-E. Best visibility: 1400 hours in winter.

GTVE-3. Large 'kangaroo', 'snake' and others

Large complex panel. A linear motif (1) in thin, patinated grooves filled with transverse stripes (0.90 × 0.80 m) that has been partly erased by erosion and by an area of light rubbing. In areas where friction is more accentuated, the lines of the previous motif have completely disappeared. To the right, a small surface has been strongly rubbed or hammered, and then a little, branching motif with six 'digits' (2) has been carved (0.25 × 0.17 m).
At the top left is a small pecked and ground arboriform (3), which appears to be a trace of a 'headdress' of a 'human' motif (H 0.16 m).
The first line drawing (a possible 'human' motif) has been intersected by the groove of the 'foot' of a large 'kangaroo' that is patinated (4) and is difficult to see in its entirety. The 'animal' has been formed using generally broad, deep grooves and it has been reworked several times. It has several 'feet', one of them with seven 'digits' because the two 'toes' of the 'kangaroo' (the only digits leaving their mark on the ground) have been re-marked several times, but not exactly in the same place. It has a double outline of the 'back' with a vertical line that may be a depiction of a spear. It also has three 'ears', one duplicated when the motif was re-marked (1.53 × 1.33 m).
This motif has then been partly abraded or hammered and the hammered areas (5) follow the grooves of the 'kangaroo', but not everywhere (one leg with two 'digits', drawn by friction is visible inside the groove of the previous 'foot' that had seven 'digits').
On the 'head' of the 'kangaroo' (L = 0.93 m), a 'snake' has been carved by a superficial hammering technique (6).
At the right of the panel, a 'human' motif with the 'headdress' holds a 'boomerang' in the left hand (7) (0.46 × 0.23 m).
At bottom right is a rocky beak that bears the remains of linear marks (8) (0.26 × 0.27 m).
Orientation: S-W. Best visibility: 'kangaroo' and line drawing: 0900–1000 in winter; hammered area: 0800 in shade before the arrival of the sun's rays; 'snake': 1800 after sunset.

GTVE-4. Indeterminate motif

Hammered, patinated area. Orientation: V-NW.
Block: 1.20 × 1 m.

GTVE-5. 'Human' motif

Profile (1) of a 'male', curved forward, exaggerated 'genitalia', raised 'arms', deeply and fully pecked; deeply patinated (0.43 × 0.29 m), lies over a curved line (2) itself deeply patinated (0.80 × 0.01 m).
Block: 0.80 × 0.70 m. Orientation: V-E. Best visibility: 0930 hours.

GTVE-6. 'Turtle' and 'human' motifs

Panel located on the upper face of a block (0.80 × 0.52 m) showing a 'turtle' (1) with internal patinated groove (0.43 × 0.32 m), and an elongated 'human' stick figure (2) (0.36 × 0.10 m).

GTVE-7. 'Kangaroo'

In grooves (1) on top of an old line carvings (2) that is almost completely erased (1.16 × 0.80 m). The 'body' and 'tail' were very recently re-marked with a stone point (perhaps by a visitor). The stone has only left a thin white line within the dark, patinated grooves, but the 'head' of the 'kangaroo' was formerly probably re-carved. The 'animal' shows six vertical lines on its 'back' and 'head' that are clear depictions of 'spears'. One of them goes beyond the edge of the block onto the other rock face.
Block: 1.22 × 1.40 m. Orientation: S-N. Visibility: 1600 hours.

GTVE-8. 'Kangaroo'

A quite coarse motif (0.80 × 0.50 m) in deep, deeply patinated grooves. A loop extends the 'head'. This motif is closely adapted to the shape of the support rock (0.75 × 0.60 m).
Orientation: on top of rock. Visibility: 0830 hours.

GTVE-9. 'Human' motif and erased 'face'

On a vertical surface (1.20 × 2.10 m), facing NW, several linear, carved motifs have been almost completely destroyed by erosion. In the centre, a 'human' stick figure (0.30 m) with a rounded 'penis' (1), executed with light hammering, is still discernible. It is superimposed upon linear, deeply patinated carvings.
Visibility: 0800 hours in the shade for the central motif and 0930 for the others.

GTVE-10. 'Turtle'

On top of a block (0.55 × 0.55 m), a grooved, patinated 'turtle' (0.40 × 0.40 m).
Visibility: 0830 hours.

GTVE-11. Groups of ten punctations

Patinated, on upper surface of a block.
Visibility: 1000 hours.

GTVE-12. Old linear form

A deeply patinated, unidentifiable motif.
Orientation: VW. Visibility: 1400 hours, oblique light.

GTVE-13. Linear forms

Very patinated (1), partly erased by a recently hammered surface (2).
Orientation: VW. Visibility: 1000 hours, in shade, for rubbed surfaces; 1400, in oblique light, for line carvings.

GTVE-14. Two hammered areas.

GTVE-15. 'Male human' motif

Patinated, superficially pecked (1 × 0.55 m).
Block: 1.10 × 1.30 m. Orientation: W-NW. Visibility: 1600 hours.

GTVE-16. 'Male human' motif

Patinated, superficially pecked (0.52 × 0.27 m).
Block: 0.70 × 0.80 m.

GTVE-17. 'Human' motif

Motif with overall pecking (intaglio) with a grooved 'headdress', grooved 'fingers' (1.30 × 0.74 m).
Block: 1 × 1.30 m. Orientation: SW. Visibility: 1600 hours.

GTVE-18–24. Unidentifiable

All are rubbed areas, patinated, indeterminate motifs of Category 3 (Chapter 3: Three categories of indeterminate motifs).

GTVE-25. 'Kangaroo'

Outlined in patinated and re-carved grooves. The 'head', completely re-marked, is a light colour, while the rest of the 'animal' is more deeply patinated (very dark 'tail') (0.64 × 0.40 m). The 'animal' rests on its 'legs' on the edge of the slab.
Block: 0.85 × 0.60 m. Orientation: S-NW. Visibility: 1500 hours.

GTVE-26. 'Kangaroo'

Small, grooved, patinated. Orientation: V-W.

GTVE-27 and GTVE-28. Unidentifiable

Three linear peckings, patinated. Upper surface. Orientation: S-and NW.

GTVE-29. 'Kangaroo'

Superficially pecked carving (abraded).
Block: 2.50 × 2 m. Orientation: V-W. Visibility: 1000 hours.
And an indeterminate rubbing. Patinated.
Orientation: V-N.

GTVE-30. Oval form
Linear pecking with a bar. Deeply patinated.
Orientation: S-W.

GTVE-31. Two arc-like forms
Linear pecking, deeply patinated.
Block: 2 × 1 m. Orientation: V-W.

GTVE-32. Large 'kangaroo'
On a rectangular block (1.75 × 1.30 m) oriented to the west, the 'animal' is carved in deep grooves repeated several times (white lines on the inside). By contrast the 'genitalia' have not been re-marked. Three 'darts' in the back continue on the other side of the block (1.70 × 0.90 m).
Visibility: 1130 hours. Orientation: V-W.

GTVE-33. 'Kangaroo'; small 'kangaroo'
A. 'Kangaroo': Linear pecking, deeply patinated.
Orientation: E-V.
B. Small 'kangaroo': Linear pecking. Patinated.
Block: 2.60 × 1.50 m. Orientation: V-NW.

GTVE-34. 'Human' motifs and geometric motifs
Three superimposed 'human' motifs, two cruciform motifs, ten punctations and a pectiniform motif. The panel shows an interesting juxtaposition of techniques: two ancient 'asexual human' motifs (1, 2), with raised 'arms' (0.80 × 0.29 m and 0.60 × 0.24 m) were first made with linear pecking in the outlines. They are deeply patinated. The one on the right wears a radiating 'headdress'. A fully pecked (intaglio) 'human' figure (3) has been superimposed onto the two previous ones in an old period (patinated).
At a later date, the pecked depression was partially re-worked with a light hammering that stands out against the motif underneath. The punctations (delineated 7 and others: typical diameter: 0.01 m), the crosses (4, 5: 0.5 × 0.5 m and 0.7 × 0.17 m) and 'rake' motif (6: 0.20 × 0.18 m), were carved by linear pecking.
Block: 1.50 × 0.90 m. Orientation: W-NW.
Visibility: Throughout the day, only the renovation of the central motif is visible. The block, concealed between others, is in shadow. In contrast, between 1130 hours and noon, a ray of sunlight hitting the wall reveals immediately all the other motifs and the re-marking disappears.

GTVE-35. Unidentifiable
Linear pecking, deeply patinated. Upper surface.

GTVE-36. 'Kangaroo'
Grooved. Deeply patinated.
Orientation: W-E.

GTVE-37. Unidentifiable
Linear pecking. Deeply patinated.
Orientation: W-N.

GTVE-38. 'Human' stick figure
Linear pecking. Deeply patinated.
Orientation: S-N.

GTVE-39. 'Human' motifs, 'Human' stick figure
Overall pecking. Deeply patinated.
Orientation: V-W.
'Human' stick figure: Linear pecking. Deeply patinated.
Orientation: V-E

GTVE-40. Unidentifiable
Deeply patinated. Linear pecking.
Orientation: V-N

GTVE-41. Unidentifiable
Overall pecking. Deeply patinated.
Orientation: V-N

GTVE-42. Unidentifiable
Linear pecking. Deeply patinated.
Orientation: V-NE

GTVE-43. 'Human' motif
Holding something in its 'hand' (lines). Linear pecking, deeply patinated.
Orientation: V-W.

GTVE-44. Unidentifiable
Pecked lines, deep patination.
Orientation: V NW.

GTVE-45. 'Human' stick figure
Linear pecking, deep patination.
Orientation: V-N.

GTVE-46–GTVE-50. Unidentifiable
Indeterminate motifs of Category 3 (Chapter 3: *Three categories of indeterminate motifs*). Patinated and deeply patinated.

GTVE-51. 'Human' stick figure
Elongated (0.50 × 0.20 m). Linear pecking and later hammering. Patinated. Upper surface.

GTVE-52–GTVE-55. Unidentifiable
Linear grooved and abraded. Deeply patinated. Upper surface.
Orientation: V-N.

GTVE-56. 'Human' motif
Linear pecking and hammering.
Orientation: S-NE.

GTVE-57. Unidentifiable
Linear pecking. Deeply patinated.
Orientation: V-NNW.

GTVE-58. Large 'serpent'
Coiled form. Linear pecking, partially re-marked; patinated and deeply patinated.
Orientation: S-NW.

GTVE-59. 'Human' motif.
Linear pecking and hammering. Re-marked; patinated.
Orientation: W-NNW.

GTVE-60. Two large 'kangaroo' prints
Linear pecking. Deeply patinated.
Orientation: S-N.

GTVE-61. Two parallel arc-like forms
Linear pecking. Deeply patinated.
Orientation: V-N.

GTVE-62. 'Animal' bodies with zebra-like lines; large triangular forms; unidentifiable
A. 'Animal' bodies with zebra-like lines.
In our first inventory in 1976, while we were starting our study of the engravings of Gum Tree Valley, we simply noted "stripped animals deeply patinated to be checked again, V-W", but we did not return to this panel, which is located on the margin of our study area. In 2011, after reading Ken Mulvaney's (2009) paper on the images of thylacine in the Pilbara, we asked Ken and Graeme Ward to check this panel. They visited the site together in August 2011, found the panel and made a tracing of it, confirming that the stripped 'animals' were in fact two representations of thylacines. (Main text Fig. 22)
B. Large triangular forms: Deeply patinated.
Orientation: N-SW.
C. Unidentifiable: Superficial pecking.
Orientation: V-NW.

GTVE-63. Unidentifiable
Linear pecking, deep patination.
Orientation: V-N.

GTVE-64. Arc-like form
Overall pecking. Deeply patinated.
Orientation: V-S.

GTVE-65. Unidentified
Small motif, overall pecking. Deeply patinated.
Orientation: V-E.

GTVE-66. Indeterminate
Linear pecking. Deeply patinated.
Orientations: S-N and V-W.

GTVE-67. Indeterminate
Linear pecking. Deeply patinated. Upper surface.

GTVE-68. 'Fish', 'turtle', and linear form
Double-line motif (3) superimposed on a 'turtle' (2: 0.90 × 0.65 m), which, in turn, is superimposed on a large 'fish' (1: 1.40 × 0.68 m). Whole, obtained by superficial linear hammering, is patinated.
Block is approximately diamond shaped: 1.50 × 0.90 m. Orientation: V-N.

GTVE-69. 'Male human' motif
Overall pecking; with 'hair', 'ears' and giant 'hands' (0.60 × 0.80 m). Patinated but re-carved so prominent.
Block: 0.95 × 0.70 m. Orientation: V-NE.

GTVE-70. 'Kangaroo'
Linear pecking with large contiguous dots (1.05 × 0.49 m). Deeply patinated. But partially re-marked (newly carved part has fresh appearance); 26 'spears' are fixed into the outline of the 'kangaroo'. The 'spears' are deeply patinated, while the 'kangaroo' is rubbed and partially grooved (fresh appearance).
Block 1.20 × 1.20 m. Orientation: V-NE. Visibility: overcast or 1000–1700 hours.

GTVE-71. Bi-lobed motif
Possible depiction of a fish (possible stingray) liver (0.32 × 0.26 m). Linear pecked motif has big separated points (size of points = 0.012 m) up on the ridge of a block so is on both sides of the block. On the side facing westward the carving is slightly darker, more patinated, than on the part of the motif facing northward.
Block 1.20 × 0.90 m.

GTVE-72. 'Human' motifs
Three 'males' (1, 2, 3). Overall light pecking (slight depression) (0.36 × 0.10 m, 0.32 × 0.15 m; 0.37 × 0.10 m). Patinated.
Block: 1.20 × 1.30 m. Orientation: S-NNW.

GTVE-73. 'Emu'
The main motif (1) might depict an Emu (0.70 × 0.57 m) the 'neck' of which covers at least two 'human' stick figures (2, 3). The 'Emu' is fully pecked, partially grooved and re-marked by hammering. The top of its 'back', which has not been renovated, retains the original overall pecking technique. Thus deeply patinated and patinated. Another, indeterminate (4), motif is at the top of the block.
Block: 1 × 0.80 m. Orientation: V-NW.

GTVE-74–GTVE-76. Indeterminate
Indeterminate motifs of Categories 1 and 3 (Chapter 3: *Three categories of indeterminate motifs*). Patinated and deeply patinated.

GTVE-77. Arc-like forms
Four arcs (1–4) superficially pecked with a fresh aspect. Upper surface.

GTVE-78. 'Human' motif
A phantom-like 'male' (0.90 × 0.45 m) with two 'eyes'. Rudimentary. Grooved with hammered infill, and re-marked. Patinated.
Block: 1.15 × 0.50 m. Orientation: S-NW.

GTVE-79. Phantom-like 'human' motif
This phantom-like motif (1.30 × 0.47 m) has linear-pecked 'headdress', deeply patinated, covered by a hammered patch then by a second most recent, superficially-pecked 'human' motif. Patinated.
Block: 1.30 × 0.38 m. Orientation: V-NW

GTVE-80. Triangular form
Superficial pecking and hammering (0.97 × 0.73 m). Patinated. Upper surface.
Block 2.6 × 1.1 m.

GTVE-81. 'Human' motifs
Four motifs in linear superficial pecking.
Orientation: S-NNW.

GTVE-82. 'Kangaroo'
Patinated carving partially retouched (1.40 × 1.18 m). Grooving technique. The carving of the 'head' has been 'corrected'. It depicts a female (showing pouch), thick-tailed and with prominent 'genital area'. The 'animal' occupies all available surface of the block.
Block 2.40 × l.70 m. Orientation: S-NW.

GTVE-83. 'Human' motif and two arcs
Linear pecking, superficial.
Orientation: W-NW.

GTVE-84. Three 'human' motifs
Patinated superficial pecking.
Orientation: W-NW.

GTVE-85. Indeterminate
Four motifs made with wide grooves then their surfaces fully pecked, and partly re-marked by superficial pecking. Can it have been meant to depict an eagle first, then human stick-figure? (Central motif is 0.70 × 0.20 m). Deeply patinated and patinated. Block: 0.81 × 0.80 m.
Orientation: S-W.

GTVE-86. 'Human' stick figure; indeterminate
'Asexual' stick figure. Linear and superficial pecking (0.15 × 0.11M). Patinated.
Orientation: V-NNW.
Indeterminate: Hammering on S-N.
Block 2 × 2 m.

GTVE-87–GTVE-88. Indeterminate
Grooved and abraded, patinated.

GTVE-89. 'Human' motifs
Four 'human' motifs. Superficial pecking.
Orientation: NE.

GTVE-90. 'Human' motif
Linear stick figure, deeply patinated.
Orientation: V-N.

GTVE-91. Oval motif
On single axis (0.38 × 0.135 m). Linear, slightly re-marked. Upper surface.
Block: 0. 85 × 0.30 m.

GTVE-92. Small 'macropod'
Depiction of a small kangaroo (0.59 × 0.24 m; 'tail': 0.22 m; 'body': 0.37). Fully pecked. Patinated (pink tone).
Block 0.30 × 0.70 m. Orientation: V-N.

GTVE-93–GTVE-96. Indeterminate
GTVE-93 is indeterminate; superficial abrading and pecking (Appendix A); others are abraded, patinated patches.

GTVE-97. 'Kangaroo'
Motif (1: 0.60 × 0.48 m) Totally pecked. In a slight depression. Patinated especially at the front.
Block 0.70 × 0.70 m. Orientation: V-N.
Another motif (2) (a possible 'kangaroo'), visible slightly above the preceding one, is slightly pecked, except the 'tail', which has linear pecking and deep patination.

GTVE-98. 'Human' motif and two 'birds'
To the west of The Eagle (GTVE-I). Technique: superficial pecking with slight depression. A 'human' figure (1) is depicted at the centre; it appears to hold a 'bird' in each hand (2, 3). The three motifs are a pinkish colour and deeply patinated ('man': 0.30 × 0.18 m; 'birds': 0.43 × 0.29 m, 0.32 × 0.18 m).
Block: 0.85 × 0.65 m. Orientation: V-NE.

GTVE-99. Indeterminate
Linear and superficial pecking. Patinated. Orientation: V-NE.

GTVE-100. Concentric circular forms
Linear pecking. Deeply patinated, upper surface.

GTVE-101. Three arc-like forms
Linear superficial pecking, easily visible.

GTVE-102. 'Turtle'
Linear pecking. Deeply patinated. Upper surface.

GTVE-103. 'Bird print' and circular form
'Bird print' (1: 0.30 × 0.34 m). Grooved outline, pecked infill. Patinated, but clearly visible. Circle (2) in linear pecking (diameter 0.12 m). Deeply patinated and older than 'bird track'.
Block 1 × 0.60 m. Orientation: V-N.

GTVE-104. 'Fish' and indeterminate motifs
'Fish' (1) linear form with a 'spear'. Deeply patinated. Rubbed area on top. To the left, indeterminate motifs (2) deeply pecked and patinated.
Orientation: S-NNW.

GTVE-105. 'Human' arboriform
Four parallel arc-like forms with vertical line crossing them (0.24 × 0.275 m). Linear pecking technique. Deeply patinated. Upper surface.
Block 1 × 0.50 m.

GTVE-106. Indeterminate
Complex linear motif complete. Deeply patinated.
Orientation: V-NW.

GTVE-107. 'Human' arboriform
Four arc-like forms crossed by a line. Linear. Patinated. Upper surface.

GTVE-108. 'Turtle'
Linear with interior motif (0.44 × 0.32 m). Deeply patinated. Upper surface.
Block: 1 × 0.50 m.

GTVE-109. 'Human' arboriform
Four arc-like forms crossed by a line. Linear. Patinated. Upper surface.

GTVE-110. Arcs
Five parallel arcs. Linear pecking. Deeply patinated. Upper surface.

GTVE-111. Indeterminate
Linear. Patinated.
Orientation: V-NE.

GTVE-112. Arc-like forms
Four parallel arcs. Linear pecking. Deeply patinated. Upper surface.

GTVE-113. Bi-lobed motif
Possible depiction of a fish liver. Linear pecking. Deeply patinated.
Orientation: S-NE.

GTVE-114. 'Human' motif
Linear pecking. Deeply patinated.
Orientation: W-NW.

GTVE-115. 'Human' motif
Linear. Deeply patinated.
Orientation: V-E.

GTVE-116. 'Turtle'
Linear pecking. Deeply patinated.
Orientation: S-S.

GTVE-117. 'Human' motif
'Male' stick figure (0.45 × 0.15 m).
Block: 0.60 × 0.55 m. Orientation: S-NW.

GTVE-118. 'Human' stick figure
Superficial pecking.
Orientation: V-NNE

GTVE-119. 'Human' motifs
Four elongated motifs. Superficial pecking. Patinated.
Orientation: V-N and V-W.

GTVE-120. Indeterminate
Linear and hammered. Patinated.
Orientation: V-NW.

GTVE-121. 'Human' motifs
Two 'human' motifs. Hammered. Deeply patinated.
Orientation: V-NW

GTVE-122. Indeterminate
Hammered. Patinated.
Orientation: V-NNW.

GTVE-123. Two 'rays' (or 'Horseshoe crabs'?)[26]
Two motifs (1, 2: 0.23 × 0.70 m and 0.65 × 0.20 m). Slightly depressed superficial pecking. Patinated.
Block 1 × 0.90 m. Orientation: S-E.

GTVE-124–GTVE-129. Indeterminate
Indeterminate patinated motifs of Category 3 (Chapter 3: Three categories of indeterminate motifs).

GTVE-130. 'Human' motif
Motif (0.35 × 0.19 m). Linear with separate points with full pecking (intaglio), partially renovated. It might depict a male subincision (split penis), or vulva or a woman without breasts. Deeply patinated and patinated.
Block: 0.60 × 1.40 m. Orientation: S-NE. Visibility: all day, but difficult to see.

GTVE-131. Indeterminate
Hammered spot, easily visible.
Orientation: V-N.

GTVE-132. 'Human' motif
'Male' with 'headdress', 'boomerangs' at the belt (0.97 × 0.62 m). Entirely pecked.
Block: 1.30 × 0.80 m. Orientation: V-N.

GTVE-133. Indeterminate
Linear pecking and hammering. Patinated
Orientation: S-N.

GTVE-134. Indeterminate
Linear pecking and hammering. Patinated. On two surfaces.
Orientation: V-N and S-E.

GTVE-135. 'Kangaroo'
Grooved carving (1.10 × 0.80 m). Partially re-marked. 'head' and 'genitals' fully pecked. Presence of 'bags' under the 'belly' and rear 'legs', and five 'spears'.
Block: 1.20 × 0.85 m. Orientation: S-E.

GTVE-136. Indeterminate
Large hammered spot. Patinated.
Orientation: V-NW.

GTVE-137. 'Snake' and 'human' motif
Coiled 'snake' (1: 0.80 × 0.30 m). Linear design deeply grooved with ancient pecking. Deeply patinated. 'human' stick figure (2) at the left (0.23 × 0.10 m).
Block: 1.35 × 0.65 m. Orientation: S-NW. Visibility: 1000 hours.

GTVE-138. Indeterminate
Motif fully pecked and linear pecked. Deeply patinated.
Orientation: S-N.

GTVE-139. 'Fish'
Large motif with internal geometry (1.20 × 0.50 m). Linear pecking. Deep patination. Upper surface.
Block 1.60 × 1.25 m.

GTVE-140. Rayed circular and 'human' motifs
Rayed circle (1: 0.50 m diameter). Linear pecking technique. Deep patination. At least four 'human' stick figures (2–5). Superficially hammered. Upper surface.

GTVE-141. 'Human' motif
Very patinated, linear and shallow pecking.
Orientation: V-N.

GTVE-142. 'Man-kangaroo'
Motif (0.76 × 0.30 m). Abraded and grooved. Patinated. Only the upper part of this motif is fully delineated; it is presented face-on with the front 'legs' on either side of the 'chest'. Consequently, the 'torso' looks like that of a man, while the 'head' clearly represents that of a kangaroo. The whole might be interpreted as a spirit being—partly 'animal', partly 'human'.
Block 1 × 0.60 m. Orientation: S-NW.

GTVE-143. 'Man-kangaroo'; large 'male kangaroo'; V-shaped motif
A. On surface VE. 'Kangaroo head' with 'human' 'arms' (1 × 0.75 m). Linear and superficial pecking. Patinated.
Block: 1.65 × 1.20 m. On surface V-NW.
B. Large 'male kangaroo': Turned to the right with deep grooves, quite recently re-grooved (1.80 × 0.95 m). Deep patination and patination. Incomplete hind 'legs'. At the front, to the right of the 'head', a V-shaped motif.
B. V-shaped motif: Lightly, more recently, hammered; patinated (0.15 × 0.12 m).
Block: 2.40 × 1.90 m.

GTVE-144. 'Human' arboriform
Motif on upper surface of block. Linear pecking; deeply patinated.

GTVE-145. 'Snake'
On the top of block. Linear and overall pecking (1.60 × 0.15 m). Patinated and deeply patinated.
Block: 1.90 × 0.90 m.

GTVE-146. Indeterminate
Patinated hammered area on V-N.

GTVE-147. Indeterminate
Linear, hammered area, patinated on VN.

GTVE-148. 'Kangaroo'
Motif with partially re-marked grooves (0.97 × 0.72 m), on top of slab next to the large 'kangaroo' 170 NW. Upper surface.
Block: 1 × 0.80 m.

GTVE-149–150. Indeterminate
Grooved and abraded, patinated.

GTVE-151. Indeterminate
Indeterminate on a cubic block. Upper surface bears a deeply patinated motif in a linear technique.

GTVE-151. Three 'human' motifs
Face V-W bears a deeply patinated, linear 'male' stick figure carrying 'boomerangs' (0.30 × 0.18 m), and another elongated patinated stick figure to the side (0.50 × 0.13 m). Surface V-N bears a patinated linear hammered motif; surface VE has a carving conspicuously marked by hammering and a few pecked lines.
Block: 0.80 × 0.70 m on all sides. This block shows interesting overlays of techniques: the surface treatment by hammering is later than the linear outline.

GTVE-152. Indeterminate
Linear and hammered. Patination.
Orientation: S-N.

GTVE-153. Group of large punctations
Several (average diameter 0.05 m). Deeply pecked. Deep patination.
Orientation: V-N.

GTVE-154. Indeterminate
Overall and linear pecking. Deep patination.
Orientation: V-N.

GTVE-155. Oval form
Linear and deep pecking. Very old patination.
Orientation: S-NW.

GTVE-156. 'Macropod'
'Kangaroo' motif. Linear and superficial. Patinated. Orientation: W-NW. Indeterminate. Linear pecking and hammered. Patinated. On SN.

GTVE-157. Indeterminate
Linear pecking and hammered. Deep patination.
Orientation: V-N

GTVE-158. Indeterminate
Linear pecking with hammered area: new case of superimposition of techniques (hammering on linear carving).
Orientation: S-NNW.

GTVE-159. 'Human' motif and indeterminate
'Human'. Linear superficial pecking. Patinated.
Orientation: V-NE.
Indeterminate. Linear pecking with deep patination.

GTVE-160. Indeterminate
Small linear-pecked motif with large patinated separated punctations (0.25 × 0.15 m).
Block: 1 × 0.40 m. Orientation: V-S.

GTVE-161. 'Kangaroo'
Motif (0.69 × 0.32 m; 'body' = 0.45 m). Made by hammering. Patinated. Plus, another indeterminate motif.
Orientation: V-NW.

GTVE-162–GTVE-173. Indeterminate
Patinated, indeterminate motifs of Category 3 (Chapter 3: *Three categories of indeterminate motifs*).

GTVE-174. 'Kangaroo' and indeterminate
Both made by hammering technique. Patinated.
Orientation: V-NE.

GTVE-175. Indeterminate
Hammered and patinated area.
Orientation: S-E

GTVE-176. Indeterminate
Large block with hammered marks on two surfaces.
Orientation: V-N and upper surface.

GTVE-177. Indeterminate
Clearly visible hammered area.
Orientation: V-NE.

GTVE-178. Indeterminate
Hammered; patinated.
Orientation: V-N.

GTVE-179. Bi-lobed motif
Possibly depiction of stingray liver. Clearly visible shallow pecking.
Orientation: S-NE.

GTVE-180. 'Turtle' and indeterminate
Superficial pecking; patinated.
Orientation: V-E. Indeterminate: V-N.

GTVE-181. Indeterminate
Linear pecking and hammered. Patination.
Orientation: V-NE.

GTVE-182. 'Human' motifs
Two 'humans' (1, 2): two stick figures aligned (coital), poorly preserved (0.60 × 0.20 m). Visible at 3 m. Fully pecked. Patinated.
Orientation: V-NE. Block: 1.70 × 1.50 m (13 m above 206).

GTVE-183. Indeterminate
Hammered on both sides.
Orientation: V-N and V-E.

GTVE-184. 'Human' and indeterminate motifs
'Woman' with 'skirt'. Superficial linear pecking. Patination. V-N. Indeterminate: V-E.

GTVE-185. Indeterminate
Hammered, patinated.
Orientation: V-W.

GTVE-186. 'Human' and indeterminate motifs
'Male' superficially pecked. Patinated. Indeterminate linear pecked. Patinated.
Orientation: V-N and upper surface.

GTVE-187. 'Dugong', 'human' motif and 'foot'
Three motifs superficially pecked; recent fresh appearance (dimension of punctations = 10 mm). First two are on upper surface of block.
'Dugong' (1) is superimposed onto another superficially hammered motif (2), which could depict a fish. 'Dugong' made in pecked outline with a fresh appearance (0.86 × 0.33 m and 0.43 m for the 'tail').
'Human' motif: Fully pecked and patinated (0.20 × 0.49 m).
'Foot': At the left end of the panel (on the vertical face of the block) a representation of a 'human foot' (0.29 × 0.14 m).
Block: triangular (l.45 × 1.50 m base). Orientation: V-N. Cailleux colour code[27] readings: C46 for the 'dugong fin'; E48 for the patinated 'human' motif; and H22 for the block.

GTVE-188. Indeterminate
Area with lines and hammering. Patinated.
Orientation: S-N

GTVE-189. Indeterminate
Overall pecking (intaglio). Deep patination. Upper surface.

GTVE-190. Indeterminate
Hammered area. Patinated. Orientation: S-N.

GTVE-191. 'Human' motif
'Male' stick figure (0.30 × 0.15 m). Linear pecking with slight depression Patinated.
Block: 0.53 × 0.47 m. Orientation: S-N.

GTVE-192, GTVE-193. Indeterminate
Grooved and abraded motifs. Patinated and deeply patinated.

GTVE-194. 'Kangaroo'
Small motif. Linear and superficial pecking. Patinated.
Orientation: V- NW.

GTVE-195–GTVE-197. Indeterminate
Grooved and abraded motifs. Deeply patinated

GTVE-198. 'Emu footprint'
Pecked. Deeply patinated. Upper surface.

GTVE-199. 'Human' and indeterminate motifs
Three 'humans'. One a 'male' stick figure (1); linear pecking. Others fully pecked. A 'leg' and a 'foot' (3) extend onto the side of the block (0.35 × 0.16 m). Deeply patinated. Central stick figure (2) incomplete (0.14 × 0.08 m). Upper stick figure (0.11 × 0.18 m). is deeply patinated. Orientation: V-NW.
Another indeterminate motif (4) on upper surface (0.11 × 0.09 m).
Block: 0.68 × 0.75 m.

GTVE-200–GTVE-205. 'Emu footprints'
200 (0.15 m long and 0.16 m wide). Pecked. Deeply patinated.
201 (0.18 × 0.20 m wide). Fully pecked. Patinated. Old groove re-marked.
202 (0.17 × 0.19 m wide) Fully pecked. Patinated.
203 (0.16 × 0.18 m wide). Fully pecked and not re-marked. Deeply patinated.
204 (0.30 × 0.15 m). Fully pecked. Deep patination but partially renovated. The dimension of this motif suggest depiction of a very large 'bird'.
205 (0.17 × 0.5 m wide). Renovated, patinated.
This set (200–205) was originally entirely pecked, then it was partially reworked. All these prints are on the tops of slabs and are oriented across the slope, heading to the top, except for 205, which points towards the west.

GTVE-206. 'Human' and indeterminate motifs
'Human' and two indeterminate. Linear pecking; deep patination. Orientation: S-N.

GTVE-207. Arc-like and 'human' motifs
Arc entirely pecked but outlined in grooves. Patinated.
Orientation: V-S. 'Human', superficially pecked on V-NW.

GTVE-208. Indeterminate
Linear peaking. Deeply patinated.
Orientation: S-N.

GTVE-209. 'Fish'
Motif (0.41 × 0.14 m for the 'tail' and 0.105 m for the 'body'). Fully pecked and deeply patinated.
Block: 0.35 × 0.48 m. Orientation: S-N.

GTVE-210. Large 'foot'
Motif (0.36 × 0.23 m). Fully pecked. Deeply patinated but lightly re-marked (patination).
Block: 0.70 × 0.80 m. Orientation: S-W.

GTVE-211. 'Fish'
Motif with at least one 'spear' (0.33 × 0.28 m). Fully pecked. Patinated.
Block: 1 × 0.90 m. Orientation: S-NW.

GTVE-212. Indeterminate
Linear, Deeply patinated.
Orientation: V-NW.

GTVE-213. 'Human' motif
Leaning forward. Linear pecking. Deeply Patinated.
Orientation: S-N.

GTVE-214, GTVE-215. Indeterminate
Linear pecking. Deep patination. Upper surfaces.

GTVE-216. 'Human' motif
Leaning forward. Grooved and fully pecked. Deep patination.
Orientation: V-N.

GTVE-217. Indeterminate
Motifs linear pecked and grooved. Deeply patinated. Upper surface.

GTVE-218. 'Human' motif
'Male' stick figure. Linear and superficial pecking. Patinated.
Orientation: V-NE.

GTVE-219. Circles
Three concentric linear circles with three linear marks in the centre (0.29 × 0.20 m). Linear pecking. Deep patination.
Block: 0.41 × 0.45 m. Orientation: V-W.

GTVE-220. Indeterminate
Area with lines and hammering. Patinated.
Orientation: V-NE.

GTVE-221. 'Kangaroo'
Linear and superficial pecking. Patination.
Orientation: S-N.

GTVE-222. Indeterminate
Fully pecked. Patination.
Orientation: S-NW.

GTVE-223. Indeterminate
Motif (1.10 × 0.65 m) difficult to identify because of superposition of an elongated 'animal' motif with a 'beak' over two 'human' motifs. Superficial pecking with areas of hammering inside a slight depression.
Block: 1.25 × 0.90 m. Orientation: V-NE.
224–227. Indeterminate
Abraded and patinated.

GTVE-228. 'Human' motifs
At least four 'human' stick figures. Linear pecking. Patination.
Orientation: V-N.

GTVE-229. Indeterminate
Hammered area. Deeply patinated.
Orientation: V-N.

GTVE-230. 'Human' motif
(0.70 × 0.30 m). Superficial pecking.
Orientation: V-NW.

GTVE-231, GTVE-232. Indeterminate
Hammering. Patinations. Upper surfaces.

GTVE-233. Arc
Linear pecking. Patination. Upper surface.

GTVE-234–GTVE-237. Indeterminate.

GTVE-238. 'Human' and indeterminate motifs
Three stick figures (1–3); two 'males', the third 'asexual' (0.30 × 0.17 m and 0.24 × 0.12 m and 0.30 × 0.18 m). Linear pecking. Deeply weathered. Indeterminate oval motif (4): 'body' of 'bird'? (0.35 × 0.16 m).
Block: 1 × 0.65 m. Orientation: S-N.

GTVE-239. 'Human' motif
Linear pecking. Deep patination.
Orientation: S-W.

GTVE-240. 'Kangaroo'
Linear pecking. Deep patination.
Orientation: V-N

GTVE-241. Indeterminate
Hammered; patinated.
Orientation: V-N (two blocks together)

GTVE-242–GTVE-245. Indeterminate
Grooved and abraded. Deeply patinated.

GTVE-246. 'Human' and indeterminate motifs
Three stick figures (1–3: 0.45 × 0.26 m; 0.35 × 0.16 m; 0.21 × 0.20 m). Deep patination. Indeterminate (4: 0.15 × 0.10 m). Upper surface.
Block: 0.85 × 0.65 m.

GTVE-247. Triangular motif
Linear pecking.
Orientation: S-N.

GTVE-248–GTVE-250. Indeterminate
Indeterminate motifs of Category 3 (Chapter 3: Three categories of indeterminate motifs). Patinated and deeply patinated.

GTVE-251. Arc-like and 'human' motifs
Two arcs, looking like boomerangs (1, 2: 0.35 × 0.16 m and 0.30 × 0.13 m). Two 'human' figures (3, 4), one 'male' (0.40 × 0.17 m and 0.22 × 0.12 m). Linear pecking. 'Human' is very patinated; 'boomerangs' have fresh appearance.
Block: 1.10 × 0.67 m. Orientation: upper surface.

GTVE-252. 'Human' motif
Linear. Patinated.
Orientation: V-N.

GTVE-253–GTVE-255. Indeterminate
Abraded and patinated.

GTVE-256. Circular motif
Concentric circle = spiral (0.32 × 0.27 m). Deeply patinated.
Block: 1.30 × l.30 m. The motif is at the south corner; upper surface.

GTVE-257. ‘Macropod’ motif
Small ‘kangaroo’ (0.45 × 0.30 m). Linear pecking. Partially re-worked but patinated.
Block: 1 × 0.50 m. Orientation: V-W.

GTVE-258. Arc-like and linear motifs
Three arcs (1–3: 0.35 × 0.13 m; 0.26 × 0.05 m; 0.20 × 0.06 m). Two simple lines (4, 5: 0.15 m and 0.7 m). Overall pecking. Partially re-marked. Patinations.
Block: 0.45 × 1.10 m. Orientation: V- N.

GTVE-259. Indeterminate
Large slab. Hammered.
Orientation: S-N.

GTVE-260. Indeterminate
Large slab. Linear and hammered. Patinated.
Orientation: S-N.

GTVE-261. ‘Emu foot’
Linear and superficial pecking. Patination.
Orientation: V- NE.

GTVE-262. Indeterminate
Large slab. Hammering. Patination.
Orientation: S-N.

GTVE-263. ‘Human’ motif
Superficial pecking. Patination.
Orientation: V-NE.

GTVE-264. Macropod
‘Kangaroo’ (0.86 × 0.90 m) occupies the entire available surface. Grooved outline except for the ‘head’ which has been rubbed. Grooves have been renovated except for the ‘spear’ stuck in the ‘back’. Patination.
Block: 1 × 1.03 m. Upper surface.

GTVE-265. ‘Macropod’
Small ‘kangaroo’. Overall pecking. Patinated.
Orientation: V-NE.

GTVE-266. Indeterminate
Linear pecking. Deeply patinated.
Orientation: V-NE; near the Creek.

GTVE-267. Indeterminate.
Hammered. Patinated.
Orientation: S-N.

B—Northern Slope

GTVE-268. Group of punctations and arc-like motifs
Ten punctations (1–10) and arcs (11, 12). Entirely pecked and patinated.
Orientation: V-E.

GTVE-269, GTVE-270. Indeterminate.

GTVE-271. ‘Kangaroo’ and ‘Emu tracks’ plus indeterminate motifs
Two large ‘kangaroo’ feet (1, 2: 0.20 × 0.14 m and 0.2 3 × 0.l5 m), and an ‘Emu foot’ (3: 0.18 × 0.12 m). Superficial pecking. Patinated. Upper surface. Indeterminate (4). Hammering. Patination.
Orientation: S-SE.

GTVE-272. ‘Fish’
Fish-like motif (1 × 0.25 m) on top of a slab. Block: 1.3 × 0.4 m. Grooved and renovated with four ‘eyes’ and a ‘spear’ (S).

GTVE-273–GTVE-278. Indeterminate
Indeterminate motifs. Abraded and patinated.

GTVE-279. Indeterminate and ‘human’ motifs
Indeterminate (1), and two ‘human’ (2, 3) with ‘headdresses’. Linear pecking and hammering. Patinated.
Orientations: V-SE, and V-S.

GTVE-280. ‘Human’ motif
‘Male’. Superficial pecking. Patinated. Orientation: S-N. Polished surface (used as grinding slab).
Orientation: S-S.

GTVE-281. Indeterminate
Linear pecking and hammering. Patinated.
Orientation: S-S.

GTVE-282. ‘Macropod prints’
Two ‘kangaroo’ feet (1, 2). Linear pecking; patinated. Upper surface.

GTVE-283. ‘Macropod’
Small ‘kangaroo’. Linear and superficial pecking. Patinated. Upper surface.

GTVE-284. ‘Macropod’
Very basic ‘kangaroo’, no back legs (0.45 × 0.23 m). Linear and superficial pecking. Patinated.
Orientation: S-S.

GTVE-285. Indeterminate
Linear. Deeply patinated.
Orientation: S-NW.

GTVE-286. Oval motif
Barred oval: Linear pecking. Deeply patinated. Upper surface.

GTVE-287. ‘Emu tracks’
Six ‘Emu footprints’ (1–6), clearly visible (0.13 × 0.12 m; 0.14 × 0.12 m; 0.135 × 0.12 m; 0.13 × 0.10 m; 0.135 × 0.10 m; 0.14 × 0.09 m). Linear and superficial pecking. Upper surface.
Block: 1.50 × 0.80 m.

GTVE-288. Indeterminate
Hammering. Patination. Upper surface.
Orientation: V-SE.

GTVE-289. ‘Macropod’ and indeterminate motifs
‘Kangaroo’. Linear and superficial pecking. Patination. Indeterminate. Hammered; patinated.
Orientations respectively: S-W and V-E.

GTVE-290–GTVE-294. Indeterminate
Abraded and patinated.

GTVE-295. Oval form
Ovoid (0.38 × 0.16 m). Fully pecked; pecking coarse and deep. Deeply patinated: same colour as the block.
Block: 1 × 0.40 m. Orientation: S-E.

GTVE-296. Oval form
Ovoid motif (0.35 × 0.10 m). Large part is pecked, except for two oval ‘eyes’. Lightly re-carved. Deep patination. Upper surface.

GTVE-297. Triangular motif
Triangle with transverse median lines. Linear pecking. Deeply patinated.
Orientation: S-W.

GTVE-298. ‘Bird’ print and indeterminate motifs
Three ‘prints’ (1 to -3). Linear pecking. Deeply patinated.
Another indeterminate motif. Upper surface.

GTVE-299. Indeterminate
Linear packing. Deeply patinated.
Orientation: V-SE.

GTVE-300. Punctations
Ten pecked dots. Deeply Patinated.
Orientation: S-E.

GTVE-301. ‘Human’ motifs
Two ‘males’ (1, 2) with long ‘penises’ (0.34 × 0.50 m; 0.13 × 0.21 m). Grooved outline with overall pecking. Deep patination.
Orientation: V-SE.

GTVE-302. Indeterminate
Linear pecking. Deeply patinated. Upper surface.

GTVE-303. ‘Turtle’ motifs
Small ‘turtle’ and ‘turtle’ track. Linear pecking. Deep patination. Upper surface.

GTVE-304. Indeterminate motifs
Two motifs. Linear and superficial pecking. Patination.
Orientation: V-E and V-SE.

GTVE-305. ‘Human’ motifs
Five ‘humans’ (1–5), some with ‘headdresses’ (0.50 × 0.30 m; 0.45 × 0.23 m; 0.50 × 0.21 m; 0.30 × 0.17 m; 0.15 × 0.08 m). Overall pecking. Patination.
Block: 0.65 × 1.30 m. Orientation: V-N.

GTVE-306. Indeterminate
Hammering. Patination.
Orientation: S-E.

GTVE-307. ‘Human’ motif
Motif (0.80 m v 0.25 m). Overall pecking. Patination.
Block: 0.4x1 m. Orientation: S-NE.

GTVE-308. Possible ‘human’ motifs
Two possible ‘humans’. Linear pecking. Deeply Patinated.
Orientation: S-NW.

GTVE-309. Indeterminate
Linear pecking. Deeply patinated. Upper surface.

GTVE-310. Possible ‘human’ motif
Linear pecking. Deeply patinated.
Orientation: S-W.

GTVE-311. ‘Human’ motif
Linear and superficial pecking. Patinated and deeply patinated.
Orientation: S-W.

GTVE-312. ‘Human’ and indeterminate motifs
One ‘male’ (1) protecting two small ‘males’ under his ‘arms’ (2, 3: 0.50 × 0.24 m; 0.19 × 0.06 m; 0.l7 × 0.06 m). Overall pecking. Patination but visible.
Orientation: V-S.
Indeterminate (4) on V-N.

GTVE-313. Indeterminate
Hammered patinated.
Orientation: S-SE.

GTVE-314. 'Human' motif
Superficial pecking. Patination.
Orientation: S-SE.

GTVE-315. 'Human' motif
Superficial pecking. Patination. Upper surface.

GTVE-316. Indeterminate
Linear pecking. Quartz nodule in the middle of the block surface. Deeply patinated. Upper surface.

GTVE-317. Indeterminate
Linear pecking. Patinated.
Orientation: S-SE.

GTVE-318. 'Macropod' motif
Large elongated 'kangaroo' (1.95 × 0.95 m). Grooved. Patinated. Block: 2.04 × 1.08 m.
Orientation: S-SE.

GTVE-319. Bi-lobate form
Linear pecking. Upper surface.

GTVE-320. 'Human' and indeterminate motifs
Three stick figures (1–3). Linear pecking. Patinated.
Orientation: V-NW.
Indeterminate motif. Linear pecking and hammering.
Orientation: V-SE.

GTVE-321. Indeterminate
Linear pecking. Deeply patinated.
Orientation: V-S.

GTVE-322. 'Human' motif
Entirely pecked. Deeply patinated. Upper surface.

GTVE-323. Arc-like forms
Two parallel arcs. Linear pecking. Deeply patinated. Upper surface.

GTVE-324, GTVE-325. Indeterminate
Grooved and abraded. Patinated.

GTVE-326. 'Turtle' and arc-like motifs
'Turtle'. Overall pecking. Upper surface. Two arcs. Linear pecking. Very patinated. In deep grooves on V-SW.

GTVE-327. Indeterminate
Hammering. Patination. Upper surface.

GTVE-328. 'Macropod'
Depiction of kangaroo with spear in back (1.20 × 0.85 m). Grooved; re-carved. Patination.
Large block. Orientation: S-SW.

GTVE-329. Indeterminate
Linear and superficial pecking. Patinated.
Orientation: V- SW and top.

GTVE-330. Oval form
Barred oval. Linear pecking. Deeply patinated. Upper surface.

GTVE-331. 'Human' and indeterminate motifs
Two 'humans'. Superficial pecking.
Orientation: V-S.
Indeterminate. Linear pecking.
Orientation: S-W.

GTVE-332. 'Macropod' motif
Large 'kangaroo'. Grooved. Patinated. Upper surface.

GTVE-333. 'Bird' motif
(0.38 × 0.20 m). Overall pecking. Very patinated. Orientation: V-S. Rubbed patch on upper surface.

GTVE-334. 'Human' motif
Linear and superficial pecking. Patinated. Upper surface.

GTVE-335. Indeterminate
Linear and superficial pecking on all sides. Patinated.

GTVE-336. 'Hat' motif
Unusual motif (0.68 × 0.36 m). Linear pecking. Totally patinated.
Block: 0.90 × 0.60 m. Orientation: S-S.

GTVE-337. 'Macropod'
Large 'kangaroo' (1.63 × 1.20 m). Block broken into four fragments. Grooves renovated. Patinated and deeply patinated. Upper surface. Polished area at the centre of the slab (grindstone).
Total block: 1.66 × 1.85 m.

GTVE-338. 'Human' and indeterminate motifs
'Human' motif. Linear and superficial pecking. Patinated.
Orientation: V-S.
Indeterminate. Linear pecking. Patinated. Upper surface.

GTVE-339. 'Human' motif
'Male' with large 'penis' (0.40 × 0.27 m). Fully pecked, partly by elongated points. Deeply patinated.
Small block. Orientation: V-NE.

GTVE-340. 'Bird' print and indeterminate motifs
'Bird' print and indeterminate. Fully pecked motifs with deep patination with several lightly pecked motifs superimposed, one of which is an 'Emu foot' descending to the creek (L = 0.103 × 0.127 m).
Orientation: S-S.

GTVE-341. 'Turtle'
Linear pecking. Deeply patinated. Upper surface.

GTVE-342. 'Turtle'
Motif (0.39 × 0.35 m) placed to the NE of the group. Deep linear pecking, and in part carved with elongated points. The right 'fin' is entirely pecked without real depression. Deeply patinated.
Orientation: V-SW.

GTVE-343. 'Human' motif
'Human' with 'headdress', and holding something (1.10 × 0.80 m). Overall pecking. Patination.
Block: 1.45 × 1.20 m. Orientation: V-SW.

GTVE-344. 'Macropod' and 'bird' motifs
'Kangaroo' and two 'bird prints'. Linear pecking, superficial on the inside. Patinated. Upper surface.

GTVE-345. Macropod
'Kangaroo': Linear pecking. Upper surface.

GTVE-346. Indeterminate
Linear pecking and hammering
Orientation: V-SW.

GTVE-347. Indeterminate
Hammering. Patinated.
Orientation: V-S and V-N.

GTVE-348. 'Human' motif
Linear pecking (groove). Deeply patinated.
Orientation: V-SE.

GTVE-349. 'Human' motif
'Male' with an arc on his 'head'. Linear pecking. Deeply patinated.
Orientation: V-W.

GTVE-350. Indeterminate
Fully pecked. Deeply patinated.
Orientation: V-W.

GTVE-351. Indeterminate
Radiating linear grooves. Deeply patinated.
Orientation: S-SW.

GTVE-352. 'Human' motif
Stick-figure. Linear and superficial pecking. Patinated.
Orientation: S-S.

GTVE-353. Indeterminate
Hammering. Patinated.
Orientation: V-S.

GTVE-354. 'Human' motif.
Linear pecking. Deeply patinated.
Orientation: V-S.

GTVE-355. Indeterminate
Area with lines and hammering. Patination.
Orientation: S-S.

GTVE-356. 'Human' motif
Small 'human' with complex 'headdress' holding a 'boomerang'. Linear pecking. Deeply patinated. Upper surface.

GTVE-357. Indeterminate
Hammered area. Patinated.
Orientation: S-W.

GTVE-358. Indeterminate
Possible 'human'. Linear pecking. Deeply patinated.
Orientation: V-S.

GTVE-359. 'Human' arboriform
Stylized 'human': six parallel arcs crossed with a line (0.40 × 0.27 m). Linear pecking. Deeply patinated.
Block: 0.45 × 0.90 m. Upper surface.

GTVE-360. Indeterminate
Hammered. Patinated. Upper surface.

GTVE-361. Possible 'canid' motif
Stylized motif (possible dog) with pointed 'ears', straight 'back' not arched like 'kangaroo', 'paws' rounded at the top without 'fingers' unlike a kangaroo (0.77 × 0.32 m). Linear pecking. Deeply patinated: very old motif.
Orientation: S-N.

GTVE-362. 'Human' motifs
Four 'human' figures: Linear grooves. Deeply patinated.
Orientation: S-N.

GTVE-363. Indeterminate
Linear motif (grooves). Deeply patinated. Upper surface.

GTVE-364. 'Human' motif
'Male'. Fully pecked. Deeply patinated.
Orientation: V-N.

GTVE-400. 'Macropod' motif
(Located just beyond the sample area) 'kangaroo' with an arc on his 'head' (probably 'boomerang'), and with four 'spears' in its 'back', extending to back of block (not re-marked) (1.45 × 0.86 m). Outlined in re-carved grooves. Deep patination and patination.
Block: 1.40 × 1.70 m. Orientation: S-E. Located about 200 m southwest of The Eagle (GTVW 1) at the edge of small cleared plateau covered with spinifex.