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VOLUME 3
(DATA)

THE ARCHAEOLOGY AND GEOGRAPHY
OF
SHETLAND BROCHS

NOEL FOJUT

Thesis presented in accordance with the
requirements for the degree of Doctor of
Philosophy in the Faculty of Arts,

University of Glasgow, 1979

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Volume 3 : Index

This volume of data is not presented in a sequentially paginated format. This is deliberate, to permit easy reference to site descriptions under the appropriate code number, data-sheets by variable number, site-plans by code-number, etcetera. It was felt that the use of page numbers and code-numbers would have been unnecessarily confusing and of dubious benefit.

The order of presentation is as follows:

Appendix one (Inventory) : Introductory notes

List of sites

Note on identification

Site descriptions

(pagination by site
reference number)

Appendix two (Data-sheets) : Introductory notes

List of variables, with
code numbers.

Data-analysis sheets

(pagination by code
numbers)

Appendix three (Plans) : Note on structural plans

Structural plans (1 : 200)

(pagination by site reference
numbers)

Note on location plans

Location plans (1 : 500 app.)

(pagination by site reference
numbers)

Appendix four : Sections from Clickhimin Report

Bibliography and References.

DESCRIPTIVE INVENTORY
OF
SITES

Introductory notes

This appendix comprises a comprehensive descriptive list of all sites in Shetland which, in 1977, 1978 and 1979, were believed or reputed to be brochs. The difference between the archaeological conception of a broch and the local usage of the term "brough" has resulted in a large number of doubtful and rejected sites. This is discussed elsewhere.

Sites are described in alphabetical order of name, within a framework of status classes. These classes are detailed in Section 1, Chapter vii, but are summarised here for convenience:

- Definite : Circular, having some broch characteristics visible.
- Acceptable: Good records of the former visibility of definite criteria.
- Possible : Ruinous, but could well conceal the remains of a broch.
- Doubtful : Nothing on the site, or ruins unlikely to conceal a broch.
- Rejected : Positively identified as a member of some other class of monument.

An asterisk indicates good preservation of some or many characteristic broch features.

A small number of promontory fortifications are also described, as these feature significantly in the discussions of the foregoing thesis, and are often known as "broughs" in Shetland parlance.

Each site description has a set order:

Name
Grid reference (six-figure)
Parish
Royal Commission Inventory number
Mackie's (1973) assessment of status
(B = broch, P = probable, M = possible)

The text commences with a brief locational sentence, intended to guide the field-worker, then proceeds to describe, in order, broch structure and preservation, subsidiary structures, external defensive features, location and environmental setting, and finds of any artefactual material. The principal sources of published information are referred to in abbreviated form (full references appear at the end of the present volume).

A variety of sources has been utilised. The main published source is the Inventory prepared for the Royal Commission on Ancient Monuments of Scotland (1946), and of almost equal value was Dr MacKie's unpublished Ph.D. thesis (1973). All other available published material was consulted, and much unpublished work was utilised through the generosity of individuals and societies.

In addition, excepting only a few remote islet sites, every site described was visited by the author in two field seasons in 1977 and 1978. Sites which were especial problems were revisited in 1979. All of the environmental and locational data derive from this fieldwork.

The descriptions which follow are intended to complement the more analytical approach of the data-sheets which comprise Appendix Two.

Site and location plans form Appendix Three.

LIST OF SITES DESCRIBED

		<u>Name</u>	<u>District/Parish</u>
Definite	:	1 Aith	Bressay
		2 Aithsetter	Cunningsburgh
		3 * Balta	Unst (North)
		4 Belmont (=Hoga Ness)	Unst (South)
		5 Brough (2)	West Burra
		6 Brough Holm	Unst (West)
		7 Burgan	Northmavine
		8 Burgar Stack (=Burrafirth)	Unst (North)
		9 * Burland (1)	Lerwick
		10 * Burraland	Sandwick
		11 Burraland	Walls
		12 * Burra Ness	Yell (Mid)
		13 Burravoe (1)	Brae
		14 Burravoe (2)	Yell (South)
		15 Clevigarth	Dunrossness
		16 * Clickhimin (G)	Lerwick
		17 * Clumlie	Dunrossness
		18 Cullingsburgh	Bressay
		19 * Culswick	Skeld
		20 Dalsetter	Dunrossness
		21 East Burrafirth	Aithsting
		22 Eastshore (of Virkie)	Dunrossness
		23 Feal	Fetlar
		24 Footabrough	Walls
		25 * Fugla Ness	Toft
		26 Gossabrough	Yell (South)
		27 Greenbank	Yell (North)
		28 Hawks Ness	North of Lerwick
		29 Head of Brough	Yell (South)
		30 Holm of Copister	Yell (South)
		31 Houbie	Fetlar
		32 Housabister	Nesting (North)
		33 Huxter	Sandness
		34 * Jarlshof	Dunrossness
		35 * Levenwick	Dunrossness
		36 * Loch of Houlland	Esha Ness
		37 Lunabister	Dunrossness
		38 * Mousa	Sandwick

LIST OF SITES DESCRIBED (cont'd)

		<u>Name</u>	<u>District/Parish</u>	
<u>Definite</u>	:	39	Noonsbrough	Sandness
		40	Noss Sound	Bressay
		41	Sae Breck	Esha Ness
		42	Snabrough	Unst (South)
		43	Stoura (=Brough o'Setter)	Walls
		44	Tumblin (=Houlland)	Walls
		45	Underhoull	Unst (West)
		46	* Virkie (=Pool of Virkie)	Dunrossness
		47	Wadbister	Nesting (South)
		48	Watsness	Walls
		49	West Burrafirth	Sandness
		50	West Houlland	Walls
		51	Windhouse	Yell (Mid)
<u>Acceptable</u>	:	52	Brough Lodge	Fetlar
		53	Infield (=Mossbank)	Toft
		54	Loch of Burraland	Northmavine
		55	Musselbrough	Unst (South)
		56	Southvoe (of Boddam)	Dunrossness
<u>Possible</u>		57	Barra Holm	Whiteness
		58	Bousta	Sandness
		59	Brough (1)	Bressay
		60	Burland (2)	Trondra
		61	Burrian	Nesting (South)
		62	Burwick	Scalloway
		63	Gord	Cunningsburgh
		64	Hamnavoe	Esha Ness
		65	Heglibster	Neisdale
		66	Holm of Benston	Nesting (South)
		67	Islesburgh	Brae
		68	Loch of Brow	Dunrossness
		69	Loch of Kettlester	Yell (South)
		70	Mail	Cunningsburgh
		71	Scousburgh	Dunrossness
		72	Stelberry	Dunrossness

LIST OF SITES DESCRIBED (cont'd)

		<u>Name</u>	<u>District/Parish</u>
<u>Possible</u>	:	73 Symbister	Whalsay
		74 Vidlin	Lunnasting
		75 West Sandwick	Yell (South)
<u>Doubtful</u>	:	76 Baliasta	Unst (North)
		77 Benston	Nesting (South)
		78 Bixter Voe	Walls
		79 Breiwick	Yell (North)
		80 Brindister Voe	Sandness
		81 Brough (3)	Whalsay
		82 Burgastoo	Brae
		83 Burgo Taing (=Burra Voe)	North Roe
		84 Burrastow	Walls
		85 Colvadale (=Brough Taing)	Unst (South)
		86 Cunnisbrough	Sandness
		87 Easter Skeld (=Houllands)	Skeld
		88 Friarsbrough (=Freyersbrough)	Foula
		89 Gloup	Yell (North)
		90 Graveland	Yell (North)
		91 Grunasound	West Burra
		92 Heogan	Bressay
		93 Hevdas	Lerwick
		94 Hillswick	Esha Ness
		95 Hogaland	Whiteness
		96 Knowe of Houlland	Sandwick
		97 Leira Ness	Bressay
		98 Mailand	Unst (South)
		99 Marki	Northmavine
		100 Olnesfirth	Northmavine
		101 Orbister	Northmavine
		102 Pinhoulland	Walls
		103 Skeo Hill	East Burra
		104 Stava Ness	Nesting (North)
		105 Wester Skeld	Skeld

LIST OF SITES DESCRIBED (cont'd)

		<u>Name</u>	<u>District/Parish</u>
<u>Rejected</u>	:		
		106 Burga Water (1)	Lunnasting
		107 Burga Water (2)	Sandness
		108 Corn Holm	Nesting (South)
		109 Gletness	Nesting (South)
		110 Isbister, Kame	North Roe
		111 Isbister, (2)	North Roe
		112 Isle of Fethaland	North Roe
		113 Loch of Brindister	Berwick
		114 Railsbrough	Nesting (South)
		115 Ruir Taing	Fetlar
		116 Sandwich	Unst (South)
		117 Snabrough	Fetlar
		118 Stoal	Yell (South)
		119 Strandibrough	Fetlar
		120 Sumburgh Head	Dunrossness
		121 Woodwick (=Flubersgerdie)	Unst (North)

Promontory

<u>Fortifications</u>	122	Burgi Geos (G?)	Yell (North)
	123	Burrier Head (of Dale)	Walls
	124	Ness of Burgi (G)	Dunrossness

Allied

<u>structure</u>	:	125	Loch of Huxter (G)	Whalsay
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Notes : * = exceptionally well preserved.
(G) = "gateway" or "blockhouse" forts.

NOTE ON IDENTIFICATION OF CERTAIN SITES

Mackie (1973) lists sites as follows:-

<u>Name</u>	<u>Inventory Number</u>	<u>Grid Ref.</u>	<u>Parish (from grid reference</u>
Brough(1)	1107	HU 519413	Bressay
Brough(2)	1277	c.HU 478543	Nesting
Brough(3)	1343	? Westing ?	Nesting
Burrian	1308	c.HU 477545	Nesting

There is clearly at least one error here. The R.C.A.M.S. Inventory specifies 1343 as in Whalsay island (in Nesting parish). It further specifies 1277 as in Lerwick parish, on West Burra island. The layout of the inventory has led Mackie to place 1277, erroneously, in Nesting. He has then confused the issue further by placing 1277 in effectively the same position as 1308 and omitting site 1310, Burrian of Benston, entirely.

<u>Mackie</u>	<u>Inventory</u>	<u>Present Volume</u>	<u>Inventory</u>
Brough(1)	1107	Brough(1) (Bressay)	1107
Brough(2)	1277/1308	Brough(2)(West Burra)	1277
Brough(3)	1343	Brough(3) (Whalsay)	1343
Burrian	1308	Burrian	1308
[ignored]	1310	Benston	1310

The confusion caused by this coincidence of similar names and close locality, aggravated by the style of presentation of the R.C.A.M.S. Inventory is, thus, hopefully, resolved.

AITH

HU 515 435

Bressay

1106

M

The remains of this site lie on top of a low hillock at the base of the promontory of Aith Ness, and just behind a large series of disused sheepfolds. Quarrying has removed most of the structure, and only one or two stones project from a circular mound, 22m in diameter and just over 1m in height. The rock is flaggy sandstone.

No trace was noted of any other structures than the sheepfolds and ruined croft.

The defences are now only represented by two stretches of earth and rubble rampart on the west side of the hillock, at 15m and 20-25m from the centre of the broch mound. These nowhere exceed 1m in height above the nearby ground level, and are much disturbed.

The site has a good view over all the surrounding land, with no dead ground, and has easy access to the sea on both sides of the isthmus which it commands. The soil is stony, but not particularly acid, and has in the past been good enough to support a number of crofts, although the location of these may be partly attributable to a desire for easy access to fishing grounds. It is now an area of good quality grazing, with marshy patches to north and south. Slopes are nowhere steep, and the nearest likely source of building material would be the foreshore to east or west.

Visited 17/5/77.

AITHSETTER

HU 447 304

Cunningsburgh 1141

M

The site is on a cliffed promontory, clearly visible from the road at Aithsetter. There are two probable traces of the inner wall-face on the east side of the debris mound, which is some 24m in diameter and 2.5m high, while a collapsed cell may be observed on the west side. It is probable that up to 1.5m of walling may still stand below the debris. Quarrying has left pits on the south-west side of the mound. The stone is a friable, flaggy, red, sandstone.

No later structures are visible.

The promontory is cut off by a depression, which may be largely natural. This thins and shallows to a level approach route, which corresponds to a gap in the rampart which lies on the landward side of the broch, two-thirds of the way from it to the above depression. This rampart is much degraded, and does not exceed 0.5m in height or 2.5m in width. Cliffs around the rest of the site form an adequate defence.

The site is toward the landward end of a gently sloping area of rough grazing, 40m by 100m, edged on all sides except the landward by steep cliffs. The only convenient access to the sea would be down a steep cliff path 100m to the west, and even this would provide little shelter for boats. The defensive aspect is good, and any landward approach would be readily seen. The area on the landward side of the defended promontory is largely arable land, with a number of crofts. The lower part of this land is marshy. Slopes on the agricultural land are gentle, but end in precipitous cliffs. The soil, which is fertile, is thin on the site, but up to 0.6m deep below the crofts. Building material is readily available in the nearby cliffs. The broch of Burland is clearly visible to the north.

Visited 25/5/77.

* BALTA

HP 660 090

Unst

1596

M

A steep rocky stack at the northern end of Balta island, on the eastern side, provides a site for this broch. The only way in which it can be reached is to hire a boat from Baltasound.

The broch, in ruinous and disturbed state, has been about 16m in diameter, with walls some 4.4m thick. The entrance is on the west, or landward side, and 0.9m wide at the outer end. No cells are visible, due to later structures built over their likely position. The rock is greiss.

An inner casing wall 1.2m thick has been erected, apparently around the entire inner circumference, with a break at the broch entrance. The stonework is less massive than that of the broch proper. At a fairly recent date, a watch-tower has been erected over the western side of the broch ruins, probably in connection with the use of Baltasound as a naval anchorage, a long-established practice.

There is no trace of defensive structures on the neck connecting the stack to the main island, but as the approach is hazardous in the extreme anyway, this is not surprising.

The site is windswept (and sometimes waveswept), and almost inaccessible by land and totally inaccessible by sea - the nearest landing place is 200m away, on the other side of the island. The land locally is poor, salt-stunted grazing, but the western side of the island has better grazing land on a sandy machair (reputedly the finest example of such land on Shetland), and has at one time supported a croft. The outlook to sea is commanding, and assuming a modest height, all of the Baltasound area would be visible.

Observed from shore 28/5/77.

BELMONT

HP 558 006

Unst

1545

P

On the SW tip of the Belmont promontory, which projects from the SW of Unst into Bluemull Sound. The ditches of the site are clearly visible from the Yell - Unst ferry.

The broch is in a much-reduced state, and probably stands to little more than 1m above the ground below its debris-mound. Short traces of both inner and outer wall-face are preserved on the western side, including the remains of the broch entrance, which faces due west. Two cells seem to have flanked the entrance, that to the north apparently connected to the entrance passage. If this is indeed the case, Belmont would be one of the few brochs in Shetland with a left-handed guard-cell. The site appears to have suffered from selective stone-robbing, as there are no lintel-sized stones visible.

A small rectangular structure of much later date stands over the northern portion of the putative outer face. This still stands to some 1.5m.

The defensive structures are some of the most impressive in Shetland, and as these did not seem to be adequately represented in the Royal Commission plan, they were re-surveyed by theodolite (see Appendix). There are two deep ditches. Inside the inner ditch is a low, intermittent earthen bank, which seems to have been stone-faced on the north-eastern sector. The presumed entrance cuts this bank, and to the west of the entrance causeway (which is itself slightly raised) the place of an inner bank is taken by a stone-faced rampart, still in good condition, which runs along a cliffed spur to prevent any coastwise entrance on this side. The inner bank also changes at its southern end, where it is replaced by a much narrower bank, more in the nature of a field-wall. Beyond a deep ditch, which is interrupted on the north-west by the entrance causeway, the outer bank is entirely of unfaced earth, with very little stone involved in its construction. This bank is missing west of the causeway, and this seems to be an original absence, as the eastern side of the causeway is flanked by a deflection of the outer bank. At its southern end, the bank swings in to join the inner, before reaching the cliff/

cliff edge. It's line is projected to the edge by a slighter bank, analogous to that which completes the inner rampart. From north to east, there is a ditch outside the outer rampart, with traces of a counterscarp bank outside.

Two short, slight banks radial to the broch run south and south-west to the cliff edge, but these seem unlikely to have been defensive. From west to south, there is no need of artificial defence above low but steep cliffs.

The site is exposed, but furnishes a superb vantage point for the coasts both north and south, along Bluemull Sound. The nearest landing-place is a steep shingle beach 100m to the east, but no anchorage is locally available. In addition, the sea approach from the north is made hazardous by a strong tidal race. The approach by land is easy, as the area inland from the broch is a gently-seaward-sloping area of grassland, much-grazed, and formerly largely cultivated. A few clearance cairns lying north-east of the site seem old enough to be tentatively associated with the broch.

The land is good quality, though somewhat impoverished and exposed. Soil depths are adequate for arable cultivation, as is drainage. Peat has been stripped from most of the south end of the island, but seems likely to have been plentiful during the Iron Age. The material for building the broch would be readily available in the form of shore outcrops of greiss.

This site has also been known as "Hoga Ness and "Oganess", but is locally referred to as "Brough of Belmont".

Low, 1774, p.151.

Hibbert, 1822, p.397.

P.S.A.S., xxi (1886-7), p.218.

Visited 9/6/78.

Surveyed 26/6/78.

BROUGH (2) (W.BURRA)

HU 379 350

Lerwick 1277

-

At south-east corner of garden of renovated croft, to east of public road.

Only five large stones remain, on the eastern side of a much-quarried mound. These suggest a circular structure of average broch-size. By their size, it may be that these are the only stones which were too heavy to remove by hand. Houses and garden walls encroach upon the site, but there may be up to 1 metre of the inner debris-fill of the broch remaining.

No defensive structures are visible, but the surrounding area has been extensively disturbed by building and cultivation.

The site commands an extensive view from north through east to south, with a good vantage point opposite the Guarff gap, the only direct east-west valley cutting the Shetland mainland. On the west, the view is limited by a low hill, the summit of which, 400m away, gives even more extensive views.

The land is all grazing, apart from a few garden plots, and the soil is thin, probably as a result of over-exploitation. Most of the area has been arable at some time. Drainage is good, and there is no surface water, either flowing or static, for some distance. At least one croft has had a well.

The shores of the sound to the east, below the site, would have provided adequate landings, and its waters a safe anchorage. Stone for building is available in plentiful supply on the hill to the west, which would also have provided peat.

[See note on p.i]

Visited 14/5/77; 6/6/78.

BROUGH HOLM

HP 566 059

Unst

1548

M

The remains of this broch stand on an island 400m offshore, due west of Newgarth, in the Westing.

Only an arc of rubble shows the site of the northern and eastern sector of the broch wall. On the south-west side, marine erosion has destroyed the evidence.

On the eastern side of the islet stands a ruined fishing booth, built around 1780-1800, from the ruins of the broch.

The defences survive on the northern and western sides in the form of a 3 metre thick stone-faced earthen rampart, 6 metres from the broch. Outside this is a 6 metre-wide, shallow, ditch, and outside this again an earthen rampart which reaches 1 metre in height in the centre of the stretch preserved.

The broch and defences have occupied nearly all of the surface of the islet, which is surrounded by a rocky shore, except where a shingle spit protrudes towards the south-east. This would have furnished an easy landing.

The shore of Unst opposite the island is a sheltered bay, with a long shingle bay-head bar beach, the Ayre of Newgord. This was formerly a major haaf-fishing station. The agricultural land is rich (for Shetland), with pockets of good arable and improved grazing, sloping down to the shore. The only freshwater on the islet itself must be rainwater pools, but, there are a number of springs on the nearby mainland.

The building material is traditionally held to have come from the side of Valla Field (the ridge dominating the Westing), and to have been carried part of the way by sea. This seems rather unnecessary, as the nearest point on the mainland, below Newgord, would have provided similar material at much less effort.

Low, 1774, p.398.

Spence, 1899, p.46-49.

Viewed from shore 29/5/77.

BURGAN

HU 344 775

Northmavine

1386

M

On the summit of the lower of two prominent hillocks, above the croft of North Gluss.

Much stone-robbing has taken place, but a fair number of larger facing blocks remain in place; enough to give both inner and outer diameters. No sign of an entrance presents itself, nor are any other structural details evident, although up to a metre of the wall height may survive below the debris mound.

A recent plantie-krub stands on the site, and field-banks, of some age, suggest, at first glance, ramparts on the north and north-east.

One very interesting feature is that while the rock of the site area is schist, the broch was built of granite, the nearest source of which is on Yamni Field, $\frac{3}{4}$ of a kilometre to the west and 100 metres higher.

The site, commands a particularly wide view to the east, but it would be impossible to approach unseen within 500 metres from any direction. The site drops away sharply to the coastal strip, beyond which a beach provides a fair landing place, although it is rather sandy. Freshwater is available nearby from springs and a small loch, the latter at present an important location for migratory wildfowl, perhaps significant in the site's economy.

Soil is thin and stony, thickening downslope, where it provides damp but workeable arable, and much grazing. The land to south and west is peat-covered and provides but little grazing. To the north, however, grass-moorland supports large numbers of sheep today.

Two "oval polished knives of porphyritic stone" are in the National Museum, reputedly from this site. It seems certain that the Royal Commission did not find this site in 1931, visiting instead the higher of the two knolls in this area.

BURGAR STACK

HP 611 143

Unst

1544

M

Below the road on the west side of Burra Firth a small headland juts out from the steep slope of the hillside. Here, 12 metres above the sea and just on the cliff-edge, is the site of the most northerly broch in Scotland.

Only a few stones of the outer face show, with the hint of an entrance to the south east, and a depression, perhaps marking a cell, on the north west. At least two metres of the mound is made up of tumble, so much may lie concealed.

Remains of two earthen ramparts can be traced, both much higher externally than internally. The inner, at only 3m from the broch, is also the slighter, and runs from north to west. The outer, at 10m, runs from west to south, gradually swinging away from the broch to the south, so, as to take the shortest way to the cliff edge, thus cutting off the headland. The outer rampart face reaches 2m in height. In addition, two slight wall-traces south of the broch, run NNE - SSW, but seem unlikely to be part of the defensive fortifications. A section of the outer, main, rampart is visible at its southern end, where there has been slight marine erosion. No pottery was found, nor are any other artefacts recorded from the site.

The site has good visibility both up and down the firth, and over the neck of machair separating Loch of Cliff from the sea. But even had the broch been as high as Mousa, it would still have been dominated by the hillslope rising immediately to the west. Like so many sites (eg. East & West Burrafirth) it seems almost to peer over a nearby shoulder of land, so as to have been almost invisible from seaward.

There is apparently, little arable or potential arable land nearer than the head of the firth, 200m away. However, the ruins of three crofts lie nearby, so the site has been used at more than one period. Most of the nearby land is steeply sloping grassland, and supports a small herd of cattle. Soil is quite fertile, and may perhaps have been deepened artificially near the crofts.

The coastline below the site is rocky, the nearest beach being the sandy strip at the head of Burra Firth. The firth has provided a sheltered anchorage at many times in the historic past, and doubtless also in the prehistoric. The nearest permanent freshwater/

freshwater is a stream 150m to the north, although the neck of the headland is damp, and may have acted, with the aid of the ramparts, as a rainwater trap.

Visited 27/5/77 and 3/7/78.

BURLAND (1)

HU 447 361

Lerwick

1247

B

Situated on a small peninsula at the seaward end of the Brindister valley, the ruins of the Brough of Burland are clearly visible from the public road which skirts the head of the valley.

Up to 3m high on S side, with internal diameter of 10.6m, and external diameter 19.8m. The entrance is on the SW side, and there is less than 1m of ground surviving between entrance and cliff-edge. The entrance is 1.4m high and 0.9m wide, and can be traced inwards for 2.6m to slab-built door-checks, behind which the passage widens by 18cm on the N and 15cm on the S. A barhole, 15cm by 15cm, survives on the right, where it leads into a guard-cell, the entrance to which is blocked by rubble, as is the inward continuation of the entrance-passage. The cell is visible from above, as an oval rubble-filled hollow - there has been much dilapidation here since the Commission's 1930 visit. Above the entrance passage is a ruined chamber. On the west side, a ruined mural cell (RCAMS: "gallery") survives. North of this the wall is much broken-down, for over one-third of its circuit, but traces of a first-floor level gallery are visible, as on the east side. It may be suggested that the cell on the W side is the stairway entrance; however, no stair is visible, perhaps indicating that it may have started from a higher level, as at Mousa.

The Commission noted two successive inner casing walls. Debris now obscures these completely, but apparently they preserved the entrance-passage line. No other "subsidiary" structures are visible.

The external defences are particularly impressive. Three ramparts and ditches are drawn across the neck of the peninsula, in each case best preserved towards the western end. The innermost is a faced wall, 3m thick, separated from the second, a much degraded 5m wide rampart with no facing visible, by a shallow 7m broad ditch. The third rampart, separated from the second by a shallow 8m broad ditch, is a 6m-wide revetted rampart, with facing showing along the northern side and at one point on the south side. Outside this is another ditch, 7m wide and surviving to 1m in depth. The approach cuts through the centre of these defensive features, and the breach in the outer rampart is now 3.5m wide, but was/

was probably originally narrower. Two later (?) walls of less-substantial character run from the broch, NE to join the inner rampart, and E towards the cliff edge. No finds are recorded.

The cliff edge approaches to within 1m of the entrance, and the entire margin of the peninsula is cliffed, with a drop of 14m to the sea. The 30m wide neck is defended by the ramparts as noted above. The nearest beach and anchorage are at the foot of the Brindister Burn, about 200m to the WNW, visible from the broch entrance, but beyond the ramparts. The nearest freshwater is available at the same point.

The farmland is good and extensive. The valley floor is marshy and only used as grazing, arable cultivation has taken place over the sides of the basin, but has now largely ceased, to be replaced by grazing. To north and south, and inland, is heather-clad land which serves as rough-grazing. Soil on site is shallow, but much deeper in the Brindister valley. The site is not overlooked by any nearby land, and the broch of Aithsetter is visible to the S.

The source of building material is to hand, the red flaggy sandstone outcropping in the nearby cliffs. Slabs used in construction reach 1.4m in length.

Arch. Scot, V, p.71.

Visited 13/5/77.

*BURRALAND (1) HU 448 232 Sandwich 1143 B

This broch stands on a cliffed promontory on the W shore of the Sound of Mousa, and directly opposite that broch.

The base of the structure is entirely buried in debris, but the complete circuit survives to what must be about 3m above ground level, at which height it has an external diameter of 18.5m. The batter would suggest a based diameter of c.20m. Internal diameter is 10.9m. No entrance or basal cells are visible, due to the rubble accumulation. At first floor level a gallery, 0.9 to 1.0m wide, is visible around all but the SW quadrant of the circumference. No stairway reaching this or leaving it can be seen.

No finds are recorded.

A number of "huts" are located SE of the broch (on the seaward side). Two "beehive" huts, about 3m in diameter, survive to 60cm in height, and a third can just be discerned. In all probability much more extensive outbuildings lie below the scattered, grass-grown, rubble.

The peninsula, of a fairly broad size, is attached to the mainland by a 30m-wide neck. Two originally stone-faced ramparts, now much degraded, separated by a shallow ditch, run across this neck, the inner rampart (very slight) 20m from the broch, the outer (surviving to 0.6m high) 30m away. The entrance-way seems to have been at the S end of these ramparts, skirting the cliff. (Not noted by Commission).

Surrounded by cliffs reaching 25m the site has a gentle surface slope to the E. The nearest accessible beach is 300m to the north, and the whole coastline is very exposed. The only fresh-water supply (barring an undiscovered well) is a spring, 130m to the SW. The land behind the site, a gentle valley, has been used as arable, but is now grazed. Soils are thin, but not overly stoney or acid, and are well drained. Higher ground, to the NW, overlooks the site, but is probably too far away to dominate it. The building stone, sandstone flags is available on site, at the seaward end of the peninsula, where rock slabs slope down to the sea.

BURRALAND (2)

HU 223 497

walls

1607

M

On a rise projecting into the E end of Loch of Burreland. The broch structure has been heavily robbed, and stands inside a much later wall, having been enclosed, perhaps as a sheepfold. A few stones of the outer face survive on the S and E, suggesting a diameter of about 19m. A cell (or a deep quarry pit) can be seen on the N of the circuit, which otherwise survives only as a featureless innular bank.

A local informant thought pottery had been found, "many years ago".

Some slight banks lie close to the broch, one roughly concentric on the broch, and running from N to E, is joined to the broch by a radial wall at its centre point. Outwith these, again on the northern side, is what looks like a former wet ditch. An inner bank is 1m high, and beyond this is a rock-cut ditch, of which the outer face is visible to 1.4m. The distance from crest of inner bank to outer edge of ditch is about 12m.

The area surrounding the broch, where there is no rampart, is marshy or open water. Beyond this a flattish basin gradually rises to low hills, frequently broken by rocky knolls and marshy hollows. Within this landscape are numerous pockets of present and former arable land, although most of the land is set aside as grazing. A burnt mound lies beside the croft to the SE. The soil is thin, stoney, and generally poorly drained, the broch itself standing on a slight rise.

The coast lies 800m to the S, the site standing 25m above sea-level, but only 2m above the nearby loch, which would supply freshwater. Slopes are very irregular, the whole of the area being a jumble of knolls and hollows.

The probable building stone, a gritty sandstone, is available on the hill to the E. Stoura broch is visible to the NW.

Low, 1774, p.94.

P.S.A.S, xii, p.318.

Visited 6/6/77, 13/8/78.

* BURRA NESS

HU 557 958

Yell (Mid)

1716

B

At the extremity of the peninsula running south from Gutter. Clearly visible from North Sandwick township.

Over $\frac{1}{3}$ of the broch wall, surviving to 4m high, is visible on the E. To the W, the wall becomes lower, but also disappears into a debris mound, and may still be over 2m high. The inner diameter is 9.6m above the step-scanement, and 9.1m below this. Wall thickness at this height is 3.7m, and the batter would imply a thickness of about 4.5m at the wall-base, 3.5 metres lower, and thus a true external diameter of 18.1m, or slightly more. These details derive from the E sector. On the W, only occasional short stretches of walling protrude, marking outer and inner faces, and the inner face of the gallery, 0.7m wide, which runs around the whole visible wall-top. A cell, broken open, occurs on the SE side. The inner half of the upper portion is visible above rubble, and the cell is of typical corbelled roof construction. Perhaps this is a guard-cell, in which case the entrance would be further round, to the S. The scanement, about 3 - 3.5m from the ground level, is a 0.4m step-ledge, topped with flagstones. The wall-batter is about 3 in 16, or 18%. The broch stands on a faced platform, 15m high, visible on the N and E. This is reminiscent of the "apron" at Clickhimin. No finds are recorded.

To NE, SE and S, amongst the ramparts are confused traces of small, oval structures, probably later. A number of clearance cairns dot the grassland to the W. These are of some antiquity.

The broch, as noted above, stands on a low, built, platform. This is heart-shaped, and the edge lies from 2.5 to 10m from the broch outer face. A gap on the SE suggests a ramp, or path, leading to the hypothesized entrance. About 30m from the broch, on S and W, are hints of an earthen rampart. In addition, a series of slight, roughly radial walls occur, to N, W. and S, including enclosures or buildings. The age relationships of these are obscure, some may be later, notably those to the S.

The site is about 5m above sea-level, and on a low promontory, within 20m of the shore. The "platform" may have served to raise the broch, against storm waves, in this exposed position. There/

There is a rocky beach nearby, and a sandy one further west, with recent "noosts" indicating use as a landing-place. Fresh water is only available from the marshy strip which, lying 15m W, cuts off the peninsula, except for the beaches on the N and S shores which link it to the mainland.

Slopes around the site are minimal, but the land is fairly well-drained, with a thin stoney soil. A croft has stood S of the broch, and much of the land has been cleared for cultivation. Beyond this a marshy band cuts off the peninsula from steeply-rising rough grazing areas.

The stone, a slabby greiss, outcrops on the foreshore nearby, but not in any great quantity. It is also available beyond the marshy strip, on the slopes of Hill of Burraness.

Brochs at Belmont, Snabrough (1 and 2), Musselbrough and Brough Lodge would be visible.

[Low, in 1774, records the broch standing to 6m; Dryden, in 1872, to 5m].

Low, 1774, p.149.

Arch. Scot, V, p.212.

Visited 22/5/77.

BURRAVOE (1)

HU 358 671

Brae

1114

M

On a small promontory at Burravoe, visible from the road as a mound of stones.

A few boulders, apparently in situ, suggest a diameter of 1.8m, in a 2m-high debris mound. No other details are visible.

No finds are recorded.

A fishing-station on the same site has removed great quantities of building stone, as have doubtless the nearby crofts.

No defensive structures are visible.

The site is a low rocky platform, 2m above sea-level, and the stones were quarried on the shore - perhaps the proximity explaining the large size of these stones. The rock is diorite.

The nearby coast provides a landing beach, with a sheltered anchorage. Water supply is less well catered for, with a stream 250m away, and a slight spring at the croft 100m away. The nearby land is good grazing, and the arable areas, still extensive, have formerly been more so. Soils are deep and fertile, though slightly acid. They show signs of recent liming (confirmed by local informant). The land rises gently inland from the broch, which is itself so low as to be within the reach of waves from moderate storms, even allowing for the sheltered water of Busta Voe.

The "doubtful" site at Burgastoo is clearly visible.

Visited 2/6/78.

BURRAVOE (2) HU 518 793 Yell (south) 1745 M.

A rocky mound on the shore to the W of the pier at Brough, Burravoe.

A few stones on the NW suggest the outer wall-face.

A 1.5m high mound of debris surmounted by a later, rectangular, structure occupies the site. Considerably more may lie buried than appears so, as during stone robbing many years ago, "underground passages" (cells?) were found, and the entrances "filled up with stones",

A rampart runs around the seaward side of the site, from 15 to 5m from the foot of the debris mound. This only survives to 0.5m high and 3m broad.

The rocky coast lies 15m away, but the nearest beach (and freshwater supply) is some 75m to the NW. Burra Voe, to the E, would provide a safe anchorage. Slopes on site are slight, and beyond the stream the land slopes gently down towards the broch. Considerable garden patches and some arable are present, but in general the land is rich but marshy pasture.

Soil thickness is very variable.

The rock used, a greiss with granitic veins, outcrops on the shore, beside the site. It forms irregular rectangular blocks. Infield broch is visible across Yell Sound.

Arch. Scot. V. p.180.

Visited 18/5/77.

CLEVIGARTH

HU 407 130

Dunrossness

1147

P

On the coast, 1km NE of Exnaboe.

A debris mound 3m high reveals stretches of inner and outer wallface, externally 17.5m in diameter, internally 9.1 to 9.0m. The tops of two cells (guard Cells?) lie on the SW side, and on the NW side the lintel of an opening in the wallface is revealed. Below this level, perhaps 2m from ground level, all is concealed by debris.

No finds are recorded.

To the NW, grass covered remains indicate the position of subsidiary structures.

No outer defensive structures are visible.

The broch stands beside a rocky creek, which is deep and sheltered from all except the NE wind. A landing beach lies 100m to the S. Water supply would be from small lochs 150m away, unless a nearby seepage would have proved adequate. The land is predominately good grazing, with a very little former arable. The site lies in the centre of a shallow basin with thin, well drained soils flanking a marshy area to the N of the broch. This is edged with a low, rocky slope dropping to the sea.

The rock, a flagstone, is available in abundance on the shore close at hand.

Mousa is clearly visible.

Visited 25/5/77.

stair entrance, voids lighten the wall.

The extent of reconstruction, especially before records begin, may be considerable.

The other structures are numerous, and it is convenient to give them in the excavator's sequence, although (see chapter 3) this is not totally without doubt.

- 1) Bronze Age farmstead: a typical "clover-leaf" house, lying to the NW of the broch tower.
- 2) A ring-wall, of stone with a rubble core, and lying from 4 to 12m from the broch wall. This is battered externally and stands to 2m high. A thickening on the SE contains the entrance passage, which shows signs of rebuilding.

The "blockhouse" is in detail unique, although closely paralleled at some non-broch sites. It consists of a block of masonry, very like a fragment of an immense broch, although the arcs of front and rear face are not truly concentric. The entrance passage is very similar to that of the broch proper, but although a bar-hole is present, leading into a cell on the right, there is no human-sized opening into this cell, which must be entered from above. A smaller cell on the left, below the stair (which runs up, open between front and rear wall-faces) is entered from the void above the entrance passage.

The excavator suggested that the original intention was to link this blockhouse to the fort wall, but that this plan was abandoned to create more enclosed space.

- 3) A circular farmstead. Only a projecting segment of wall on the north face of the broch testifies to this phase on the ground.
- 4) A ring-wall (the "broch apron") Harding stage.
- 5) The broch, plus a small hut opposite the broch entrance.
- 6) Wheelhouse-type structures, both inside and outside the broch.

Numerous finds of metal, pottery, stone and glass were recovered. These date from Late Bronze Age (or very early Iron Age) to Medieval, and were mainly from doubtfully stratified contexts, most coming/

coming from midden deposits.

Outside the ring-wall, a "landing Stage" is separated by a short distance from a 3m-broad causeway which leads across the marshy (and formerly wet) strait from the main road, which itself crosses a shingle bar cutting the loch off from the sea at Bay of Sound.

The loch was formerly an arm of the sea, but has been isolated by a shingle bar. The sea now lies 350m to the E, with a landing beach and anchorage available there. The loch is now fresh, otherwise the nearest water supply is 400m to the north, where a stream enters the loch.

To the N and W, the shores of the loch are moorland, with peaty soils under heather. To the S and SW are areas of lowlying grazing with some arable. The area to the E, now built over, was formerly called "Starry Fields" suggesting grazing with cleared arable patches.

The N and W shores slope steeply down to the loch, while the eastern is more gently inclined.

The site itself, on a former islet, is well-drained, almost flat, and seems to be composed of glacial gravels. Higher ground beyond the loch on the NW overlooks the site, but does not command it.

Being almost landlocked, visibility from the broch is limited, being open only to the S.

The building stone, sandstone with some conglomerate, outcrops on the hills beyond the loch and along the shore of Bay of Sound.

Arch. Scot. V. p.202.

P.S.A.S, XV, p.306.

Simpson (1954)

Hamilton, 1968.

Visited 13/5/77, 16/5/77,

8/6/78, 25/6/78

etcetera.

48m above sea-level, and 27m above the loch.

The land around is all grazing now, but considerable areas have been arable. The broch is on the north slope of a wide, flat basin, falling towards the loch, around which the land is marshy. It stands on a low knoll, which is rocky. The land around has deeper, more fertile soil.

The rock is sandstone, outcropping on the hillside to the north, where it has been quarried.

Dalsetter broch lies on the skyline to the south.

Goudie, 1904.

P.S.A.S. xxiii, p.246.

Visited 8/6/78.

*CLUMLIE

HU 404 181

Dunrossness

1145

B

The broch stands amongst the deserted crofting township of Clumlie, where it was known, before excavation, as "da Brae o' da Nort Yard".

The structure is visible entirely as a result of Goudie's excavation of 1887, during which he rebuilt part of the inner wall face. But the structural details appear authentic.

The external diameter is 21m, the inner 10.5 to 11m. On the NE side the wall stands to 2m. On the SE, the entrance is 0.95m wide. 3.1m down the passage, the slab-built door-checks mark a widening to 1.5m. At the same point, an almost circular guard-cell is linked to the entrance by a narrow passage. On the south side, an oval cell is linked to the inner court, and appears to have been blocked by later internal walling, which has reduced the internal diameter by up to 2m opposite the entrance, gradually thinning to 20cm by the entrance, from which a later extension, in the form of two walls, much reduced, leads towards the centre. Opposite the entrance, a gap in the inner wall may hint at the original location of a raised stair-entrance.

The entire inner circuit of the broch is preserved, but only half of the outer survives, the rest having been removed for building purposes, doubtless at a much later date.

Goudie records numerous finds, mainly objects of stone, with some pottery. Some are illustrated in Goudie's 1904 volume.

Apart from the internal additions, there appears to be no trace of roughly contemporary structures, but crofting activities could well have removed such traces. A cist filled with "unctuous matter" was found halfway down the debris fill of the interior. An analysis of the contents yielded no conclusive results.

The site lies inland, 800m from the coast, which at its nearest point is cliffed but accessible, bearing the name "Boats Noust". The nearest landing beach is 1.5km away. 400m to the S is the Loch of Clumlie, and a stream leading into it provides the nearest fresh-water to the broch, 200m away. The site is 48m/

CULLINGSBURGH

HU 521 424

Bressay

1086

M

Below the NW corner of St. Mary's churchyard.

A 2m debris mound below the corner of the graveyard has been partially cleared to reveal half the outer circumference of a broch, 16.8m in diameter and standing up to 1m high. On the N side, a hollow on the top of the mound may mark a cell.

A chapel, and square graveyard partially overlies the site, with an older chapel enclosure bank showing within the yard. A curvilinear enclosure has been constructed on the angle between the broch and the SW wall of the graveyard.

A whetstone and a hammerstone were found on the site by the Commission.

At 20m from the broch, on the NE, seaward, side is a faced wall, filled up from behind and forming a step down on the N side. This seems concentric with the broch.

The broch stands on a small promontory, backed by a marshy strip, beyond which the land rises steeply. The coast is 30m away, the nearest beach and a substantial area of arable land 100m to the SW. The land immediately around the broch is grazing, with marshy patches, within which pools would provide the nearest fresh water. Soils are stoney and acid, but (on the information of the local farmer) good for this part of Shetland, being fairly deep.

The rock, a slabby flagstone, outcrops on the shore to the N. Aith and Brough (1) are visible.

Visited 16/5/77.

*CULSWICK

HU 253 448

Skeld

1397

B

On a coastal hill 900m WNW of the deserted croft of Sotersta, SW of Culswick.

The broch still stands to almost 5m high, and is recorded as 7m high in 1774, by Low. It is filled by rubble to the height of the top of the lintel at the inner end of the entrance passage, which is filled for part of its length. The external diameter is 16.15m at the lowest level exposed (about 30cm above true ground level). Internally, the diameter varies from 7.7m, in line with entrance, to 7.9m at right angles to this. The entrance passage, on the SE, is 10.8m wide, and 0.6m high, being slightly filled by debris. A built door-check, 1.8m down the passage, survives on the left, but there is no trace of one on the right, where rubble seals the passage connecting to the guard-cell. This latter survives intact to the passage lintel, above which the beehive roof is broken down from outside. The cell is oval, twice as long as broad.

Within the broch, a chamber above the entrance passage survives, the floor covered with debris, and lintels above it at a height of 0.6m above the inner fill. The end of this chamber is formed by the massive triangular lintel of the outer entrance, 1.1m by 1.0m, and 30cm thick.

In the northern sector of the wall, a gallery survives in part at what must be 2m or more above the ground level, and below the floor of this gallery, a void hints at a mural cell opposite the entrance. On the SW side, a lintel just showing above the rubble suggests another cell. There is no scarcement ledge, but instead 5 (4, Commission) stones project at intervals on the N and S sides, 3 to N, 2 to S, where the wall is highest. These are at least 3m above original ground level.

The Commission report hints at outbuildings. No trace of these was found.

No finds are recorded.

A stone-faced, rubble-cored, rampart surrounds the broch. Much dilapidated since the visit of the Commission, it is on average/

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average 4m thick. Facing is now only visible on the NW exterior and W to S interior. No entrance is visible, and the structure is almost buried in debris.

No other external defences are visible.

The broch stands on a hill on a cliffed promontory, which is cut off from the rest of the area by a deep geo on the N and a pair of small lochs which drain not into this geo, but over the cliff beside it. There is no access from the promontory to the shore, the cliffs being precipitous. The nearest access, and a landing beach, lie 400m to the N. The geo would not serve as a harbour, even in emergency. Fresh water would be available from the lochs, 70m to the E.

The land is thin-soiled coastal grazing, with salt-stunted grass. There is no apparent arable closer than 500m away, at the croft of Sotersta, to the ESE. (The entrance faces in this direction).

The building stone, a blocky granite, outcrops along the cliff tops.

Low, 1774, p.88.

Visited 5/6/77.

DALSETTER

HU 408 157

Dunrossness

1146

M

A prominent feature on the skyline of the coast between Boddam Voe and Troswick.

A debris mound 4m higher than the surrounding land has a hint of external wall-face on the S side, some 1.5m above ground level. Later buildings have disturbed the site.

To the N, outside the ramparts, are confused traces of structures, rather reminiscent of those at Burriland (1).

Despite disturbance by the construction of a croft and sheep-folds, the defences survive well. Two concentric earthen ramparts, at 7m and 15m from the broch stand up to 2m high. They are broken by a "ramp" of debris on the SE, and the innermost is largely levelled from the broch side by debris. A short, curving wall runs from the W side of the broch to the innermost rampart. On the NW and N sides a branching series of low banks run off into the confused remains noted above.

The site is on a rise above a flat cliff-top area of grazing with marshy patches. The cliffs, 50m to the E, are precipitous, and the nearest landing place would be near Boddam, 600m to the SW. The Commission record two nearby wells. These were not obvious at the time of visiting. Failing these, there are pools at 75m to the SE and to the N.

Although the area has supported a large croft, there is little evidence for former arable land. The soil is thin and the site exposed. The building stone is probably local sandstone.

Clumlie is visible to the N, Southvoe to the S, and Lunabister and Scousburgh to the W.

Visited 25/5/77, 7/6/78.

[NOTE : A local inhabitant offered the information that up till about 40 years ago, cows were grazed around the site, but the land "gave out", and was now used for sheep.]

EAST BURRAFIRTH

HU 358 579

Aithsting

1395

M

A tidal islet near the N shore of the voe of the same name.

The site, a debris mound 2m high, shows traces of the lower course of the outer wall face, with a diameter of 16m. No other details are apparent.

A ruinous and dangerous causeway is exposed at tides below mean level.

No finds are recorded.

The site has, obviously, easy access to the sea. On the other hand, freshwater is only available on the mainland, 70m to the N. The islet must be waveswept in high winds and tides. The location is a common one, with a good view down the voe into the wider waters, but the broch itself hidden from the open sea.

The soil on the mainland is variable in depth, and is well-drained, being mainly used for grazing but plentifully scattered with arable patches. Above the better land, hill grazing is extensive.

The building stone is greiss, available on site and on the nearby shores.

Visited 9/6/77, 23/6/78.

EASTSHORE

HU 403 113

Dunrossness

1148

M

On the northern headland protecting Pool of Virkie from the open sea, behind the ruined croft.

The circuit of this broch has now been half-destroyed by marine erosion, and there has been some clearance since the Commission's visit. The thickness of the wall, visible, is about 5m, at perhaps 2m above ground level. The internal diameter is 10m. The outer face is visible on the W side, the inner there also. A scarcement ledge, 10cm wide, is visible on the W arc, 1m above the inner tumble. On the E arc, a gallery has existed, slight but unmistakeable traces of the two inner faces remaining, suggesting a width of 1.1m. No entrance is visible, although a void below rubble on the W side suggests an opening in the inner wall face. The wall here is 1.8m high above the void.

"Numerous fragments of typical broch pottery" are recorded.

The subsidiary structures are extensive, but have been heavily disturbed by later building. Within the broch is a noost, and also remains of some wheelhouse (??) type structure, a casing wall up to 1.1m thick with a radial wall 1.8m long at right angles to it being observed on the western side.

The remains of a rampart can be traced from NW to N, faced on the outer side. This is 18m from the broch wall, and stands to 1m.

The beach is at present in the broch, but, evidence for coastal change make it difficult, around Pool of Virkie, to assess Iron Age coastal configuration (Jarlshof, Virkie brochs also). Certainly the broch was built close to the sea, but not quite so close. The nearest present water supply is a stream 200m NE, but the croft has had a well. Soils are sandy and well-drained, supporting arable patches and good grazing land.

The building material, flaggy sandstone of very high quality, is available from coastal outcrops nearby. Virkie and Jarlshof are visible.

Visited 25/5/77.

FEAL

HU 629 901

Fetlar

1211

P

Just outside the churchyard, on the SE side, at Feal.

The site has suffered since the Commission, and is now only visible as a scatter of rubble. The recorded features are: external diameter 20m, internal 10m. The entrance, on the E side, is still marked by the presence of a lintel stone, so unless much reduced, some 1.5m of structural height should remain.

No finds are recorded.

The broch has been surrounded by other buildings recorded by Low (1774) as "of an oblong shape, rounded off at the corners". No details of these can now be seen.

No outer defences are apparent.

The broch stands on a lessening of slope, about 100m from the cliff edge. The nearest beach and water supply are at Wick of Houbie, 400m NNW. Soils are variable, but generally of good quality. The nearest arable today is at Feal, 500m NW, but formerly this has been more extensive towards the broch. The rest of the land is pasture, with boggy patches.

The stone, a greiss, outcrops in the cliffs and on the lower shore around Wick of Houbie.

The broch of Houbie is visible across the bay.

Low, 1774, p.170.

Visited 20/5/77.

FCOTABROUGH

HU 200 495

Walls

1608

M

A rocky ridge, breaking the bayhead beach into two segments.

Two portions of the outer face survive - one third of the circuit, from S to W, stands from one to three courses high, and from N to ENE, a section stands 5 courses high, The latter may be partially rebuilt. The debris mound in the centre rises 1.5m above the visible wall-base, which cannot be more than 0.5m above true ground level. No other structural features are visible. The external diameter is about 18m.

No finds are recorded.

A noost lies to the NE, as does a line of walling running under a fishing-station. On top of the mound are the remains of at least two later, rectangular structures.

The site is undergoing active erosion, as part of the wall circuit to the E is now missing. It stands on a rocky promontory which projects some distance from the steeply shelving shingle beach. This is at the seaward end of a broad, flat-floored valley. The stream in this valley would have supplied fresh water. The valley floor is marshy grazing, broken by rocky knolls. Infrequent arable patches dot the hill slopes beyond. Soils are thin and stoney.

The rock is a gritty sandstone, which outcrops in scattered locations over the valley floor and sides. The slabs used in the broch are quite substantial.

Stoura broch is visible above the head of the valley.

Visited 6/6/77.

*FUGLA NESS

HU 438 778

Toft

1115

P

On the coast N of Brough croft, at Toft.

The broch is a large debris mound. Traces of outer face on ESE and N, and inner on the W, are not sufficient to assign diameter, but this was probably about 19m. Recent digging, from the top, into two cells exposed on the E, has revealed a passage (lintelled) from the more southerly towards the presumed entrance. The right hand cell seems to have had a similar link, so this is one of the few Shetland brochs with two guard cells. The lintels of the main entrance are almost certainly still in situ. The coastal erosion edge has moved slightly closer since the time of the Commission in (1933).

No finds are recorded.

A very ruinous sub rectangular structure, 10m by 5m, lies just inside the inner rampart. It may, in fact, be two smaller cells linked by tumble. A short length of wall leaves the N side of the broch, but fades out.

Two ramparts are present, the innermost, at 10-15m from the broch, reaching 1.5m in height. This encircles the broch on N and W, but swings further away to the SW. On the S of the broch it is not visible. Beyond a broad, flat-bottomed ditch the second rampart is only defined from W to S. It is lower, and is broken on the SSW by a gap in line with the end of the inner rampart. It, also, fails to reach the coastal edge S of the broch. Both ramparts are earthen.

The coast nearby low and rocky, would be useable as a landing-place, but there is no convenient anchorage in the fast-flowing tides of Yell Sound. Fresh water is available from a spring 100m NW, but a local informant suggested a well in the ditch beside the broch. This could not be located. The surrounding land has a thin, peaty soil, and shows little sign of arable cultivation, being good grazing at present. The nearest present arable is beside the croft 300m to the S.

The whole coastal strip has a gentle slope towards the sea, and it is difficult to understand why this precise location was/

was chosen. The rock, a granite, outcrops on the shore north of the site.

Holm of Copister is visible.

Visited 17/6/78.

GOSSABROUGH

HU 534 834

Yell (South) 1718

P

A rocky mound east of the eponymous croft.

The broch is now almost totally reduced to rubble. Only slight traces of the base of the outer circumference survive, on the W side. The Commission give an external diameter of 17.4m.

No finds are recorded.

A few ruinous structures are recorded to the NE; these were not apparent.

The broch stood on a 2m high rocky knoll, of a fine-grained greiss which also supplied building material. The coast, a sand and shingle bay beach, lies 150m to the N. The nearest fresh water is from a spring 100m away (the croft has a well). The land between the broch and the croft, and around the latter, is or has recently been arable. The rest is good grazing. All of the land is well-drained. Soils vary depending on sand content, becoming more acid and less stoney away from the beach edge, which approaches machair in places.

This broch is unusual in Shetland in its location on a non-coastal rock knoll, which seems to have taken the place of external defensive works.

Visited 18/5/77.

GREENBANK

HP 539 051

Yell (North)

1715

M

On the headland north of Bay of Brough.

A debris mound 3m high gives an external diameter, from occasional protruding facing stones of 16m, 1.4m above the likely ground level, and an inner diameter of 8.65m. Entrance may be at the east, but this is not very certain. Probably some 1m to 1.5m of wall is buried below the rubble. A very doubtful cell is visible on the SE.

No finds are recorded.

North of the broch, amongst the ramparts, are traces of buildings, very indistinct. Two enclosures to the S are probably much later.

Two irregular ramparts survive. The inner visible from NW through E to S, stands between 4m and 8m from the broch, and up to 1.2m tall. It has been faced both internally and externally. Outside this, 7m to 10m from the inner, is a second rampart, only surviving to 0.6m high, running from NW to NE, and apparently bifurcating at the latter end. Numerous other stretches of walling joining these seem to be later, field and krub walls making use of the broch defences. To the SW, a croft has obliterated the defensive features.

The land on which the broch stands slopes steeply down to the E, ending in a low (3m) till cliff. To N and S the cliff is higher, and rocky. A local legend tells of a subterranean passage from broch to cliff - probably a conflation of a small cave and a now filled well. A rocky beach lies 100m SE, a better, sandy, one 300m S. Freshwater is available, in increasing volume, from a spring (300m SW), a stream (500m S) and a loch (600m W). The land is all grazing now, but has been used for arable cultivation, in fairly recent years. The soil is thin and sandy, and well-drained.

The building stone, a coarse greiss, is available in coastal outcrops nearby.

Brochs at Brough Holm and Belmont are visible, and possibly Snabrough (2).

HAWKS NESS

HU 461 489

N. of Lerwick 1500

M

At the extremity of the peninsula 1.5km N of Breiwick township.

A 5m mound, partially rock, partially debris, gives evidence on the N and NE of the outer wall-face, suggesting an outer diameter of 18m. A gap on the NE may mark the entrance. A hollow on the SW suggests a collapsed cell.

No finds are recorded.

An array of later walls and enclosures seem associated with the use of the site as a sheep-handling area. A wall cuts off the promontory behind the broch, linking to a sheep-fank and later wall built on the debris slope S of the broch. Another stretch of walling runs from the broch mound N to the cliff edge. The area seaward of the broch has been cleared of loose stone.

The broch stands on a steep-sided hillock, at the base of a cliffed promontory. The nearest access to the sea is 150m S, the geo on site being a perilous anchorage. A small pool to the W might be a sufficient water supply or failing this, a stream to the S, 250m away. A small area has been cleared and is good pasture, the rest is heather or sedge moorland, with thin, peaty soils. The land is not very well drained, even along the coast, and the site area is the only local dry area, hence the differing vegetation.

The rock, a schist, forms angular-edged slabs, and outcrops in the knoll below the site.

Aith is visible.

Visited 26/5/77.

HEAD OF BROUGH

HU 446 860

Yell(South) 1721

M

On a low promontory below the road 3km south of West Sandwick.

The broch has been overlain by a later croft, but on the SW 6m of wall survives to 1 course high. This suggests a fairly small diameter, 17m to 18m. No other details can be ascertained.

No finds are recorded.

Quarrying and extensive croft-buildings have covered most of the site.

A ditch, over 1m deep, with upcast or low ramparts on either side, curves from the shore N of the broch to end SE of it. From crest to crest, this is 8m, and the inner crest is some 15m from the broch. Due E of the broch, a causeway breaches the ditch, but as this leads directly to the croft ruins, it is doubtful if it is coeval with the broch.

The coast, within 25m of the broch, is rocky, and the nearest beaches are 170m to the S, and would give a sheltered anchorage also. The broch is on a flat coastal strip, which is separated from the steep, heather-clad hill-slope to the E by a marshy depression. This would also provide fresh water. The land along the slope-foot is improved grazing, and there has been a little arable land associated with the ruined croft.

The broch has been built of irregular blocks of greiss, which outcrops on the nearby shore.

Burgan is visible across Yell Sound.

Visited 19/5/77, 17/6/78.

HOLM of COPISTER HU 472 780 Yell(south) 1720 B

An islet lying off the SW corner of Yell. Clearly visible from the Toft-Ulsta ferry.

[The site could not be visited due to the lack of a boat: the description is from the Commission's Inventory]

Externally 18.1m, internally c.10m. A gallery 0.9m wide shows on the W, perhaps 1.6m to 2m above ground level. The wall is only visible on the W (interior and exterior faces) and E (exterior only) arcs.

No finds are recorded.

A later, sub-rectangular, structure has lain between the broch and the inner rampart on the north, and appears to have overlain an earlier structure, of which only fragmenting traces remain.

A rampart built of earth and stones stands about 10m from the broch on all sides except the SW segment, where it may have been eroded, although a turn in the S end of the rampart suggests the rampart may never have been circular. The bank stands to 1.7m high. On the E side, a faced bank runs up to the broch, and may be an approach route. On the N of the islet, from W to NE, beyond a shallow ditch is a low rampart (or upcast bank). In places the ditch is rock-cut. It is difficult to estimate whether the breaking of the ramparts to the SW is a result of erosion.

The coast surrounds the broch closely. On the E side are two rocky beaches. There is no trace of an access causeway from the shore. The base of the broch is about 2m above high sea-level. Fresh water would be available on the shore nearby. There seems to be no supply other than rainwater on the islet. The site is waveswept during storms.

The on-shore land is low, marshy, grazing, stunted by salt spray. The soil is thin and sandy.

The broch is built of limestone blocks, fairly thin slabs, with some greiss blocks. The material is exposed on the shores of the islet, and on the shore to the N.

Fugla Ness can be seen.

HOUBIE

HU 620 904

Fetlar

1212

P

On a knoll to the W of Wick of Houbie.

The broch is very much dilapidated since the Commission's visit. Only a few short stretches of inner diameter can be seen, about 9m in diameter. The rest of the structure, recorded by the Commission as 18m in external diameter is a circular heap of rubble. Depressions on E, W and NW may indicate cells, or part of a gallery (noted as complete by Low in 1774). The entrance cannot be discerned.

No finds are recorded.

Two wall-bases of stone run S and E from the broch to the start of the steepest slopes on these sides.

Traces of three ramparts remain, running from NW to SW, cutting off the more gentle slopes of the knoll. North and south of the broch, the slopes are much steeper, and to the E the site is cliffed. The innermost rampart, 3m to 4m from the broch, is filled from behind by rubble, reaching 1.1m high on the outside. The second only runs from NW to W, and is very slight. Beyond this, the outer rampart, 1m high, curves concentrically to the broch from NW to W, at 20m from the broch, then runs straight SE to the steepening slope.

The coast is 20m E, and cliffed. 100m NE is a steep geo, which might have acted as a landing beach, but a more likely place would be the beach at Feal 650m NE. The nearest water supply would be from a spring 200m N, or the stream 300m NNE. The land is good grazing on thin, stoney, soil, but there is little arable nearer than Houbie, 500m away. 250m away, to the W, a higher knoll stands out. This does not have such a good view to seaward as the broch.

The building stone, a greiss, outcrops in the cliff to the E.

Feal is visible to the E.

HOUSABISTER

HU 487 578

Nesting(North)

1282

P

Behind North Nesting church, in broken, rocky ground.

The site has been heavily quarried, to the extent of the building of an access road to the site. Only the lowest 2m of a mound formerly 5m high survives, showing stretches of outer wall face on S and NE, and inner face on N and SE. Outer diameter 17.4m, inner 7.8m.

A possible entrance passage, 1.0m wide, is visible on the S side, and to the right the ruin of a collapsed mural (guard?) cell, 3m by 1.6m.

No finds are recorded.

A church to the N has been built from the debris.

Two concentric walls, the outermost 70m away, are recorded by Spence (1899), but these are no longer visible.

The site is in an area of rocky ground, just above a steep, 15m, slope to the sea. A stream lies 80m to the N, and a landing beach 200m away. Inland from the broch, the land drops to a marshy stream valley, then rises steeply. All of the land is grazed, and there has been little arable cultivation at any time in the immediate area. Soils are thin and stoney, while to the NW, beyond the stream, is deep peat.

The building stone, a schistose greiss, is so abundant around the site as to make location difficult. Some of this may well be debris from the broch, but most of it is naturally fractured bed-rock.

Burrian, at Brough, can be seen to the S.

(The Commission would seem to have failed to locate the correct site).

Spence, 1899, p.45.

Arch.Scot, v, p.181.

Visited 15/5/77.

HUXTER

HU 173 570

Sandness

1605

B

SW of the croft at Huxter (Hogsetter), at the end of the public road W from Melby.

The broch has been adapted as a sheep-pen, its inner face being preserved and repaired, but the outer largely quarried away. The inner face stands to 1.8m, and is partially concealed by a remnant debris mound which is being gradually removed by the farmer. Outside, from NW to S, debris is sufficient to conceal some of the outer wall-foot, which is only exposed on the SE, where an entrance in the broch interior, turning left, gives access to a cell, or short passage, 1m wide, lintelled over for 2.8m. A few stones on the W may also be of the outer face. To the NE, the original entrance has been rebuilt. The inner diameter is 9.8m, the outer about 17.9m.

Finds recorded around 1840, when most of the quarrying took place, include querns, "mallets", pottery, knives and animal bones (Spence, 1899).

8m from the inner face of the broch, and 5m from the loch, is a line of boulders, probably a breakwater rather than a rampart. Otherwise no contemporary defences or structures connected with habitation are visible.

The coast, 200m to the NW, is rocky. The nearest beach is 500m to the N. The broch stands beside a loch which lies on a broad coastal platform, 30m above sea-level. The land of this shelf is mainly grazing, with some arable around the crofts to the NE. Marshy patches lie to N and S of the broch, so that only on the E side is a dry access possible.

The rock, a high-quality sandstone, outcrops on the coast to the NW.

Spence, 1899, p.52.

Visited 7/6/77, 23/6/78.

* JARLSHOF HU 399 096 Dunrossness 1149 B

On a promontory SW of the Sumburgh Hotel. Clearly signposted from the public road.

This broch and its surrounding and overlying structures have been excavated sporadically since 1897. The following account is based on the 1956 excavation report.

The broch, itself the third phase on site, although following a period of desertion, has been half-eroded by the sea, a process now prevented by a sea-wall. 19.3m overall in diameter, 9.0m internally, the broch stands to 2.45m, and is fairly steeply battered on the outside. The entrance has been lost, as neither of the two half-lost cells to NW and SE seems to have been a guard-cell. These two cells were entered by narrow passages. That on the SE had a step down of 14cm to the floor. A scarcement in the form of a projecting stone-course, can be observed at 2.3m above the inner court, within which there is a 4m - deep well, apparently of the same period as the broch.

From the NE of the Broch wall, a faced masonry wall up to 2.8m high runs in a sweeping curve through N to NW, at a mean distance from the broch of 10m. At the NW, a half-ruined oval cell within a thickening of the wall suggests some form of defended entrance.

There are numerous other structures on site, and the sequence is discussed elsewhere, but in summary this runs:

- 1) Bronze Age "village" - courtyard houses
- 2) Early Iron Age "village" - " " (plus souterrains ?)
- 3) Unoccupied - sand accumulation
- 4) Broch tower, well, outer wall attached to broch and forming a courtyard.
- 5) Roundhouse (in the courtyard outside the broch)
- 6) Wheelhouses, in at least three phases, one of which was constructed within the now much-reduced broch, after the well had become blocked.
- 7) Low circular huts.
- 8) etc., Several periods of Norse houses, apparently established from the 9th century, by which date the earlier/

earlier remains seem to have become so over-grown as to have escaped stone-robbing. This is remarkable considering the Norse predeliction for mound-digging.

- 9) Medieval dwelling house ("do Jarlshof")
- 10) Medieval burial ground.

A vast array of artefactual material has been recovered, and the appropriate broch-period material is discussed, with the sequence, in chapter 3 of the present thesis. Pottery was plentiful, as was bone material and worked slatey stone.

The site, originally a low shore platform, has in common with most of the Sumburgh peninsula (cf Virkie) suffered from accumulation of sand over the centuries, so that it is now some 3m higher in places than 2000 years ago. Thus the present conditions may not be a guide to past environment.

Bearing this in mind, the coast, now on site, must have been at least 30m further away during the broch phase. Water has always been a problem, hence the well. The soil around the archaeological area is deep, sandy and well drained, and mainly used for grazing, although considerable arable farming has taken place, an observation which must apply to the broch period, as digging implements were excavated from the layers of this phase, as were querns.

The rock used, a slabby sandstone, would have been quarried from Head of Sumburgh to the S and E. Later phases made greater use of beach cobbles and boulders.

Eastshore and Virkie are clearly visible, as are the two forts on Scatness (Scatness and Ness of Burgi) and the (?) fort site on Sumburgh Head.

Hamilton, 1956.

PSAS, XLI, p.11.

Visited 25/5/77, 7/6/78, 21/6/78.

* LEVENWICK

HU 416 198

Dunrossness

1144

B

On the cliff edge, 1.5km S of Levenwick township.

The broch was excavated by Goudie around 1870, and the Commission reproduced the plan from his later volume (Goudie, 1904). This is not very useful, and no plan is given of the defensive and subsidiary works. In fact, the Commission gave but cursory attention to the site, remarking it had been wrecked by the great storm of February 1900. Considerable additional detail is visible, and a theodolite survey was made of the complete site in 1978.

The broch has external diameter 16.6m and a wall varying from 3.8 to 4.8m thick. The maximum height is about 3.8m above the true ground level. The original entrance has been on the E side, and the inner lintels are still in place. The stair rose from the N side of the court, and rises 3m to a gallery which runs over the entrance to the S, where a second stair - length rises from a lobby similar to that at Clickhimin in opening into the interior. An outward opening in the broch wall here is probably secondary. The second stair rises to the wall-head remaining, and presumably gave access to a second gallery. There are not (c.f. Mackie 1973) two separate stairs rising from ground level.

The broch interior has been reduced at a later date by a 1.8m wide inner casing wall, standing to the same height, with five radial projections. Gaps are left at the entrance to the broch (0.6m - 0.9m wide) and at the entrance to the stair (0.6m - 1m wide). However, the stair itself was blocked, unless this was done later still. To the W, and outside the broch, the remains of at least one outbuilding, similar in plan to the "Bronze Age" house at Clickhimin, can be clearly seen.

Defensive features of two types are visible. A faced rubble wall runs from SW to S, at 3-4m from the outer face of the broch. This runs into later disturbance (perhaps houses) to the W, and fades out towards the coast at the S. A double earthen rampart surrounds the broch, at a varying distance. Both inner and outer ramparts are much reduced, but clearly visible from N to NW, and from SW to S. On the W modern walling (sheep-pens) disturbs them, and they have been flattened. These ramparts may be the "Giants/

"Giants Graves" excavated so unprofitably by Goudie. No defensive features are recorded by the Commission.

Finds were very sparse, only a few fragments of wood, some animal bones, vegetable fibre and "a stone resembling a plummet with a hole in one end".

The broch stands 50m from the edge of an almost vertical cliff 30m high. The nearest access to the sea is via a rocky beach at the head of a geo 500m NNW. A loch lies 200m to the NW, and a stream flowing into this loch forms the nearest water supply, although a nearer marshy patch might have served.

The land is grazing, marshy in places, and to the N there are sizeable areas of arable land. Beyond a marshy strip the land on the W rises steeply, grazing giving way to heather moor.

The broch is built from a slabby flagstone, available in ample quantities on the cliff-top beside the broch.

Dalsetter is visible.

PSAS, IX, p.212.

Goudie, 1904, p.17.

Visited 25/5/77, 8/6/78.

Surveyed 21/6/78.

which has thin, acid, soils, is low grazing, very exposed indeed. A little arable land survives at Priesthoulland, 300m to the NE, but only where protected by walls from the force of the wind. The land is a gently undulating cliff-top platform.

The building stone, an andesitic lava, forms very large blocks. It outcrops sporadically all over the nearby cliff-tops, and more restrictedly to the N of the broch site, where it has been quarried at some time.

Sae Breck is visible to the S.

Visited 1/6/77.

LUNABISTER

HU 378 164

Dunrossness

1152

M

To the W of the croft of the same name.

Building work in 1955 revealed 13m of walling, standing to 1.6m, suggesting an overall diameter of 18m. The rest of the site is a large debris mound.

Outbuildings are probably present on the S side, but the area has been heavily disturbed.

No external defences are visible.

An earlier account speaks of digging on the side of the mound revealing material "as in burnt mounds" with a trough-quern, a saddle-quern, hammerstones, two broken holed stones, pieces of hard-grained pottery, calcined ox-bones and ox-teeth. Either 1) the broch was built on a burnt mound, or 2) the material from such a mound was used to level the site, or 3) the mound was actually in use contemporaneously. This latter interpretation may be supported by evidence for trough-cooking at Bu in Orkney (Hedges, 1979, pers comm.).

The coast at present lies 1.5km to the N, where there is a sandy beach. At some time in the past Loch of Spiggie has been linked to the sea. This loch lies 300m W of the site. The nearest alternative water supply is a stream 300m N, although most of the neighbouring crofts have had wells. The soil is deep and fertile, and well-drained. Although now mainly rich grazing, it has all been used as arable. The nearest rough grazing is on the hill-slopes well to the N. Thebbroch site on a very slight convex break of slope, and broch sites at Scousburgh, Skelberry, Loch of Brow and Southvoe are visible.

The building stone is the local sandstone, and the nearest present outcrop is 500m to the NE, on the steeper hill slopes.

* MOUSA

HU 457 237

Sandwick

1206

B

The best-known of Scotland's brochs, this stands on the W shore of Mousa, and is clearly visible from the road to Sumburgh Airport. It is reached by private boat-hire from Sandwick.

The site is discussed in chapter 3, but in summary the details are as follows. External diameter 15.3m. Internal diameter 6.1m. This is the most massive broch known. The wall stands to 13.25m, where the top (the sixth gallery) is only partially complete. The broch is "solid-based", with three substantial oval cells in the wall-base, reached from the broch interior by narrow passages which drop down to the cell floors. Also in the interior face are three "aumbries" or cupboards of differing dimensions. The cells have smaller aumbries in their walls. The entrance passage is 1.2m wide at the outside, expanding to 1.55m beyond built door-checks 2.5m down the passage. A barhole is visible on the left of the entrance passage, which faces due W. There is no guard-cell. The entrance-passage lintels have been largely destroyed, and the broch was entered in the 1860's through a breach made into a chamber above the true entrance passage. The outer face has since been repaired. The six galleries are connected by a stair which rises spirally rightwards from a raised entrance in the NE face of the interior. A subsidiary entrance to the stair is present at the second-gallery level. The galleries do not diminish progressively, the sixth and uppermost being wider than all except the first and second. Three long voids, tied with lintel slabs, run vertically down the inner face from first to fourth gallery levels. The foot of one of these provides the main stair access, and the foot of another the secondary access. In addition, three recesses, like voids but not always penetrating the wall, can be observed in the wall-face. Two scarcements are present, as lines of projecting stones, 2.1m and 3.8m above the ground-level. The former is at the level of the stair-entrance.

The broch has been "repaired" at wallhead and entrance.

Within the broch a 60cm casing wall with projecting radial piers (of which only one survives) was recorded together with a number of flagstone partitions and a sloping-floored tank (which may be original). A central hearth was of probable later date.

The entrance passage on the W, outside the broch, was flanked/

flanked by later (?) buildings, of which traces remain to the N, where circular foundations exist.

The finds, some worked slate and a few fragments of pottery of varying age, suggest either a brief occupation or later clearing of the site.

The broch has the distinction of being the only one mentioned in ancient literature, in Egil's Saga and Orkneyingasaga, when it served as a refuge for fugitives.

A defensive wall runs across the neck of the promontory, but is much reduced, and may in fact never have been of any great height.

The broch stands on a low promontory which slopes down slabby rocks to the shore. A good landing beach lies 75m to the NW. There is a spring 150m to the NE, and no trace of any well. Grazing is the sole use of the island, and former arable, at the N end, has been very restricted in extent. Soils are thin, stoney, and well-drained.

Through the central valley, the broch looks out to the open sea, and also has a wide view of the E coast of Dunrossness. Brochs visible are Burriland (1) (opposite), and Clevigarth.

The building stone, a fine flag, is available in great quantities on the nearby shore.

Arch.Scot, v, p.207,

Low, 1774, p.182.

Viewed from shore 25/5/77.

NOONSBROUGH

HU 294 576

Sandness

1394

M

On a semi-island, below later structures, beside Voe of Clousta, N of Noonsbrough.

On the W of a large mound, the outer face of the broch is exposed for 6m, standing up to 1.5m high. Elsewhere the debris buries detail. Overall diameter is about 18m. Later structures of different periods are present. From the SW a flat causeway, of considerable age, forms a dry path to the broch from the true shore. This is about 2m broad and 15m long. A rectilinear field lies very low, on the W of the little lagoon impounded by the causeway and by a shingle bar running NW from the islet. The walling of this, now much reduced, has paired orthostats at intervals. In the centre are the scattered remains of an oval structure some 5m x 3m. On the W of the broch mound, and attached to it structurally, are a number of small enclosures, rather like plantie-krubs but lacking soil build-up. They are probably shelters for fishing gear. On the slope above the broch, and to the S, are extensive remains of a group of crofts, of which only one remains in use.

No finds are recorded.

The site itself is defensive, with only one approach, the shingle bar being almost certainly more recent in origin. There are no other traces of defensive structures.

The islet, as noted above, is joined by a causeway and a bar to the mainland, thus enclosing a brackish pool. The beach, if early enough, would form a good landing beach, but the whole shore is gently - sloping and sheltered. Considerable areas of arable cultivation can be traced on the slopes to the W, along with ruined crofts.

Most of this land is now grazing. Beyond this is rough grazing on steeper slopes. Soils around the crofts are deep and fertile, though heavy, largely due to constant improvement over the years (local informant). The broch, if of any height, would be able to look out to the sea approaches round Vementry, but could not be seen from the open sea.

The building stone is a coarse tuff, forming large blocks. It outcrops on the hill to the W, and at the head of the voe.

NOSS SOUND

HU 528 410

Bressay

1085

P

On a rocky knoll by the shore, just S of the ferry point for Noss Nature Reserve.

A 3m mound of debris on the top of a 1m rock boss, with traces of the outer circumference showing high in the mound to S and NE giving a diameter of 15m some distance from the base (perhaps 2m up). The outer face of an oval cell is visible to the NW. Another vestigial cell can be traced, by the inner face, on the S of the circuit. The cells are recorded as 4m by 2m by 1.6m deep in 1822.

A rectangular structure, with walls 0.6m thick, has been erected on the mound, and is itself now largely obliterated.

Two ramparts curve around the broch. The inner, 9.6m from the broch outer face, is a rubble mound from 0.6 to 1.2m high. This curves from NW to NE, broken at two points. It stops at a stream on the NW. Outside this, at a further 7.1m, is an outwardly-faced rubble bank. This curves from NE to N, where the stream passes through it, and then resumes beyond the stream, running SW towards the far side of the geo into which the stream empties. A wall 2.4m thick runs W from the broch towards the geo. This seems to be later, and a ruined noost is built at its seaward end. A wall running N, outside the outer rampart, has some very substantial orthostats, but is probably later.

No finds are recorded.

The broch stands on a knoll which is in effect a promontory, due to a stream flowing from the N. The site itself rises above the flatter area above the stream, but beyond the latter the slopes rise very steeply to overlook the site. The sea is to hand, with a beach 30m to the SW. Any anchorage in the Sound would be perilous when the tide was flowing. Fresh water, in the form of a stream 30m away, is conveniently available. The land nearby is all good grazing, and there has been a little arable around the ruined crofts to the N. Soils are thin and stoney. No other broch sites are visible.

The building stone, Bressay flagstone, is available on the coast nearby.

SAE BRECK

HU 210 781

Esha Ness

1361

B

On the hilltop W of Crosskirk, below the coastguard lookout station.

The broch (Commission "cairn") was partially excavated in 1951. Little detail is now visible on site. The diameter was 16.76m externally and 8m internally. Two cells were excavated: that on the N was oval, 4.8m by 1.4m, and stood to 1.7m, with the entrance passage 1.2m above the cell floor; that on the S was 3.8m by 1.3m, and stood to 1.5m, with the entrance passage 0.7m above the floor.

No later structures were found.

Abundant coarse pottery was found in the S cell, associated with ash, the whole deposit suggesting a use as a shelter after the broch was largely ruined. Also, two hammerstones, a quartzite ball, a stone spindle whorl and some fragments of pumice were recovered.

Running around the broch from 5m to 15m away, is a low, grassy bank. Excavation revealed this as a 3.5m wide masonry-faced rubble wall, standing in places to 1m. An entrance on the E was suggested.

The broch stands 61m above sea-level, on the highest point in Eshaness. To N, W and S the hill slopes gently to the edge of high cliffs, while to the E it drops steeply to the Kirk Loch, whence a stream flows 500m S and W to a stoney beach, the only nearby access to the sea. Lochs to N, W and E would have supplied ample freshwater. The site must be the most exposed of any Shetland broch. All the nearby land is rough, salt-spray-stunted grazing. There is no arable nearer than the far side of Kirk Loch, over 600m away, and this is of limited extent. Soil is effectively non-existent over most of the hilltop. The outlook compensates for the exposure. Loch of Houlland, Bousta and Huxter brochs are visible, and in the distance, Tumlin.

The broch is built from a slabby andesite which outcrops all over the hilltop.

SNABROUGH (2)

HP 568 028

Unst(South)

1546

P

Beside a small hill loch 1.5km N of Belmont.

A circular mound 2m high has evidence of outer facing slabs to the SE, S and SW, suggesting an external diameter of 17m. The inside face shows at a number of points all round the circuit, and varies from 8.1m (in line with the entrance) to 8.2m (at right angles). The external entrance lintel, a large slab of greiss, has been pulled from its place and toppled forward, but indicates the entrance on the SW side (the Commission suggest NW).

Traces of a cell can be seen on the S, where the wall is 4.4m thick, and a possible stair-foot (or another cell) opens in the W of the annular mound.

Outbuildings are numerous and much confused, but comprise three small oval cells just within the rampart (see below) on the W side, a similar cell just outside and a larger curved-oblong foundation running from broch to rampart on the NW, and some 7m long internally. A recent krub stands SW of the broch, beside the water.

On the S the loch affords protection, but for the rest of the circuit a rampart, much filled from behind, runs round the site, at about 12.2m from the broch, swinging in to join the broch on either side as it approaches the loch. This reaches 2.4m in height measured from the outside. On the E, a detached section of rampart continues the line concentric to the broch, through an area of marshy ground. Radial walls divide the enclosure around the broch on the E, NE and N sides. The entrance to the broch is close to the water's edge.

On the N, beyond the rampart, is a damp, flat hollow, beyond which a steep, short, slope rises. This could, perhaps, be a wet ditch, but trial boring would be needed to demonstrate this.

No finds are recorded.

The land is all grazing, although there have been pockets of arable around the crofts to the N. The broch stands on a promontory beside a small loch which occupies a basin 300-400m in diameter, 50m above sea-level. A very modest wall-height would ensure a view out of the basin. Soils are deep but peaty, and poorly drained.

cont'd

The rock, a greiss, outcrops over the hill to the N, behind the crofts.

A height of, say, 10m would give a view of Belmont, Underhoull, Greenbank, and Burra Ness from the wall-head.

Low, p.152.

Visited 29/5/77.

STOURA

HU 208 152

Walls

1674

M

To the NE of the croft-house at Stoura, which lies to the N of Nid Walls township.

The site has been heavily quarried, and only two large boulders, on N and W, would seem to be in situ. The rest of the remains are a scatter of gritty sandstone.

The Commission record "typical broch finds".

No external buildings are apparent, other than crofts of a later date.

On the N side, there is a flat area, about 30m square, defined on the N by a slight ditch and on the E by a slight terrace. This may have been an enclosure similar to that at Tumblin, which significantly occupies a similar position.

Stoura, which gives its name to Stourabrough Hill, lies on a shoulder of that hill, at 80m above sea-level. The site is on the end of a gently-sloping spur, which falls away more steeply to Burn of Setter below the broch. All of the nearby land faces S, the broch standing at the margin of good grazing land, with some arable patches, and hill grazing. The floor of the valley below is marshy, and has a number of burnt mounds. Soils deepen gradually downslope, peat thickens upslope. There is no fresh-water for some distance, a stream 200m W being the nearest reliable source.

The inland location, 1.4km from the sea, is unusual in Shetland, the nearest beach being at Footabrough. The building stone, a gritty sandstone, outcrops on the hill above the site.

Burralland (2) and Footabrough are visible, as is West Houlland.

TUMBLIN

HU 345 539

Walls

1396

M

On the hilltop at the head of the TumbIn valley, at Bixter, just west of the highest croft.

The broch site is a low debris mound, which probably conceals the foundations in a fairly complete form. The outer wall-face footing is visible from W to N, and suggests a 17m-18m diameter overall. A telegraph-pole has been erected in the centre of the mound.

No finds are recorded.

No external structures were visible.

A low bank defines an ovoid yard around the mound, giving two flattened enclosed areas to N and S, but swinging close to the broch mound at E and W. This bank is least well-defined from N to E, but elsewhere stands from 0 to 50cm high inside and 50cm to 1m high outside. On the SSW, S and ESE sides, banks of similar style run off, that on the SSW curving away for some distance to the S, and cut by later boundary lines.

The site is the highest in Shetland, at 95m above sea-level, and is also the farthest from the sea, the coast being 2km away to the N (at Aith) and S (at Bixter). At both of these places sheltered landings are available. The soil is thin; the land is extensively grazed, contrasting by its green colour with the hills to E and W, which are rough-grazing. This seems to be a result of differences in geology, the local soils being more base-rich. There is arable land in the lower Tumblin valley, below the crofts at Houlland. A stream rises 150m to the E, and would provide a water-supply.

The site is a strategic one, commanding a view of the major N-S route through the West Mainland. In addition, views are extensive, the brochs at West Houlland and Sae Breck being visible in fair weather.

The broch has been built of large blocks of the local greiss, which outcrops on the E slope of the hill.

UNDERHOULL

HP 574 045

Unst

1547

P

To the left of the road to the Westing, on the highest point before the hill down towards the shore.

Of the broch only fragmentary traces of inner and outer faces can be seen, giving an external diameter of 16.5m and an internal diameter of 8m. On the SW, a 1m-wide gap in the outer face, with a short faced passage wall standing one course high only, indicates the entrance.

No finds are recorded.

The ramparts and ditches are impressive. The inner rampart, at about 5m from the broch, stands to 1.5m high inside and 3m outside. At the entrance to the broch it swings in, and presents a faced slope 2m high 3.8m from the broch. At this point there is a break in the rampart, which is filled from behind. The outer rampart, 7 to 8m from the inner, stands to 1.5m inside and 0.6m outside. Clearly, much of the height of the inner face of this, and the outer face of the last, derives from the intervening quarry-ditch being excavated below ground level. The outer rampart is also broken on the SW, but here more as a result of an increasing slope than as a sign of a built entrance.

From the outer rampart's Send, a dyke runs sinuously downslope, with other dykes branching off. These are probably later than the broch, and may be associated with the Norse and Iron Age site at Underhoull (Small, 1966).

The site is on a spur, below which the land drops steeply to the coast 300m away, where there is a landing beach and anchorage, with noosts possibly dating back to the early Norse settlement phase A spring 150m S, or a stream 400m SW, are likely water sources. Soils are deep, but tend to acidity, and are not always well-drained. The area is used as good-quality grazing, with only a little present arable at the nearby crofts.

The broch has been built of large blocks of gneiss, which outcrops 250m away across the spur.

The site has extensive views from N through W to SE, with Brough Holm, Greenbank and Snabrough visible.

cont'd

Note: The site name "Underhoull" or "Underhool" implies a settlement below (ie down-slope from) the broch mound, or "houll". The presentcroft is not so located. Perhaps the name may relate to the earlier, excavated site.

Arch.Scot. v, p.181.

P.S.A.S. XCVIII, p.225.

Visited 29/5/77.

VIRKIE

HU 390 107

Dunrossness

X Not known

Immediately S of the Sumburgh Airport access road, just after this leaves the main road.

This site was discovered a few years ago during the construction of the new access road. The N side was excavated prior to shoring-up with a wall rebuilt just back from the original line. In the still-open section of the sandy bank overlying the broch, the masonry-faced rubble-cored broch wall can be seen standing to 2m in height. The overall diameter was about 20m.

The total sand-depth is 3.5m, and at various levels above the broch there are signs of structures of drystone masonry. Here, as at nearby Jarlshof, the proportion of beach derived, as opposed to quarried, material increases over time.

Finds of hammerstones and a little coarse pottery are recorded (in Lerwick Museum).

As at Jarlshof, it is difficult to reconstruct the broch environment due to undoubted shoreline change and substantial sand-accumulation. However, the site was built on a slight rise on the S side of the Pool of Virkie, probably closer to the sea than at present (the new airport area has reclaimed land). Water supply would have presented a major problem. To the S, at Jarlshof, this was solved by a well. The soil beneath the sand-blow is itself sandy, and seems of average fertility. The land, where not used as runways etc, is under grass, but there has been arable in the vicinity. A nearby Neolithic - Iron Age house site (Lamb, 1974) produced querns, as evidence of cereal growing.

The stone is a mixture of sandstone, available on the shores of the Pool, and beach cobbles.

The broch would have been in view of Eastshore and Jarlshof (if 5m high).

Information from O.S., N.M.R., and Dr. Lamb.

Visited 7/6/78.

WADBISTER

HU 447 504

Nesting(south) 1499

M

At the N point of Wadbister Ness.

The site, a tidal islet, has undergone severe erosion, so that one-third of the possible wall-circuit has been lost. The remains of the inner face from S to NW can be seen, as can the NW and S sectors of the outer face, which has been partially lost on the W side. The entire E half has been lost. Diameter seems to have been 18m or thereby.

No later structures are apparent.

No finds are recorded.

A short stretch of an earthen bank survives on the S, or landward, side, 5m from the outer face of the broch. The broch has stood on an islet, separated from the shore by a short (20m) stretch of bare rocks, covered at high tide. A shallow till capping covers the island, and probably connected with the shore. The erosion of this is responsible for the loss of part of the broch. The position is an exposed one. On shore there is a flat area of former arable associated with a ruined croft or fishing station. This is now grazing. The rest of the area is heather-moor with marshy, sedgy, areas, and is used as hill-grazing. Soils are thin and acid, where peat-cover is not complete. There is a landing beach beside the site, but no safe anchorage. Fresh-water would be from springs and seepages on the hill behind, and of rather unreliable nature, there being no streams nearby.

The building stone is a coarse, gritty, sandstone which is available all around the site, on the shore. Much of the building material has probably gone to construct later walls on the flat shore area.

Hawksness broch would be visible if Wadbister stood to 8m tall.

(R.P. Winham of Southampton University helped with the location of this site, poorly described in the Inventory).

Visited 11/6/78.

WATSNES

HU 175 507

Walls

1609

M

W of the farm, on the shores of Loch of Watsness.

Basal boulders of the outer wall-face can be seen at W, NW, N, E and S, giving an outer diameter of 16m. The debris mound within these traces rises 1.6m higher, and presumably conceals the inner wall-face.

It is difficult to distinguish subsidiary structures from quarrying disturbance, but S of the broch and within the rampart are the remains of at least three and possibly five later structures, of oval plan. A sub-rectangular structure outside the rampart on the SE is probably later.

The whole peninsula has been protected on the sides facing the direction of the largest waves by a breakwater in the form of a line of large boulders. From NW to SE, on the W side, a low rampart, which may be merely another breakwater in origin, surrounds the broch at about 8m from the outer wall.

The site is a peninsula in a loch, with a marshy area on the landward neck. The nearest access to the coast is 300m to the W, where a steep geo offers a perilous harbour. The loch is a more than adequate water supply. Soils are thin to seaward, with typical short cliff-top grazing, but deepen towards the E, where a sizeable area of arable land reaches from beside the site to the farm buildings of the present inhabitants. The soils vary, being sandy at the coast and increasingly clay-rich inland. To N and S lie considerable extents of rough grassland.

The rock is a sandstone, forming large, regular, sub-rectangular blocks, and is available on the cliffs to seaward (300m) or on the hill to the NE.

The view from the site, in its valley behind the cliffs, is very poor except to N and S, the likely approach routes.

Note: across the loch a substantial earth and rubble bank runs from the head of a geo to the loch's W shore, directly opposite the broch.

Visited 6/6/77, 9/7/77, 8/7/78.

WEST BURRAFIRTH

HU 257 573

Sandness

1393

B

On an islet on the N side of West Burra Firth, below the eponymous township.

No boat was available : details from Commission.

About 2 to 2.5m of height remains, the lower part buried by rubble. Diameter is 17.7m externally, 8.5m internally. The wall, 4.6m thick, contains a variety of cells. On either side of the obscured entrance-way, on the WSW, are two small sub-circular cells. There are four further "cells". On the NW, an oval cell is entered by an L-plan passage, reminiscent of that at Huxter. On the NNE, a short T-passage leads to a pair of oval cells, an arrangement unknown elsewhere in Shetland. On the E, a simple oval cell exists, its entrance invisible. A passage leaving the broch interior at the SSW turns sharply to run E to a double, linked, oval cell, which has a figure-of-eight plan. In each case where the entrance is visible, the outer lintels are in place. At the same level as the lintels is a step-scarcement 25cm wide. Some of the entrances to cells seem to have been prolonged upwards as voids, to judge by the absence of masonry built on them.

The structure is quite unlike any other well-preserved Shetland broch.

Local informants repeated the tale of a former causeway recorded by the Commission, but no trace of this survives. There is little room for external structures, but there may be traces of masonry to the W (local informant). The entrance to the broch is reached from a tiny geo, up a partly artificially cut gap in the rocks. Many finds, including pottery, querns and stone objects have been found, but are now dispersed.

There is a landing place just S of the broch. The supply of freshwater would be a problem. The nearest stream is 150m E, on the opposite shore. On this shore, soil is thin, and stoney, with deeper, long-worked, pockets. Around the crofts to N and E is some arable, the rest of the lower land is pasture, running upwards to moorland.

The broch, built of regular sandstone blocks probably quarried from the flanks of the islet, is in a hidden position, and only has good visibility down the voe to the W and S (the likely approach routes). It would be invisible from the open sea.

WEST HOLLAND

HU 275 503

Walls

1398

M

Behind the interesting multi-period croft-buildings on top of the hill between Scutta Voe and Hestafoord Voe.

The mound has been quarried for building stone, but on the S and SE traces of the outer face survive, suggesting a 19m diameter. One stone alone of the inner face survives, on the SE. It is interesting that the diggers of the quarry pit seem to have looked for the inner facing stones in preference.

A number of ruinous turf-covered walls seem to be associated with the broch, and are at least older than the oldest croft-buildings, and these must go back some two centuries. A short stretch of wall runs due S from the broch. E of this a parallel wall swings towards the broch at its N end, and at this angle a branch runs off NW, on a line radial to the broch.

Later walls and houses impinge on the N side of the site. The broch has a hill-top location, in the heart of a major area of Neolithic - Bronze Age settlement remains (Calder, 1956; Whittle, 1976, 1977). At present the land-use is almost all good grazing, but there has been more arable in the past than the present small garden-sized plots suggest. Soils are of variable depth and moderately fertile, being well-drained. The croft has a well, otherwise fresh water would need to be brought up from a spring 100m to the S. A stoney beach lies 400m to the S.

The building stone has been a coarse, gritty, sandstone, available in small outcrops all over the hill. Situated at 60m above sea-level, the site has extensive views over both sea and land approaches.

The brochs at Tumblin and Stoura are visible.

Visited 5/6/77, 14/6/78.

WINDHOUSE

HU 488 922

Mid Yell

1723

M

W of the large abandoned house N of the road from Mid Yell to W Sandwick.

The site has been partially excavated, a trench outside the NW quadrant revealing the outer wallface. The outer diameter has been 16.50m, the inner 8.00m, although rather variable. The wall thickness expands from c.4.00m on the N to 4.80m on the W, where the entrances' outer lintel lies on the WSW, apparently in situ.

On the NW some large boulders lie just outside the line of the outer face. This may be tumble, but looks rather like buttressing. A sub-rectangular cell 0.9m wide, and about 4m long can be seen on the W. It is best-preserved at the N end. No sign of an entrance can be ascertained. The broch walls do not seem to survive, even below the rubble mound, to more than 1m at any point.

Finds, recorded as "numerous and typical" are recorded, but have been lost.

A later structure, or, quite possible, a quarry pit, of angular form, lies to the N of the broch.

No outer defences were observed.

The broch stands on a W-facing slope above Whale Firth, the head of which has a landing-beach, a supply of fresh-water from Burn of Setter, and a small area of former arable. There has been more arable to the E of the site, and some of this is still in use. The rest of the immediate area is grazing land, the ubiquitous peat of central Yell having been removed. On all sides except the E, this peat cover deepens, and the grassland gives way to wet heather-sedge moor.

The broch has been built of irregular blocks of greiss, which outcrops all over the hill to the N and E. The view from the site is only extensive along Whale Firth (to the NW), elsewhere it is restricted by the form of the land, and even a high tower would not substantially change this.

Visited 19/5/77.

BROUGH LODGE HU 581 927 Fetlar 1238 M

Below the circular (later) tower of the house which has taken its name from the broch, on the W coast of the island.

Since the Commission visit, some 12m of wall, standing to 7 courses, has appeared on the NNE side of the debris mound below the tower. This looks suspiciously like a rebuild, to act as a revetment to the rubble of the mound. Nevertheless, this may be on the line of the outer face, represented from E to S by a steep slope.

Nearby, Low records, "Near this last in a moss were found, wrapt in a raw hide, six pieces of cast brass (bronze?) of a very singular figure, the workmanship fine; three of them were jointed, the other three whole". These have since been lost.

A later tower stands on the mound, and other enclosures and buildings impinge upon it.

About 15m away, from NNE to SE, a low earthen bank runs concentric to the mound. A break on the NE may be recent.

The broch stood on an isolated rise 20m above the sea, which lies 300m away to W and S, at both of which points there are landing beaches, at Ugasta and Sand respectively. The nearest freshwater is a small loch 200m N. The house has a well, now disused. There is a little arable land, and there has formerly been much more. The rest of the nearby land is improved grazing, with thin and fairly acid soils. Drainage is poor in places.

The stones of the visible wall are large irregular blocks of granite and greiss, the nearest source for which seems to be the shore at Ugasta.

Visibility is good, with fine views across Colgrave Sound. Snabrough (1), Gossabrough, Burra Ness and Belmont brochs are visible, as is the promontory fort at Stoal.

INFIELD

HU 454 748

Toft

1116

P

Below the lighthouse at Mossbank, south of the village.

The debris mound has been severely disturbed by the construction of the lighthouse, its ancillary structures, and a croft. On the N side of the mound a few stones of a possible outer face survive. The depression (? cell) noted on the S side by the Commission is not visible.

A nearby midden gave fragments of a coarse, jet-black pottery, cockle whelk and limpet shells, sheep-bones and a serpentine pebble. This may be material thrown out in digging foundations.

No outer defensive works were observed.

The coast immediately below the site is rocky, but beaches (still used) would have provided landing places nearby. A stream flowing into the voe 100m W, and a number of nearer springs, would give a water-supply. The site is on a rise on a flat, marshy coastal strip used as grazing land. The rise behind this is better drained, and has extensive areas of arable land in a matrix of grazing. Above this is deep peat with a heather-sedge vegetation. Soils on the lower land are thin and stoney.

The debris suggests the broch was constructed of the greiss which outcrops on site.

Burravoe (2) is visible.

Visited 17/6/78.

LOCH of BURRALAND

HU 344 750

Northmavine

1387

M

Below a ruined lime-kiln E of the croft of Burrealand.

The ruins of the broch have been deliberately removed for building elsewhere, both the lime-kiln and some of the croft-buildings being from this source. The site survives as a mound of small rubble 2m high. Some interior detail may survive, buried. The destruction took place in the latter quarter of last century.

The site is a small promontory in a loch, with a marshy area to landward providing a measure of defence. The land around the loch forms a small pocket of green in an otherwise desolate landscape. This is entirely a result of clearing of peat and application of lime, available from veins in the local metamorphic rocks. The land is mostly grazing, but to the W of the site there has been (and still is) a little arable around the croft. The nearest access to the sea is 1.5km E, at Houbans.

The building material seems to have been a mixture of greiss and limestone, but the latter may be a later addition. The greiss outcrops on the S side of the loch, 300m away.

Even a tall tower would not have a field of view wider than the loch basin, and the broch would be out of view of the sea. In fact, this must be the only Shetland broch site without a view of the sea at some point on the horizon.

Visited 2/6/77, 16/7/77.

AUSSELBROUGH

H 589 009

Unst (south)

1582

M

Totally destroyed. Stood on the site of the small navigation light W of Uyeasound.

A local informant recounted that his grandmother had told him how the broch had been removed when the pier at Uyeasound was built. This would have been around 1920.

A small lighthouse now stands on the site; of the broch only a little rubble remains.

No outer defensive structures were noted.

The broch stood on the shore, which is a low step cut into glacial till, with a narrow fringe of rocky beach. A stream 100m NE would be a water supply. Soils nearby are deep and fertile, with considerable areas of arable below the present crofts. There is rough grazing to the SW, of considerable extent.

The rock seems to have been a blocky metamorphic "greenstone", which, outcrops along the shore.

The view to sea is wide, Snabrough (1) being visible on Fetlar.

Stout, 1911.

Local information.

Visited 28/5/77, 29/5/77, 9/6/78.

SOUTHVOE

HU 401 148

Dunrossness

1142

P

E of Southvoe of Boddam croft, just above the shore.

The site has grassed over since the visit of the Commission in 1930. Only two lintels of the entrance, on the SW, survive. The outer, which is displaced is triangular, of Culswick type. Other details, from the 1930 description, are as follows: internal diameter 8.2m, wall thickness 4.57m at the entrance. Traces of an entrance high in the inner face on the N side were noted. Probably 2m of inner face, and slightly less of outer face, survives below the mound.

To S and SW are traces of outbuildings, much disturbed, as is the main mound, by quarry pits.

A wall skirting the top of the low cliff to the W is old, but may not be of such an early date.

No finds are recorded.

The broch stands on a gentle slope 30m from the edge of a low cliff. A shingle beach lies 60m NE, and E of the broch, at the foot of easily scaled rocks, is a long sheltered lane of water, behind an offshore skerry (cf. Clevigarth). There is a good spring 100m to the S. The soil is deep and fertile, and well-drained, and although mainly grazed at present, the land has recently been used as arable over most of the surrounding area.

The site is unusual in having a fairly probable quarry-site for stone clearly defined, as a basin in the low cliffs, 50m NE of the broch. This has clearly been exploited for slabby sandstone blocks, although not in the remembered past (local informant).

Dalsetter and Skelberry brochs are visible in an extensive panorama from NW through N and E to SE.

Visited 25/5/77.

POSSIBLE BROCHS

BARRA HOLM

HU 386 458

Whiteness

1529

M

On an islet in Stromness Voe, opposite the croft of Stromness.

Only a heap of rubble, 1.5m high and 25m in diameter, on a wave-swept islet. There has certainly been a structure of some size.

No finds are recorded.

The islet is 60m from the E shore of the voe, which is a very steep grassy slope, 200m to the W the side of the voe is less steep, and there has been a little arable land. The majority of the area is good grazing land on thin, well-drained, fertile soil. There is a spring at Stromness croft, and also a number of seepages on the E shore of the voe. The islet is rocky, but a landing could be effected easily, as the islet is in fairly sheltered water. The site is overlooked by the steep hill to the E, and has very limited aspect, with a clear view only up and down the voe, to NNE and SSW.

The stone is greiss, and this outcrops on both shores and on the islet. Calcareous bands in this may be responsible for the fertility of soils.

Visited 3/6/77.

BOUSTA

HU 223 574

Sandness

1610

M

On a rocky spur SW of Boustá, above the road from Norby.

The structure is represented by the remains of a circular bank, over 15m in diameter. This, can be traced from W to N, on the NE, and on the S. It has been quarried, only one stone of outer facing being visible.

Traces of pits and or outbuildings can be seen to the NE, immediately beyond the circular mound.

100m NW is a stoney beach, used as a landing-place at the present day. At the same point a stream would provide water. The site is a steep knoll on a spur of Hill of Boustá, and stands above an area of flat and sometimes marshy land, used mainly for grazing. The land to the S is moorland grazing.

The rubble is sandstone, outcropping on the slopes of the mound. Views are extensive to the N, and Sae Breck broch can be seen.

Visited 7/6/77.

BROUGH (1)

HU 519 412

Bressay

1107

M

Behind the croft buildings at Brough, N of the road to the Ness ferry.

Only a flat-topped mound, just over 1m high, survives.

Around this is a 6m-wide ditch, much degraded, and now little more than 80cm deep at the most. Croft-building has doubtless been the major cause for the removal of material. Cultivation has resulted in the near ploughing-away of the ditch.

A well, recorded by the Commission as being "almost in the line of the ditch" could not be located.

No finds are recorded.

The site is on a knoll, on a W-facing slope, at the upper limit of a substantial area of arable. To the E is hill-grazing. The coast lies almost 1km to the N, where there is a good shingle beach and sheltered anchorage at Everley, in the Voe of Cullingsburgh. A small stream rises just N of the site and flows N to the voe. A burnt mound stands 100m N of the broch-site.

Views are extensive from N through W to SSW. To the E a steep hill blocks the outlook. Cullingsburgh is visible to the N.

The building stone is a sandstone, of the Bressay flagstone series. The nearest outcrop is on Ander Hill, 250m to the W.

Sibbald (1822) p.29.

See note, p.

Visited 16/5/77.

BURLAND (2)

HU 390 370

Trondra

1535

M

On a small islet W of Burland crofts.

The site is covered with a scatter of masonry of about 20m in diameter, vague traces of a circular perimeter being visible. The remains were in a similar state in 1871.

A ruinous causeway, part natural, reaches towards the shore, 70m away.

No finds are recorded.

A landing could be made on the islet, and there is a fine sheltered beach on the main island, 90m to the E. Water might be obtained from a stream 150m to the SE, on Trondra. The site itself must be waveswept during storms. The land on the neighbouring shore is mainly improved pasture, with some small patches of arable by the croft. Soils are deep, tending to marshy along the shore.

The building stone seems to have been a schist. This outcrops on site and on the nearby-shore.

Views from W to N are good, also S into Lang Sound. Brough(1) can be seen, on W. Burra.

Arch. Scot. v. p.182.

Visited 14/5/77, 6/6/78, 20/6/78.

BURRIAN

HU 477 545

Nesting(South)

1308

M

On a knoll N of the croft of Brough, above E Voe of Skellister.

A turf-covered circular foundation, 15m in diameter, is flanked to N & S by slight mounds representing ramparts.

No finds are recorded.

To the N is a deep hollow, which may have been utilised as a quarry. To E and W the slopes of the knoll are steep, but to the S they are less so. The mound rises 7m above the surrounding flat farmland, which is used mainly for grazing, although arable has formerly been more extensive than the present small fields around the croft. A good beach and anchorage lie 300m WNW. A stream 150m E is the nearest fresh water.

The rock is a metamorphic grit, exposed on the E and N of the knoll. No stone is visible from the structures themselves.

Open views from SW through NW to NE are available, and Housabister broch can be seen across South Nesting Bay.

See note on p.

Visited 15/5/77.

BURWICK

HU 390 406

Scalloway

1528

H

On the most easterly of the islets in Bur Wick.

There is a scatter of masonry on the islet. No structural details can be ascertained.

A reputed causeway to the shore could not be traced.

The Commission suggest a later structure on the rock, but no signs of this were observed.

The site, an islet close to the shore, is a fairly typical one. On shore, the land is improved grazing, and much of it has been arable in the recent past. There is a good landing beach, and a supply of fresh water on the shore to the N.

The rubble on the islet is of the local schist.

Views to seaward are extensive, but no other known brochs are visible.

Visited 14/5/77.

GORD

HU 438 295

Cunningsburgh

1150

M

At the head of Aith Voe, behind the old school.

In a large mound, 3m high and 30m in diameter, no stone is exposed. Local tradition would have the site a broch, and there is certainly no evidence to the contrary, the little small rubble which is visible not being burnt, and a burnt mound being the only other likely explanation of the mound.

No finds have been recorded, nor are any outer defences or subsidiary buildings apparent.

The mound stands in the centre of an area of flat, marshy, pasture, with extensive arable land around its edges. A stream runs past on the NE side into Aith Voe, which is sandy but would provide a sheltered beaching place at high tide.

No stone is visible, the local rock is sandstone, the nearest outcrop 400m S, along the voe.

No other broch sites are visible, although the site commands a good view of one of the largest areas of good land for some distance.

Visited 25/5/77.

HAMNAVOE

HU 240 807

Esha Ness

1353

P

Above the road to Hamnavoe, as it climbs the hill W of the crofts.

This site is almost well-preserved enough to be counted a "definite" broch.

Two short stretches of masonry on the NW and SE suggest an outer diameter of 19m. On the NNE is a short stretch of inwardly faced masonry, perhaps the outer wall of a gallery. The rest of the structure has been removed.

No finds or subsidiary structures have survived to be noted.

The E side of the flat area on which the broch stood is defined by a very steep slope down to the stream below. This slope has had a wall running along its edge. From this slope, N of the broch, two ramparts separated by a shallow ditch run roughly concentric to the remains of the broch. The inner rampart, up to 1.5m above the ditch, fades out NW of the broch, while the outer, 2m high, curves round to the SW, where it begins to swing more sharply back to the E, then fades out. Thus there are no defences preserved S of the broch.

At present the coast cannot clearly be seen, but a modest height would solve this. The nearest access to it is 175m to the S, where there is a good landing beach and anchorage in Hamnavoe. A small pool to the NW is the nearest freshwater. The land of the flat area to the W is good grazing, and has formerly been more cultivated. To the E, across a marshy stream valley, is a large extent of moorland. Soils are thin, stoney and not well-drained.

The stone is andesite, which forms large rough, blocks. It outcrops on the steep valley slope to the E,

Sae Breck is visible in a wide panorama, closed only on the E by high ground.

Visited 2/6/77.

HEGLIBSTER

HU 387 498

Weisdale

1501

M

This large mound, behind the most southerly house of the township at Heglibster, is clearly visible from the main road. It has a telegraph-pole erected on its summit.

No details of structure could be detected.

A midden formerly extended to the E, and produced hammer-stones.

The mound's 3m height is about half rock and half debris. It sits on a lessening of slope among the scattered arable fields and rich grazing of the W side of Weisdale Voe. Below it grassy slopes drop to the voe, and above it steep heather and grass-covered slopes rise to the road, above which stretches heather moor.

There is a beach on the nearest part of the shore, some 100m E, and a stream 50m to the N. Soils are fertile and fairly deep, thinning both up and down slope. The steep slope behind completely commands the site, which nevertheless does itself have a very wide view to the S, down the voe, and N, up Weisdale. No other brochs are visible.

The rubble is, like the rock knoll, a calcareous - banded greiss

Visited 3/6/77, 23/6/78.

HOLM of BENSTON

HU 463 537

Nesting(South)

1283

M

An islet in Loch of Benston.

A circular mound of debris, about 20m in diameter, with a flat top, stands on the islet, occupying almost all of the available area. The structure is entirely buried in a rank vegetation occasioned by the droppings of a large colony of black-headed gulls.

A few boulders, suggesting a causeway, can be seen at the E end of the islet and on the shore opposite.

The islet is 50m from the shore of the loch, and thence 500m from the sea, to the S, where there is a landing beach and anchorage. The loch is of freshwater. The land above the rock is an area of grazing broken by rocky ribs and bosses, with a few small arable fields. Marshy patches are frequent, and soil depths extremely variable. The local rock is a calcareous grit, the lime being responsible for the extensive areas of good grassland.

The site has poor visibility, as it would need to be of a considerable height (about 9m) to see beyond the loch basin. At this height, Wadbister broch would be visible.

Visited 15/5/77, 20/6/78.

ISLESBURGH

HU 338 692

Brae

1354

M

E of the croft. Now removed.

This structure, with an external diameter of 17.7m, was recorded by the Commission as recently removed. There is now no trace left on the ground.

The O.S. map records "Human Remains found A.D.1849" and a "Pictish" stone, a flat slab with an incised eagle or falcon, is reported as deriving from the site.

No outer defences are recorded.

The site, is on a col between Mangaster and Sullom Voes, although it is out of sight of the main crossing from E to W, at Mavis Grind 500m to the S. It is 250m from the coast to the N, where there is a shingle beach at the head of Mangaster Voe. A stream flows into the voe there, although the croft has had a well. There is a considerable area of arable and former arable around the croft, on pockets of deeper-soil. Where the soil is thinner, and further away, the land is grass, gradually giving way to heather moor.

The hill to the SW overlooks the site, which despite its fairly high position (20m above sea-level) is restricted in its outlook by the configuration of the nearby hills.

The local rock is a diorite, which forms squarish blocks.

Visited 2/6/77.

LOCH of BROW

HU 383 157

Dunrossness

1153

M

On a small islet in Loch of Brow.

According to the Commission, "there can be little doubt". In fact, there are no obvious structures which could not be attributed to a succession of plantie-krubs, the last still in use until recently. A portion of saddle-quern, noted in the Inventory, has since been removed.

A rough causeway extends from SW of the islet runs to the shore over the very shallow floor of the loch.

The islet itself may be artificial. Both Loch of Spiggie and Loch of Brow have been connected at some time to the sea, but at present the nearest coast is at Voe of Boddom 1.5km to the E, where there is a landing beach and sheltered anchorage. The loch is of freshwater. Around the loch is marshy grazing, above this is improved grazing with a few arable fields. There is little rough grazing in the vicinity.

Soils are of variable depth and sandy. The local building stone is a flaggy sandstone, although some beach cobbles have been used in the krub on the site. The nearest outcrop of bedrock is 1km away to the W.

The site is low, and apart from an all-round view of the vicinity, there is little of a distant prospect.

The broch sites at Lunabister and Skelberry are visible.

Visited 25/5/77 7/6/78.

LOCH of KETTLESTER HU 511 806 Yell(South) 1719 M

An islet near the W shore of the loch.

Around the water's edge is a ring of large blocks of masonry 18m in diameter, but the rest of the surface has been severely disturbed by the building of later structures.

A double (two-period) plantie-krub stands on the S side of the islet, and overlies an earlier krub.

A causeway runs from the islet to the shore. It is formed of large irregular blocks and runs through water up to 2m deep. It is ruinous but still useable.

There is a rocky beach 1km to the SW. The loch is of fresh water. The nearest arable is 500m away to the S and E, the land around the site, apart from a few krubs being all heather moorland. Soils are thin to non-existent and very peaty, with poor drainage.

The rock is a slabby greiss, outcropping around the loch. Some of the blocks on the islet are up to 2m long, and would certainly argue for a former massive structure.

The view from the site at present is poor, but a modest height would give a good view to the south.

Visited 18/5/77.

MAIL

HU 433 278

Cunningsburgh

1187

M

A tidal islet S of the graveyard at Mail.

No structures are visible, but prior to 1934 the occupier of the nearby croft removed a number of stones from a circular foundation occupying almost the whole surface of the island.

This work gave two finds: the upper half of a rotary quern and a conical object of stone, perhaps a chessman.

There is no causeway, but the broch site is connected to the mainland by the flat rocks between at most normal tides. The islet is capped by a thin layer of turf-covered rubble, rising to 1.5m above the rocks. There is a good landing beach 150m to the NE, where a stream reaches the shore. The land on shore is stoney and well-drained, with some arable and much good grazing, although part of the land has been taken out of cultivation by a cemetery.

The rock is a dark sandstone and outcrops on site.

Burralland and Mousa brocks can be seen to the S.

Visited 25/5/77.

SCOUSBURGH

HU 377 178

Dunrossness

1190

H

A knoll behind the Post Office.

No structures are now visible. In 1955 a hearth or cist was revealed during building work. Whorls and fragments of steatite were found, as was a biconical rubbing-stone "similar to ones found in a wag in Caithness and in Iron Age levels at the Bunyie Hoose, Whalsay".

A latercroft and commercial buildings impinge on the site.

The site is at the top of a steep slope, 62m above sea-level, falling to a sandy beach 250m to the NW. A spring on the hill to the NE, 60m away, might have provided water. The land is grazing, with a few patches of arable in more sheltered locations to N and S. Above the site is hill-grazing. Soils downslope are fertile and reach 1m in depth.

In its position on a spur projecting SW from the main hill slope, the site has a wide view over the S end of Shetland. Sites at Skelberry, Lunabister and Dalsetter are visible.

The rock is a serpentinite, which outcrops on the hill to the NE, 100m away.

Discovery and Excavation, 1955. Visited 25/5/77.

SKELBERRY

HU 393 166

Dunrossness

1151

M

Under the northern house at Skelberry, W of the road.

This site has suffered considerably since the visit of the Commission. Remains of walling, of varying qualities but some massive and faced, have been seen from time to time, suggesting wall-face and cells.

A slab-built, floored, cist stood on the centre top of the debris mound.

Objects found in the excavation of building stone include a non-rotary quern, a pot-lid, hammerstones and holed stones (? loomweights). In the adjoining garden, an excavation into the tail of the mound revealed burnt stones and hammerstones.

If the site is a broch, this would be the second well-substantiated structural association of broch and burnt mound in Shetland (c.f. Lunabister), both in the same area. In this case, it looks as if the broch lies under the mound, if the "cist" can be associated with this phase.

No outer defensive features were noted.

The nearest coast is the beach at Boddam, 1km to the E, although the Iron Age status of the Spiggie-Brow valley remains a problem. A stream 200m E is the nearest open water, although there are wells associated with nearby crofts. The land is mainly good grazing, with a little present and much former arable, developed on a deep and, for Shetland, fertile soil. The area is well-drained, and has an open southerly aspect, with a wide view over the immediate area. Broch sites at Dalsetter, Southvoe, Loch of Brow, Lunabister and Scousburgh are visible.

The building stone is the local flaggy sandstone, which outcrops on the slope 200m to the N.

Visited 25/5/77, 7/6/78, 21/6/78.

SYMBISTER

HU 539 627

Whalsay

1342

N

On the E shore of the entrance to Symbister Bay.

Only a low mound, some 25-30m across, with scattered blocks of greiss amongst numerous quarry pits. The rock outcrops on site.

The site is locally reputed to be that of a broch.

No finds are recorded.

A low bank runs around the site at a distance of c.13m from the centre of the mound.

A landing place is available on the coast 50m SW, but the best beach is 125m S, on the E side of Symbister Bay. The local streams have been diverted at various times, but the nearest water supply at present is a spring 200m SE. Soils are deep and stoney, the ground having long been cleared of peat. The land is improved grazing with many small arable fields and gardens. This is part of the main, settlement area of Whalsay. The site is on a slight knoll on a convex break-of-slope above the shore.

A view over the sea approaches is available, although no other broch sites are visible.

Visited 3/6/77, 16/6/78.

VIDLIN

HU 479 665

Lunnasting

1306

N

Beside the Methodist Chapel.

A circular mound, founded on a rock outcrop, is locally reputed to be the remains of a broch. Of the 3m height, most is rubble. No finds are recorded.

The chapel and house have encroached on the N side of the mound, and there are the foundations of several small, ruined, rectangular structures, perhaps krubs, on top.

No outer defences are visible.

The site stands beside a fine shingle beach, and close to a stream, on a knoll 3m above sea-level. The bay on which it stands is sheltered. Land-use details have been rather obscured by the recent growth of the village, but in essence the land around is grazing, with small "garden" plots of present and former arable. The site lies in the centre-side of an area of fairly flat land, of moderate soil, depth, which steepens to the W. Across the voe, on the E side, the soil is deeper and less acid.

The outlook is limited, except to the N, down Vidlin Voe, although the immediate approaches are all clearly visible. No other brochs can be seen.

The rocks of the outcrop and rubble are greiss, medium-sized regular blocks.

Visited 10/6/77.

WEST SANDWICK

HU 440 888

Yell(South)

H

On the tidal islet at the N end of Ness of West Sandwick.

This site is almost well-enough preserved to join the numbers of the "definite" brochs.

On NW, SW and SE of a circular mound are short lengths of laid masonry, only one course showing. These suggest an external diameter of about 17m. Otherwise the mound is flat-topped and undistinguished.

To the N, across a ditch (see below) is another, smaller flat area, with the remains of a small rectangular structure, perhaps a coastguard lookout point.

On the S side a low bank runs from E to W, from the SE point of the broch gradually swinging further away. Two low banks run from the broch towards the E, converging on the edge of the grassed area. N of the broch, and allowing barely enough space for the footings of the N curve of its wall, is a deep rock-cut ditch, up to 2.5m deep below the broch, rising 1m on the far side. This is 7m wide from lip to lip. It seems reasonable to suggest that this has been a quarry ditch rather than a defence.

The site is a tidal islet, with steep slabby rocks rising 3m above normal high water mark. These are topped by a mound reaching 2m in height, largely composed of debris, and covered by turf. The nearby shore is only 20m away, but quite inaccessible when any swell is running (a not infrequent event in Yell Sound). The coast nearby is rocky, the nearest landing-place being a beach 100m E. There is a spring 60m E, and rainwater gathers on site in the rock-cut ditch. The land of the main island is good grazing, on sandy soils over glacial till, of almost machair-type near the shore. There is little evidence for arable land nearer than Scattlands, 1km E. The rock of the ditch and visible remains is a blocky greiss.

The exposure of the site is compensated for by fine visibility to seaward, although the only other broch site visible is the distant Burgan.

Visited 19/5/77.

BALIASTA

HP 596 103

Unst

1579

M

A search of the area around Baliasta produced nothing, and the only structure of any antiquity on firm record is a now-destroyed souterrain. The "broch" report may date to the earlier part of last century, when the term was still used in general of any large or confused mass of ancient remains.

Visited 28/5/77.

BENSTON

HU 467 540

Nesting(South)

1310

-

Known as the Burrian, this rocky knoll bears traces of scattered rubble. The name is suggestive, but may also be applied to natural features. The position would be a likely one, but in the absence of structural or artefactual evidence, must remain unproven, especially in the light of the extent of crofting activity in the area.

Visited 15/5/77.

BIXTER VOE

HU 341 503

Walls

X

not known

This site, reported in Discovery and Excavation for 1955, as a "circular formation with a hollow centre, only visible at the ebb-tide" was located, but did not look very convincing, being weed-covered and rather small. Further, with a likely maximum coastal sinkage of 2m, the site, if Iron Age, must have been built at sea level. It is probably the remains of a Shetland Neolithic-Bronze Age house of the type defined by Calder.

Visited 4/6/77.

BREI WICK

HP 532 053

Yell(North)

1744

M

On the edge of steep cliffs, there are a few stones laid across a promontory. This looks much more like a promontory fortification of the type defined by Lamb (1972), but too little of the structure remains.

There is definitely no circular structure.

The nearby Sands of Brekin has produced a wide variety of artefacts from Neolithic to Medieval, and a number of different structures have been identified there. The remains suggest (at least) a Neolithic-Bronze Age settlement, possibly continuing into the Iron Age, a Norse settlement and later Medieval crofting. At time of visit lengths of walling, a rectangular enclosure, and small cairns were visible.

Lamb (1972)

Visited 21/5/77.

BRINDISTER VOE

HU 285 572

Sandness

1399

M

A featureless heap of drystone rubble on a very small islet off the W shore of the voe, seems to be rather small in diameter to represent a broch sensu strictu, although the location is similar to other sites in the area (E and W Burrafirth, Noonsbrough).

No finds are recorded.

Visited 7/6/77.

BROUGH (3)

HU 555 651

Whalsay

1343

M

This hill-top site is interesting. No remains can be seen, other than vague traces of a rectangular structure. The local place-names point clearly to the possibility of there having been a broch here, but it must have been destroyed before the start of living tradition, as no local informants could give details of the site, its destruction, or any former ruins.

Visited 3/6/77, 16/6/78.

BURGASTOO

HU 345 660

Brae

1126

-

No masonry remains on this steep rocky islet, and the "ruined causeway" seen at neap tides seems as likely to be a natural marine deposition feature as a built structure. The name may derive from the form of the rock, which resembles a ruined broch.

Viewed from shore 2/6/77, 1/7/78.

BURGO TAING

HU 374 892

North Roe

1384

M

The site is mentioned by Thomas in 1871, but no trace of it can be seen on the ground, only the ruined remains of a fishing-station. Again, the name is suggestive.

Arch.Scot. V.p.181.

Visited 1/6/77.

BURRASTOW

HU 224 478

Walls

1673

M

A rocky tidal islet by the pier at Burrastow is listed by Russell as the site of a broch "almost entirely swept away by the sea". Nothing can now be seen at the site, and this may be another case of the name justifying the identification.

Arch.Scot. V. p.182.

Visited 6/6/77.

COLVADALE

HP 633 050

Unst(South)

1580

M

A local description of the site makes it sound more like a promontory fort than a broch. Nothing is visible on the site, apart from some later croft buildings on the bay to the W. The main structure a "wall near the point" was apparently destroyed in a storm "many years ago". (Commission cite the gales of February 1900).

Visited 28/5/77.

CUNNISBROUGH

HU 282 543

Sandness

1467

-

This is a rock outcrop E of the Brindister road. It shows no signs of any ancient structure, and may be an old local nickname.

Visited 7/6/77.

EASTER SKELD

HU 308 446

Skeld

1468

M

Another Thomas site. Nothing can be seen except a ruined croft outbuilding, now replaced by a water cistern. No local traditions of the site could be elicited.

Arch.Scot, V. p.181.

Visited 5/6/77.

FRIARSBROUGH

HT 958 414

Foula

Not listed

-

The site is recorded as a "brough" in the 1890's by Russell, "at Northrock, almost destroyed by stones being wantonly thrown over the rock".

Dr. Simpson of Nottingham University, who has worked on Foula recently, records a local tradition of a "brough" (pers.comm.1977). However, the name suggests a link with the "Maiden Stack" tales of Norse date, and may relate to a religious community of eremitic nature. Certainly the site would be an unlikely one for a broch in the archaeological sense, a promontory fortification seeming more likely.

Simpson (1968).

Not visited.

GLOUP

HP 506 049

Yell (North)

1747

-

The O.S. location, together with "Daggers and darts found here, 1825-45", yields no evidence of any structure. However, on the slope to the W are vague traces of curved (but not circular) foundations, in the position given by the above Grid Reference. These are very fragmentary and non-diagnostic.

Visited 21/5/77.

GRAVELAND

HU 463 967

Yell(North)

Not listed

-

The 1890's record of a broch is imprecise in location, but the probable site, a promontory between two geos on the W shore of Whale Firth, did not show any signs of a fortification, either to the present author or to Dr.Lamb (1972 and pers.comm.).

Visited 21/5/77.

GRUNASOUND

HU 374 354

West Burra

1278

-

There is certainly nothing broch-like in the position listed by the Commission. The debris is almost certainly that of a burnt mound. This opinion was confirmed by the W.Burra Survey of 1977 (Hedges. pers.comm.).

Visited 14/5/77, 19/6/78.

HEOGAN

HU 477 434

Bressay

1105

M

To quote the Commission: "This broch was completely demolished many years ago, and there is no description of the site as it formerly was, nor any record of finds. The spot is now occupied by a fishing station". No new local knowledge was elicited.

Visited 17/5/77.

HEVDAS

HU 451 385

Lerwick

Not listed

-

This site, on a low promontory on the N side of Gulber Wick, was reported by Dr. I. Morrison of Edinburgh University (pers. comm. 1978). The masonry remains visible, are slight and inconclusive, but might be either of a broch or of a promontory fortification.

Visited 13/5/77, 7/6/78.

HILLSWICK

HU 282 770

Esha Ness

1388

-

A well-documented Iron Age Kitchen midden is all that is recorded. There has never been any evidence for a broch on the site (at present that of a graveyard), as the 1871 article is at pains to point out. Even local tradition is not insistent on a ruined tower here at any time in the past.

P.S.A.S, IX, p.146.

Visited 1/6/77, 24/6/78.

HOGALAND

HU 395 470

Whiteness

1502

-

The Commission record a subterranean structure, in all likelihood a souterrain, below the foundations of the present house. The assessment of the site to the N of the house as a broch, on the basis of rude stone implements, pottery and hammer-stones, seems doubtful in the absence of any structural traces, despite repeated quarrying of the low mound there.

Visited 3/6/77.

KNOWE of HOULLAND

HU 425 239

Sandwick

1188

M

There is a group of crofts on the position given by the O.S. map, but no trace or tradition of a broch on the site, which is used partly as house area, partly as yard, and partly as small arable fields.

Visited 25/5/77.

LEIRA NESS

HU 489 412

Bressay

1108

-

This site causes locational problems. Sibbald refers to it as an "Ancient Picts House", and Stout figures it as a broch, and situates it on a small islet, as do the O.S. The Commission seem to place it on the peninsula.

In either case, no remains are now visible.

Sibbald (1822), p.29.

Stout (1911)

Visited 17/5/77, 6/6/78, 8/7/78.

MAILAND

HP 605 017

Unst (South)

1591

-

This site has been recorded as a broch, but as the only evidence is a paved drain, similar to those found in the floors of some Calder-type houses (Whittle 1979), some primitive stone implements, fragments of hard-baked pottery and a few pieces of saddle-querns, it seems rather doubtful, and could equally well be a house-site.

Visited 28/5/77.

MARKI

HU 354 721

Northmavine

Not listed

-

The site, locally reputed to be a broch, was examined but no structural traces could be found, nor was artefactual evidence forthcoming. This assessment was independently confirmed by Mr. P. Winham of Southampton University (pers. comm. 1977).

Visited 2/6/77.

OLNESFIRTH	HU 311 768	Northmavine	1363	-
ORBISTER	HU 310 767	"	1385	M

These sites are treated together here, as they seem to have been a very short distance apart. The Commission record Orbister as a broch, "completely disappeared through marine erosion" - a very unlikely event at the head of a long, sheltered voe. The first site, known locally as "da Cumlins" is still visible as a low mound.

The Commission record a mass of burnt stones, a non-rotary quern, several hammer-stones and some pottery. The pottery included a neck-cordoned ware of similar type to that associated by Hamilton with the early defensive phases at Jarlshof and Clickhimin. The mound is "said at one time to have been occupied by a massive structure, the stones of which were removed for building purposes". This site, on the hill-side above the head of Hamar Voe, sounds as if it is, in fact, the site of the "eroded" broch.

Visited 2/6/77.

PINHOULLAND

HU 260 500

Walls

1611

M

Russell lists the scattered stones behind Pinhoulland croft as the site of a "very large" broch.. The actual site has been quarried, but nearby is a small Calder-type house, and the whole area has extensive remains of Neolithic-Bronze Age agricultural activity, which was surveyed by the author and Mr. Paul Schier of Utrecht during excavations at Scord of Brouster (map in Whittle, 1979). Probably the site was the ruined remnants of a house of this type.

Arch.Scot. V. p.182.

SKEO HILL

HU 376 312

East Burra

1265

-

The place-name suggests structures connected with fishing, and the remains on the hillock are too vague to make much of. A nearby midden has produced pottery and stone objects "similar to those found in brochs", but the identification of the site as a broch, in old local tradition, is difficult to support from the evidence.

Visited 14/5/77.

STAVA NESS

HU 509 602.

Nesting (north)

1307 M

Russell records a broch. There is nothing in the area other than a ruinous sheepfold built of very large blocks of stone. Nor did the coastline nearby reveal any likely promontory sites.

Visited 15/5/77.

WESTER SKELD

HU 298 439

Skeld

1400

M

There is a local place-name "Brough", and pottery, non-rotary querns and hammerstones are recorded. Nothing more than a few very low turf-covered mounds can be seen in the site, the field in the angle of the public road, behind a croft-house. Nothing was found during the 1930 rebuilding of the road.

Visited 5/6/77.

REJECTED SITES

(Plans are given of sites with name underlined)

BURGA WATER (1) HU 481 642 Lumnasting 1284 M

The site has certainly been occupied by a drystone structure, presumably defensive. At the W end some sizeable tumbled stones appear at the water's edge. The diameter, of about 12m, makes the site too small to be included as a broch, and it presumably falls in the "dun" class (cf. Loch of Brindister, Burga Water (2)). The moorland basin with a small loch, the site on a small islet remarkably resembles the location of Loch of Brindister dun.

Visited 10/6/77.

BURGA WATER (2)

HU 234 540

Sandness

1606

M

Very similar to the last site, but with rather more tumbled masonry showing around a grassy mound. The overall diameter of 13m, would place the site in the "dun" class. The drystone walling, of fairly poor quality, reaches 0.8m in surviving height, the central mound 1.5m, both measured above loch level.

CORN HOLM

HU 480 549

Nesting (South)

1309

-

A number of "foundations" now destroyed, lay around a recent krub. There is apparently now no trace of these. From the brief description available, and from analogy with other sites, this sounds rather like a monastic site of the Strandibrough type (Lamb, 1973, 1976).

Viewed from shore 15/5/77.

GLETNES

HU 467 511

Nesting (South)

1311

-

The O.S. "Brough, Site of" seems to be unjustified. Local tradition holds that the structure destroyed in February 1900, by heavy seas, was a fishing lodge; a not unlikely supposition, as the whole village owes its origin to the haaf fisheries.

ISBISTER

HU 382 915

North Roe

1375

-

The O.S. "Brough" is not accepted locally, where the remains are known as "da Picts' Hooses" or simply "da Kame". Dr. Lamb has recently put forward a convincing case for the identification of the site as an early monastic settlement, which certainly makes more sense than the "twenty-three fishermen's lodges" of Cockburn (1877), and the Commission - indeed, Cockburn notes the inaccessibility of the site. The closeness and shape of the foundations, their number, and their location make the site an unlikely one for a haaf-station, both of the authenticated local examples being on more accessible ground - the Kame would make a perilous landing-place. Dr. Lamb has located a similar site to the N, on Lokati Kame, and the allied settlement of West Sandwick (Birrier) is just across Yell Sound.

P.S.A.S., XII, p.205.

Visited 31/5/77.

ISBISTER (2)

C.HU 373 910

North Roe

-

-

Persistent reports of a structure at Houll Croft, Isbister, were met with disbelief on the part of the tenant. Probably, Houll being the nearest croft, these reports result from confusion over the last mentioned site. There is a burnt mound nearby, of a denuded nature.

ISLE OF FETHALAND

HU 376 943

North Roe

1355

-

Excavated by Abercromby in 1904, the site is certainly not a broch. It looks like an extensively rebuilt Calder-type house, the rebuilding probably linked with the establishment of a haaf-station on the site. The finds were not helpful. There is some confusion between this site and Kame of Isbister, which Russell appears to treat as a broch called Fedeland. The possible solution may be another site on "a precipice", a fragmentary promontory fort not yet located on the treacherous cliff edges N. of Fethaland. But clearly this remote area of N. Shetland still has much to yield in the way of field evidence of all periods.

P.S.A.S. XXXIX, p.171.

Not Visited.

LOCH OF BRINDISTER

HU 433 370

Lerwick

1248

P

This is the only excavated "dun" site in Shetland. Goudie in 1889 reported on his clearing of the site. A roughly circular interior perimeter was enclosed by a wall 2-3m thick, standing to 1.5m, with an overall diameter of 14m. This falls below the total range of brochs listed by Mackie (1971) on two counts, wall-thickness and percentage wall-base to total diameter. A broad, unfenced entrance was found, and the hypothesis advanced that the structure on the islet had never stood much higher.

There is absolutely no doubt that had the Royal Commission found this site in the Western Isles as opposed to the Northern, it would have been listed as an "island dun" - in fact, a classic of its type. The O.S. have reclassified it as such.

In location the dun closely parallels Burga Water (1) and (2), and a recently discovered likely dun site on Housa Water, Skeld (HU 289 442) (Discovery and Excavation, 1979), in being in an isolated, high, moorland basin, with no evidence for intensive agriculture nearby.

Visited 13/5/78.

RAILSBROUGH

HU 462 528

Nesting (South)

1285

-

This site has now been totally destroyed by stone-robbing, but was described in 1899 as "circular wall about twenty feet in diameter" and "four feet thick". "The enclosed circular space was divided into quadrants by four walls meeting at right angles in the centre... (where) there stood a standing stone six or seven feet high" (Spence, 1899).

This sounds more like the late Iron Age "pit dwellings" at Jarlshof than anything else, but the finds included a stone axe, so it might be another Calder-type house. The location is an unusual one for either type of monument.

A causeway is recorded but could not be seen.

Spence, 1899, p.44.

Arch.Scot, v, p.181.

Visited 15/5/77.

RUIR TAING

HU 617 873

Fetlar

1243

-

This site, also known as Brough o'Burgastoon, is a group of buildings of the Kame of Isbister or Strandibrough type (Lamb 1963). There seems no reason to suppose a broch site there, the "brough" of the name being used in its general Shetland sense of a remote anciently inhabited site. Nearly all of the flat cliff-top promontories of the Lamb Hoga peninsula have been enclosed, as sheep pasture if nothing else. Big Holm, Hillidin and Lambhoga Head itself are but three examples. But these enclosures nowhere seem to show the massive nature of walls at Scatness or Burrier Head of Dale.

Visited 20/5/77.

SANDWICK HP 620 022 Unst(South) 1573,1581, APP 3. M

The remains, particularly 1581, "two thirds towards the East side of the Sand of Sandwick" and APP 3, have been definitely identified as a Norse farm site by the excavations of Dr. Bigelow of Cambridge University (Bigelow 1979).

Sherds "resembling broch pottery" have been recorded. These now seem to lack a source.

SNABROUGH (1)

HU 578 934

Fetlar

1210

M

All sources seem to be in agreement that a circular fortification never stood on this site. The present remains consist of a short stretch of ruinous walling on the low cliff-edge, with two ramparts outside. The ramparts have been stone-faced, and are joined at their S end, where they reach the shore. There are three gaps in the outer rampart (which stands to 2m), and one in the inner (which reaches a similar height), in line with the most southerly gap in the outer. Hammerstones and fragments of broch pottery are recorded. The site clearly falls into the same class as Stoal and Ness of Burgi, as ramparted promontory defences, and may have had a structure of kindred type to the Ness of Burgi blockhouse, but this has been lost to marine erosion.

The site has been erroneously identified as a "Roman Camp". The nearest Shetland analogy is to the now also largely eroded defence at Hog Island Sound (HU 508 582)

Lamb (1972)

Visited 20/5/77.

STOAL

HU 547 873

Yell (South)

1717

M

The remains on this site give no sign of any circular foundation. A series of three ramparts, each about 20m long, cut off the tapering end of a promontory on a 30m-high cliffed coast. Within the innermost only a small area remains, though erosion (slight) seems likely. In this area is a slight scatter of rubble, surmounted by the remains of a small rectangular structure, probably later, but turf-covered.

The ramparts, running E to W across the neck, are spectacular. The outer heights of these, from landward out, are 1m, $2\frac{1}{2}$ m, 2m respectively. Ditches lie between, but not outside, the ramparts. To the W a coastal section shows the ramparts to be of earth and rubble. No trace of an entrance can be seen.

The Commission's suggestion that there was a broch which has been eroded seems superfluous in the light of our improved knowledge of Shetland defensive sites. In fact, the site is the best example in N Shetland of a multi-vallate promontory fort of the type exemplified by South Haven on Fair Isle (No.1194), which also, perhaps coincidentally, has traces of a small rectangular structure.

Visited 18/5/77, 19/5/77.

STRANDIBROUGH

HU 670 930

Fetlar

1240

-

Dr. Lamb has discussed this twin site at length demonstrating clearly that it is likely to be a monastic site of the Norse period. A bank cuts off the cliffed promontory known as the Inner Brough, on the seaward slope of which there are foundations of about ten house-units of curve-cornered rectangular shape. A narrow, sea-filled channel separates this from the Outer Brough, upon which there are two distinct groups of smaller, straight-sided curved-ended foundations, totalling about twelve units, in six groups. A ruinous wall skirts the landward wide of the Outer Brough.

Lamb (1973)

Visited 20/5/77.

SUMBURGH HEAD

HU 407 079

Dunrossness

1189

M

There is no trace remaining of this fort, on the lighthouse site. Low records - "The Mul of Sumburgh or the extreme point of the headland is fortified in the same manner as the Mul of Unst. Here a neck of land is cut by a ditch and strong wall, which must, in old times have formed a considerable fortification. It encloses a plain and hill (the head); at the entrance, still observable, the foundation of a large house, which probably served as a guard-room; along the wall and at some distance the marks of numerous small buildings".

This is certainly not a broch in the archaeological sense.

Low (1774) quoted in Discovery and Excavation, 1956.

Visited 25/5/77, 7/6/78.

WOODWICK

HP 570 125

Unst (North)

1593

-

This site, also recorded as Brough of Widwick, Taing o' Brough and Flubersgerdie, has been examined both by Dr. Lamb (1972) and by the present writer. The general area of the cliff-top, which slopes back from the cliff-edge as is common on the W coast of Shetland, has been enclosed by a long wall of orthostatic construction. The date of this is uncertain, but a parallel with the Funzie Girt Dyke in Fetlar (No. 1227) might be suggested. Certainly it is not a defensive structure.

On the central part of the coastal strip of this area is a promontory between two geos. A slight turfed bank runs between the heads of the geos, and on this enclosed area is a clear foundation of a medium-sized house.

Lamb (1972)

Discovery and Excavation (1978)

Visited 27/5/77.

PROMONTORY FORTIFICATIONS & ALLIED STRUCTURES

The total number of fortified non-broch promontory sites in Shetland to date (March 1979) is 14. Of these, some are described above in the "rejected broch sites" section, and it must also be borne in mind that some brochs, for example Burland (1), may be within earlier promontory defences. The status of these sites in typologies of defensive structures, both functional and formal, as well as chronological, is discussed elsewhere.

The known sites to date are:

AITHBANK	HU 643 897	Fetlar	
BURGI GEOS	HP 478 034	Yell	D
DALE (Burrier Head)	HU 169 514	Walls	D
FRIARSBROUGH ?	HT 958 414	Foula	*
GARTH (Brough Ness)	HU 216 583	Sandness	
HOG ISLAND SOUND	HU 508 582	Nesting(South)	
KRUN O DE URA	HP 630 175	Unst (North)	
NESS OF BURGI	HU 388 085	Dunrossness	D
SCATNESS	HU 389 089	Dunrossness	
SNABROUGH (1)	HU 578 934	Fetlar	*
SOUTH HAVEN (LANDBERG)	HZ 224 723	Fair Isle	
STOAL	HU 547 873	Yell (South)	*
SUMBURGH HEAD	HU 407 079	Dunrossness	*
WOODWICK	HP 570 125	Unst (North)	*

* = Already described above.

D = Described below.

In addition, the allied site at Loch of Huxter, Whalsay, has been described, as this is important to arguments in the thesis. The forts have been chosen on the basis of representative character.

BURGI GEOS

HP 478 034

Yell (North)

1724

-

This fortification occupies a cliffed promontory between two geos on the NW coast of Yell, in what is today the most deserted part of the island. The enclosed area, a gently sloping headland about 10m by 30m, is linked to the main island by an isthmus 3m to 4m wide and 30m long. At the base, or landward end of the isthmus, a clearly defined path runs towards the site, bounded on the N by a row of large boulders set side-by-side and on the S by a mound of earth, on which are set boulders, generally pointed, in a random pattern which has been likened to a chevaux de frise. As has been observed by Lamb (1972), this, if a chevaux de frise, is the only known example of one designed to stop the attacker throwing himself from a cliff! Beyond this guided path, the neck narrows, and a ditch some 2m deep, has been dug across, although whether into till filling a natural gap, or into the living rock itself, is difficult to determine. Beyond the ditch a masonry wall, 4m thick, has run across the end of the enclosed headland, and now survives to 1.4m in height at the N end, where it is gradually falling over the cliff. At the S end, where the path reaches the top of the site, is a built face, suggesting one side of an entrance. Dr. Lamb has suggested erosion on the S side of the site, removing the other side of this entrance, but on analogy with sites elsewhere, the wall may not necessarily have reached the cliff edge at both ends.

Behind the wall, and to the right (north) of the "entrance" are the foundations of a rectangular stone structure, much reduced, but perhaps analagous to the "blockhouses" of Clickhimin, Ness of Burgi and Loch of Huxter.

The site has produced sherds of the ubiquitous and undiagnostic dark-fabric, undecorated, medium-gritted Shetland "native" Iron Age Pottery.

Lamb, 1972 and pers.comm.

Visited 18/6/78.

BURRIER HEAD OF DALE

HU 169 514

Walls

-

-

A good example of the less obvious type of promontory fort. On a site very similar to Burgi Geos, but slightly less remote, the neck has been cut by a wall of large sandstone blocks, of which only the lower courses remain in situ, and are largely turf-covered. No outside ditch was apparent. The wall is about 6m long and has been 2m broad. There are suggestions of structures behind it.

On the broader seaward slope of the site, thick turf covers structural remains of at least one house of Woodwick type, and possibly more foundations, of small structures - only turf-stripping or intensive probing would ascertain the reality or otherwise of these.

Sherds of typical Shetland Iron Age pottery were found during fieldwork in 1978.

Discovery and Excavation, 1971, 1978.

Visited 8/7/78.

NESS OF BURGI

HU 388 085

Dunrossness

1154

-

This site was excavated by Mowbray in 1935. It is the largest blockhouse fort yet located in Shetland, both in size of blockhouse and in area enclosed, and is the only one conserved by the Ministry of Works (Now S.D.D.).

A block of vertically faced rubble-cored masonry 6m broad and 20m long stands to 1.8m. Within this is a central, lintelled, passage passing through the block, with door-checks and bar-holes. Two cells survived within the block, and a third is suggested by the configuration of the collapsed walling at the SW end. The eastern cell is attached to the entrance passage by a narrow passage, and seems to be a guard cell. The western cell is connected to the back wall of the block by a similar narrow passage. There was little material other than ash and some pottery in the guard cell, but the western cell had a built hearth with more pottery associated, including sherds of fine red neck-cordoned ware.

To the landward side of the site is a double ditch with a formerly faced rampart between the ditches, broken by a narrow entrance passage in line with (but not on the same axis as) the blockhouse entrance.

There was, interestingly, no evidence for a wall blocking, the space between the NE end of the blockhouse and the edge of the promontory.

The function of these blockhouses has been discussed by Lamb (1972), and again in the present thesis (Chapter 5).

P.S.A.S. XVII, p.297.

P.S.A.S. LXX, p.381.

Lamb, 1972.

Visited 7/6/78, 21/6/78.

LOCH of HUICHER

HU 558 620

Whalsay

1316

-

This causewayed loch island is ringed by a 1.5m thick irregularly circular wall, which is straight-jointed (not bonded) on to a blockhouse of a form intermediate between Ness of Burgi and Clickhimin. The blockhouse is 13m long and 3.5m thick, and contains a central entrance passage, with barholes and doorchecks, and two cells. Neither cell connects with the entrance, both being reached by passages from the rear of the block. A description in 1863 gave indications of a second tier of chambers and a still-lintelled entrance passage with a void above.

The approach from the causeway seems to have been further protected by a wall running at an angle across the front of the blockhouse. This looks on plan almost like an earlier abandoned, basal wall for the front of the blockhouse.

Most of the missing material was built into a nearby schoolhouse.

P.S.A.S., XV., p.303.

DATA-SHEETS

(DESCRIPTIVE MATERIAL ARRANGED
ON A BASIS OF FEATURES RATHER
THAN SITES)

Introductory Notes

Statistical analysis required the presentation of data in a feature-by-feature rather than site-by-site format. Consequently, the data presented here has been broken down in this manner from the details in the above inventory. At the same time, some new material has been introduced. This consists of minor measurements which were not considered relevant to the gazeteer, but may be of value in structural and environmental analyses. The intention is to produce as quantitative a picture as data allows.

This appendix provides the basis for the discussions in Section 1, chapters vi and vii, and the foundation for all of Section 2 of this thesis. It is given here for the benefit of other archaeologists who may wish to extend the analyses or verify the results, and also for future fieldworkers who may wish to compare detailed observations with the state of repair of sites in 1977-79.

Most of the data-sheets are self-explanatory, but where necessary explanations of the codings used to promote brevity are appended. The actual process of data collection is described, and the limitations of the data discussed, in the appropriate sections of the thesis. It is sufficient to remark here that for all except the location and environmental data, figures tend to be minima, as at most sites some portion of the area is covered in debris, and may conceal more features than those noted here.

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External Diameter

1	--	26	17.40	51	16.50
2	--	27	16.00	52	--
3	15.85	28	18.00	53	19.00
4	19.00	29	17.50	54	--
5	--	30	18.10	55	--
6	--	31	18.00	56	17.34
7	18.70	32	17.40	57	--
8	--	33	17.90	58	--
9	19.80	34	19.30	59	16.00
10	20.00	35	16.60	60	20.00
11	19.00	36	16.80	61	15.00
12	18.10	37	18.00	62	--
13	18.00	38	15.30	63	--
14	--	39	18.00	64	19.00
15	17.50	40	16.00	65	--
16	19.80	41	16.76	66	--
17	21.00	42	17.00	67	17.70
18	16.80	43	--	68	--
19	16.15	44	17.50	69	18.00
20	--	45	16.50	70	--
21	16.00	46	20.00	71	--
22	20.00	47	18.00	72	--
23	20.00	48	16.00	73	--
24	18.00	49	17.70	74	--
25	19.00	50	19.00	75	--

T = 51

Internal Diameter

1	---	26	---	51	8.00
2	---	27	8.65	52	---
3	7.20	28	---	53	---
4	9.50	29	---	54	---
5	---	30	10.00	55	---
6	---	31	9.00	56	8.20
7	9.50	32	7.80	57	---
8	---	33	9.80	58	---
9	10.60	34	9.00	59	---
10	10.90	35	8.50	60	---
11	---	36	8.00	61	---
12	9.60	37	---	62	---
13	---	38	6.10	63	---
14	---	39	---	64	---
15	9.05	40	---	65	---
16	9.15	41	8.00	66	---
17	10.75	42	8.15	67	---
18	---	43	---	68	---
19	7.80	44	---	69	---
20	---	45	8.00	70	---
21	---	46	---	71	---
22	10.00	47	---	72	---
23	10.00	48	---	73	---
24	---	49	8.50	74	---
25	---	50	---	75	---

T = 27

Wall Thickness

1	---	26	---	51	4.40*
2	---	27	3.68	52	---
3	4.36	28	---	53	---
4	4.75	29	---	54	---
5	---	30	4.05	55	---
6	---	31	4.50	56	4.57
7	4.60	32	4.80	57	---
8	---	33	4.05	58	---
9	4.60	34	5.15	59	---
10	4.55	35	4.30*	60	---
11	---	36	4.60	61	---
12	4.50	37	---	62	---
13	---	38	4.90*	63	---
14	---	39	---	64	---
15	4.23	40	---	65	---
16	5.33	41	4.38	66	---
17	5.13	42	4.45	67	---
18	---	43	---	68	---
19	4.18	44	---	69	---
20	---	45	4.25	70	---
21	---	46	---	71	---
22	5.00	47	---	72	---
23	5.00	48	---	73	---
24	---	49	4.60	74	---
25	---	50	---	75	---

* Wall thickness varies by
more than 0.5m.

T = 27

% Wallbase of Total Diameter

1	---	26	---	51	53.33
2	---	27	46.00	52	---
3	55.00	28	---	53	---
4	50.00	29	---	54	---
5	---	30	44.75	55	---
6	---	31	50.00	56	52.71
7	49.20	32	55.17	57	---
8	---	33	45.25	58	---
9	46.47	34	53.37	59	---
10	45.50	35	51.81	60	---
11	---	36	54.76	61	---
12	49.72	37	---	62	---
13	---	38	64.05	63	---
14	---	39	---	64	---
15	48.34	40	---	65	---
16	53.84	41	52.27	66	---
17	48.86	42	52.35	67	---
18	---	43	---	68	---
19	51.76	44	---	69	---
20	---	45	51.52	70	---
21	---	46	---	71	---
22	50.00	47	---	72	---
23	50.00	48	---	73	---
24	---	49	51.98	74	---
25	---	50	---	75	---

T = 27

Surviving Height (Minimum)

1	1.00	26	0.50	51	1.00
2	2.00	27	1.40	52	1.30
3	1.50	28	1.00	53	0.50
4	1.00	29	0.20	54	0.00
5	1.00	30	1.60	55	0.00
6	0.50	31	1.00	56	0.60
7	1.00	32	1.00	57	0.00
8	0.40	33	1.80	58	0.00
9	3.00	34	2.45	59	1.00
10	3.00	35	3.90	60	0.20
11	0.30	36	2.10	61	0.20
12	3.00	37	1.60	62	0.00
13	0.40	38	13.25	63	1.50 ?
14	0.50	39	1.50	64	0.30
15	1.50	40	2.00 ?	65	0.75 ?
16	5.20	41	1.70	66	0.50
17	2.00	42	1.50	67	0.00
18	1.00	43	0.00	68	0.00
19	4.00	44	0.50 ?	69	0.20
20	0.50	45	0.30	70	0.30
21	0.50	46	2.00	71	1.00 ?
22	2.50 ?	47	0.40	72	0.80
23	0.40	48	0.30	73	0.00
24	0.70	49	2.00	74	0.00
25	2.00	50	0.40	75	0.40 ?

? Totally obscured by mound

T = 75

Number of Galleries Above Basal Region

1	0	26	0	51	0
2	0	27	0	52	0
3	0	28	0	53	0
4	0	29	0	54	0
5	0	30	0	55	0
6	0	31	0	56	0
7	0	32	0	57	0
8	0	33	0	58	0
9	1	34	1 ?	59	0
10	1	35	1	60	0
11	0	36	0	61	0
122	1	37	0	62	0
13	0	38	6	63	0
14	0	39	0	64	0
15	0	40	0	65	0
16	2	41	0	66	0
17	0	42	0	67	0
18	0	43	0	68	0
19	1	44	0	69	0
20	0	45	0	70	0
21	0	46	0	71	0
22	0	47	0	72	0
23	0	48	0	73	0
24	0	49	0	74	0
25	0	50	0	75	0

? Doubtful traces

T = 75

Ground Plan Type

1	-	26	-	51	S ?
2	S ?	27	S ?	52	-
3	-	28	S ?	53	-
4	-	29	-	54	-
5	-	30	-	55	-
6	-	31	G ?	56	S ?
7	-	32	-	57	-
8	S ?	33	I	58	-
9	S	34	S	59	-
10	S ?	35	S	60	-
11	-	36	-	61	-
12	S	37	-	62	-
13	-	38	S	63	-
14	S ?	39	-	64	-
15	S ?	40	S ?	65	-
16	S	41	S	66	-
17	S	42	S	67	-
18	-	43	-	68	-
19	S	44	-	69	-
20	-	45	-	70	-
21	-	46	S ?	71	-
22	S	47	-	72	-
23	S ?	48	-	73	-
24	-	49	I	74	-
25	S ?	50	-	75	-

S = Solid base with cells

T = 27 (14 ?)

I = Individual type

G = Ground galleried

Entrance Orientation

1	-	26	-	51	NW ?
2	E ?	27	-	52	-
3	W	28	-	53	-
4	W	29	-	54	-
5	-	30	-	55	-
6	-	31	-	56	SW
7	-	32	S	57	-
8	SE	33	NE ?	58	-
9	SW	34	NW ?	59	-
10	-	35	E	60	-
11	-	36	W	61	-
12	S ?	37	-	62	-
13	-	38	W	63	-
14	-	39	-	64	-
15	SW ?	40	-	65	-
16	SW	41	-	66	-
17	SE	42	SE ?	67	-
18	-	43	-	68	-
19	SE	44	-	69	-
20	-	45	SW	70	-
21	-	46	-	71	-
22	-	47	-	72	-
23	-	48	-	73	-
24	-	49	E	74	-
25	E	50	-	75	-

T = 22 (7 ?)

Entrance, External Width

1	-	26	-	51	1.16
2	-	27	-	52	-
3	0.9	28	-	53	-
4	0.9	29	-	54	-
5	-	30	-	55	-
6	-	31	-	56	-
7	-	32	1.0	57	-
8	0.9	33	-	58	-
9	0.9	34	-	59	-
10	-	35	0.9	60	-
11	-	36	0.85	61	-
12	-	37	-	62	-
13	-	38	1.2	63	-
14	-	39	-	64	-
15	-	40	-	65	-
16	0.86	41	-	66	-
17	1.00	42	-	67	-
18	-	43	-	68	-
19	0.8	44	-	69	-
20	-	45	1.0	70	-
21	-	46	-	71	-
22	-	47	-	72	-
23	-	48	-	73	-
24	-	49	0.9	74	-
25	-	50	-	75	-

T = 14

Entrance, Internal Width (Inside Checks)

9	1.23	35	none
16	1.2	38	1.55
17	1.6		
19	1.1		

T = 6

Distance of Checks from Outside

9	2.6	35	none
16	2.6	38	2.5
17	3.3		
19	1.8		

T = 6

Distance of Checks from Inside

9	2.0	35	none
16	2.73	38	2.4
17	1.83		
19	2.38		

T = 6

Type of Check

9	Slab	35	none
16	Slab	38	Built
17	Slab		
19	Built		

T = 6

Barhole

9	Yes	35	No
16	Yes *	38	Yes
17	No *		
19	No		

T = 6

16 has barhole recorded in 1871, lost in rebuilding

17 has been rebuilt at this height, no record of barhole

Void above entrance

15

This feature is present in all bochs surviving to a
sufficient height, viz.: 9

16

17

38

T = 4

Triangular Outer Lintel

16

Present in situ : 19

Present not in situ : 42

51

56

T = 4

Guard Cells

1	-	26	-	51	-
2	-	27	-	52	-
3	-	28	-	53	-
4	L ?	29	-	54	-
5	-	30	-	55	-
6	-	31	-	56	-
7	-	32	-	57	-
8	-	33	-	58	-
9	R	34	L ??	59	-
10	-	35	None	60	-
11	-	36	R	61	-
12	R ?	37	-	62	-
13	-	38	None	63	-
14	-	39	-	64	-
15	-	40	-	65	-
16	R ??	41	-	66	-
17	R	42	R ?	67	-
18	-	43	-	68	-
19	R	44	-	69	-
20	-	45	-	70	-
21	-	46	-	71	-
22	-	47	-	72	-
23	-	48	-	73	-
24	-	49	Both ?	74	-
25	Both	50	-	75	-

T = 13

Ground Level Cells (Excluding Guard Cells)

1	+	26	+	51	1+
2	2+	27	+	52	+
3	+	28	1+	53	1+
4	2+	29	+	54	+
5	+	30	+	55	+
6	+	31	3+ ?	56	1+
7	+	32	1+	57	+
8	1+	33	1+ ?	58	+
9	1+	34	1+	59	+
10	+	35	0 ?	60	+
11	+	36	2+	61	+
12	+	37	+	62	+
13	+	38	3	63	+
14	+	39	+	64	+
15	2+	40	2+	65	+
16	3	41	2+	66	+
17	1+	42	2+	67	+
18	1+	43	+	68	+
19	2+	44	+	69	+
20	+	45	+	70	+
21	+	46	+	71	+
22	+	47	+	72	+
23	+	48	+	73	+
24	+	49	4	74	+
25	+	50	+	75	+

T = 24 (3 def.)

Stairway

9	?	35	2 sections
16	2 sections	38	One unit spiral
17	?		
		T = 3	

Scarcement Height

20

12	3m	34	2.30m
16	1.83m	38	2.10m, 3.80m
19	3.40m	49	1.80m
22	2.50m ?		
		T = 7 (1 with 2)	

Scarcement Type

21

12	Ledge (capped)	34	Ledge (capped)
16	Ledge	38	Ledge (capped)
19	Projecting stones	49	Ledge
22	Ledge (capped)		
		T = 7	

Voids in Inner Wall-Face

22

16		38	
		T = 2	

Likely Maximum Depth of Rubble

1	1.00	26	2.00	51	1.50
2	2.00	27	3.00	52	2.00 ?
3	1.00	28	3.50 +	53	1.50
4	1.00	29	0.35	54	0.50 ?
5	2.00	30	2.00	55	0.00
6	0.50	31	0.50	56	2.00
7	1.00	32	1.00	57	1.50
8	2.00 +	33	1.80	58	0.50
9	3.00	34	0.00	59	1.00
10	3.00	35	2.10	60	0.75
11	0.25	36	1.90	61	1.00
12	2.50	37	3.00 ?	62	0.60
13	2.00	38	0.00	63	3.00
14	1.50	39	1.70	64	0.30
15	3.00	40	3.00 +	65	3.00
16	0.00	41	1.75	66	2.50
17	0.00	42	2.00	67	0.00
18	1.00	43	0.10	68	0.40
19	2.50	44	0.40 ?	69	0.40
20	1.00 ?	45	0.20	70	0.20
21	2.00	46	3.50	71	2.00
22	2.50 ?	47	0.50	72	1.50
23	0.50	48	1.60	73	1.50
24	1.50	49	1.90	74	2.00 ?
25	2.50 +	50	0.70	75	0.35

T = 75

Subsidiary Structures

1	E ?	26	E	51	-
2	-	27	E	52	-
3	-	28	-	53	-
4	E	29	-	54	-
5	-	30	E ?	55	-
6	-	31	-	56	E
7	-	32	-	57	-
8	-	33	-	58	E ?
9	I	34	E + I	59	-
10	E	35	E + I	60	-
11	-	36	E	61	-
12	E	37	-	62	-
13	-	38	E + I	63	-
14	-	39	-	64	-
15	E	40	-	65	-
16	E + I	41	-	66	-
17	I	42	E	67	-
18	E ?	43	-	68	-
19	E ?	44	-	69	-
20	E	45	-	70	-
21	-	46	-	71	-
22	E + I	47	-	72	-
23	E	48	E	73	-
24	-	49	-	74	-
25	E	50	-	75	E

$$T(I) = 7$$

$$T(E) = 24 (5 ?)$$

$$T = 26 (5 ?)$$

Internal Structures : Nature

- 9 Concentric, 2 phases
- 16 Concentric
- 17 Concentric
- 22 Concentric and radial
- 34 Concentric and radial
- 35 Concentric and radial
- 38 Concentric and radial

T (C) = 7

T (R) = 4

T = 7

26

Radial Features : Number

- 22 1
- 34 5 concealed by later delapidation
- 35 2 + half of interior destroyed
- 38 3 two since destroyed

T = 4

27

Radial Features : Relationships

- 22 Bonded into casing wall
- 34 Bonded into casing wall
- 35 Probably bonded to casing wall
- 38 Bonded to casing wall, and oversail
- " tank " in apparent primary floor level

Casing Wall : Surviving Height

9a	1.2	22	1.7
9b	1.0	34	2.0
16	1.6	35	1.8
17	1.5	38	1.6

$$T = 7$$

Casing Wall : Maximum Thickness

9a	1.68	22	1.1
9b	1.37	34	0.86 (0.96 from face)
16	2.29	35	1.83
17	1.52	38	0.61

$$T = 7$$

Casing Wall : Minimum Thickness (Excluding Gaps)

9a	1.6	22	0.1
9b	1.35	34	0.80 (against face)
16	0.6	35	1.75
17	0.31	38	0.6

$$T = 7$$

% of Circuit with Casing Wall

9a	35	22	10+
9b	25	34	55+
16	100	35	100
17	100	38	85

$$T = 7$$

32

Casing Wall : Relationship to Entrance

9a	preserves	22	unknown
9b	preserves	34	unknown
16	preserves	35	preserves
17	preserves	38	preserves

$$T = 5$$

33

Casing Wall : Relationship to Cells

16, 34	one blocked, one preserved
17	one blocked
38	three preserved
9a, 9b, 22, 35	unknown

$$T = 4$$

34

Casing Wall : Relationship to Stairfoot

16, 17 ?, 35	preserved
38	above casing wall
9a, 9b, 22, 34	unknown

$$T = 4 (1 ?)$$

Miscellaneous Internal Features

1	-	26	-	51	-
2	-	27	W ?	52	-
3	-	28	-	53	-
4	-	29	-	54	-
5	-	30	-	55	-
6	-	31	-	56	-
7	-	32	-	57	-
8	-	33	-	58	-
9	-	34	T, W*	59	-
10	-	35	H ?	60	-
11	-	36	-	61	-
12	-	37	-	62	-
13	-	38	T*, P, H	63	-
14	-	39	-	64	-
15	-	40	-	65	-
16	H, PH, P	41	P	66	-
17	P ?	42	-	67	-
18	-	43	-	68	-
19	-	44	-	69	-
20	-	45	-	70	-
21	-	46	-	71	-
22	-	47	-	72	-
23	-	48	-	73	-
24	-	49	W ?	74	-
25	-	50	-	75	-

H = hearth P = paving PH = postholes

T = tank W = well * = original

feature

T = 8

External Buildings : Minimum Number

1	?	26	3 ?	51	-
2	-	27	2 ?	52	-
3	-	28	-	53	-
4	2	29	-	54	-
5	-	30	1	55	-
6	-	31	-	56	?
7	-	32	-	57	-
8	-	33	-	58	1 ?
9	-	34	3 +	59	-
10	3	35	1 +	60	-
11	-	36	4	61	-
12	3	37	-	62	-
13	-	38	4 + (lost)	63	-
14	-	39	-	64	-
15	?	40	-	65	-
16	2	41	-	66	-
17	-	42	5	67	-
18	1	43	-	68	-
19	2 ?	44	-	69	-
20	?	45	-	70	-
21	-	46	-	71	-
22	?	47	-	72	-
23	3 ?	48	3 +	73	-
24	-	49	-	74	-
25	1	50	-	75	1

? = too disturbed to count

T= 24

Shape of External Buildings

1	?
4	oval ?
10	oval
12	oval
15	?
16	sub-circular
18	oval ?
19	?
20	?
22	?
23	oval ?
25	sub-rectangular
26	oval ?
27	oval
30	sub-rectangular
34	sub-circular
35	oval ("clover-leaf" interior)
36	oval
38	" bee-hive " = sub-circular ?
42	oval plus sub-rectangular
48	oval ?
56	?
58	oval ?
75	sub-rectangular

T = 18 (7 ?)

Relationship of External Buildings to Ramparts

1	inside
4	inside
10	inside
12	between (later ?)
15	No ramparts visible
16	inside (later)
18	no ramparts visible on this side
19	outside
20	outside
22	no ramparts visible
23	no ramparts visible
25	inside (contemporary ?)
26	no ramparts visible
27	between (later ?)
30	inside (later ?)
34	inside (later ?)
35	inside (later ?)
36	inside
38	inside (later ?)
42	inside
48	inside (later ?)
56	no ramparts visible
58	no ramparts visible
75	outside

Artefactual Material

1	-	26	P	51	"PS"
2	-	27	-	52	-
3	-	28	-	53	PBS
4	-	29	-	54	-
5	P	30	-	55	-
6	-	31	-	56	-
7	S	32	-	57	-
8	"pn"	33	PSB	58	-
9	-	34	PGWBMST*	59	-
10	-	35	BST*	60	-
11	"pn"	36	-	61	-
12	"pn"	37	PBS	62	-
13	-	38	PS*	63	-
14	-	39	-	64	-
15	-	40	"pn"	65	S
16	PGWBMST*	41	PS*	66	-
17	PS*burial ?	42	-	67	SB
18	S	43	PS ?	68	S
19	-	44	-	69	-
20	"pn"	45	-	70	S
21	-	46	P	71	S
22	P	47	-	72	SP ?
23	-	48	-	73	-
24	-	49	PS	74	-
25	"pn"	50	"PS"	75	"pn"

P pottery G glass B unworked bone M metal

W worked bone S worked stone T wood

" " local report only * stratified T = 31 (8")

Pottery Types

5	A	38	A, B, C
8	B ?	40	A ?
9	D	41	A, B, B/C, C ?
11	A ?	42	A ?
12	A ?	43	A ?
16	A, B, B/C, C, D	46	A, B, C
17	B ?	49	A ?
20	A ?	50	A ?
22	A, B	51	A ?
25	A, B ?	53	A, B
26	A ?	72	A, C ?
33	A ?	75	B ?
34	A, B, B/C, C		
37	B		

T = 26

See text, Section 1, Chapter vi, for details of ceramic typology.

Glass Objects

16 Late fort : three yellow ring-beads, of common
British Iron Age type.

Late broch or Wheelhouse : Six beads as above.

fragment moulded vessel, of
Alexandrian type.

fragment Rhenish painted polychrome
vessel.

two " pendants "

34 Norse and later : numerous and varied beads.

T = 2

Metal Objects (from broch levels only)

16 one complete, one fragment, spiral bronze rings.

one complete, one fragment, ring-headed pins.

one fish-gorge, bronze.

fragments of bronze-smelting crucible.

iron glinker does not appear in broch levels

34 there is no metal from the broch horizons

iron slag appears at the wheelhouse levels

Worked Bone

- 16 awls (large)
 awl points (fine)
 chisel
 holed pegs (large)
 flat pegs
 weaving comb (broken)
 handle plates for large iron (?) tools
 small toggle
 flat-headed pins
 whalebone cup
 parallelopiped dice
- 34 weaving comb (stratification uncertain)
 other objects ? (report not clear)

T = 2

44

Wood

- 16 pins and pegs
 chippings of pine, spruce, willow
- 34 spruce and willow charcoal
- 35 chippings of spruce and a hardwood

Note: 16 immediate pre-broch

T = 3

Worked Stone

- 7 Two oval polished knives (porphyry)
- 16 Sandstone : hammerstones, bones, rubbers,
potlids, loomweights, lamps
Schist : potlids, handled disc, small
polished discs
Steatite : beads, lamps
- 17 Hammerstones, rubbers, hones, whorls
- 18 Hammerstones, hone
- 33 Querns, " mallets "
- 34 Hammerstones, rubbers, hones, etc.
- 35 Loomweight or net-sinker
- 37 Trough and saddle querns, hammerstones,
two broken loomweights or sinkers
- 41 Hammerstones, whorl, quartzite ball, pumice
- 43 Hammerstones
- 49 Querns and " stone objects "
- 50 Hammerstones ?
- 51 Hammerstones ?
- 53 Hammerstones ?, serpentine pebble
- 65 Hammerstones
- 67 Flat slab with incised " Pictish " eagle or buzzard
- 68 Saddle quern
- 70 Top half of rotary quern, conical gaming-piece
- 71 Whorls, steatite fragments, biconical rubber
- 72 Quern, potlid, hammerstones, loomweights ?

Bone (Unworked) and Shell

- 16 Sheep, oxen, pigs and horse (from middens)
- 33 " Animal bones "
- 34 Ox, sheep, pig, seal, whale, dog, etc.
- 35 " Animal bones "
- 37 Calcined ox-bones and ox-teeth
- 53 Sheep. Shells of cockle, whelk and limpet
- 67 Human (1847 A.D. record)

T = 7

47

Burial ?

- 17 A cist was found halfway down the rubble fill of the interior, filled with " unctuous matter ".
Analysis was inconclusive.

T = 1

Date of Excavation or Other Disturbance

3	c.1800	51	c.1920
4	c.1800	52	c.1900
5	c.1700	53	c.1910
6	1780	54	c.1860
7	recent	55	c.1920
11	c.1900	56	since 1930
12	c.1900	60	by 1870
13	c.1775	65	c.1910
16	1860s, 1950s*	67	c.1920
17	1887*	70	c.1925
18	recent	71	1955
20	c.1800	72	1940s, 1950s
25	recent	74	c.1890
32	c.1850		
33	1840		
34	1897-1952*	T = 37 (6 *)	
35	c.1870*		
37	c.1955		
38	1860s, 1920s*		
41	1951*		
43	by 1900		
45	1960s		
46	1960s		
50	c.1700		

* published account of
excavation results

External Defences

1	Yes	26	xxx	51	xxx
2	Yes	27	Yes	52	Yes
3	xxx	28	xxx	53	xxx
4	Yes	29	Yes	54	xxx
5	xxx	30	Yes	55	xxx
6	Yes	31	Yes	56	Yes ?
7	xxx	32	Yes ?	57	xxx
8	Yes	33	xxx	58	xxx
9	Yes	34	Yes	59	Yes
10	Yes	35	Yes	60	xxx
11	Yes	36	Yes	61	Yes
12	Yes	37	xxx	62	xxxx
13	xxx	38	Yes	63	xxx
14	Yes	39	xxx	64	Yes
15	xxx	40	Yes	65	xxx
16	Yes	41	Yes	66	xxx
17	xxx	42	Yes	67	xxx
18	Yes	43	Yes ?	68	xxx
19	Yes	44	Yes	69	xxx
20	Yes	45	Yes	70	xxx
21	xxx	46	xxx	71	xxx
22	Yes	47	Yes ?	72	xxx
23	xxx	48	Yes	73	Yes??
24	xxx	49	xxx	74	xxx
25	Yes	50	xxx	75	Yes

T = 75

39 = Yes (4?)

% Circuit with External Defences

1	40	20	100	42	80*
2	30*	22	10+*	43	15?
3		25	50	44	100
4	100	27	70	45	100
6	40*	29	25	47	15*
8	50*	30	80	48	30?
9	40*	31	60*	52	35
10	20*	32	?	56	20
11	20*	34	30+	59	30+
12	100	35	55*	61	15*
14	40	36	25*	64	65*
16	100	38	30*	75	40*
18	15	40	35*		
19	100	41	100?	T = 39	

Notes: ? = much destroyed in recent years

* = makes use of natural features in circuit

+ = minimum figure given (rest buried or removed)

Defences, Elements

1	2R	32	2R (removed)
2	1R, 1D	34	1R (1F)
4	3R, 2D	35	3R (1F)
6	2R (1F), 1D	36	1R, 1D
8	1R	38	1R
9	3R (1F), 3D	40	2R (1F), 1D
10	2R (2F), 1D	41	1R (1F)
11	1R, 1D	42	2R, 1D
12	1R	43	ID ?
14	1R	44	1R
16	1R (1F)	45	2R (1F), 2D
18	1R (1F)	47	1R (1F)
19	1R (1F)	48	1R (1F)
20	2R, 2D	52	1R
22	1R (1F)	56	1R
25	2R, 1D	59	1R, 1D
27	2R, (2F)	61	1R, 1D
29	2R, 1D	64	1R
30	2R (1F), 1D	75	1R, 1D
31	3R (1F)		

Notes: R = Ramparts

(F) = Faced rampart or wall (included in above)

D = Ditches

Causeway ?

1	nn	26	nn	51	nn
2	nn	27	nn	52	nn
3	nn	28	nn	53	nn
4	nn	29	nn	54	nn
5	nn	30	absent	55	nn
6	natural ?	31	nn	56	nn
7	nn	32	nn	57	absent
8	nn	33	nn	58	nn
9	nn	34	nn	59	nn
10	nn	35	nn	60	ruinous
11	nn	36	natural	61	nn
12	nn	37	nn	62	ruinous ?
13	nn	38	nn	63	nn
14	nn	39	present	64	nn
15	nn	40	nn	65	nn
16	later ?	41	nn	66	ruinous ?
17	nn	42	natural	67	nn
18	nn	43	nn	68	present
19	nn	44	nn	69	present
20	nn	45	nn	70	absent
21	ruinous ?	46	nn	71	nn
22	nn	47	nn	72	nn
23	nn	48	natural	73	nn
24	nn	49	ruinous ?	74	nn
25	nn	50	nn	75	absent

nn = not needed = 58
natural = 4
ruinous+present = 9 (1 later)
absent = 4

Enclosed area excluding broch

1	small	32	large ?
2	large	34	small
4	minimal	35	minimal
6	small	36	small
8	small	38	moderate
9	moderate	40	small
10	large	41	small
11	moderate	42	moderate
12	moderate	43	moderate
14	small	44	moderate
16	small	45	minimal
18	moderate	47	small
19	minimal	48	small
20	minimal	52	moderate ?
22	small	56	small
25	small	59	minimal
27	small	61	small
29	moderate	64	moderate
30	minimal	75	small
31	minimal		

Note: Figures are based on likely extension of defences to complete defensive circuit.

Minimal = 8 Small = 17 Moderate = 11 Large = 3

T = 39

Distance to Coast (Map)

1	150	26	100	51	150
2	50	27	20	52	250
3	50	28	30	53	5
4	20	29	50	54	1500
5	150	30	10	55	0
6	0	31	20	56	20
7	900	32	40	57	5
8	20	33	250	58	110
9	20	34	0	59	800
10	30	35	25	60	10
11	1100	36	500	61	200
12	20	37	1800	62	10
13	0	38	10	63	40
14	30	39	5	64	60
15	20	40	20	65	50
16	250	41	500	66	650
17	650	42	800	67	250
18	40	43	1500	68	1400
19	150	44	2000	69	1200
20	80	45	250	70	10
21	0	46	250	71	200
22	10	47	0	72	1000
23	100	48	300	73	20
24	10	49	0	74	10
25	5	50	500	75	5

T = 75

Distance to Nearest Accessible Coast

1	200	26	150	51	150
2	200	27	100	52	300
3	200	28	150	53	5
4	200	29	50	54	1500
5	150	30	10	55	5
6	0	31	600	56	60
7	1100	32	40	57	10
8	300	33	250	58	110
9	200	34	0	59	800
10	300	35	500	60	10
11	1100	36	1500	61	300
12	20	37	1800	62	10
13	10	38	50	63	40
14	30	39	5	64	175
15	50	40	30	65	80
16	350	41	500	66	650
17	800	42	800	67	250
18	50	43	1900	68	1900
19	400	44	2000	69	1200
20	600	45	250	70	10
21	0	46	250	71	250
22	10	47	10	72	1000
23	100	48	300	73	50
24	20	49	0	74	10
25	5	50	500	75	10

T = 75

Nature of Nearest Coast

1	low, gentle	26	low, gentle	51	low, steep
2	cliffed	27	low cliffs	52	low cliffs
3	cliffed	28	low cliffs	53	low, gentle
4	cliffed	29	low, gentle	54	low, gentle
5	low, gentle	30	low, steep	55	low, gentle
6	low, gentle	31	cliffed	56	low cliffs
7	low, gentle	32	low, steep	57	low, steep
8	low cliffs	33	low cliffs	58	low, gentle
9	cliffed	34	low, gentle	59	low, gentle
10	cliffed	35	cliffed	60	low, gentle
11	low, gentle	36	cliffed	61	low cliffs
12	low, gentle	37	low, gentle	62	low, gentle
13	low, steep	38	low, steep	63	low, gentle
14	low, steep	39	low, gentle	64	cliffed
15	cliffed	40	low, steep	65	low, steep
16	low, gentle	41	cliffed	66	low cliffs
17	cliffed	42	cliffed	67	low cliffs
18	low, gentle	43	low cliffs	68	low, gentle
19	cliffed	44	low, gentle	69	low, cliffed
20	cliffed	45	low, gentle	70	low cliffs
21	low, gentle	46	low, gentle	71	low, steep
22	low, gentle	47	low, steep	72	low, gentle
23	cliffed	48	cliffed	73	low, steep
24	low, gentle	49	low, gentle	74	low, gentle
25	low, steep	50	low, gentle	75	low cliffs

Nearest Supply of Fresh Water

1	150	26	100	51	150
2	250	27	300	52	200
3	400	28	90	53	100
4	250	29	100	54	10
5	250	30	100*	55	200
6	200*	31	200	56	100
7	100	32	80	57	200*
8	200	33	10	58	100
9	200	34	well	59	20
10	130	35	150	60	150*
11	10	36	10	61	150
12	150	37	300	62	300*
13	250	38	150	63	60
14	75	39	50	64	75
15	150	40	30	65	50
16	10	41	300	66	5
17	400	42	5	67	150
18	200	43	200	68	0
19	100	44	150	69	0
20	200	45	150	70	150*
21	70*	46	700	71	300
22	120	47	50	72	200
23	400	48	5	73	200
24	70	49	150*	74	20
25	100	50	150	75	60*

T = 75

Height above sea-level

1	20	26	12	51	39
2	30	27	20	52	21
3	18	28	21	53	4
4	12	29	5	54	29
5	45	30	4	55	2
6	5	31	20	56	10
7	110	32	10	57	1
8	13	33	29	58	30
9	30	34	3	59	52
10	10	35	10	60	1
11	21	36	18	61	13
12	3	37	32	62	2
13	2	38	5	63	3
14	5	39	1	64	21
15	22	40	5	65	20
16	5	41	61	66	7
17	40	42	48	67	20
18	5	43	81	68	5
19	40	44	90	69	48
20	41	45	52	70	3
21	2	46	5	71	58
22	1	47	3	72	32
23	23	48	20	73	10
24	2	49	3	74	4
25	4	50	60	75	6

T = 75

Geomorphic Unit

1	331	26	323	51	123
2	345	27	323	52	113
3	345	28	346	53	336
4	347	29	336	54	225
5	121	30	334	55	337
6	334	31	341	56	347
7	121	32	337	57	324
8	347	33	216	58	322
9	345	34	337	59	123
10	345	35	347	60	334
11	225	36	235	61	321
12	337	37	123	62	334
13	335	38	337	63	337
14	335	39	335	64	123
15	336	40	335	65	323
16	234	41	121	66	214
17	112	42	225	67	123
18	336	43	122	68	214
19	341	44	121	69	224
20	347	45	123	70	334
21	334	46	337	71	122
22	335	47	336	72	122
23	347	48	225	73	322
24	335	49	334	74	336
25	337	50	121	75	334

T = 75

Explanation of Geomorphhic Unit Code

Each site has a three-digit code, abc

a = position relative to coast

b = nature of relief

c = detailed position in landscape

a 1 = inland

2 = lochside

3 = coastal

b 1 = low relief amplitude, non-coastal

2 = high relief amplitude, excluding cliffs

3 = low coastal relief

4 = cliffed coastal relief

c 1 = hilltop

2 = on spur

3 = hillside step or bench

4 = islet

5 = promontory tip

6 = promontory base

7 = open coastline

a, b exhaust all possibilities

c exhausts all broch sites, but not all possible positions in the landscape.

Building Stone

1	sst	26	gn	51	gn
2	sst	27	gn	52	gn
3	gn	28	sch	53	gn
4	gn	29	gn	54	gn
5	sch	30	lst	55	gn
6	gn	31	gn	56	sst
7	gte *	32	sch	57	gn
8	gn	33	sst	58	sst
9	sst	34	sst	59	sst
10	sst	35	sst	60	sch
11	sst	36	ate	61	grt
12	gn	37	sst	62	sch
13	dte	38	sst	63	sst
14	gn	39	tuf	64	ate
15	sst	40	sst	65	gn
16	sst	41	ate	66	grt
17	sst	42	gn	67	dte
18	sst	43	sst	68	sst
19	gte	44	gn	69	gn
20	sst	45	gn	70	sst
21	gn	46	sst	71	ste
22	sst	47	gn	72	sst
23	sch	48	sst	73	gn
24	sst	49	sst	74	gn
25	gte	50	sst	75	gn

T = 75

Building Stone, Notes

sst = sandstone

gn = gneiss

sch = schist

gte = granite

dte = diorite

lst = limestone

ate = andesite

tuf = tuff

grt = gritstone

* = not bedrock on site

Soil Type of Best Local Land

1					
1	3311	26	3231	51	3311
2	4221	27	3331	52	2311
3	2331	28	2312	53	3211
4	3311	29	3211	54	2312
5	3311	30	2331	55	2311
6	2312	31	3311	56	4121
7	2212	32	3311	57	3211
8	2331	33	3312	58	3311
9	3122	34	3131	59	4111
10	3321	35	4122	60	4122
11	3221	36	2312	61	2222
12	2332	37	4121	62	2312
13	4121	38	3311	63	3212
14	3111	39	4111	64	3311
15	3312	40	4311	65	4121
16	3332	41	2311	66	2211
17	4121	42	2122	67	4321
18	4212	43	2311	68	3132
19	3311	44	2311	69	1312
20	3321	45	2112	70	3311
21	4222	46	3131	71	4121
22	3231	47	2312	72	4211
23	3211	48	3211	73	3111
24	2312	49	3311	74	3311
25	3211	50	3311	75	3231

T = 75

Soil Type, Notes

Each site has a four-digit number, abcd

a = nature

b = depth

c = stoniness

d = drainage

a 1 = peat

2 = acid

3 = average

4 = rich

b 1 = deep

2 = medium

3 = thin

c 1 = stony

2 = not stony

3 = sandy

d 1 = well drained

2 = poorly drained

Dominant Land Use, Notes

1d = dry heather moorland

1m = boggy heather moorland

2 = heather moor with patchy grazing

3c = coastal rough grazing (tends to be salt-stunted)

3h = hill grazing

4 = rough grazing with improved areas

5 = improved grazing, with no trace of former arable

6 = grazing over former arable

7 = arable patches in matrix of grazing

8 = considerable areas of arable

Bioclimatic Sub-zone

1	A	26	A	51	C
2	A	27	A	52	A
3	A	28	A	53	A
4	A	29	A	54	AD
5	A	30	A	55	A
6	A	31	A	56	A
7	D	32	D	57	C
8	D	33	A	58	A
9	AC	34	A	59	C
10	A	35	CD	60	A
11	AD	36	A	61	AD
12	A	37	A	62	A
13	A	38	A	63	A
14	D	39	A	64	A
15	A	40	AB	65	C
16	AB	41	A	66	A
17	D	42	A	67	A
18	A	43	D	68	A
19	A	44	A	69	D
20	A	45	A	70	A
21	BD	46	A	71	AD
22	A	47	A	72	AD
23	A	48	D	73	A
24	D	49	A	74	A
25	A	50	D	75	A

T = 75

Bioclimatic Sub-zone, Notes

These derive from the Soil Survey of Scotland's classification, by E. L. Birse, 1971.

A = H_3B_2 = Humid southern boreal and lower oroboreal

B = H_3B_1 = Humid upper oroboreal

C = H_2B_2 = Very humid southern boreal and lower oroboreal

D = H_2B_1 = Very humid upper oroboreal

All of these fall within the O_1 or Hyperoceanic sub-sector.

The meaning of the terms and their suitability for the present study are discussed in the relevant section of the text.

Site Drainage

1	4	26	4	51	4
2	4	27	4	52	4
3	4s	28	2	53	4s
4	4	29	4s	54	2
5	4	30	4s	55	2s
6	4s	31	4	56	4
7	4	32	4s	57	3s
8	4	33	1	58	4
9	4	34	4	59	4
10	4	35	4	60	4
11	4	36	1	61	4
12	3	37	4	62	2s
13	1s	38	4	63	1
14	4	39	3s	64	4
15	4	40	4	65	4
16	1	41	4	66	3
17	3	42	2	67	4
18	4	43	4	68	1
19	4	44	4	69	1
20	4	45	4	70	4s
21	1s	46	4	71	4
22	4	47	3s	72	4
23	4	48	1	73	4
24	4s	49	2	74	4
25	4	50	4	75	4

T = 75

Site Drainage. Notes

The assessment is based entirely on present site conditions, which may be greatly affected by the presence of the archaeological structures.

1 = Waterlogged, never dries out fully

2 = Damp, usually wet except after drought

3 = Normally dry, except after wet spells

4 = Freely-draining, does not retain water

s = May be wave or spray-swept during gales

Defensive Status

1	1	26	2	51	2
2	1	27	1	52	2
3	1	28	1	53	2
4	2	29	1	54	2
5	2	30	1	55	2
6	1	31	1	56	3
7	2	32	3	57	1
8	2	33	2	58	1
9	1	34	2	59	2
10	1	35	2	60	1
11	1	36	2	61	2
12	1	37	1	62	1
13	2	38	1	63	3
14	1	39	1	64	2
15	1	40	1	65	2
16	1	41	1	66	1
17	3	42	1	67	2
18	2	43	1	68	1
19	1	44	1	69	1
20	1	45	1	70	1
21	1	46	2	71	1
22	1	47	1	72	2
23	2	48	2	73	1
24	1	49	1	74	1
25	2	50	1	75	1

T = 75

Convenience Status

1	3	26	1	51	2
2	3	27	1	52	1
3	3	28	1	53	2
4	3	29	1	54	2
5	2	30	3	55	3
6	3	31	2	56	1
7	3	32	2	57	3
8	3	33	2	58	3
9	3	34	1	59	1
10	1	35	1	60	3
11	1	36	3	61	3
12	1	37	1	62	3
13	2	38	1	63	1
14	1	39	1	64	1
15	1	40	2	65	2
16	3	41	3	66	3
17	1	42	1	67	2
18	1	43	3	68	3
19	3	44	3	69	3
20	1	45	2	70	3
21	3	46	1	71	2
22	2	47	2	72	2
23	2	48	2	73	1
24	2	49	3	74	2
25	2	50	1	75	3

T = 75

Relationship to Best Land

1	4	26	1	51	3
2	4	27	2	52	1
3	4	28	1	53	2
4	3	29	2	54	2
5	3	30	4	55	3
6	4	31	2	56	1
7	3	32	2	57	4
8	4	33	3	58	3
9	3	34	2	59	2
10	1	35	2	60	4
11	1	36	3	61	3
12	2	37	1	62	4
13	2	38	2	63	1
14	2	39	1	64	2
15	2	40	3	65	1
16	1	41	4	66	4
17	1	42	1	67	1
18	1	43	4	68	1
19	3	44	4	69	4
20	1	45	3	70	4
21	4	46	1	71	1
22	3	47	2	72	1
23	2	48	2	73	2
24	3	49	4	74	2
25	2	50	1	75	4

T = 75

Broch Sites Visible

1	3	26	0	51	0
2	1	27	2	52	4
3	0	28	1	53	1
4	3	29	1	54	0
5	1	30	1	55	1
6	2	31	1	56	3
7	2	32	1	57	0
8	0	33	2	58	2
9	1	34	2	59	2
10	1	35	1	60	1
11	1	36	1	61	1
12	4	37	3	62	0
13	0	38	3	63	0
14	1	39	0	64	1
15	1	40	0	65	0
16	0	41	3	66	0
17	1	42	4	67	0
18	2	43	2	68	3
19	0	44	1	69	0
20	5	45	4	70	2
21	0	46	2	71	2
22	2	47	00	72	4
23	1	48	0	73	0
24	1	49	0	74	0
25	1	50	1	75	1

T = 75

Distance to Next Site

1	1350*	26	3600	51	5650*
2	1150	27	2700**	52	3800**
3	7000**	28	2000*	53	3350*
4	2450*	29	3800*	54	2700
5	2200*	30	3600**	55	2800
6	1650**	31	1000*	56	1200*
7	2700	32	3400*	57	5350*
8	7000**	33	4950	58	3300**
9	4950*	34	1200	59	950
10	1150**	35	4500	60	2200**
11	1950	36	1150	61	1650**
12	3900**	37	1000*	62	3600**
13	3150*	38	1150**	63	1150
14	1600	39	3900**	64	2850*
15	1650	40	950	65	4900
16	4950*	41	1150	66	1650**
17	1500	42	1850	67	3150*
18	1350*	43	1800	68	1000*
19	5850*	44	4250**	69	1600*
20	1200*	45	1650**	70	1800
21	4200**	46	1200	71	1450
22	1600*	47	2000*	72	1100**
23	1000*	48	2750	73	6500**
24	1850	49	3300**	74	6500**
25	3350*	50	5550*	75	3800*

* = direct line over water

T = 75

** = ditto, with no land alternative

3

AS OBSERVED IN
1977, 1978, 1979

PLANS OF BROCH STRUCTURE

SCALE : Constant, 1 : 200

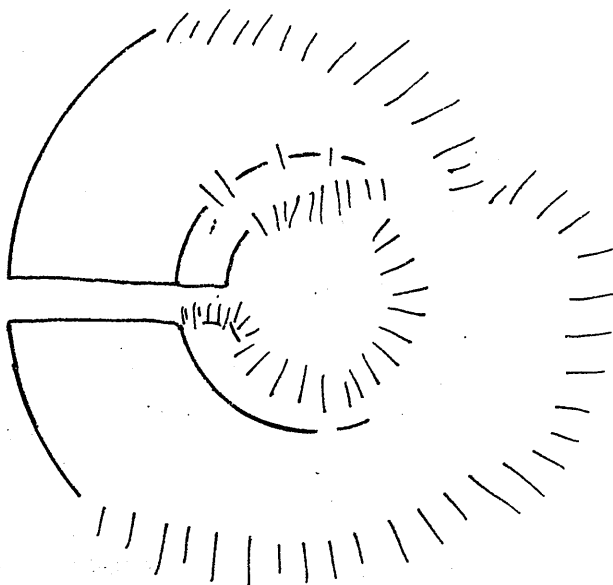
Key

Solid line = Wallface
Double solid line = Battered wallface
Dashed Line = Feature within standing
 remains of wall
Hachures = Principal slopes

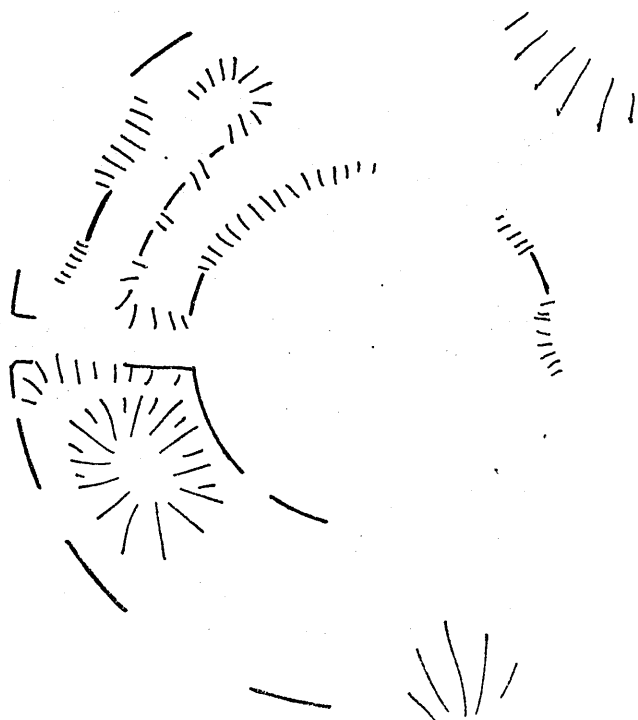
Numbers 16 (Clickhimin) and 38 (Mousa) are shown as planned at ground level. All other sites are planned at the level of the highest surviving detail of structure. Only sites showing more than minimal information are presented here. These are:

3	32	
4	33	
9	34	
10	35	
12	36	
15	38	
16	In text, diagram 1, iii, 2 .	40
17	41	
19	42	
22	45	
23	46	
24	47	
25	49	
27	51	
28	56	
30	64	
31	[106	118]
	107	122
	113	123
	117	125]

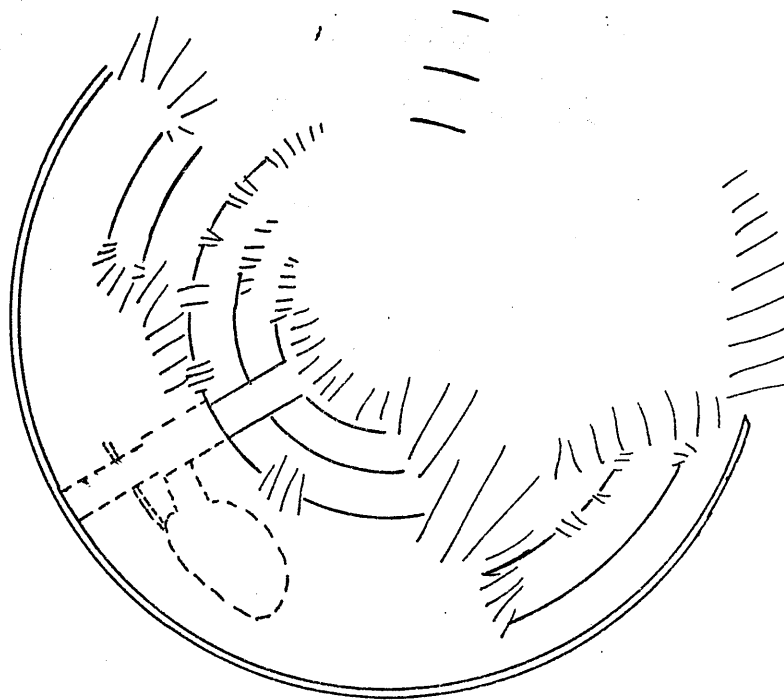
3



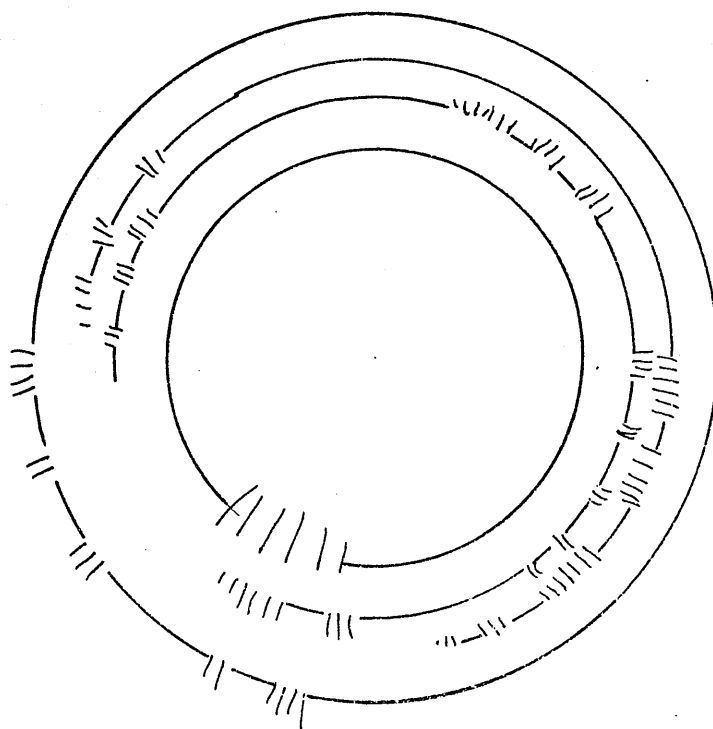
4



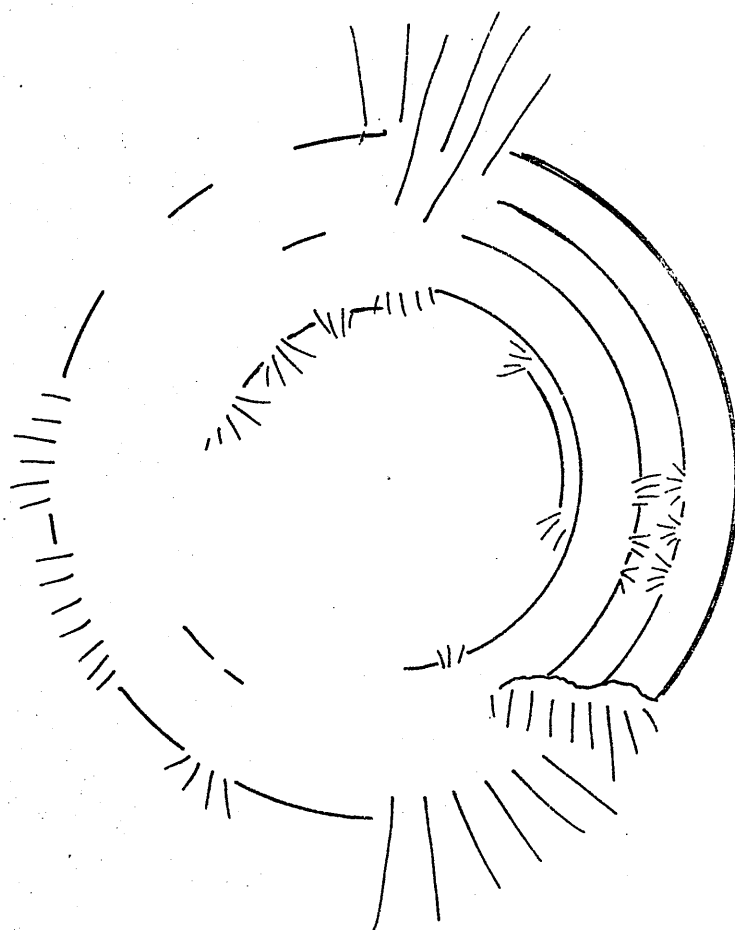
9



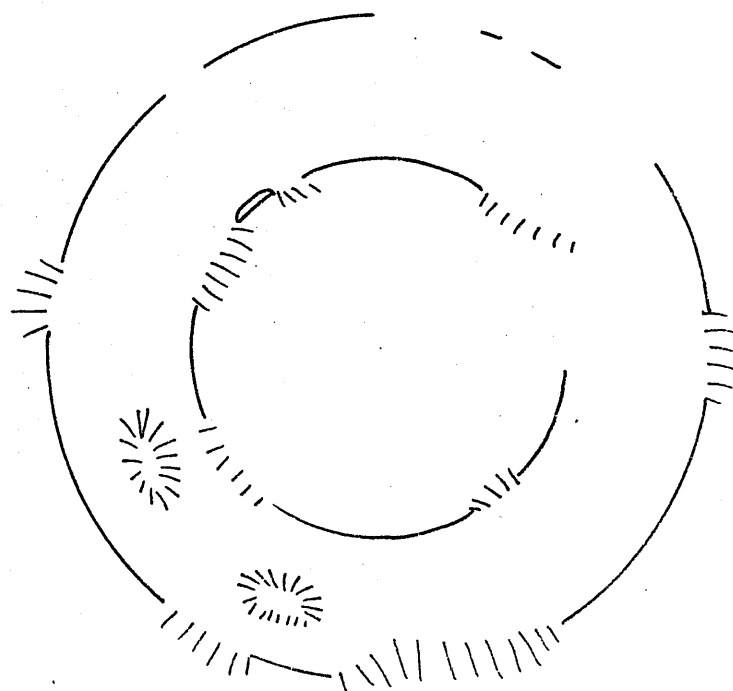
10



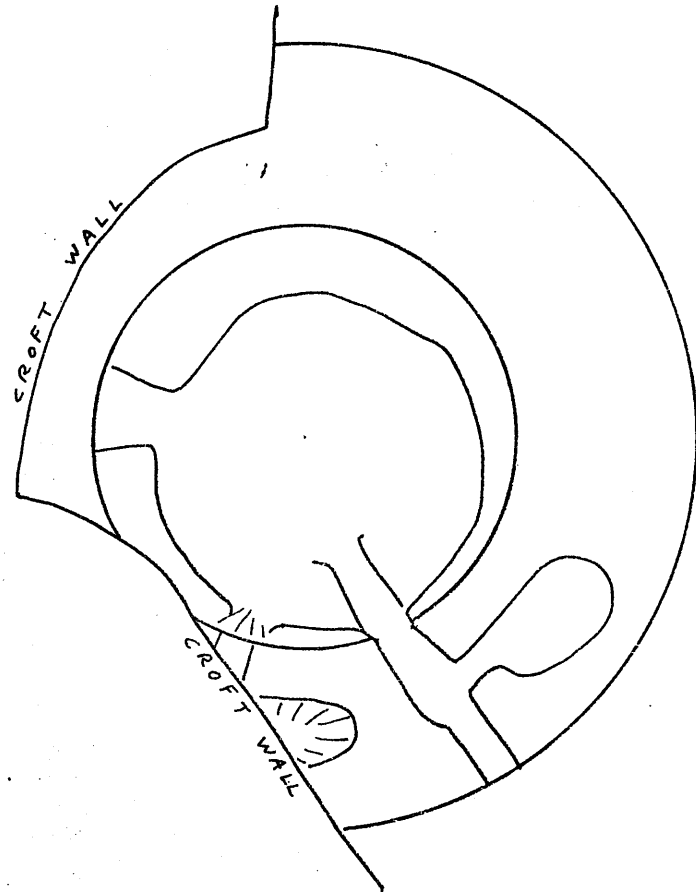
12



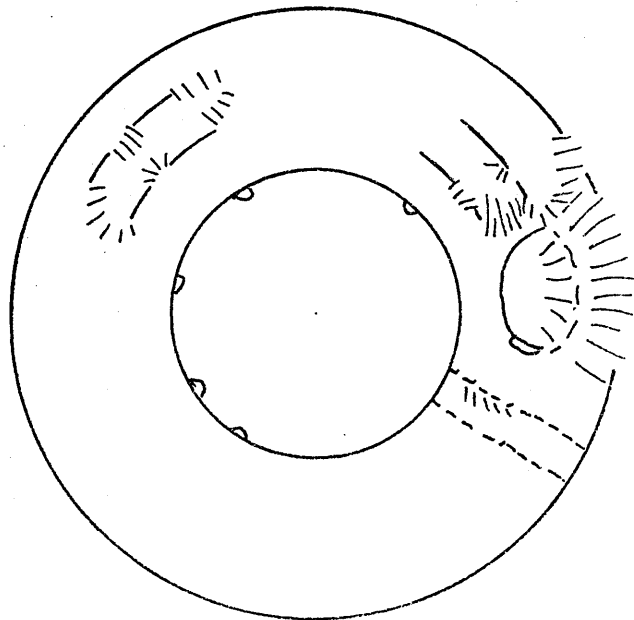
15



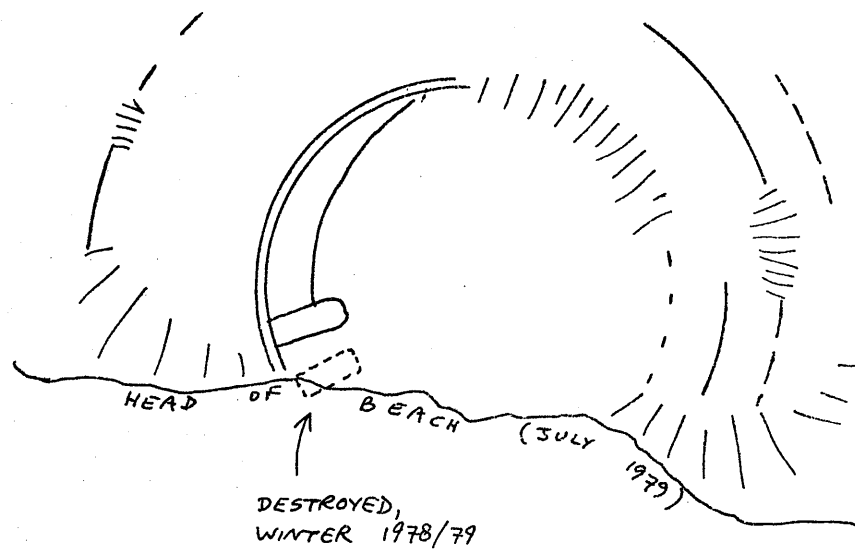
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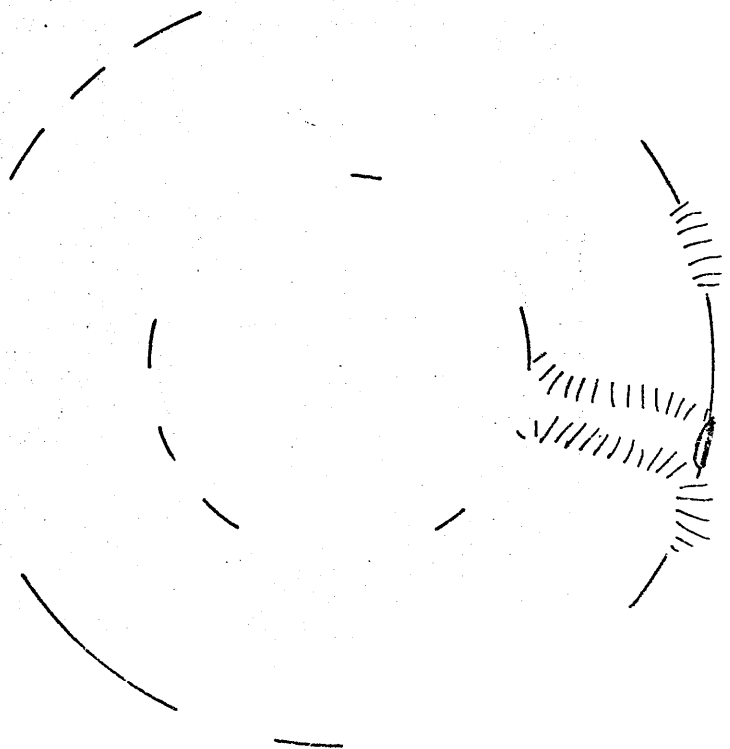
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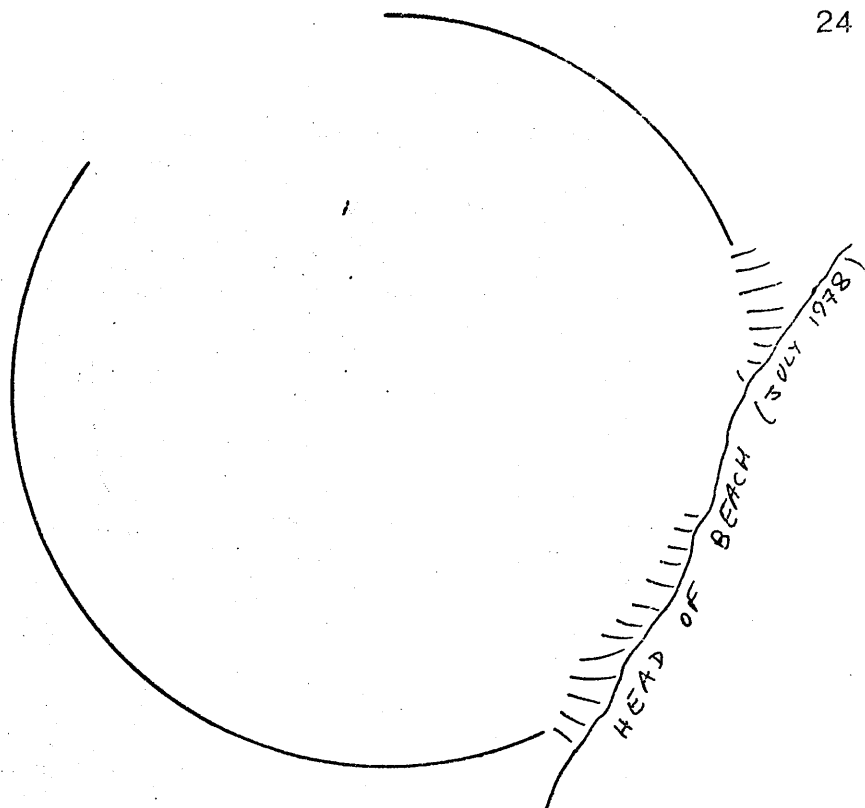
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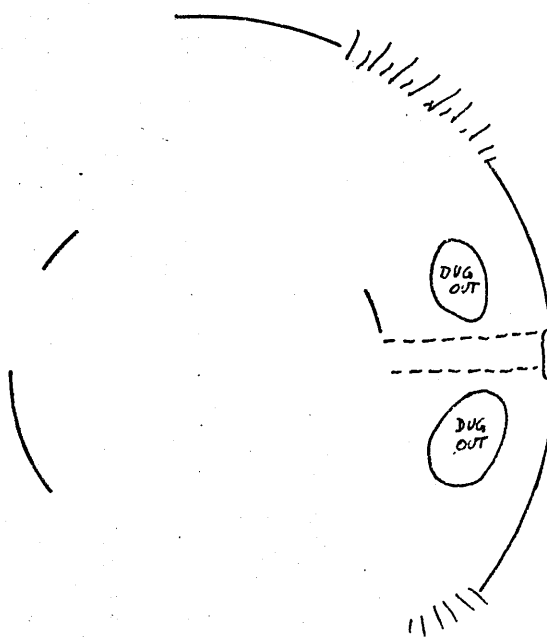
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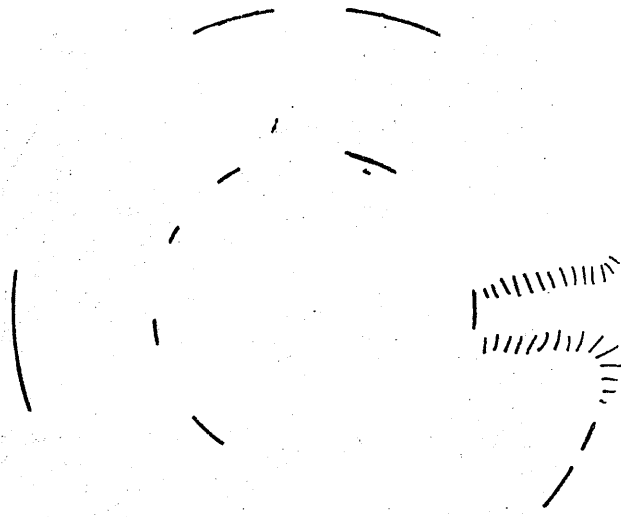
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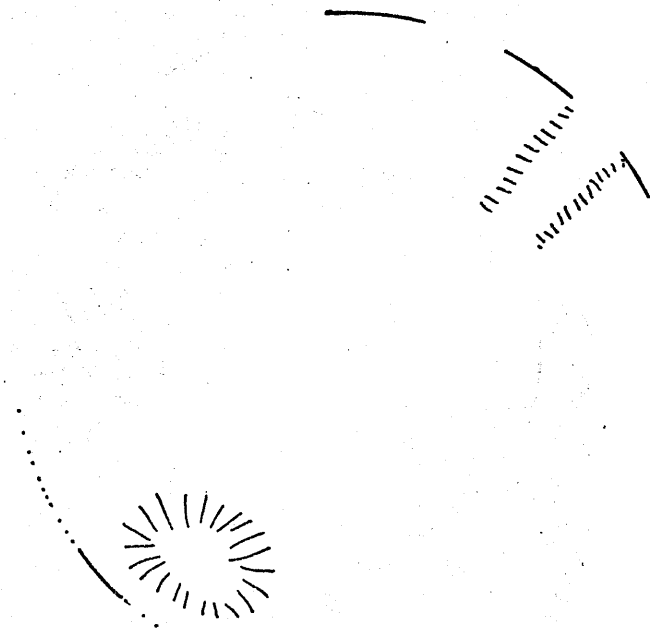
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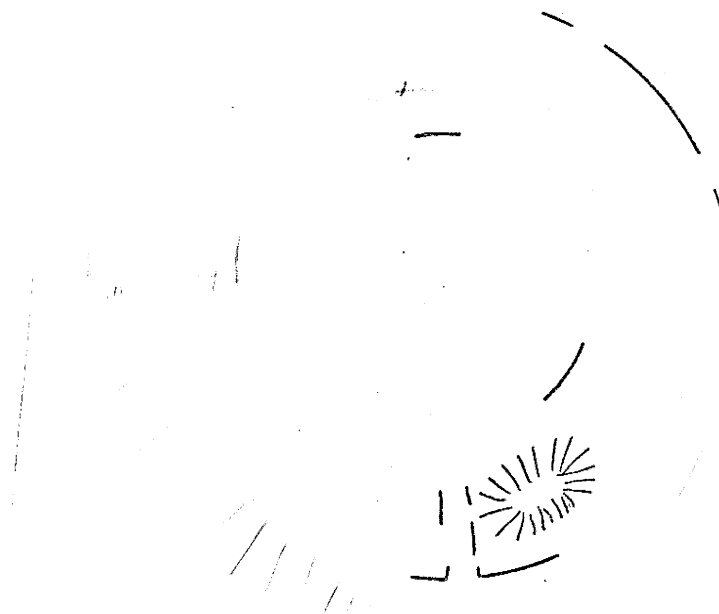
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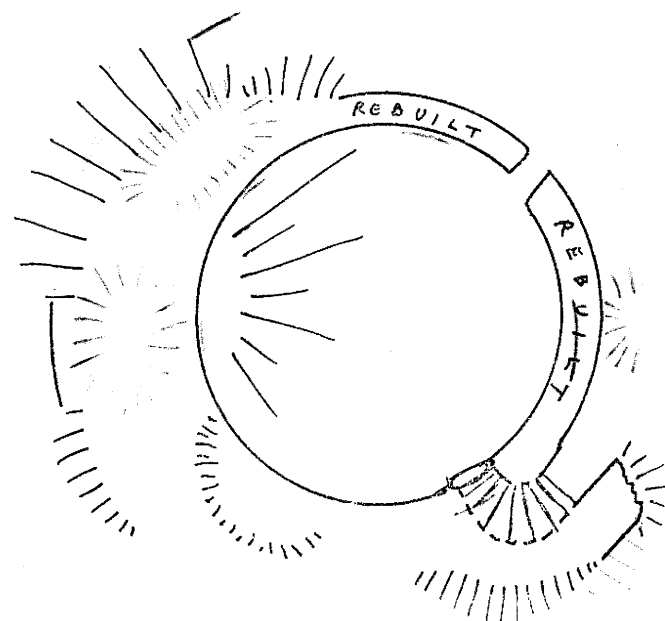
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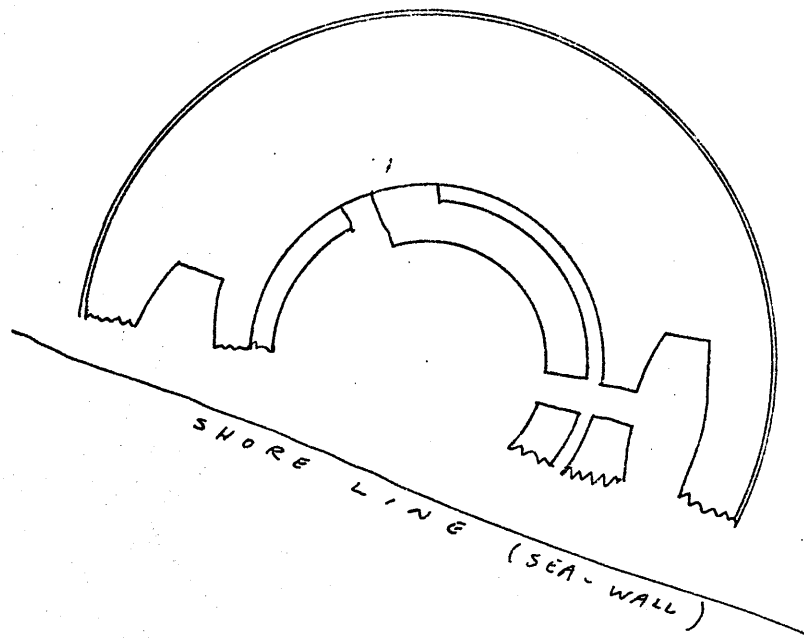
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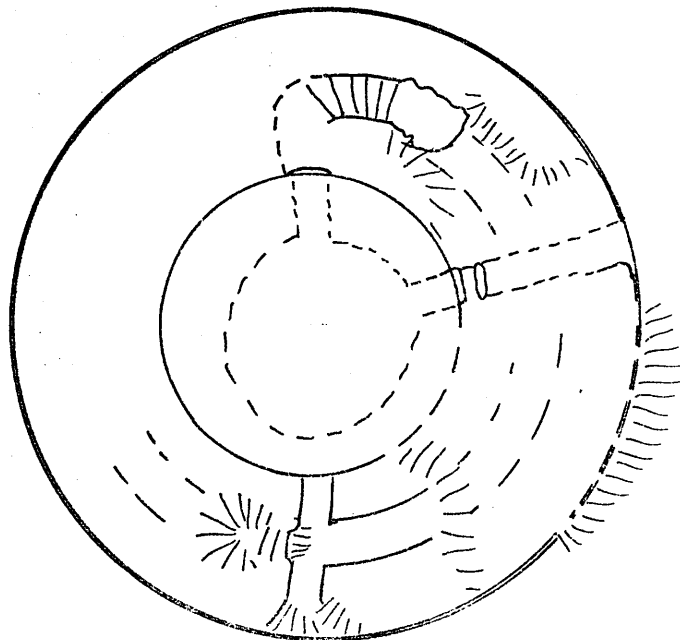
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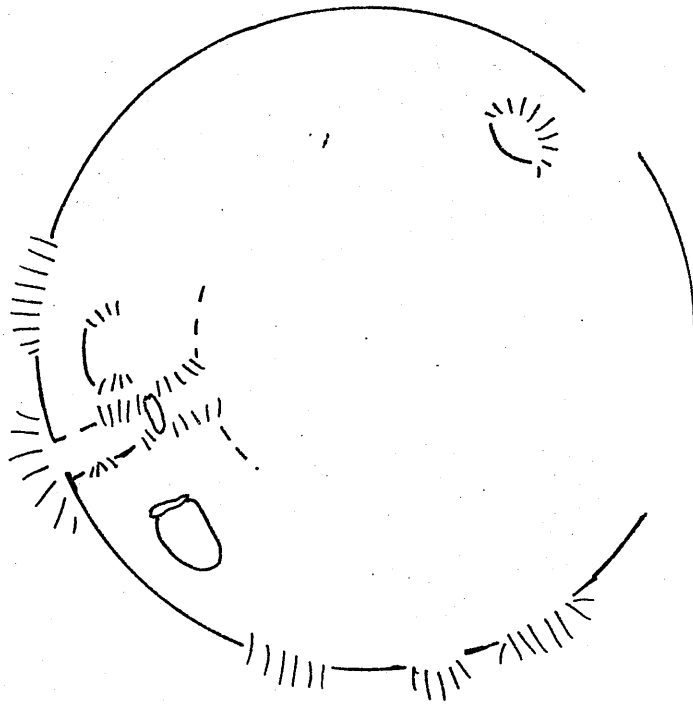
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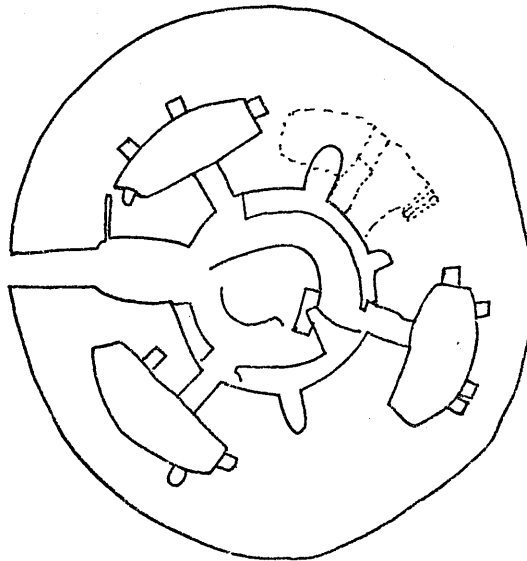
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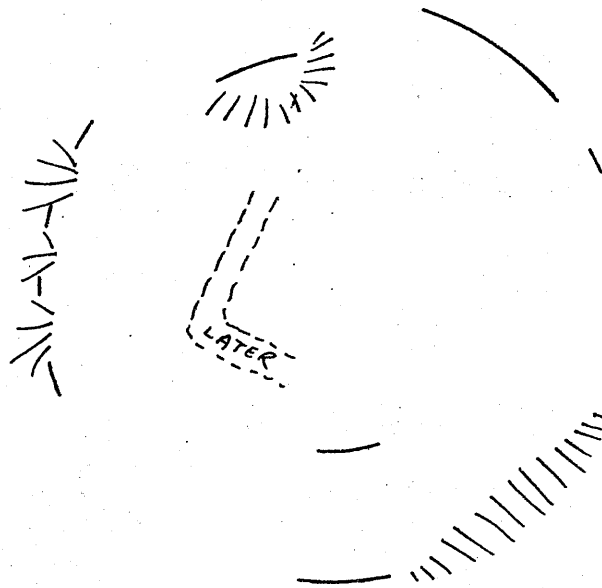
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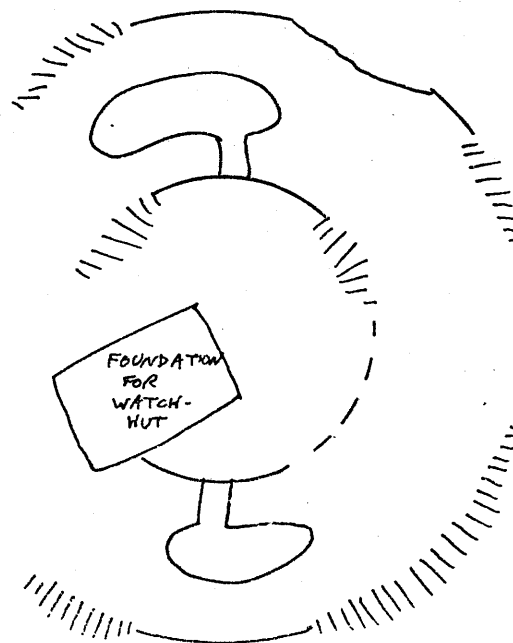
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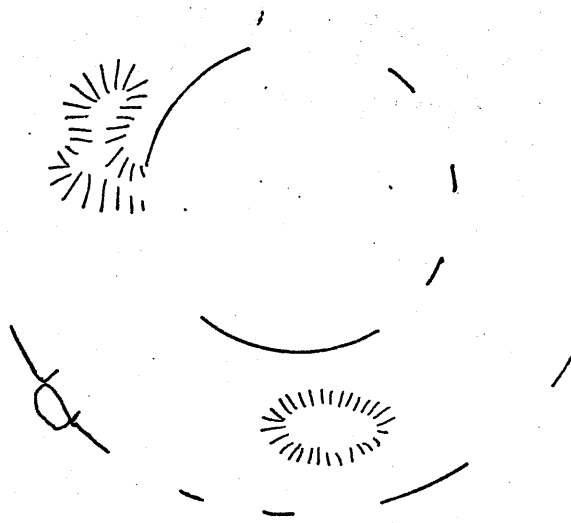
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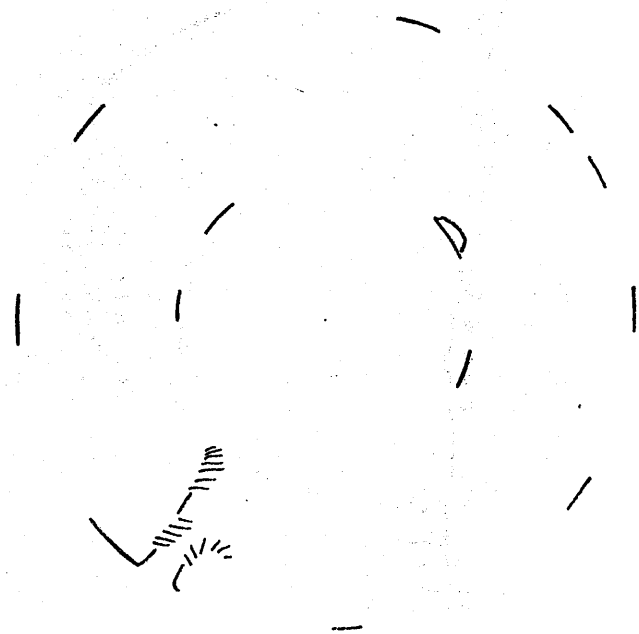
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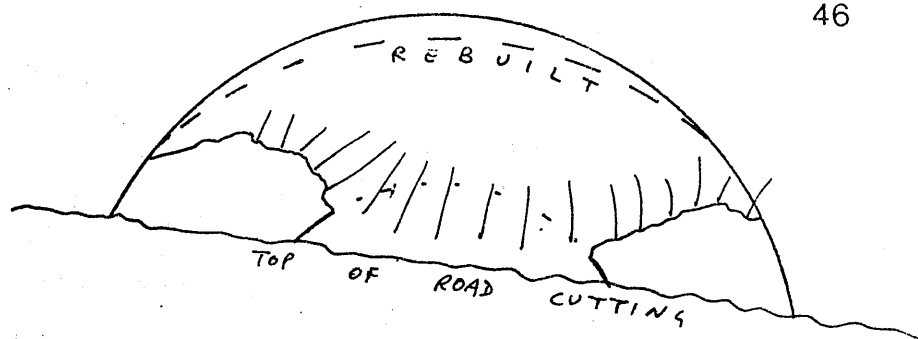
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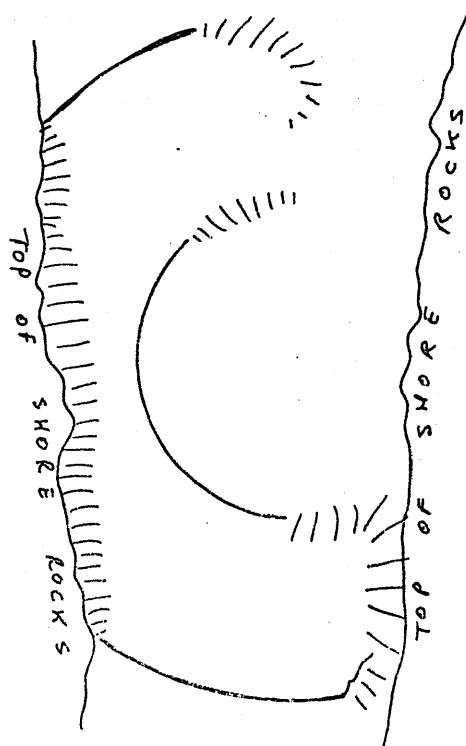
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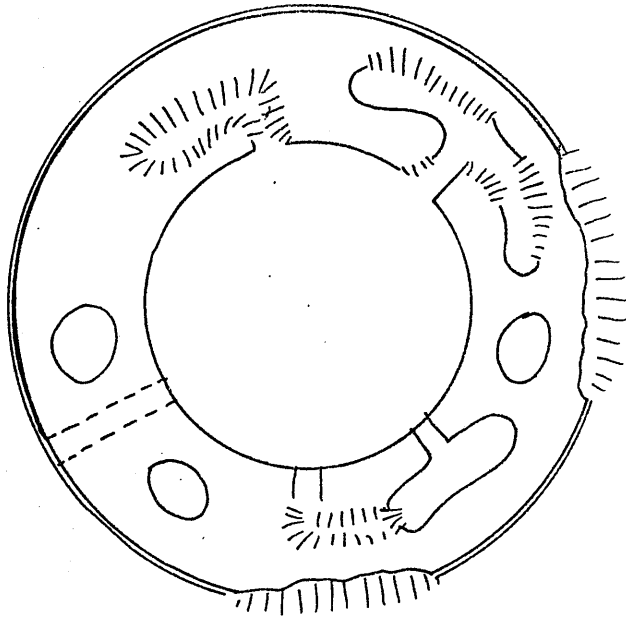
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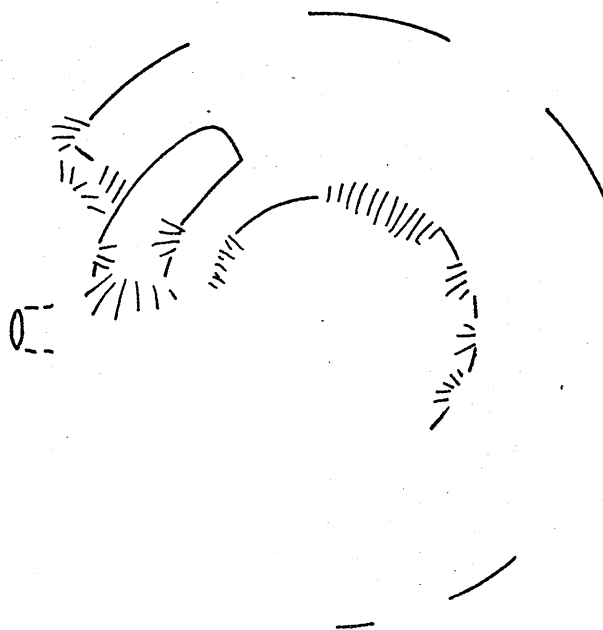
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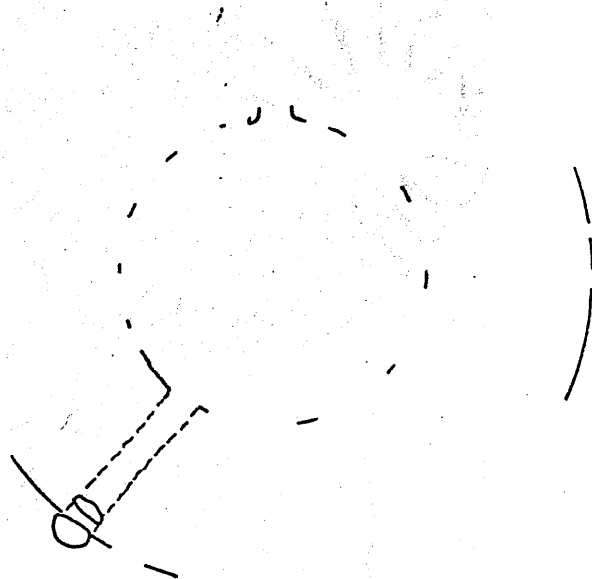
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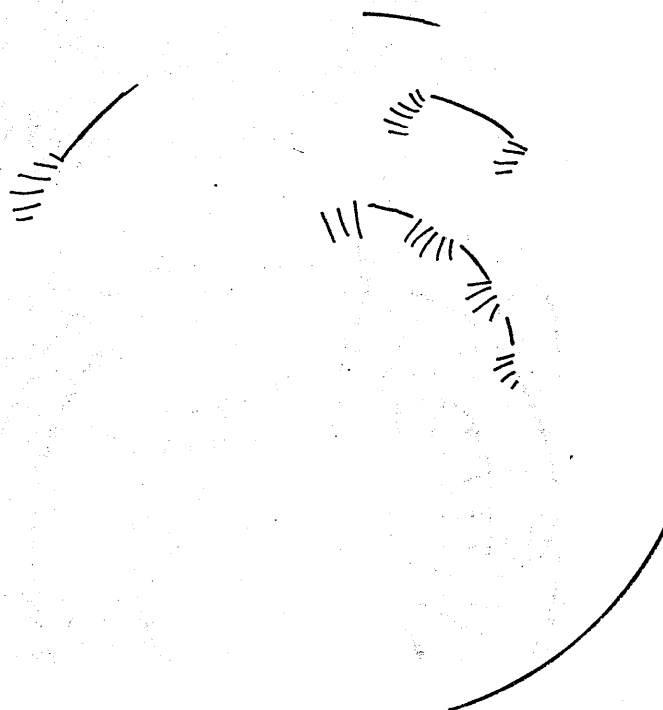
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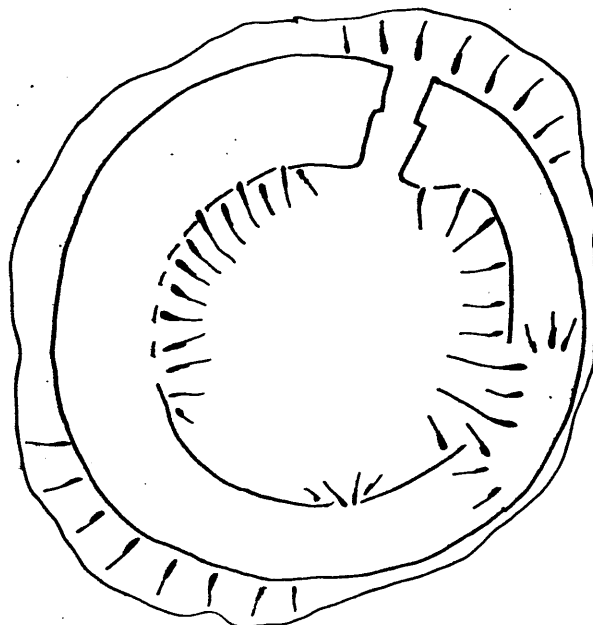
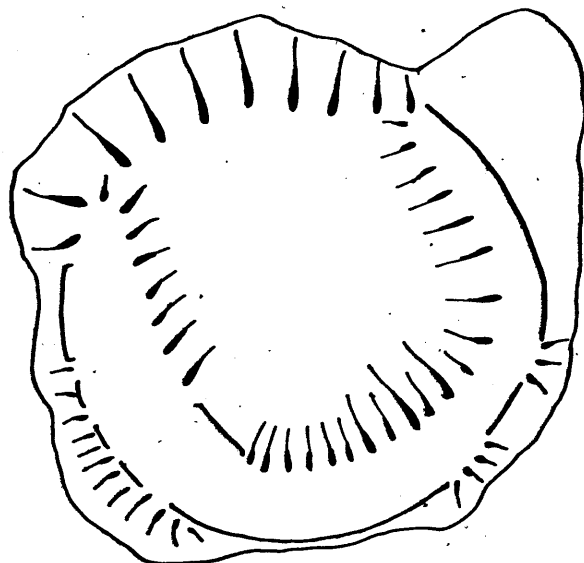
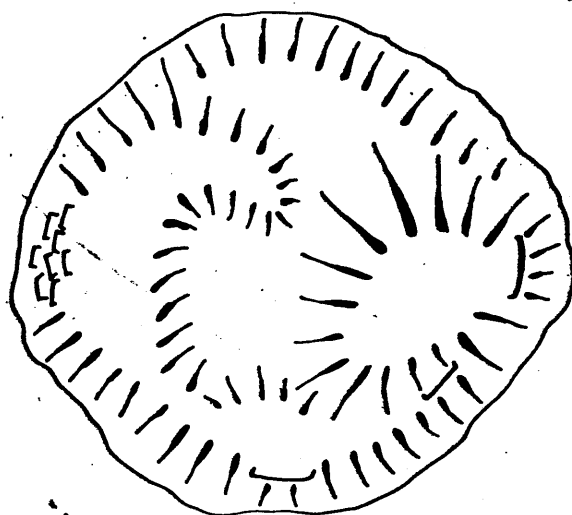


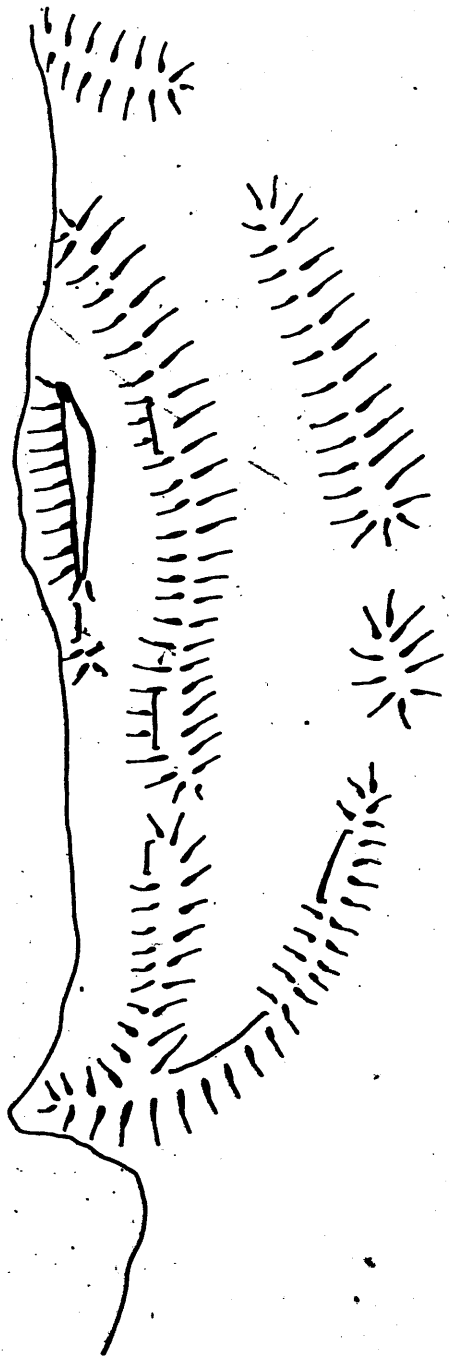
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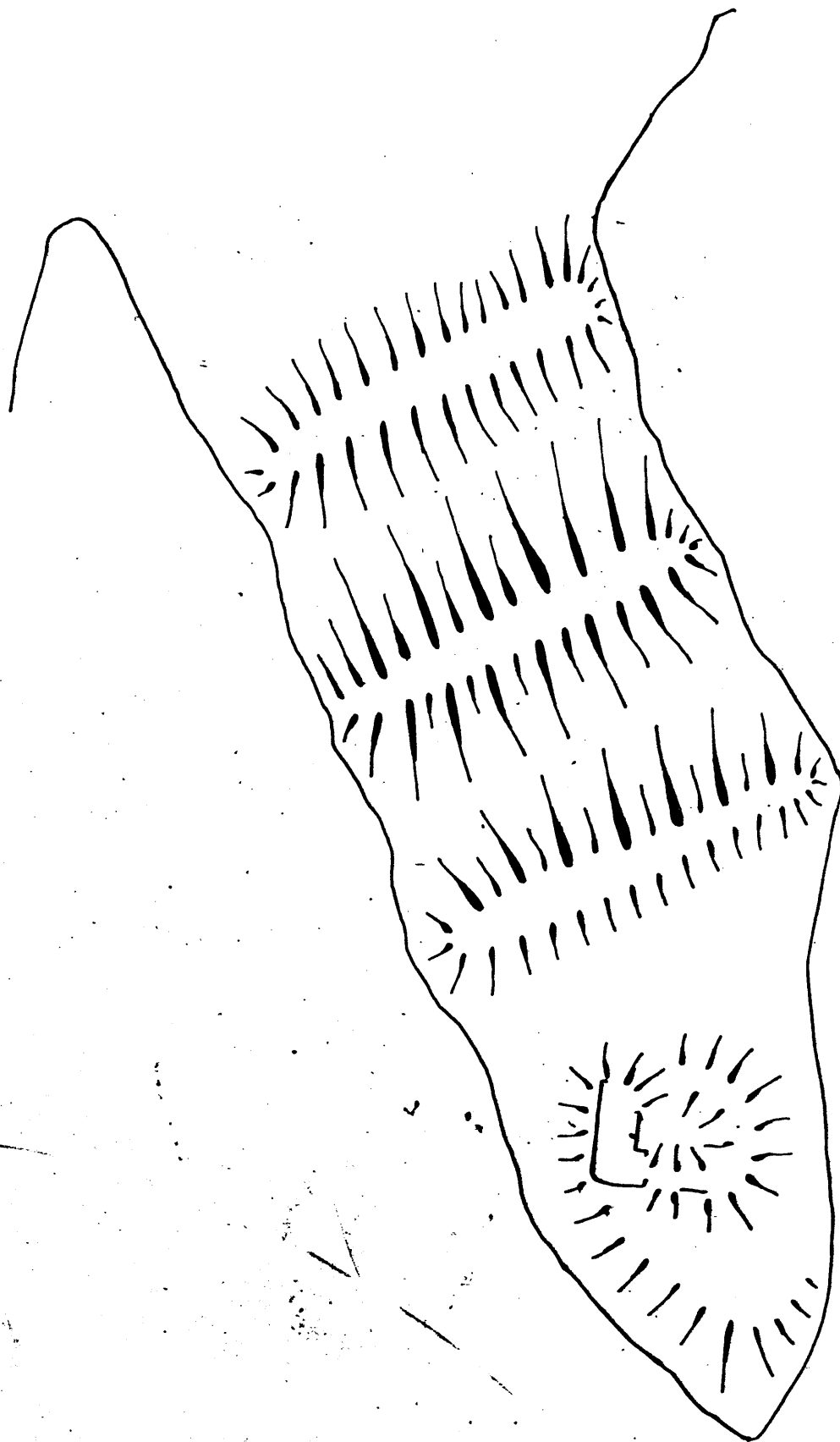


64

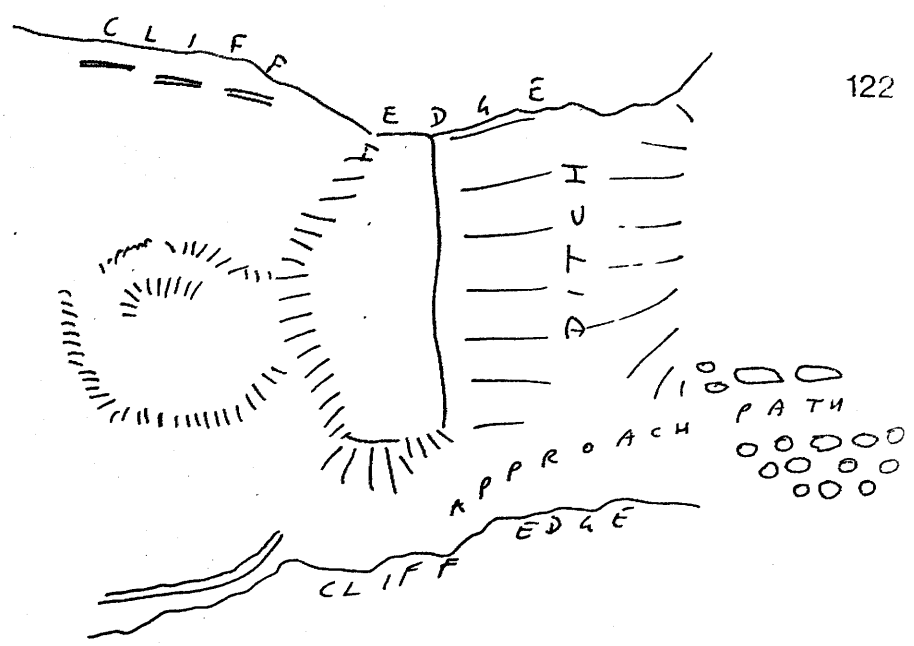




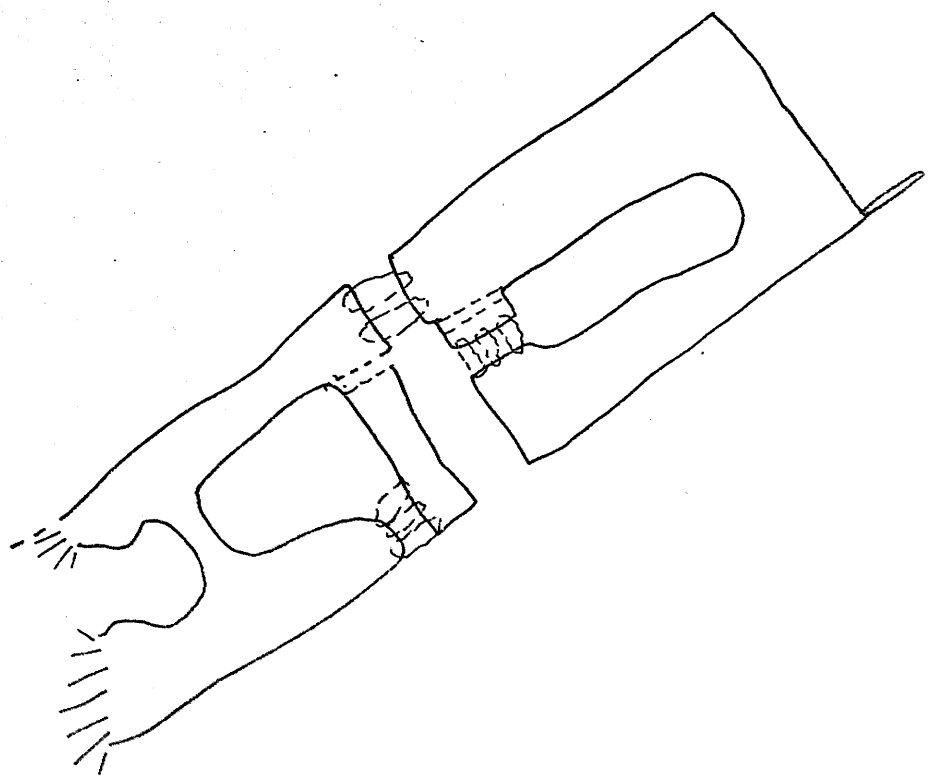


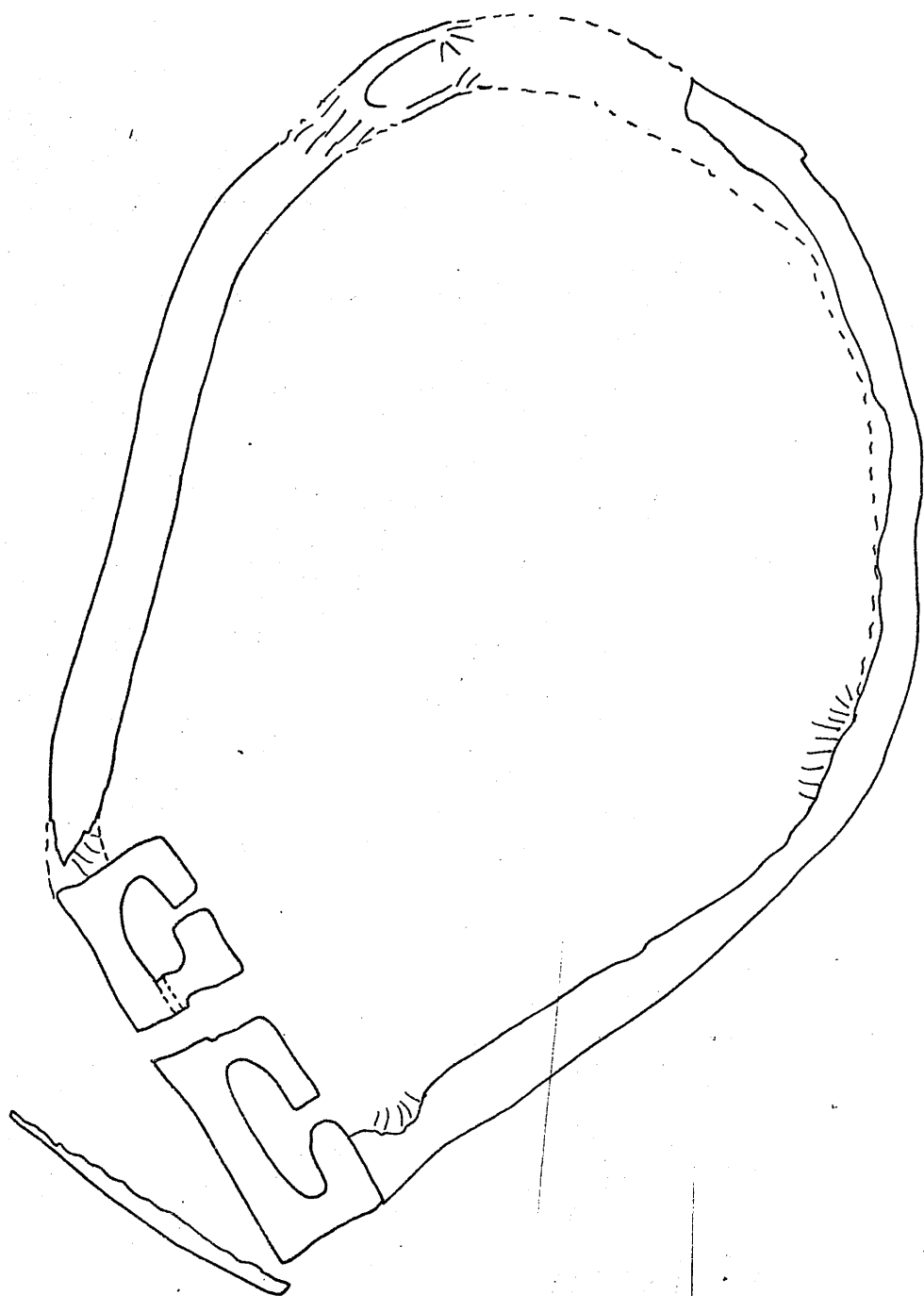


122



123





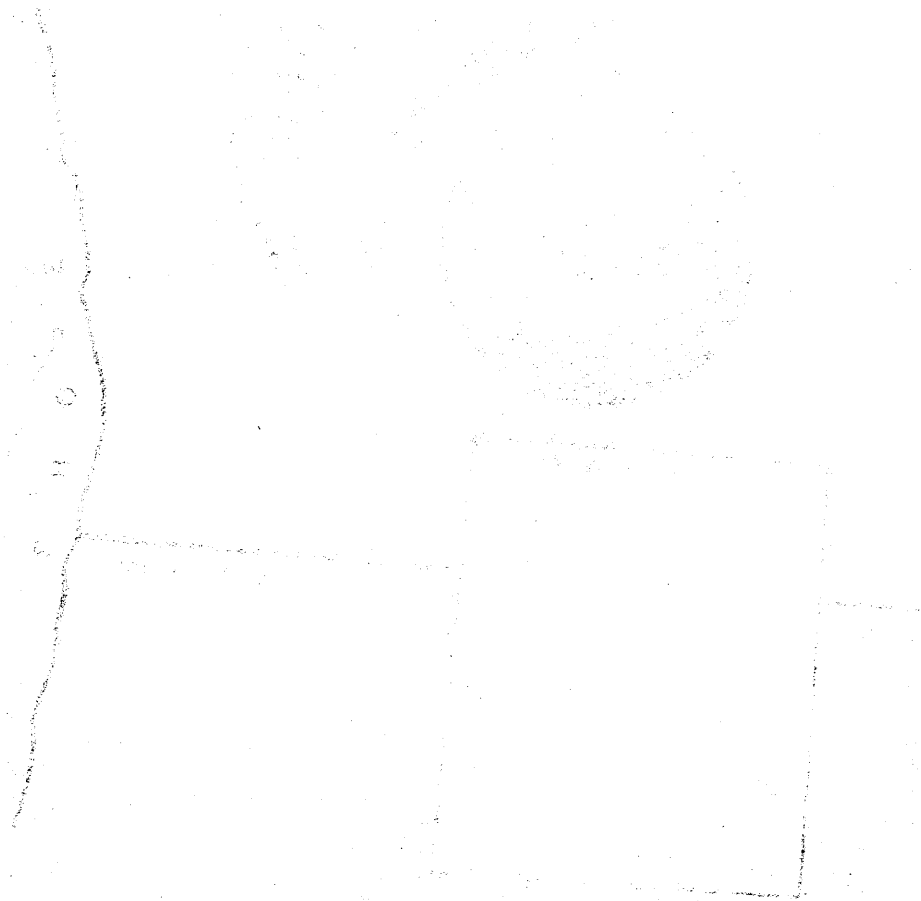
PLANS OF BROCH SITES

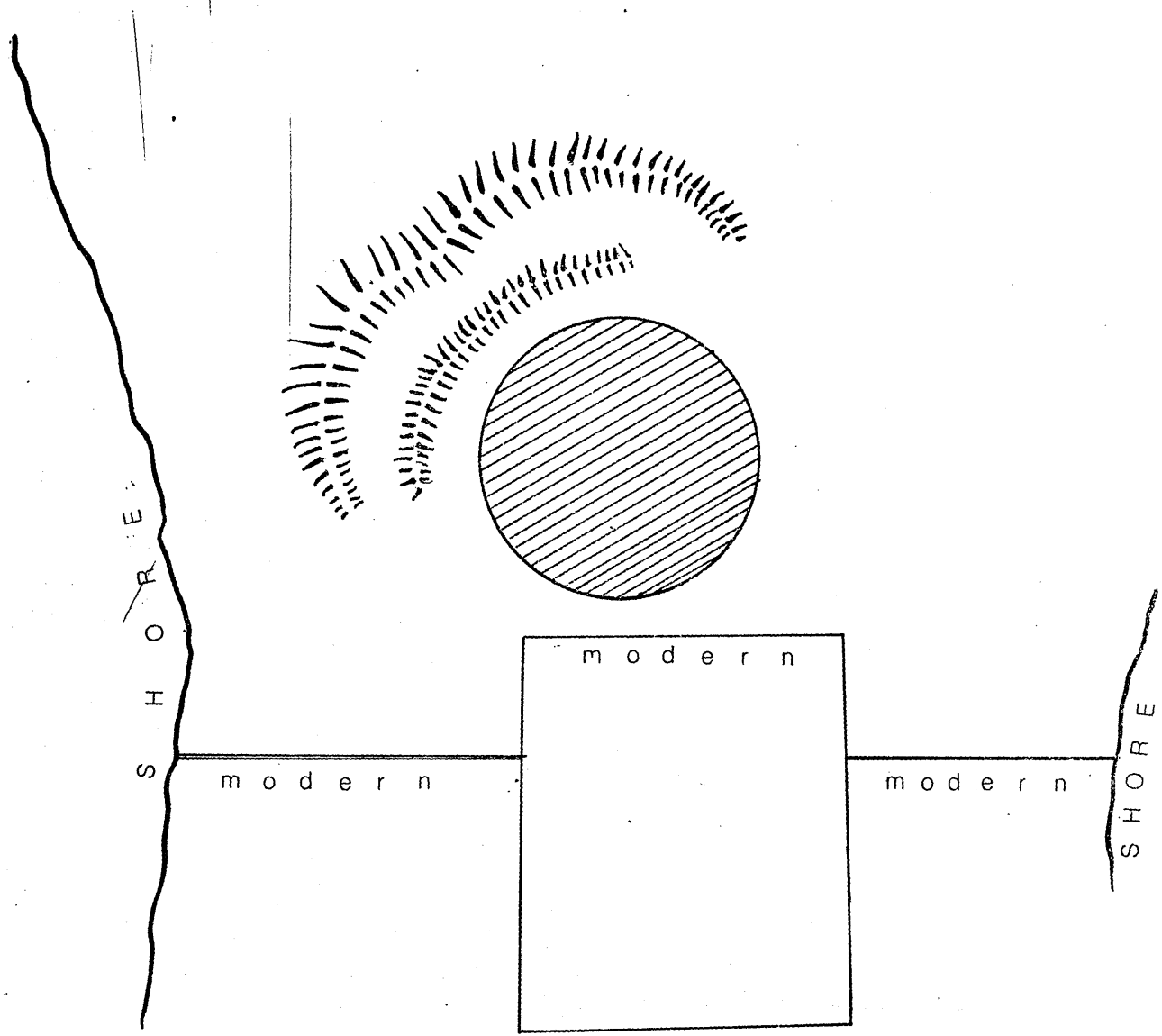
SCALE : Constant, 1 : 500 approximately

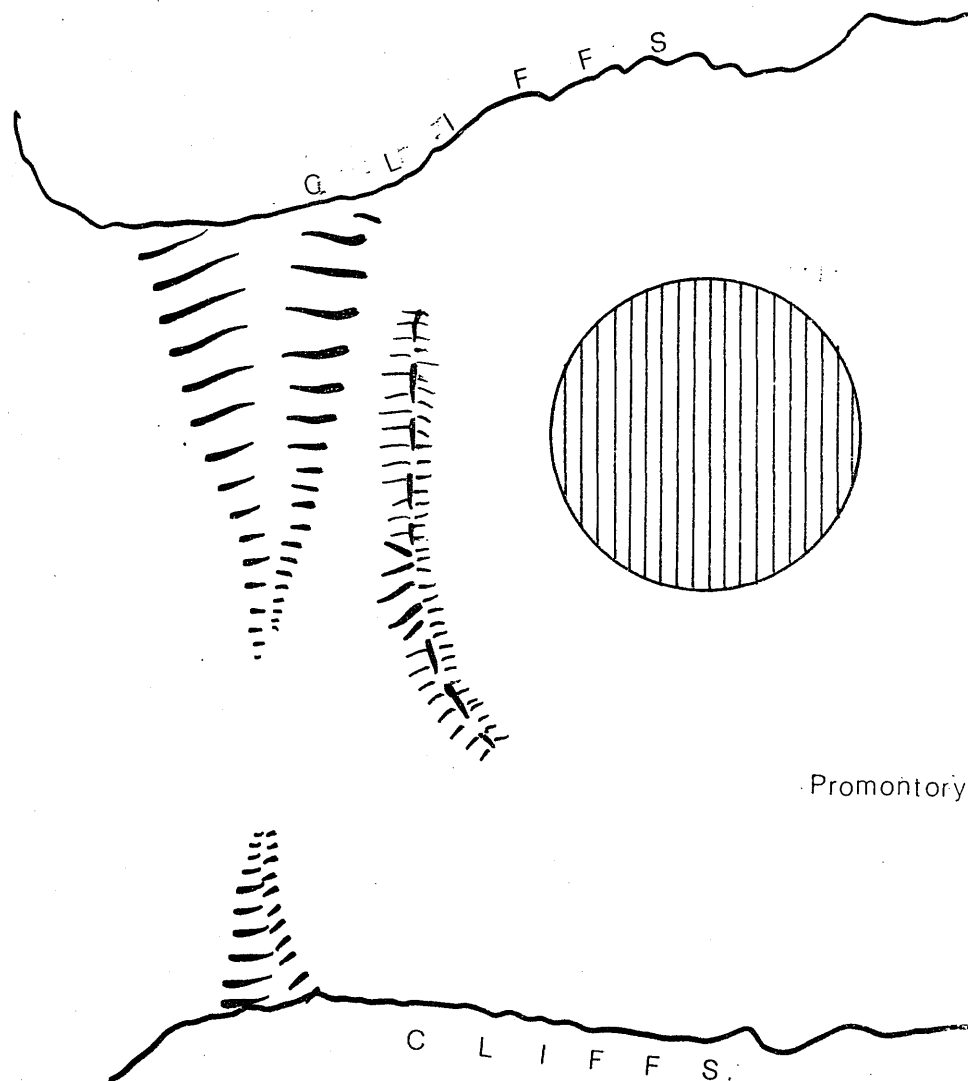
Broch is presented as a standardised circle, 20metres in diameter. Where known, the broch entrance is indicated by an arrow. Principal slopes, whether natural or artificial, are indicated by hachures.

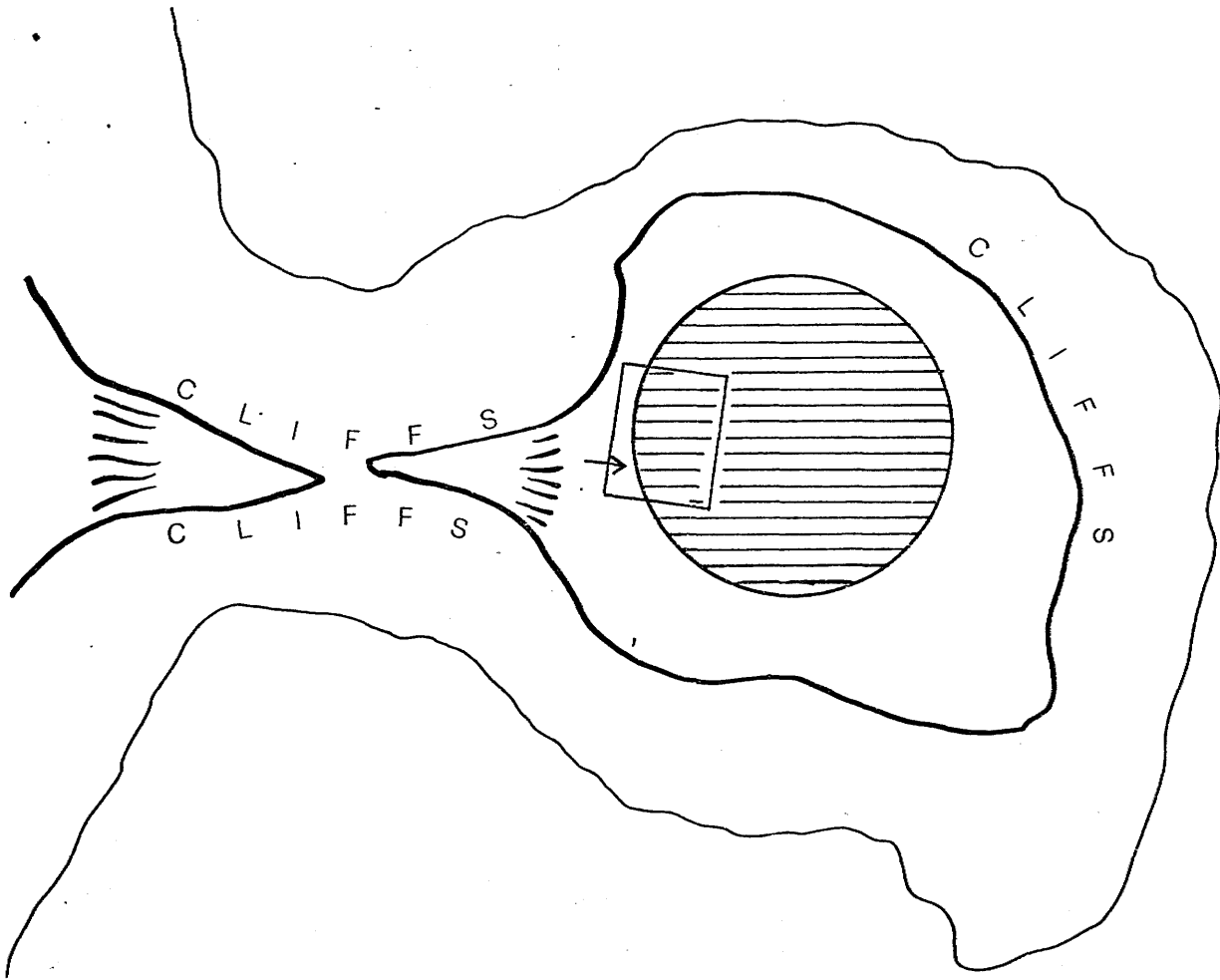
North lies towards the head of the page.

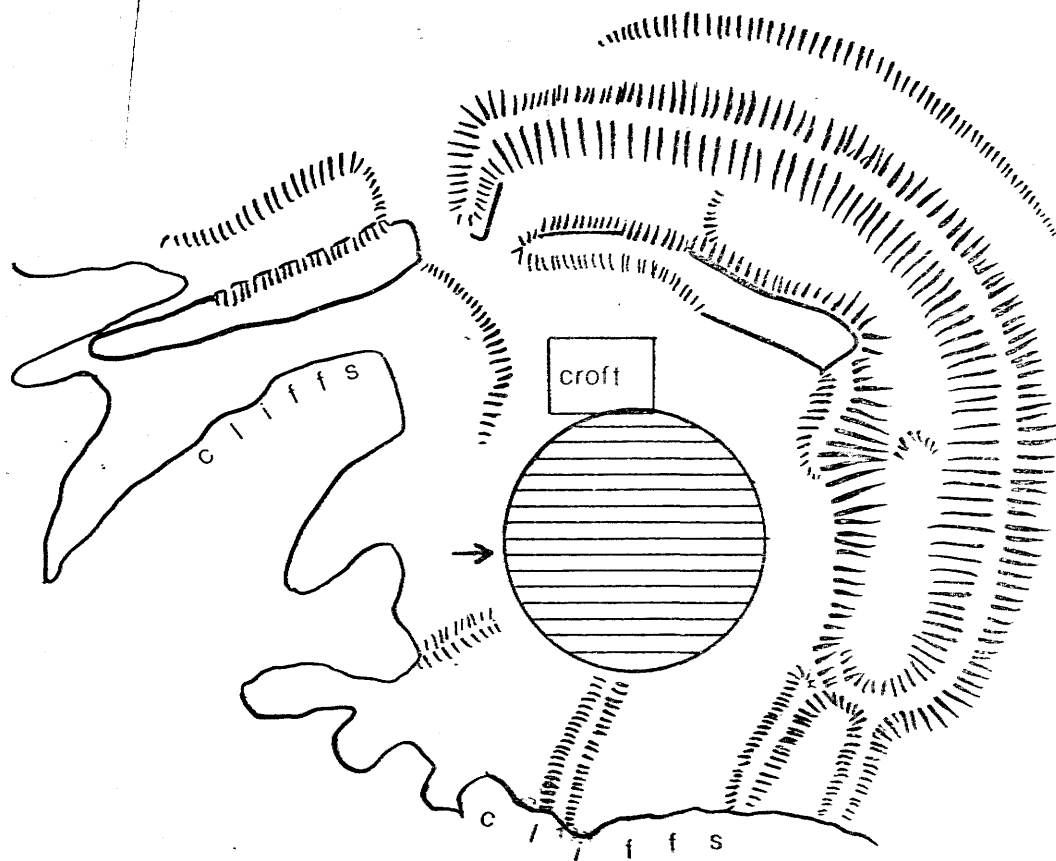
All sites are presented at this scale.

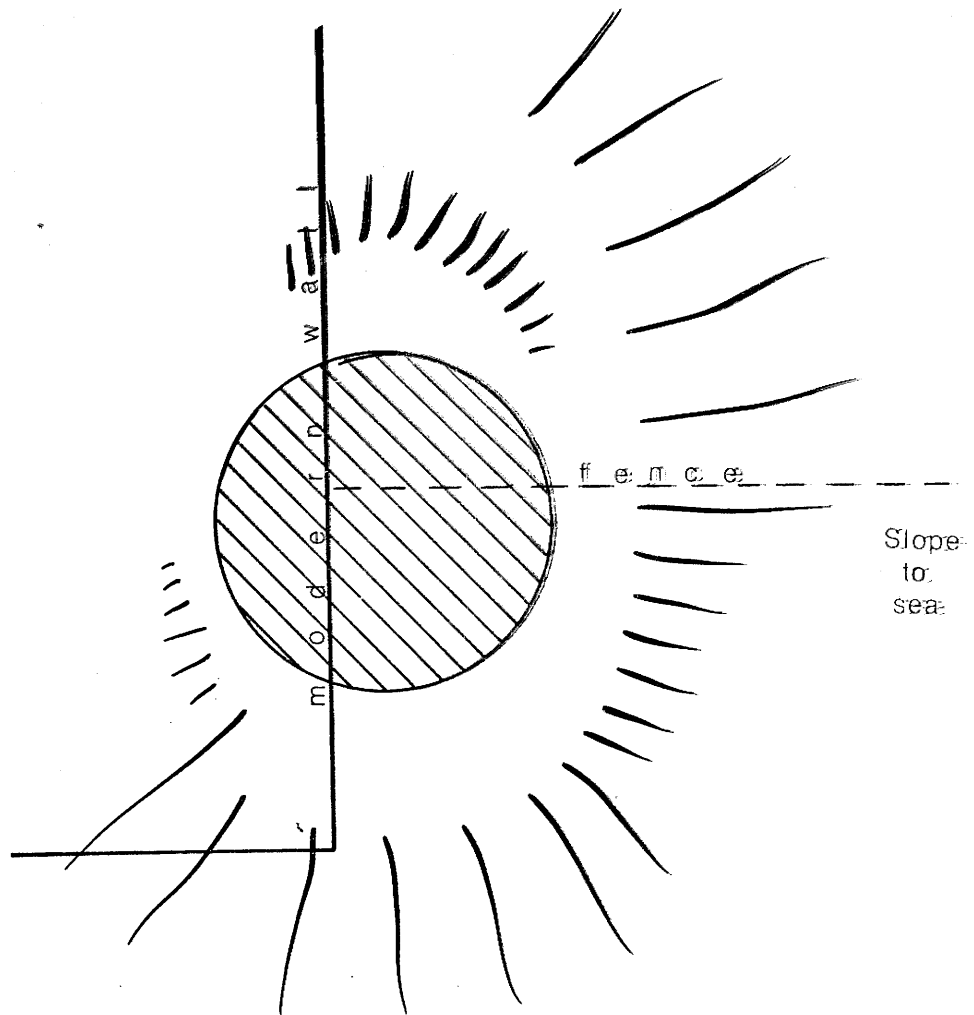


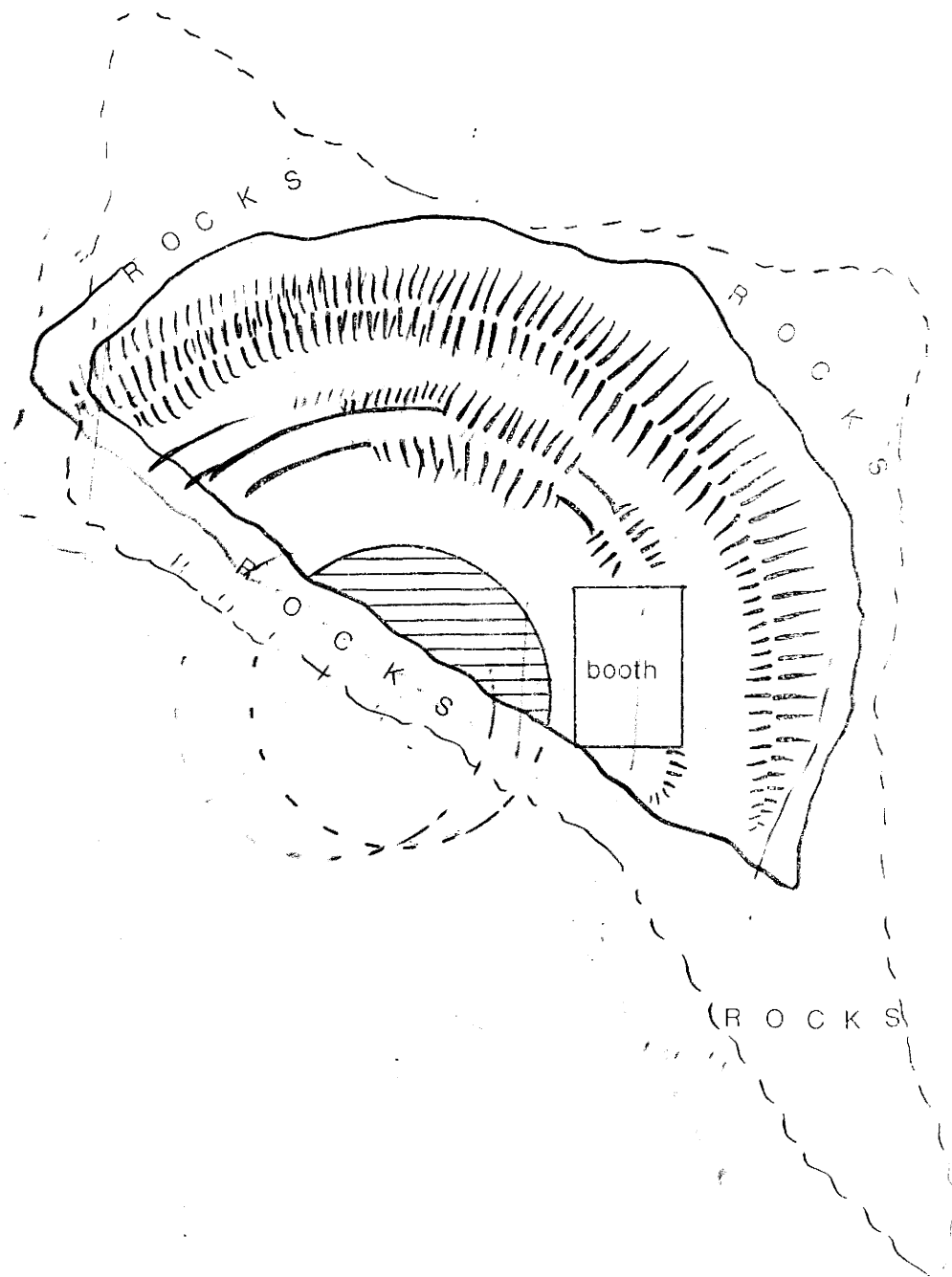


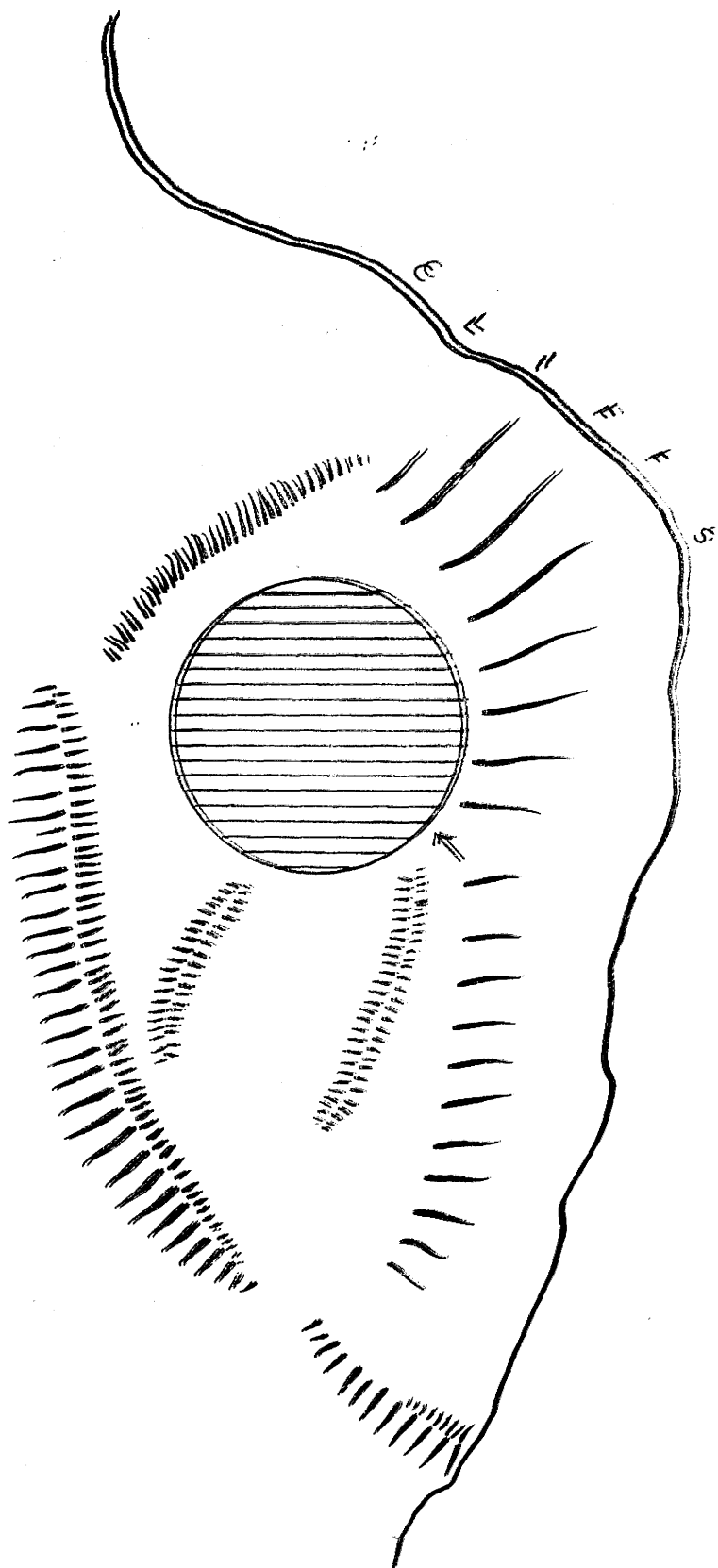


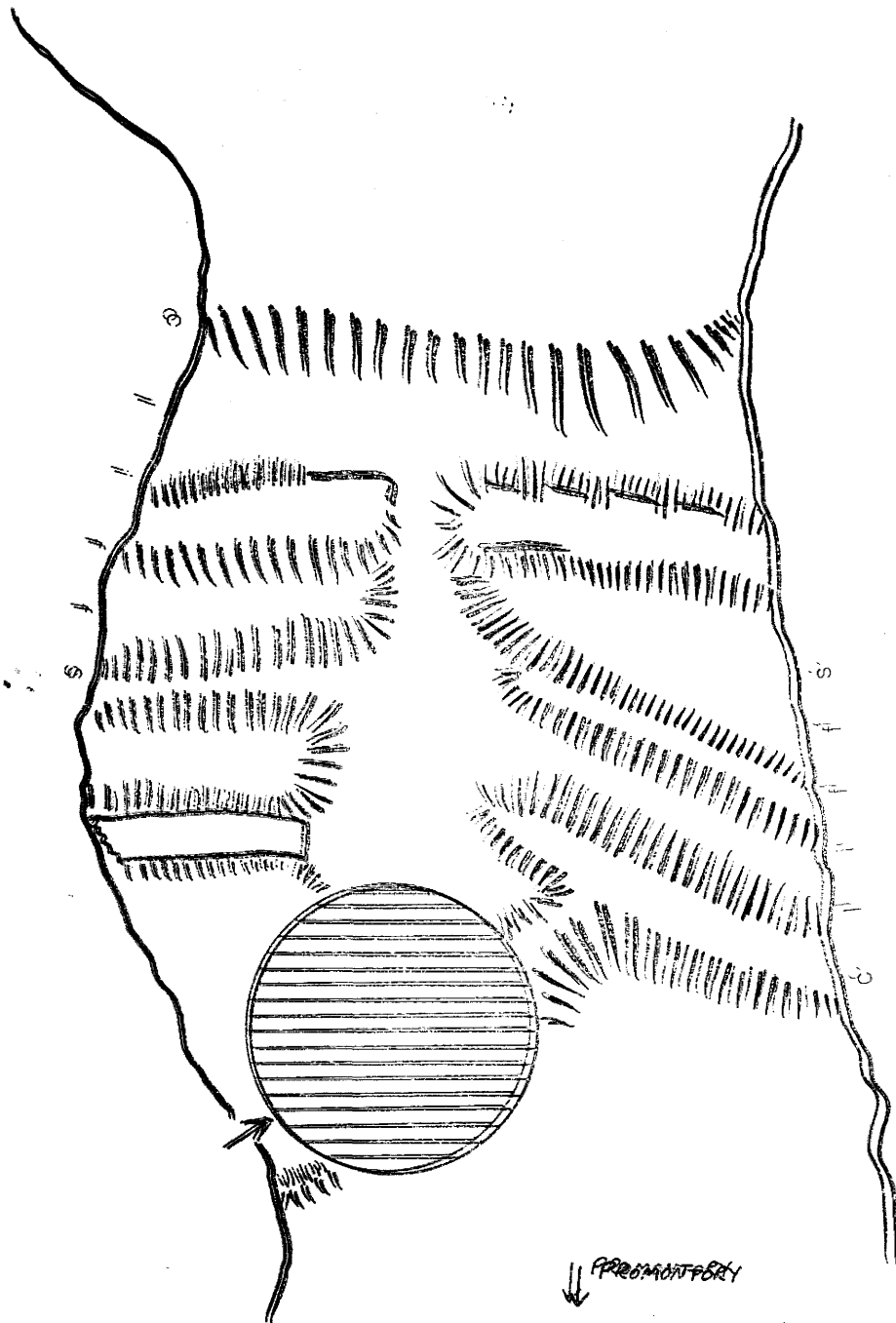


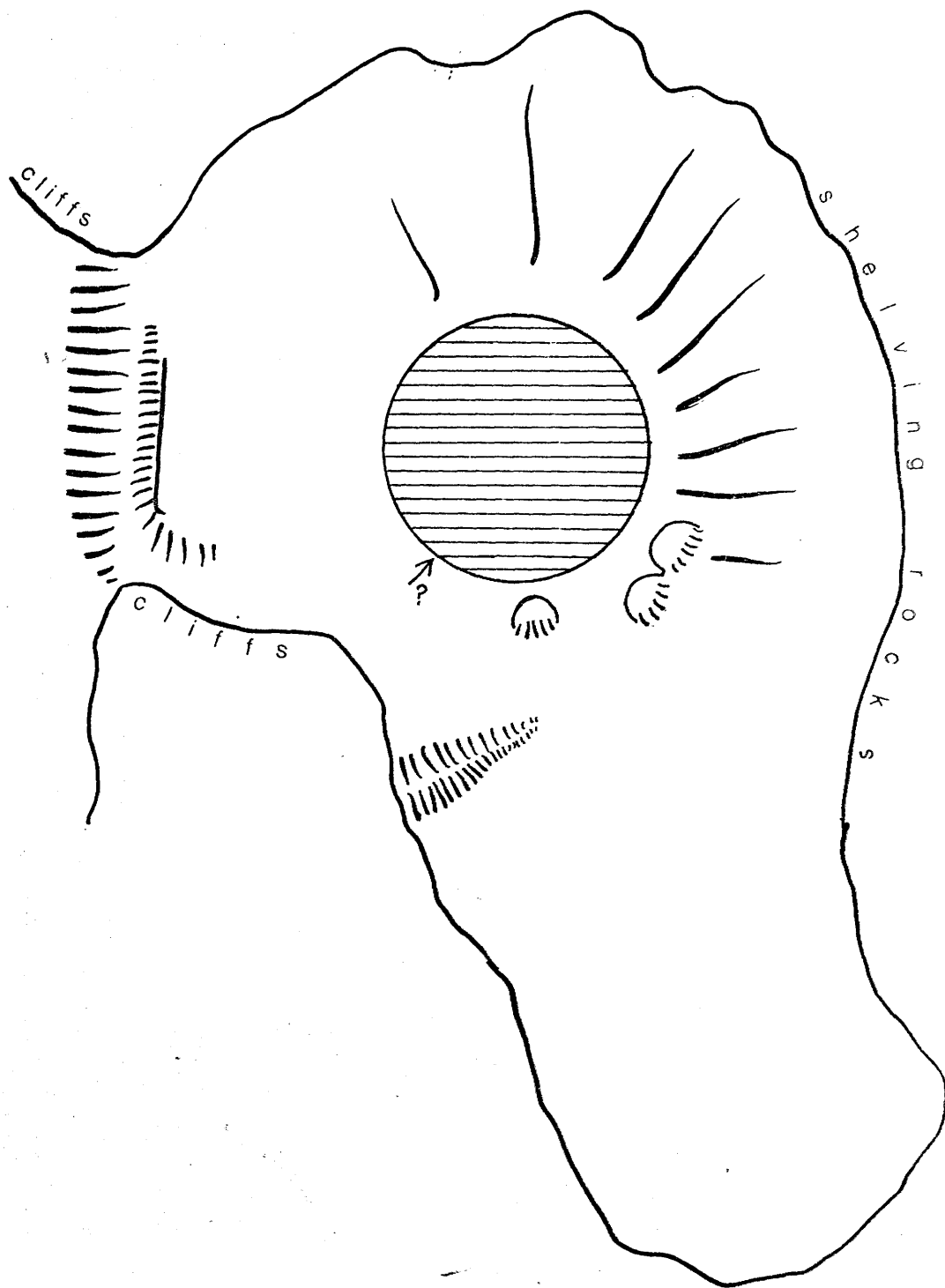


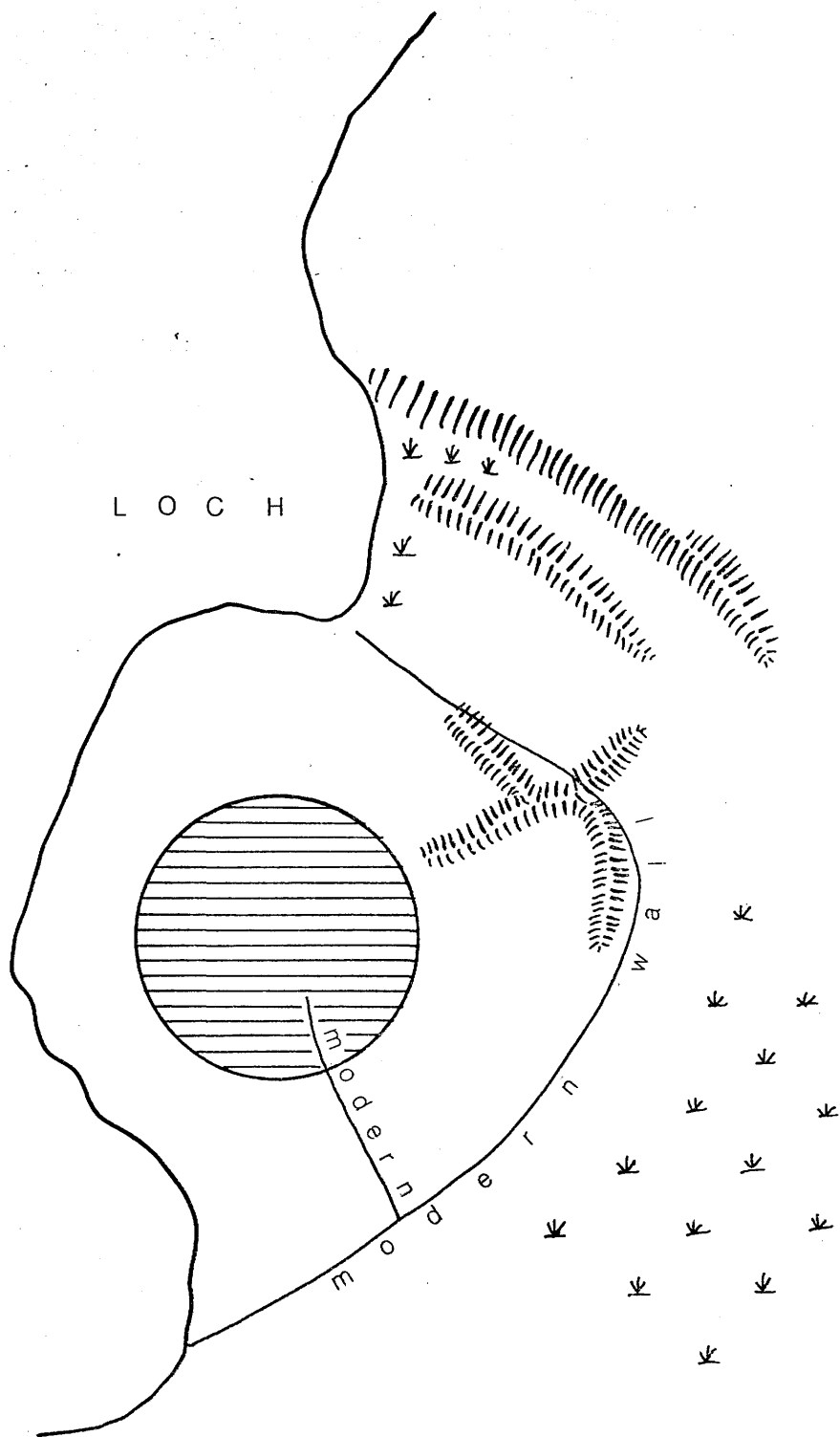


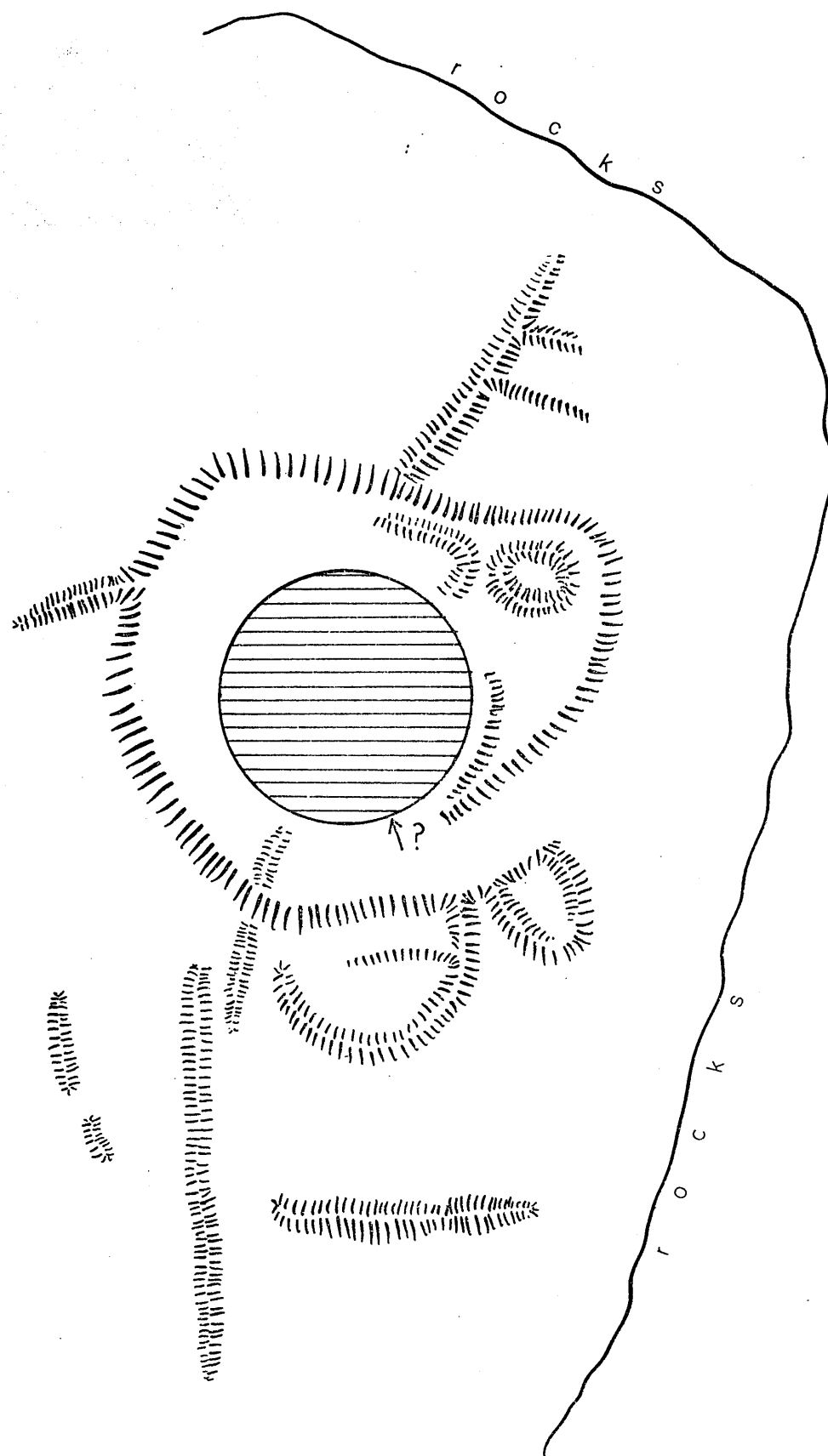




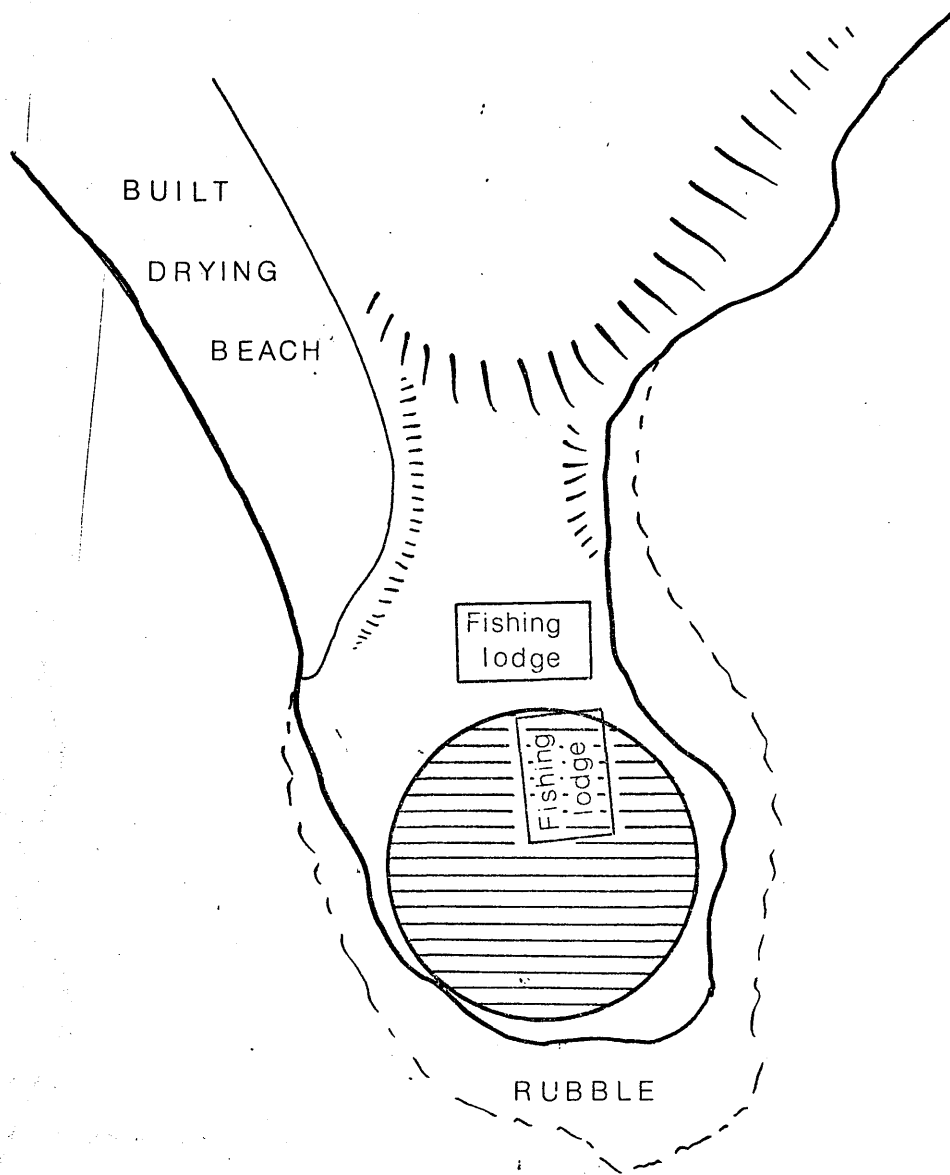


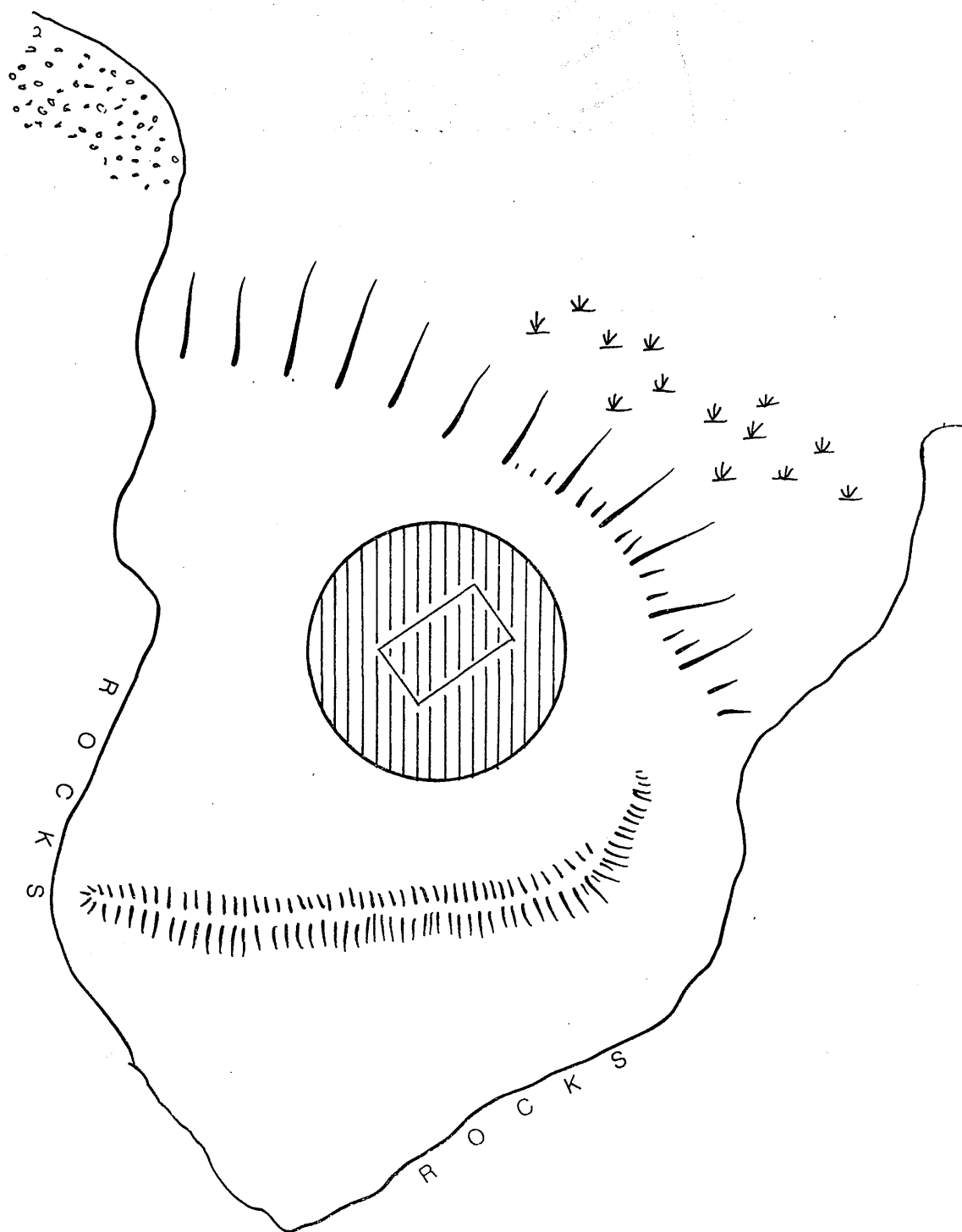


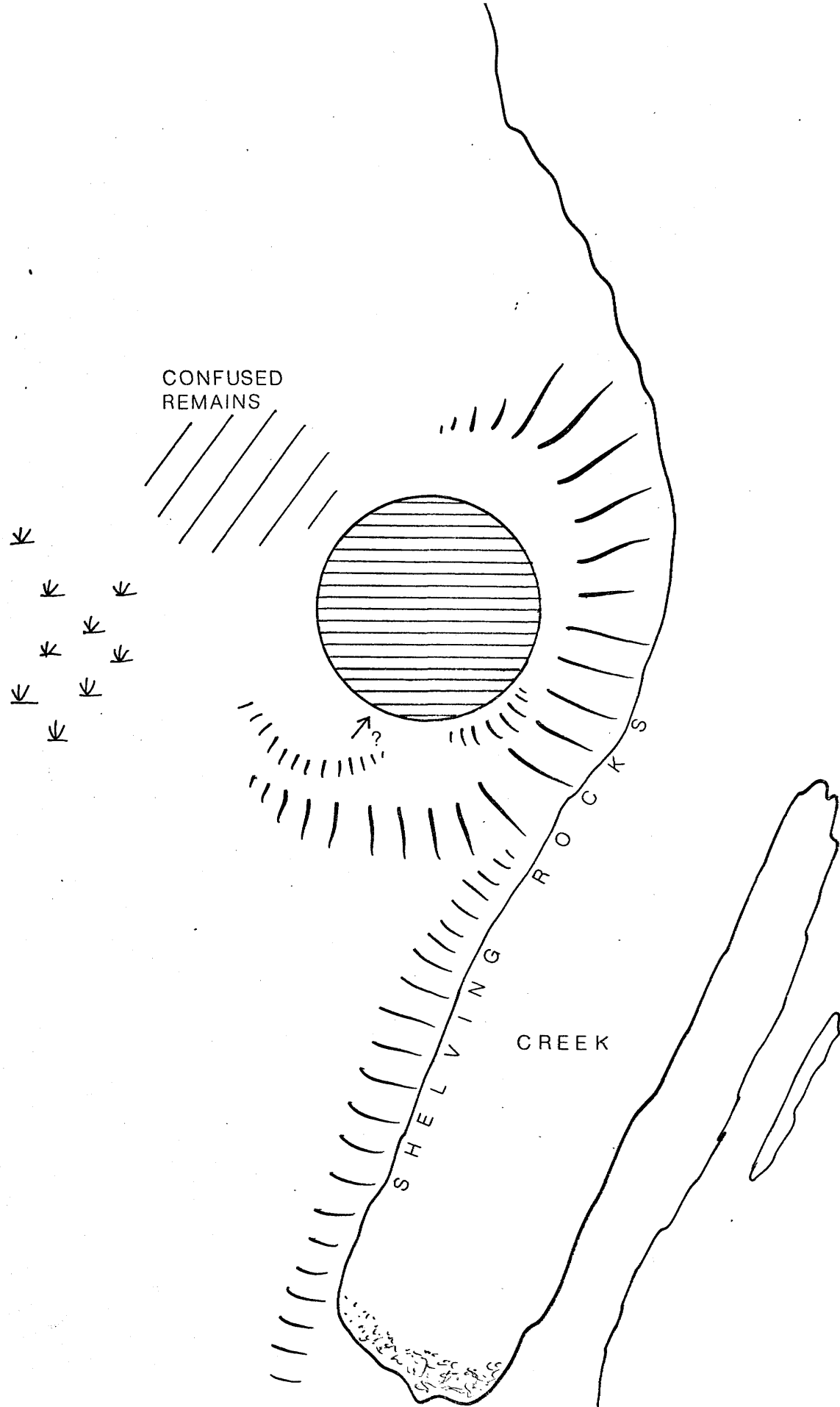




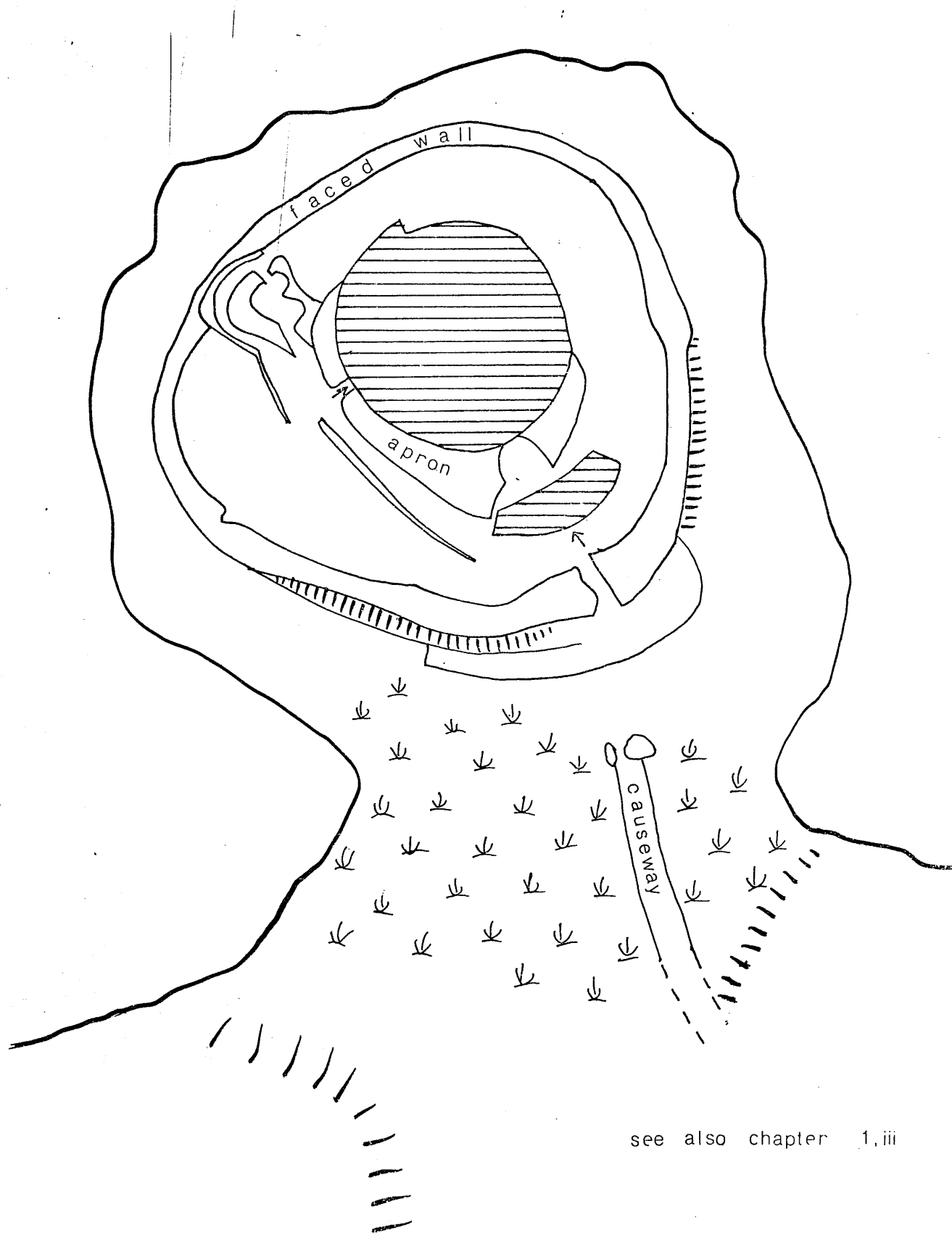
R U I N E D
C R O F T



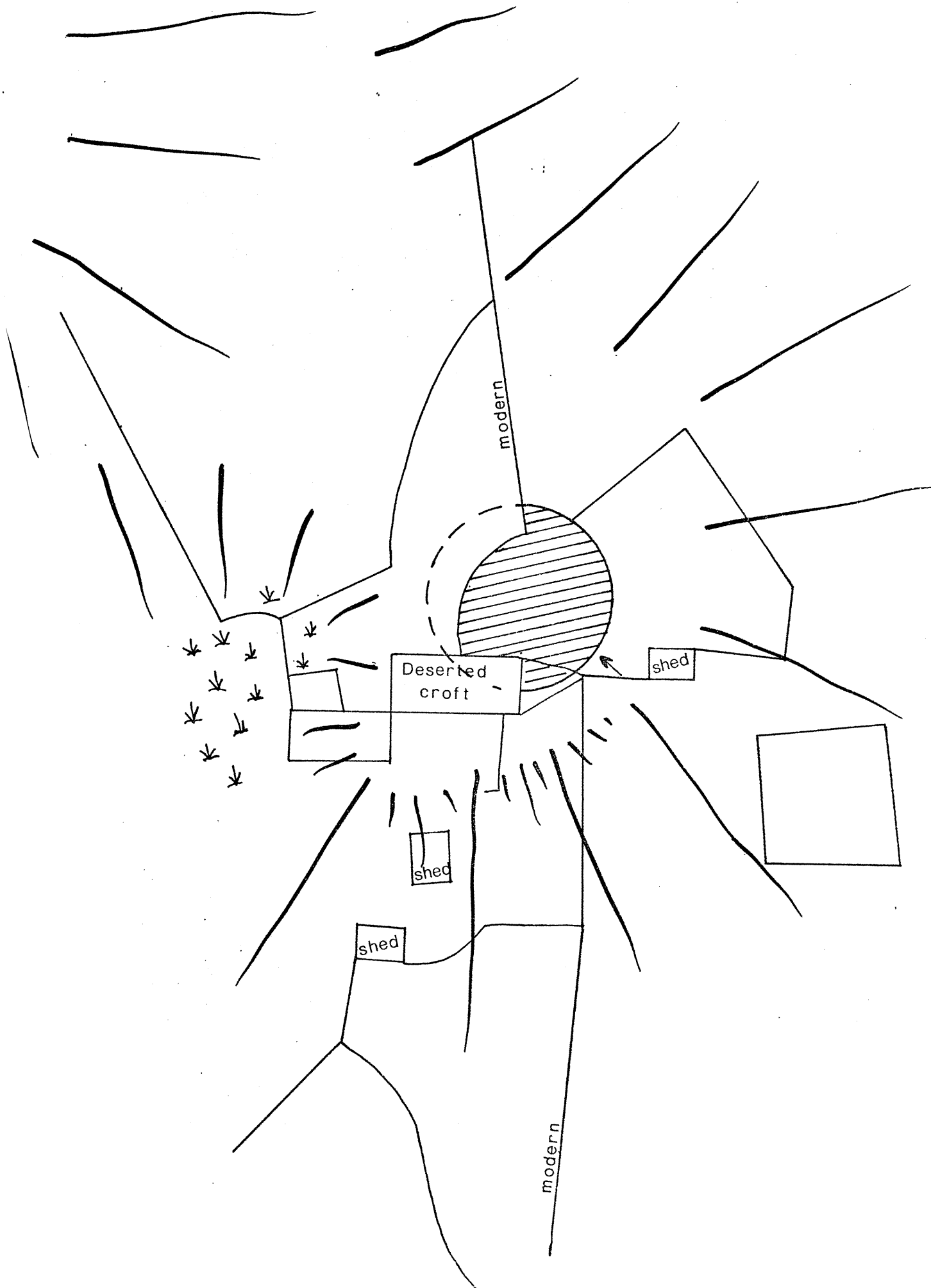


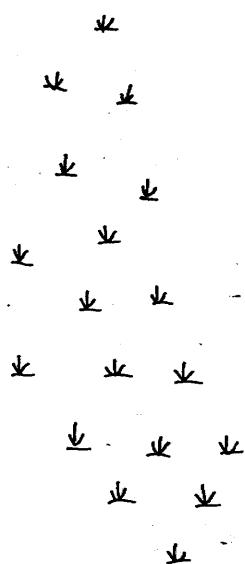
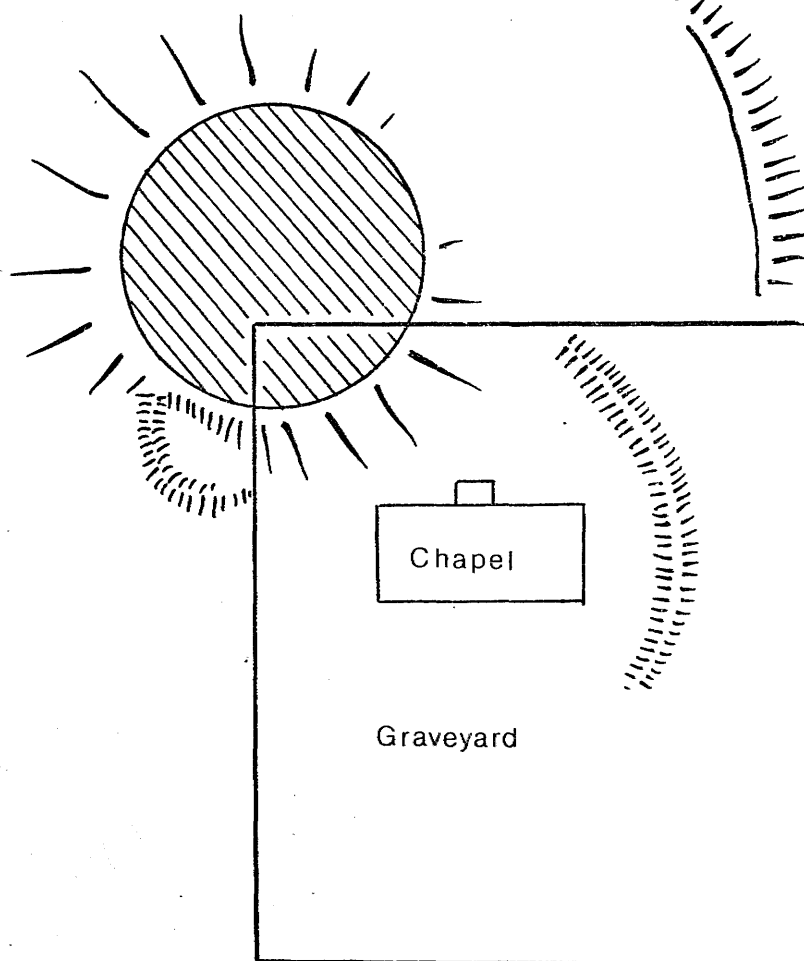
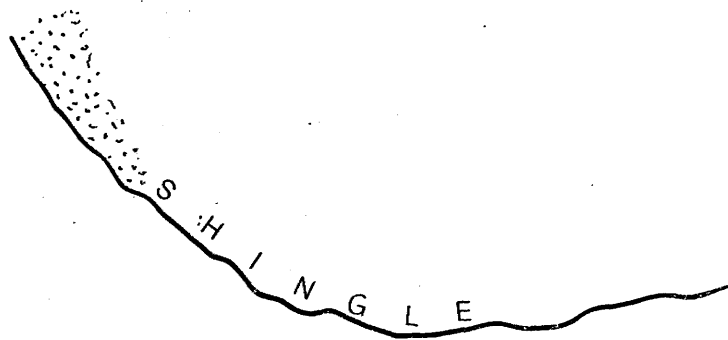


L O C H

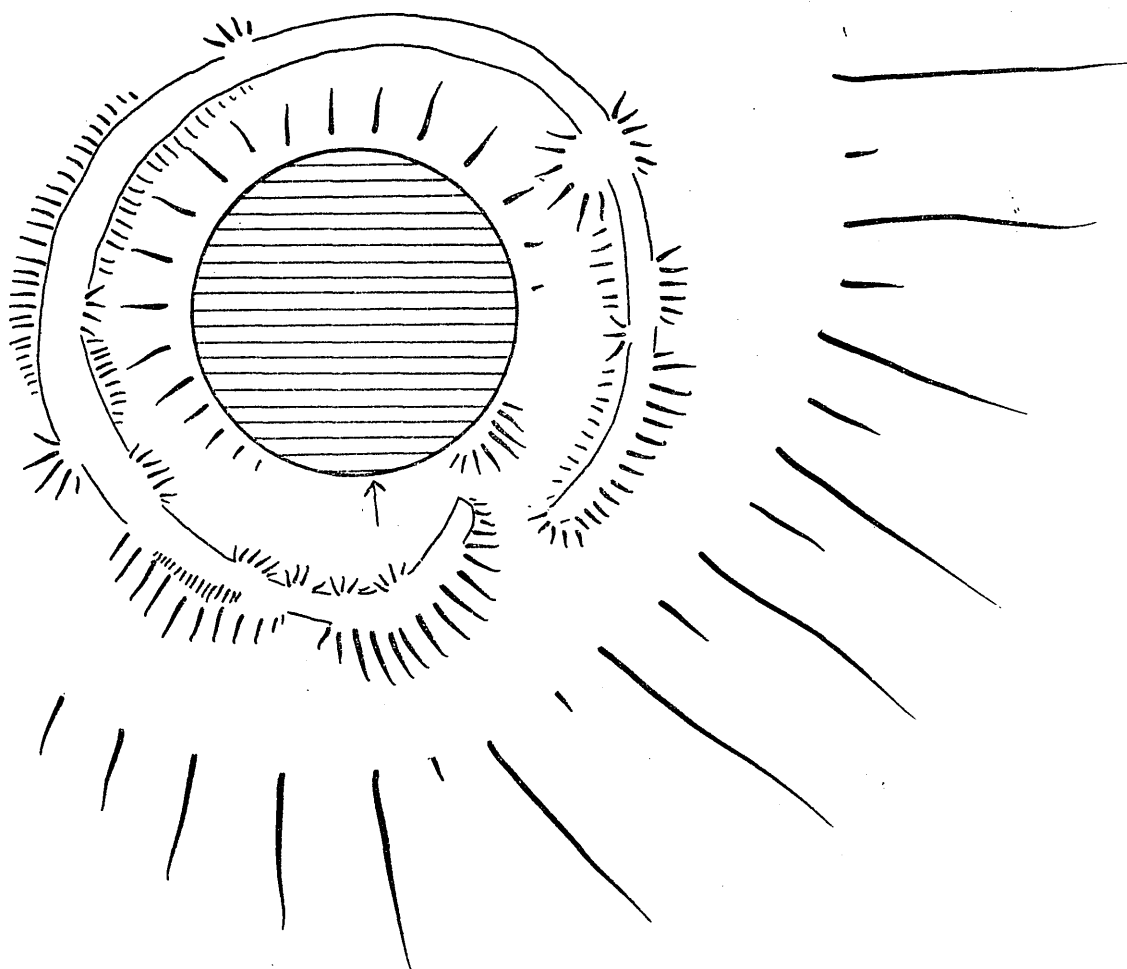


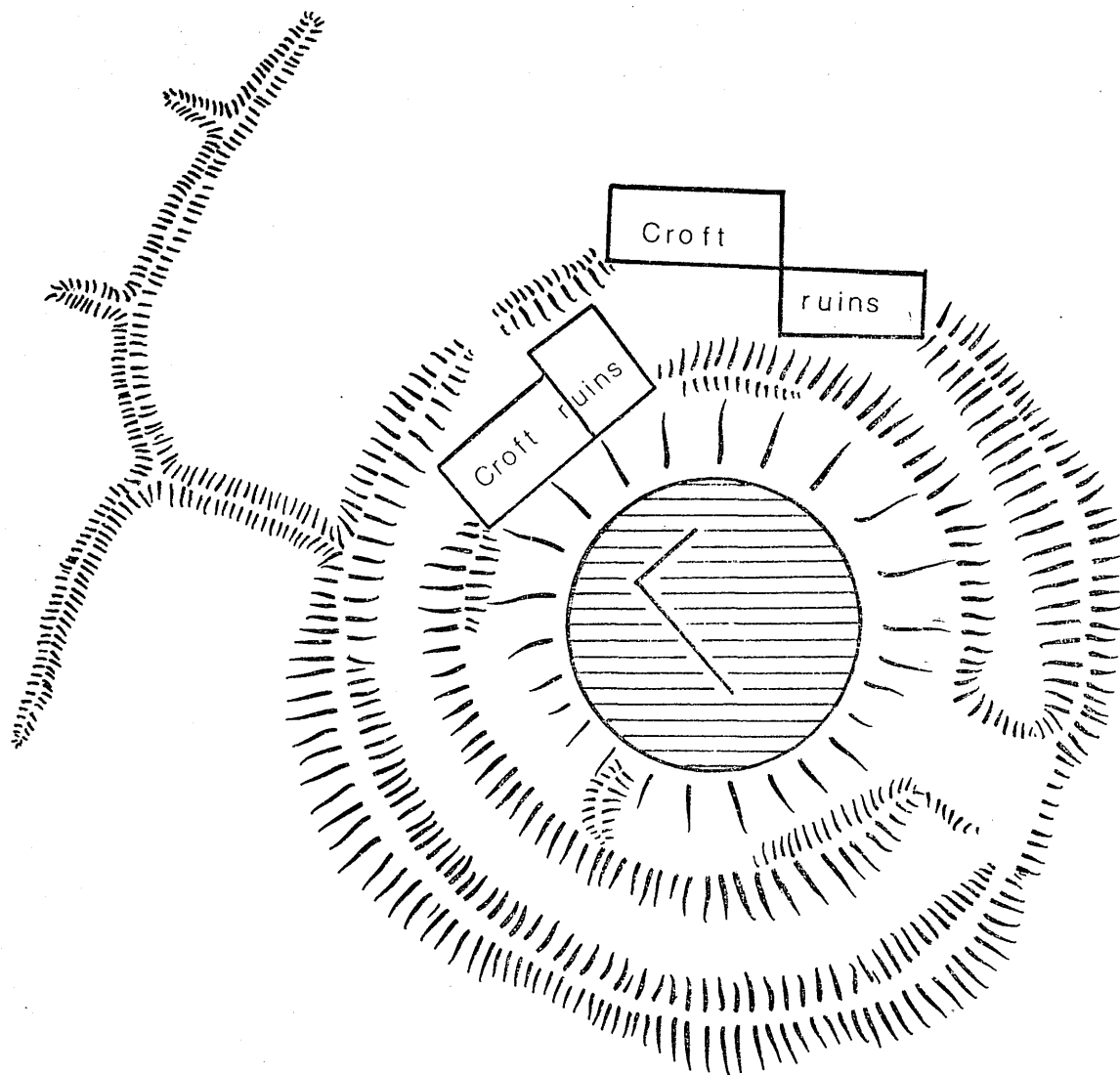
see also chapter 1,iii

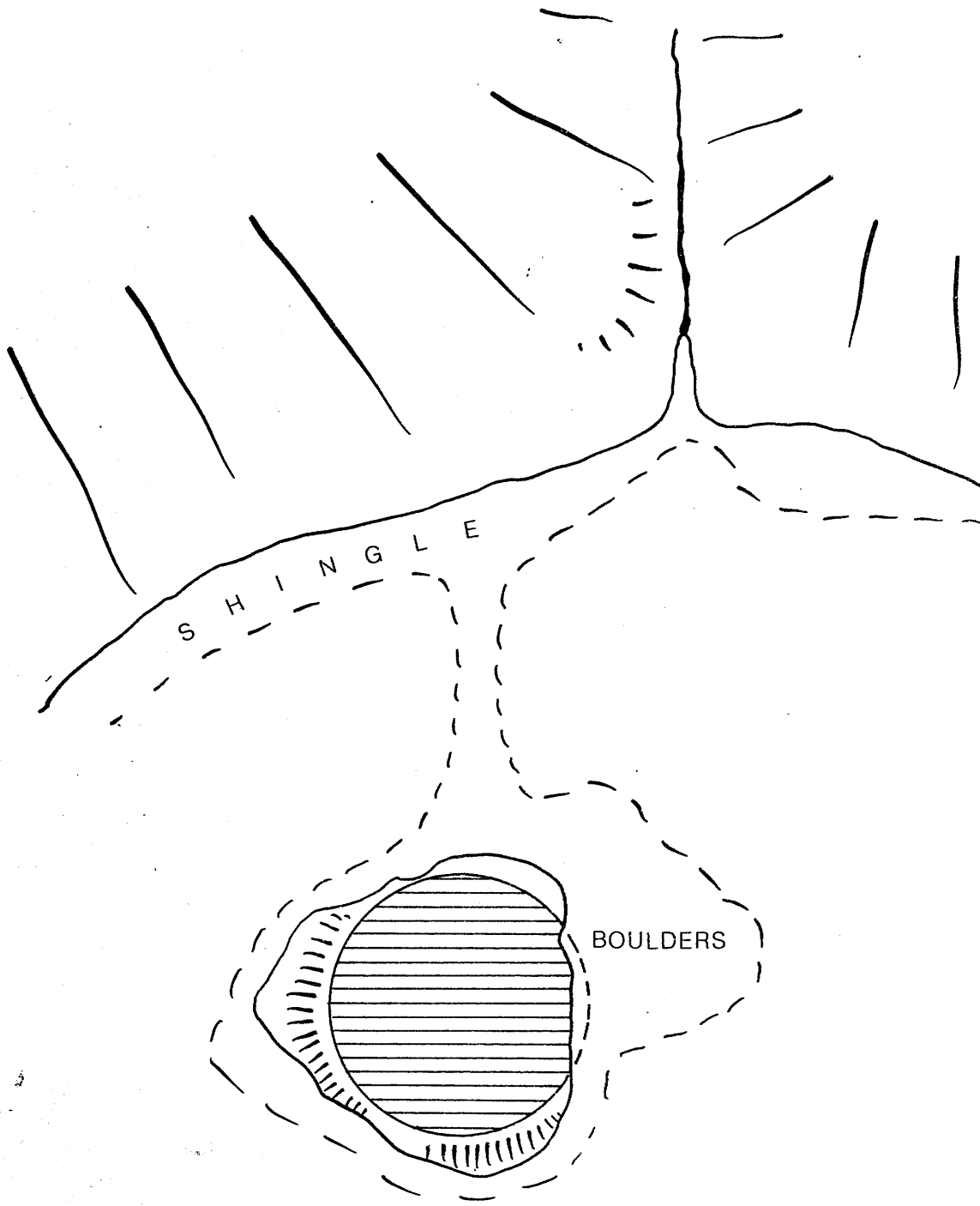


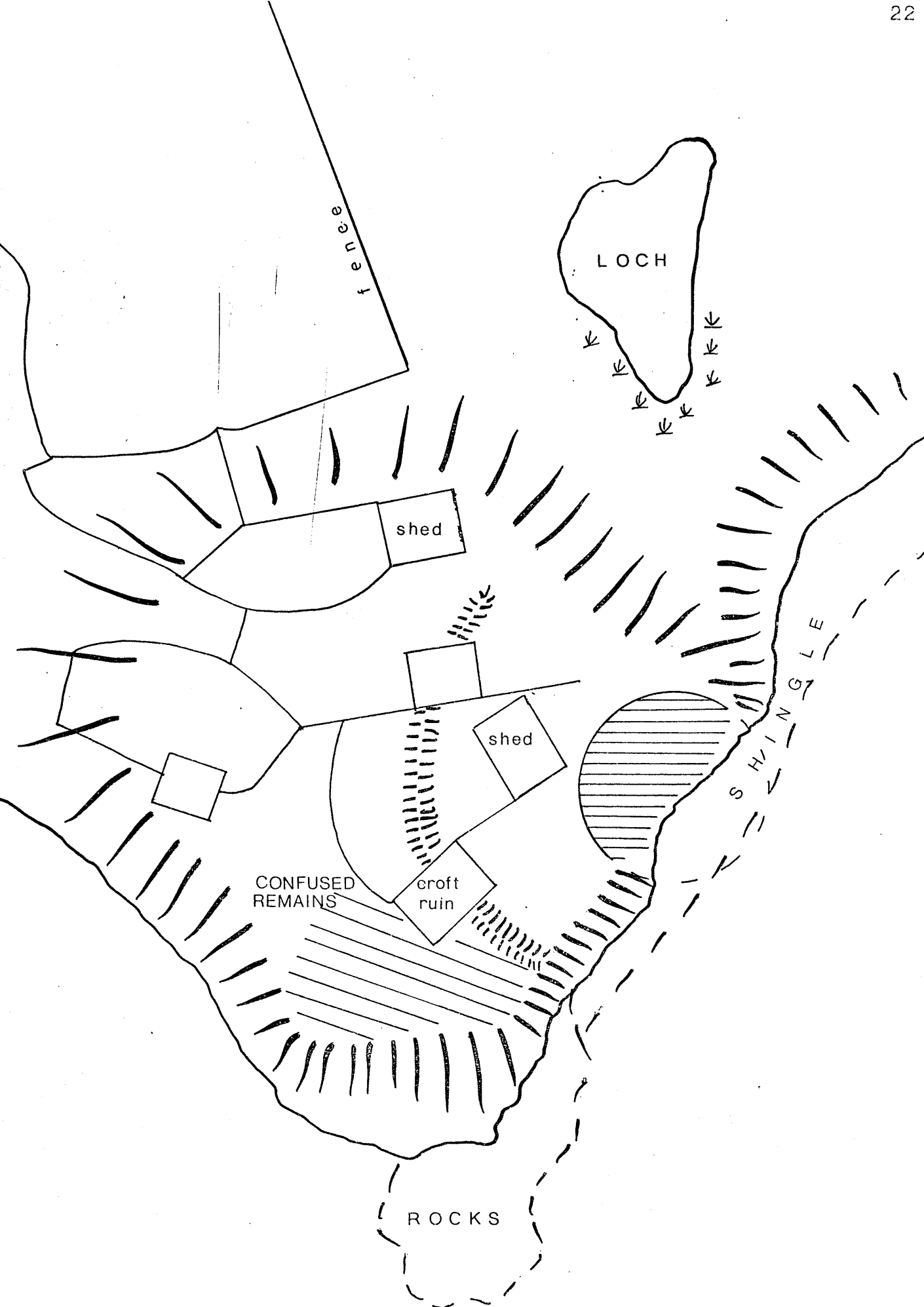


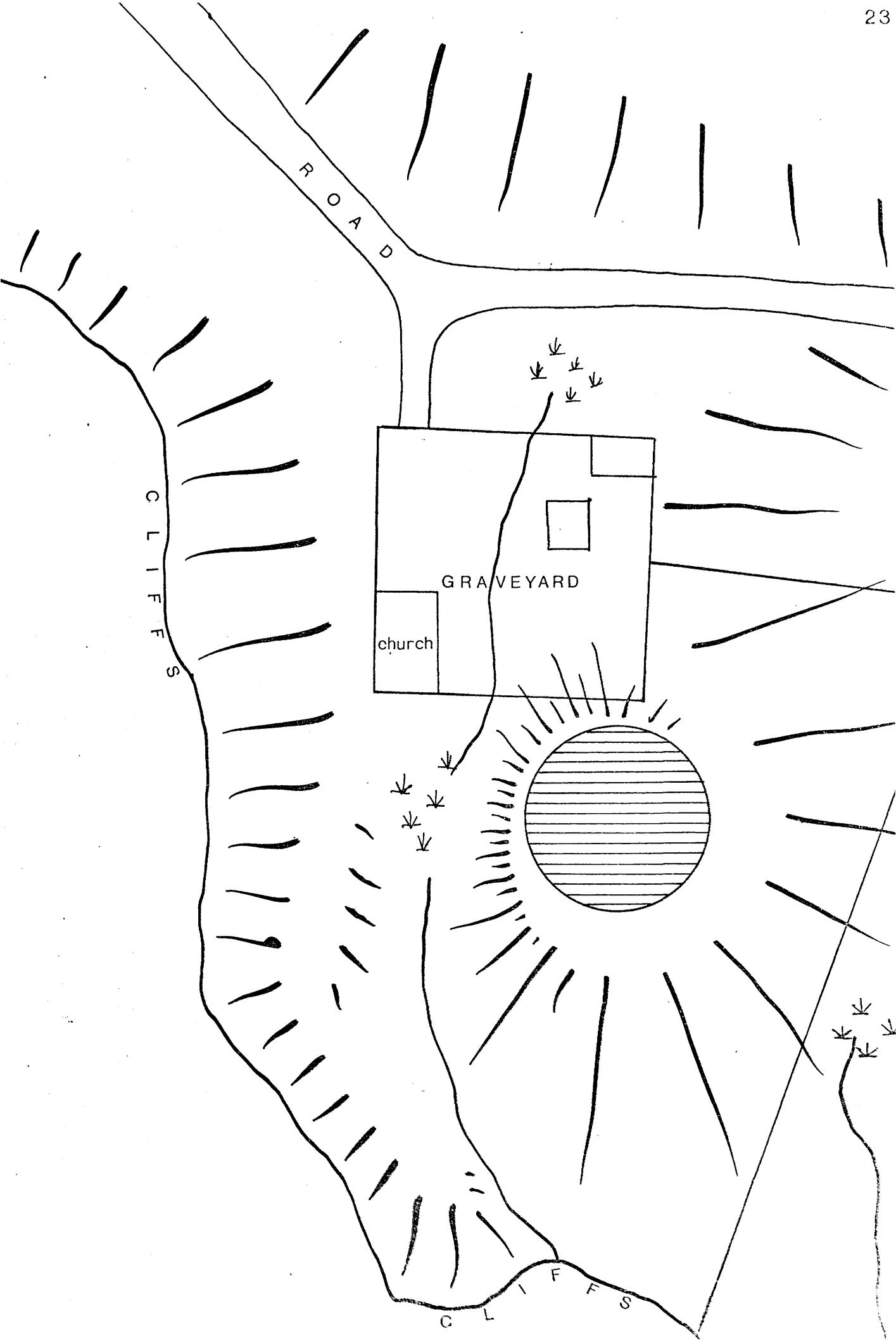
LOC

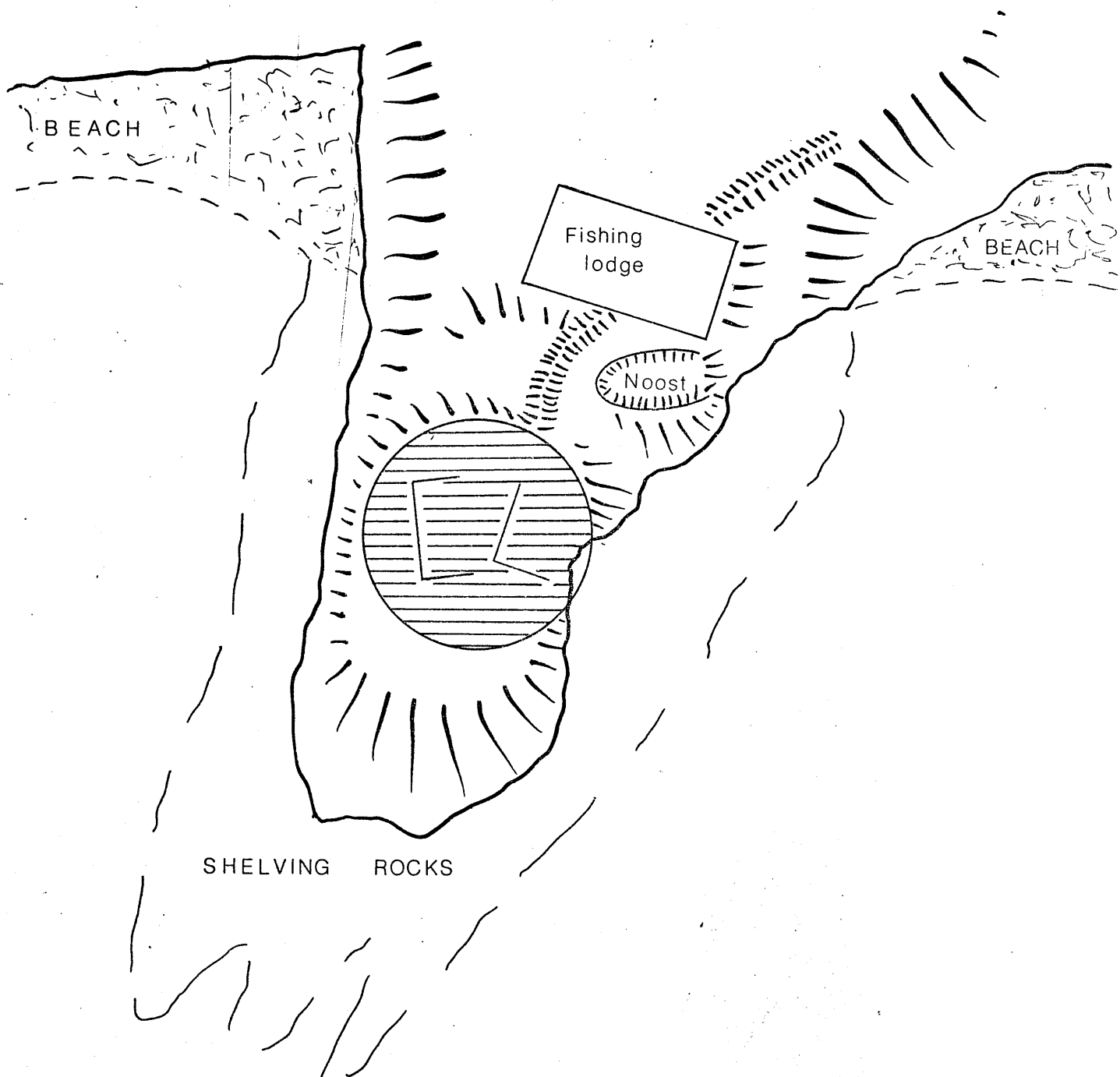


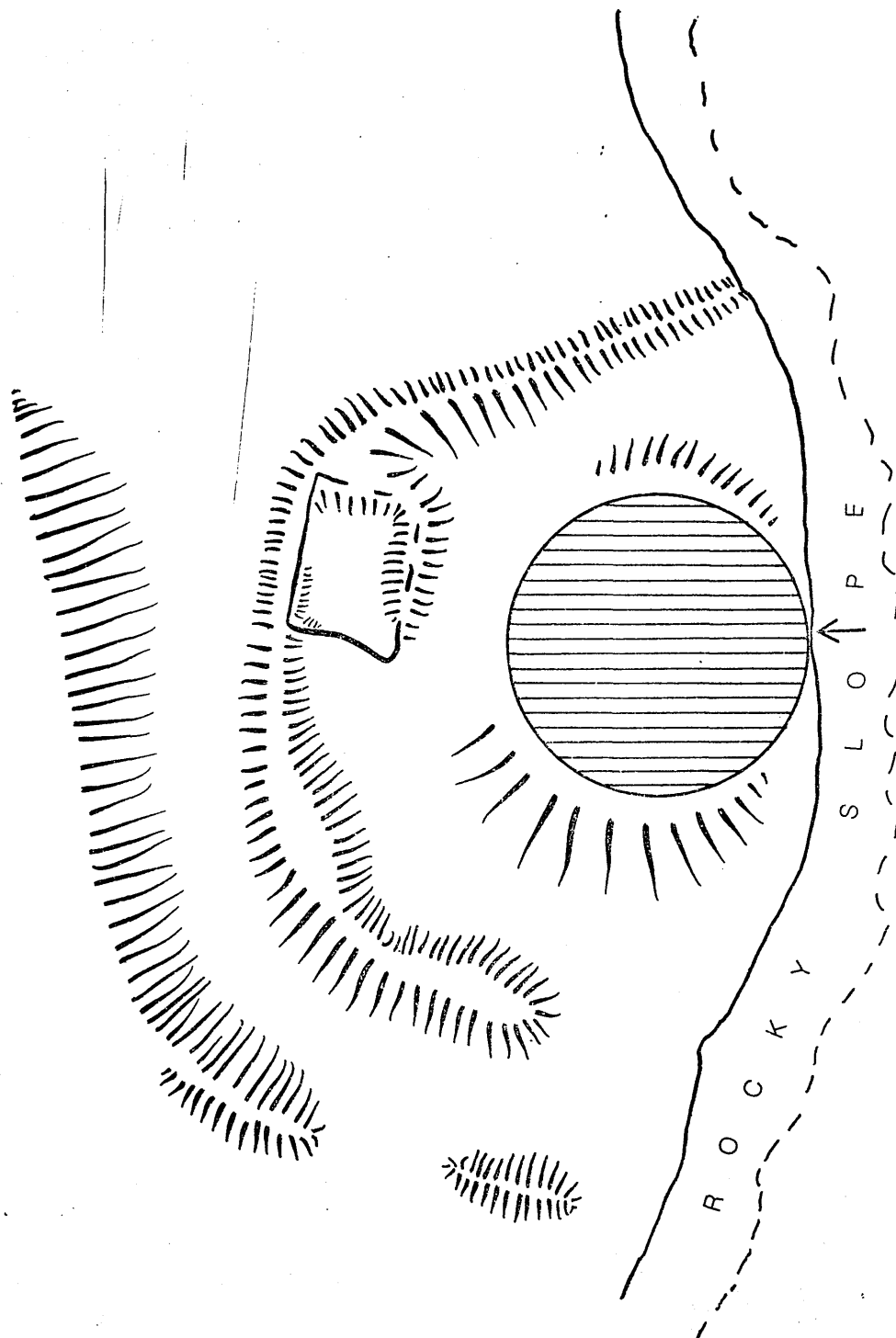


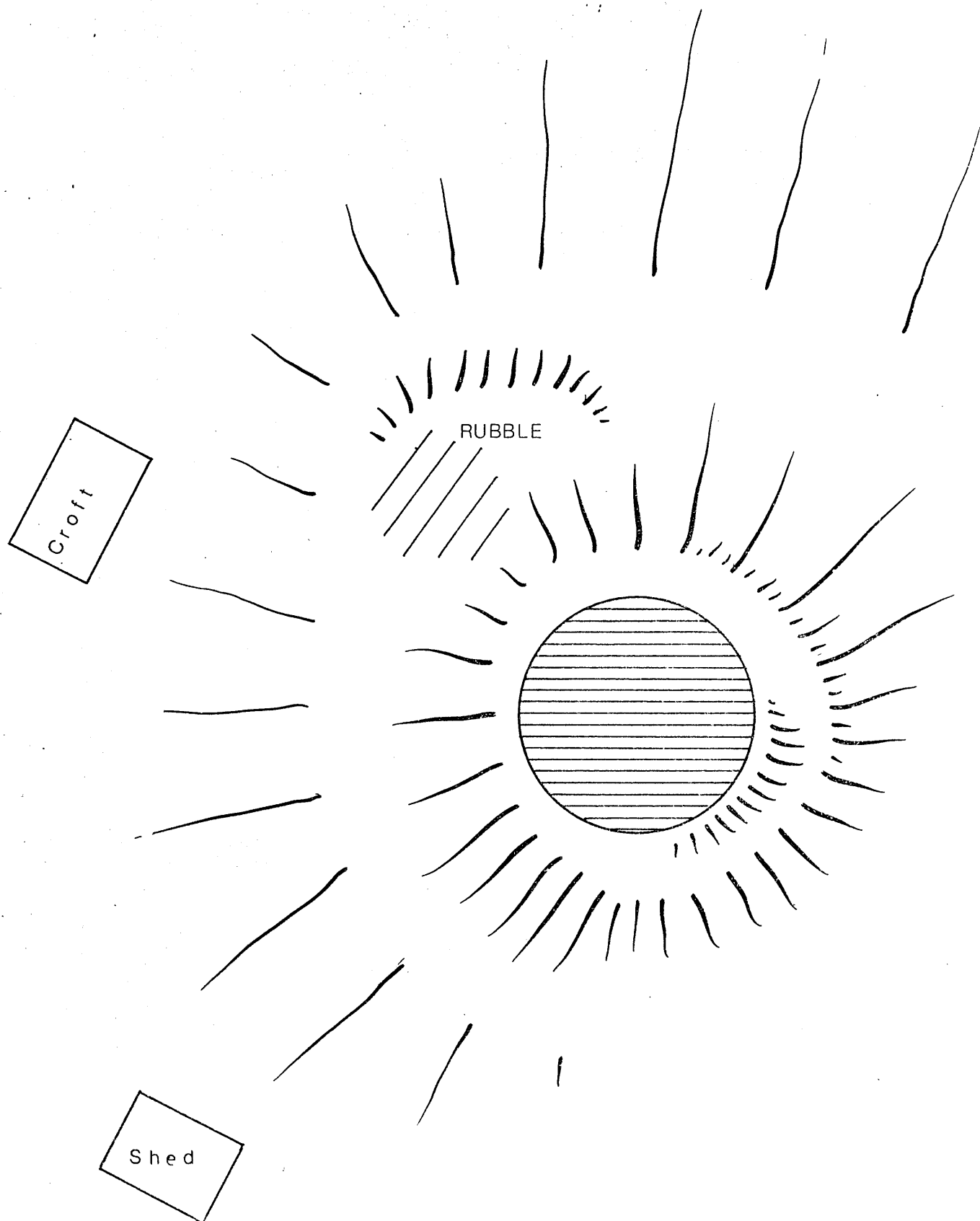


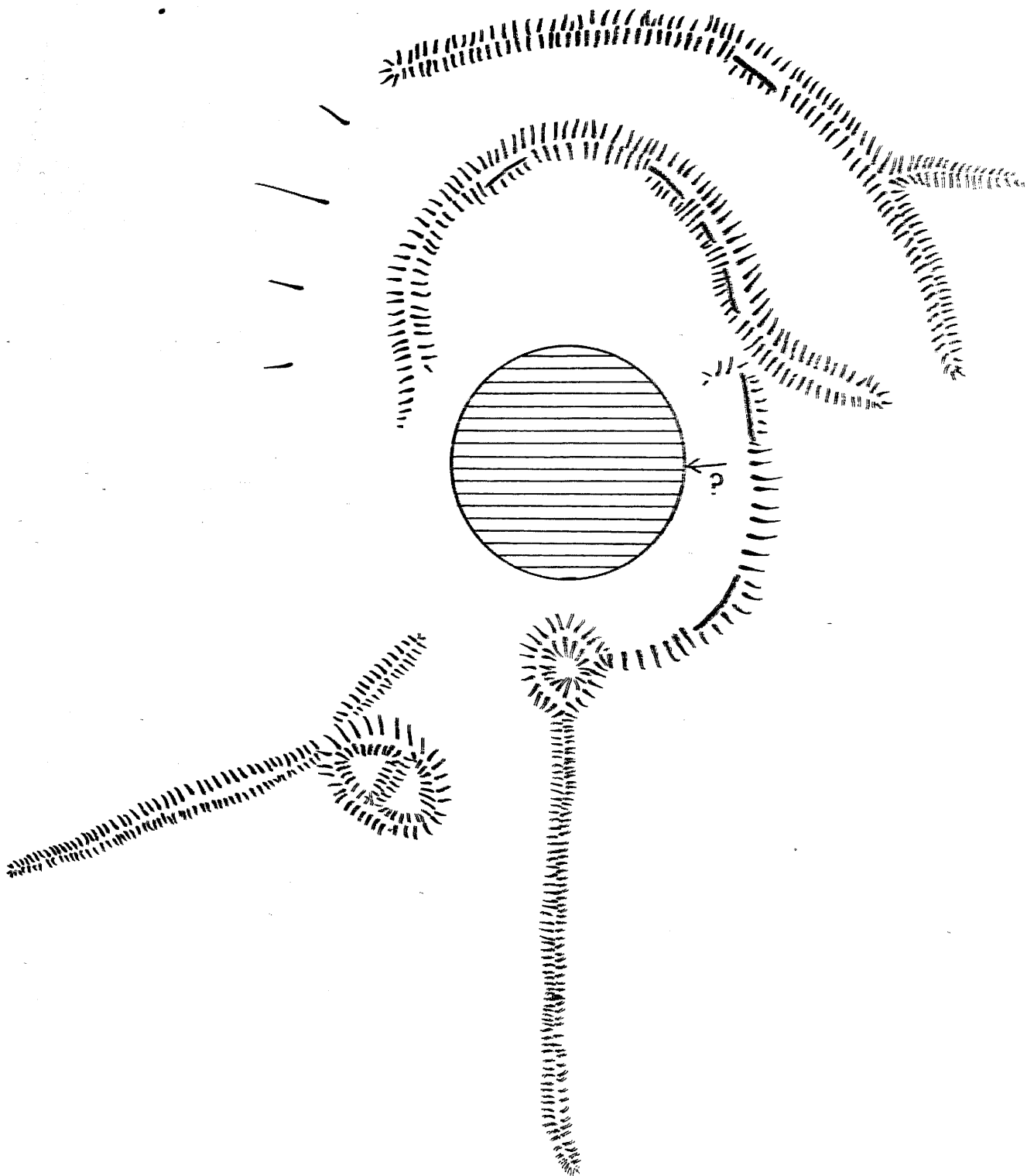


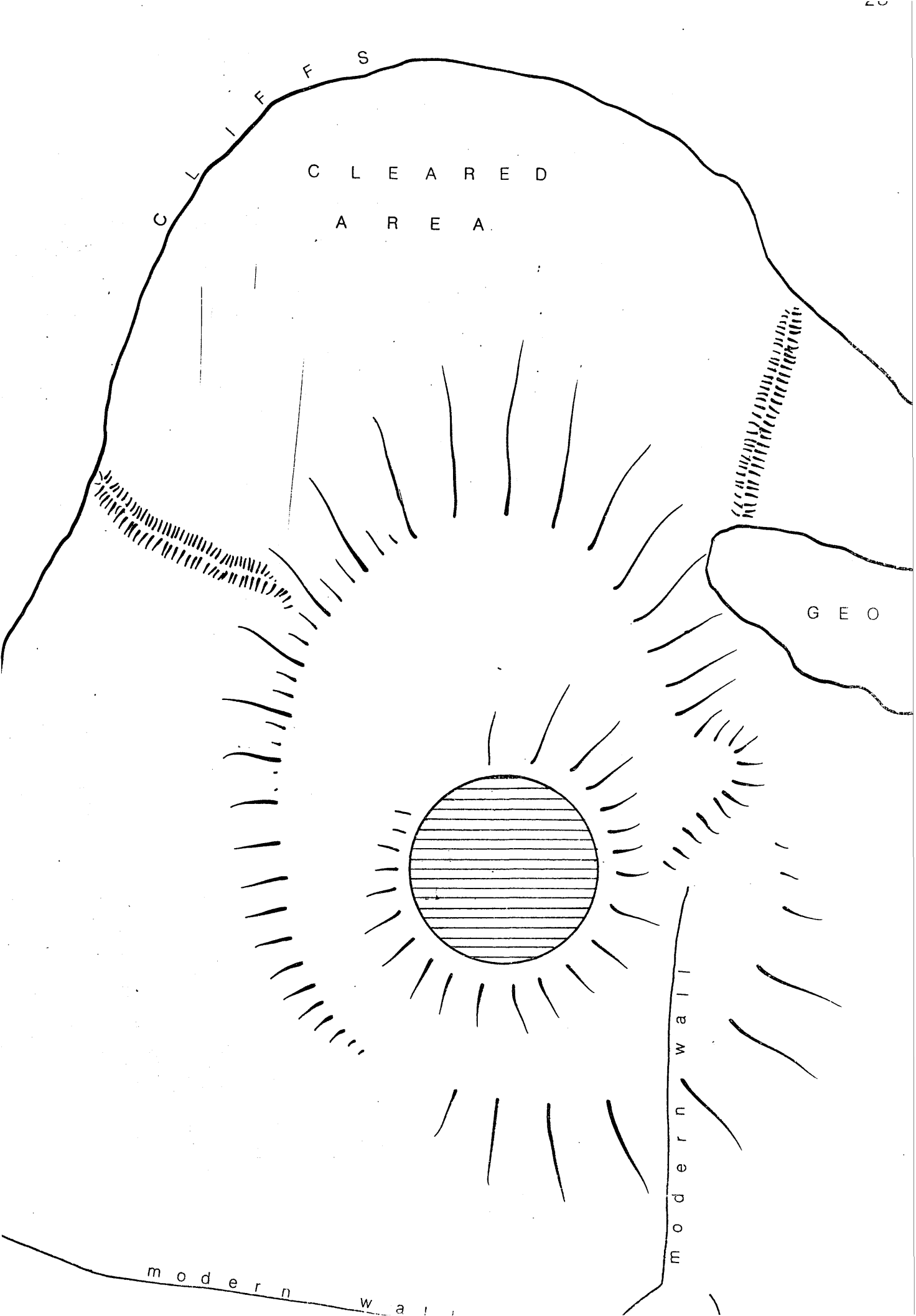












C L E A R E D

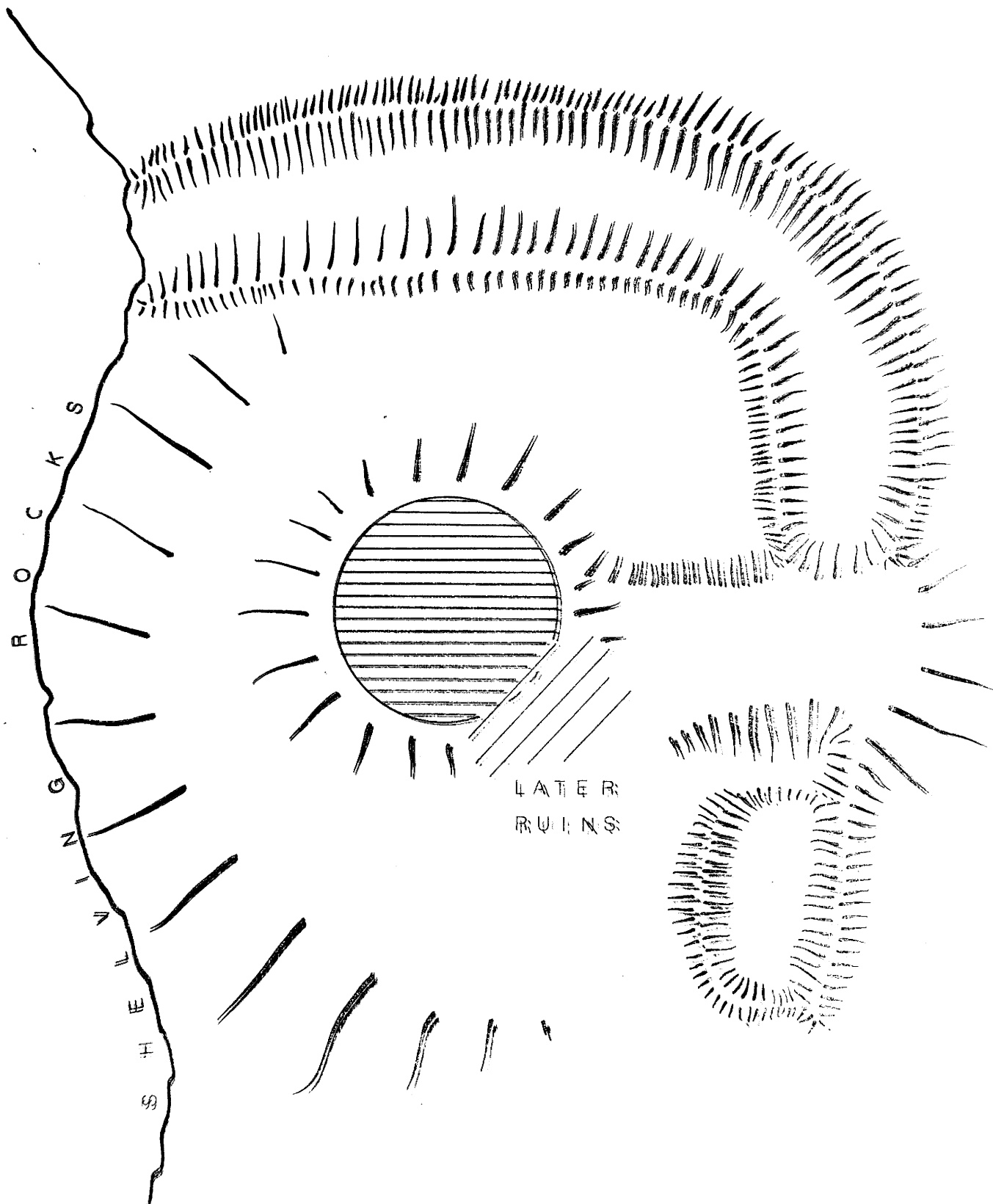
A R E A

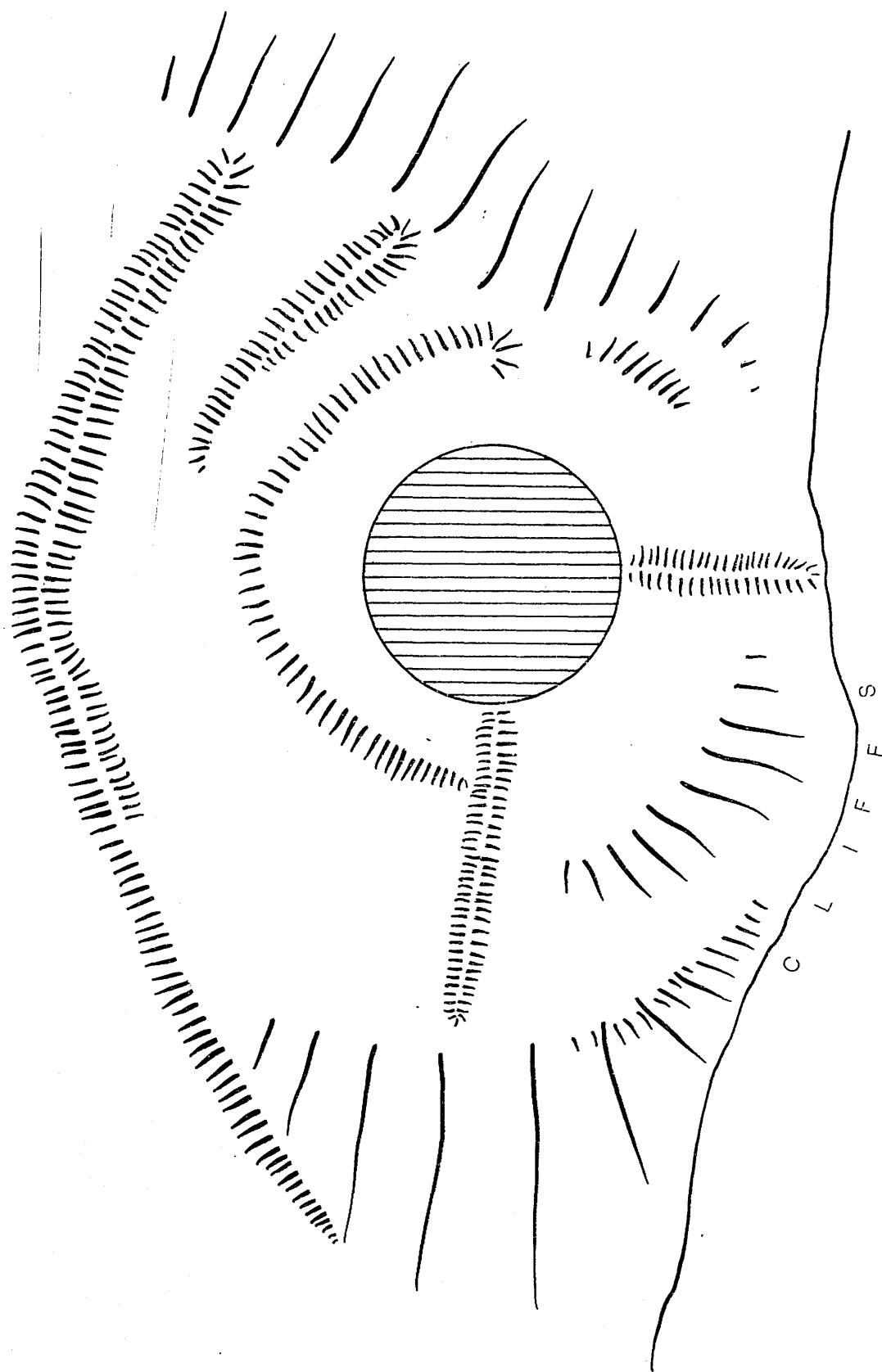
G L I F S

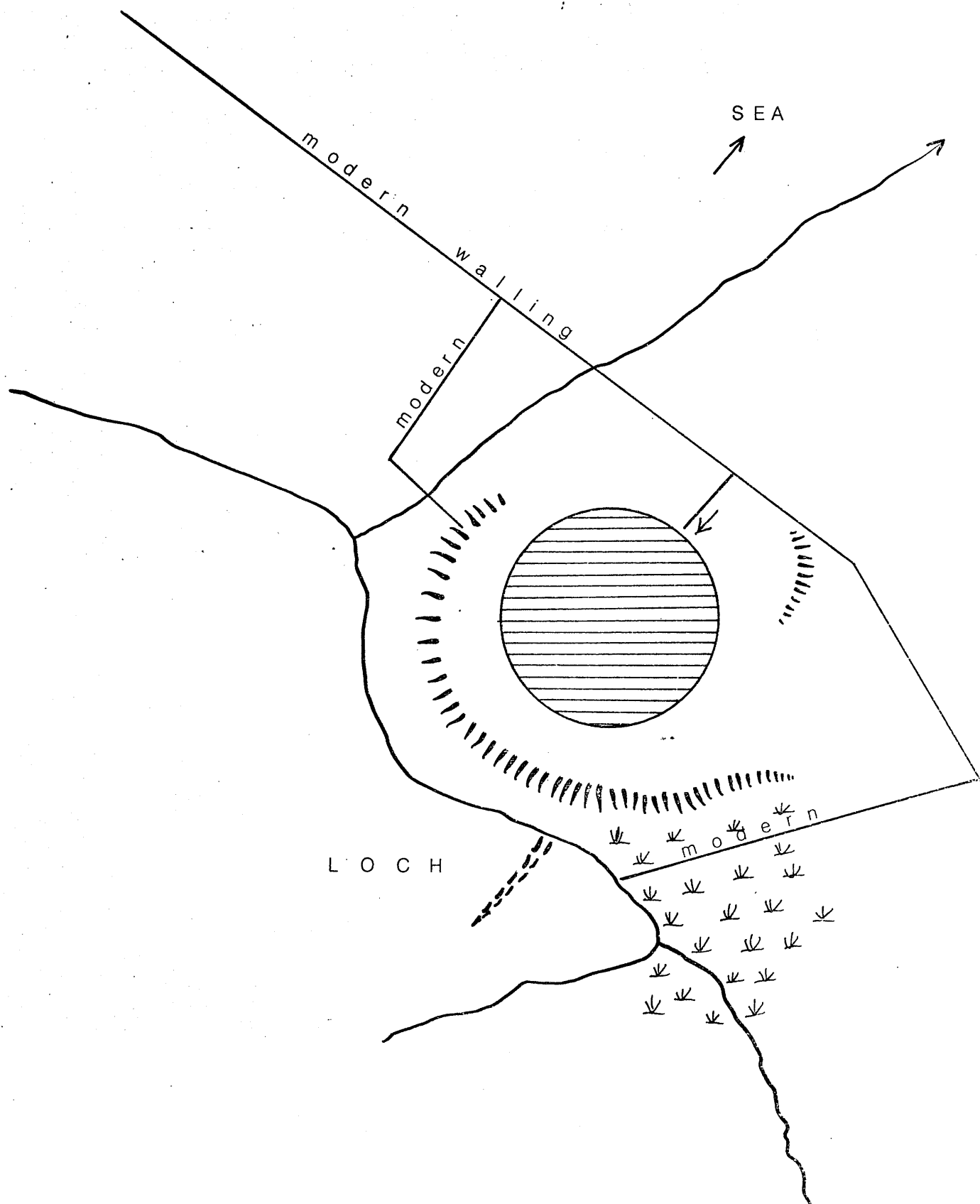
G E O

modern wall

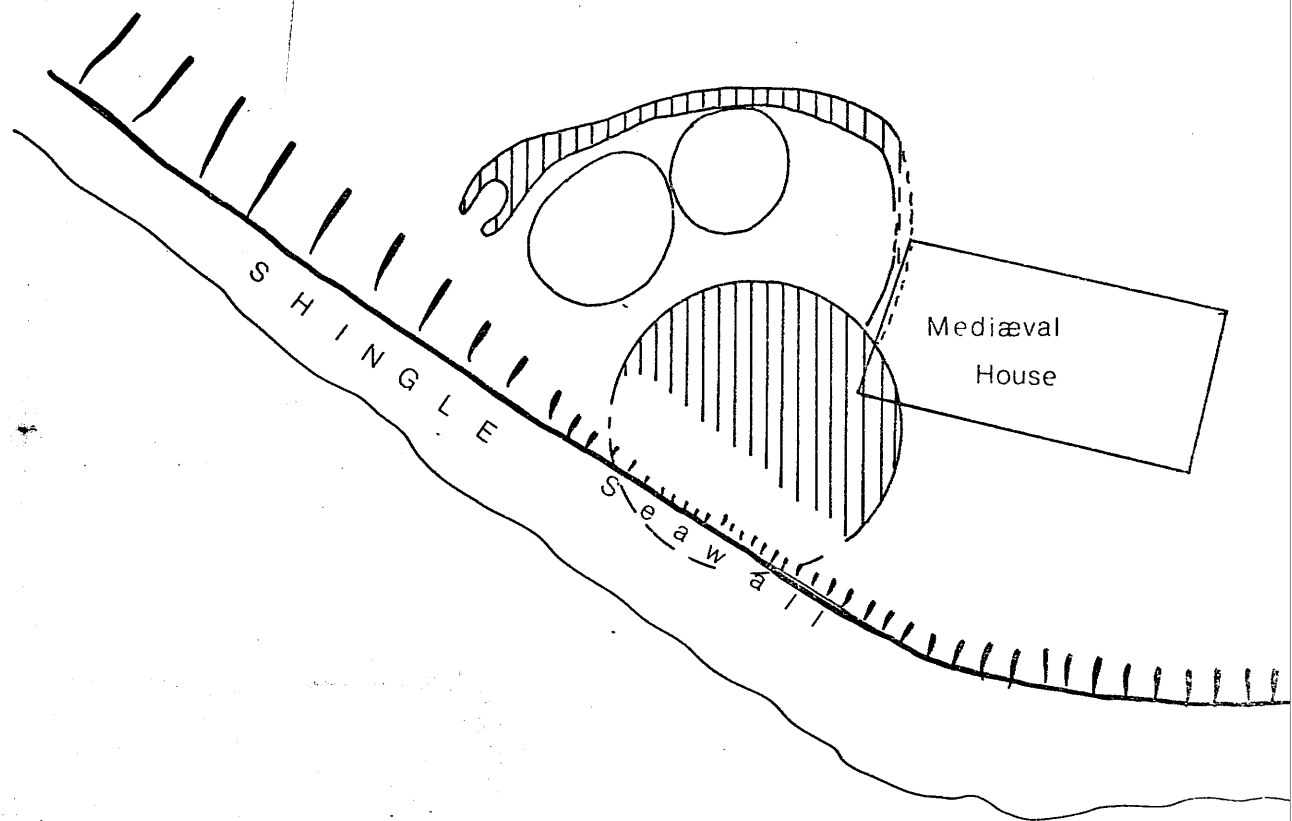
modern wall



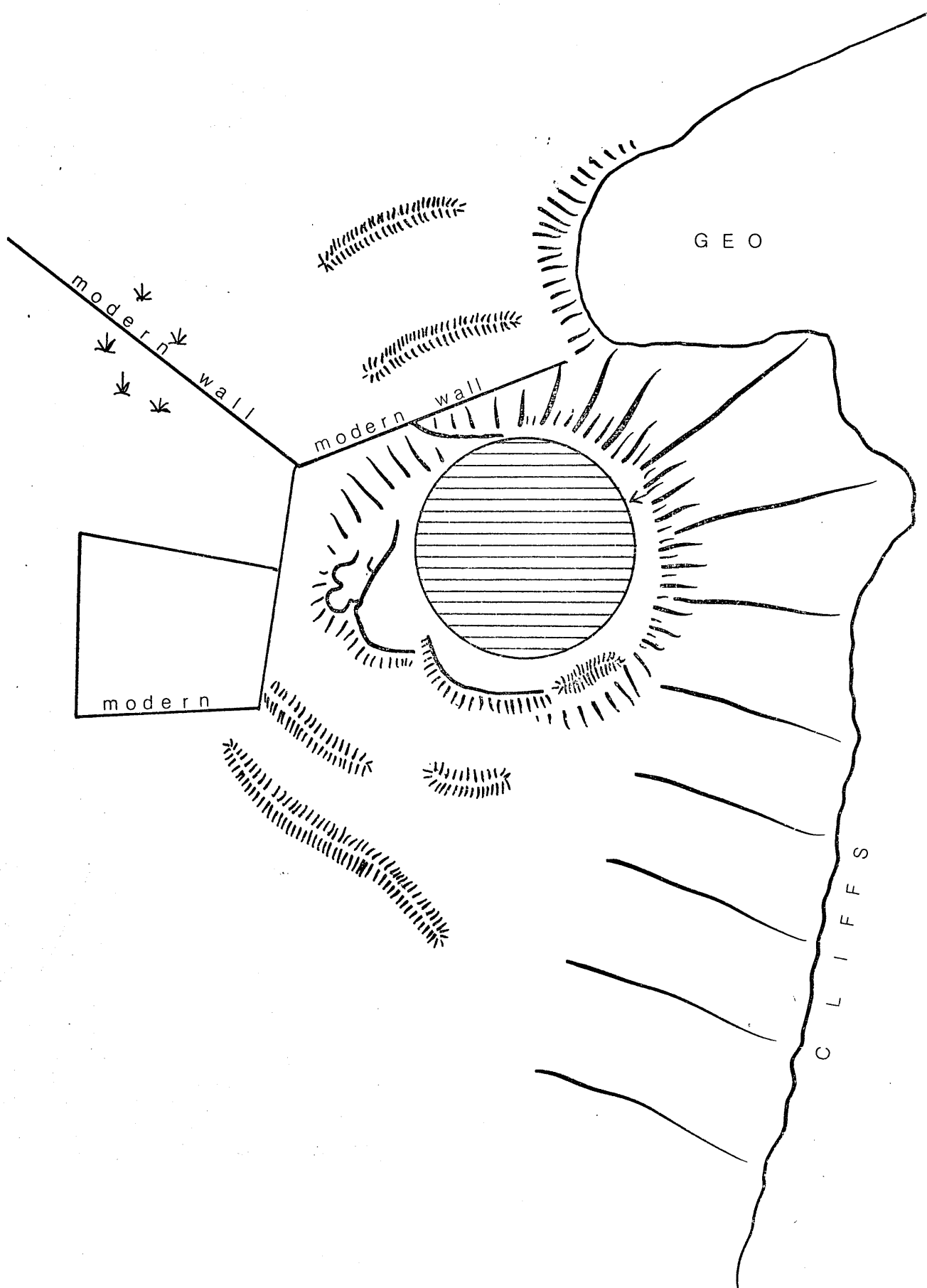


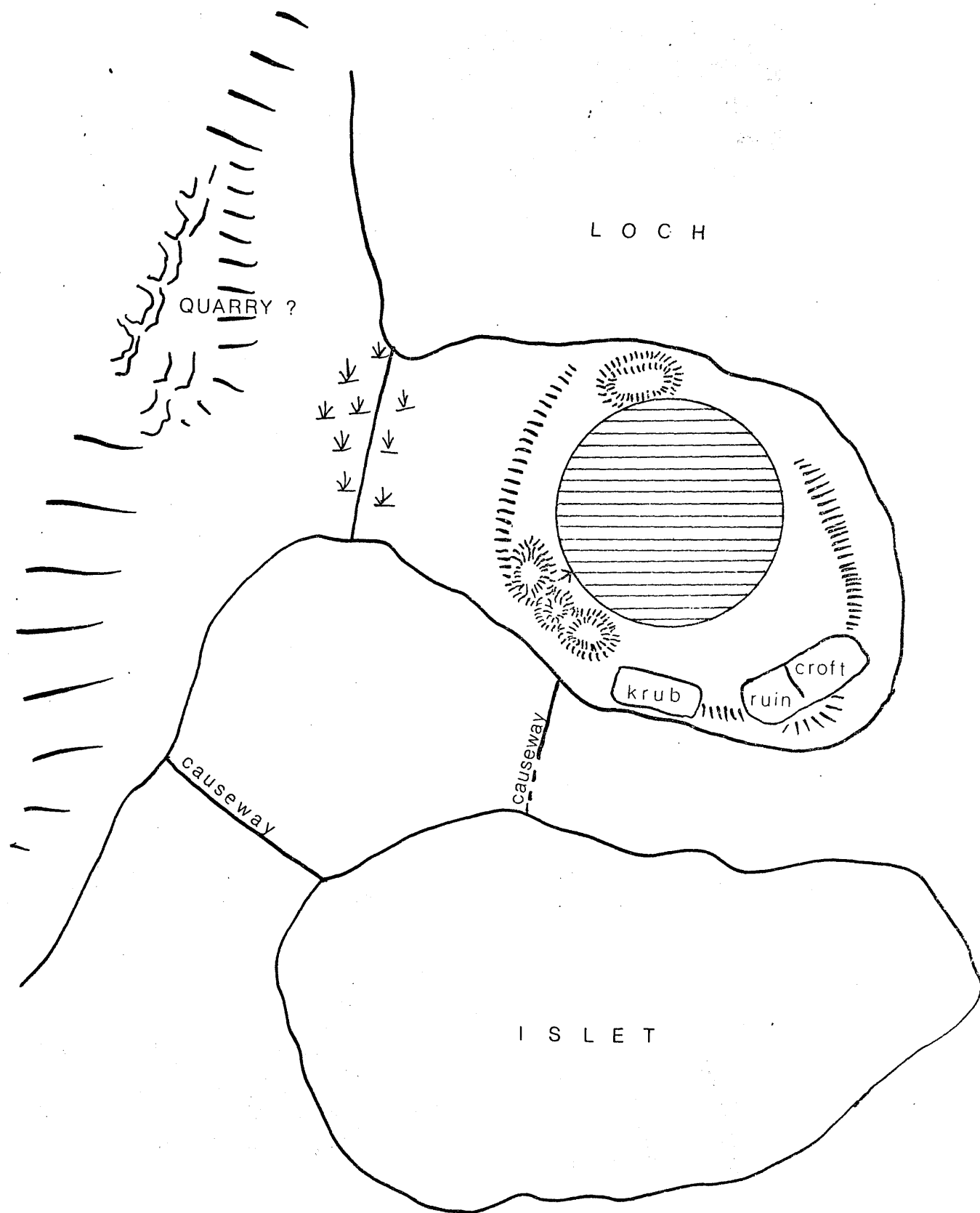


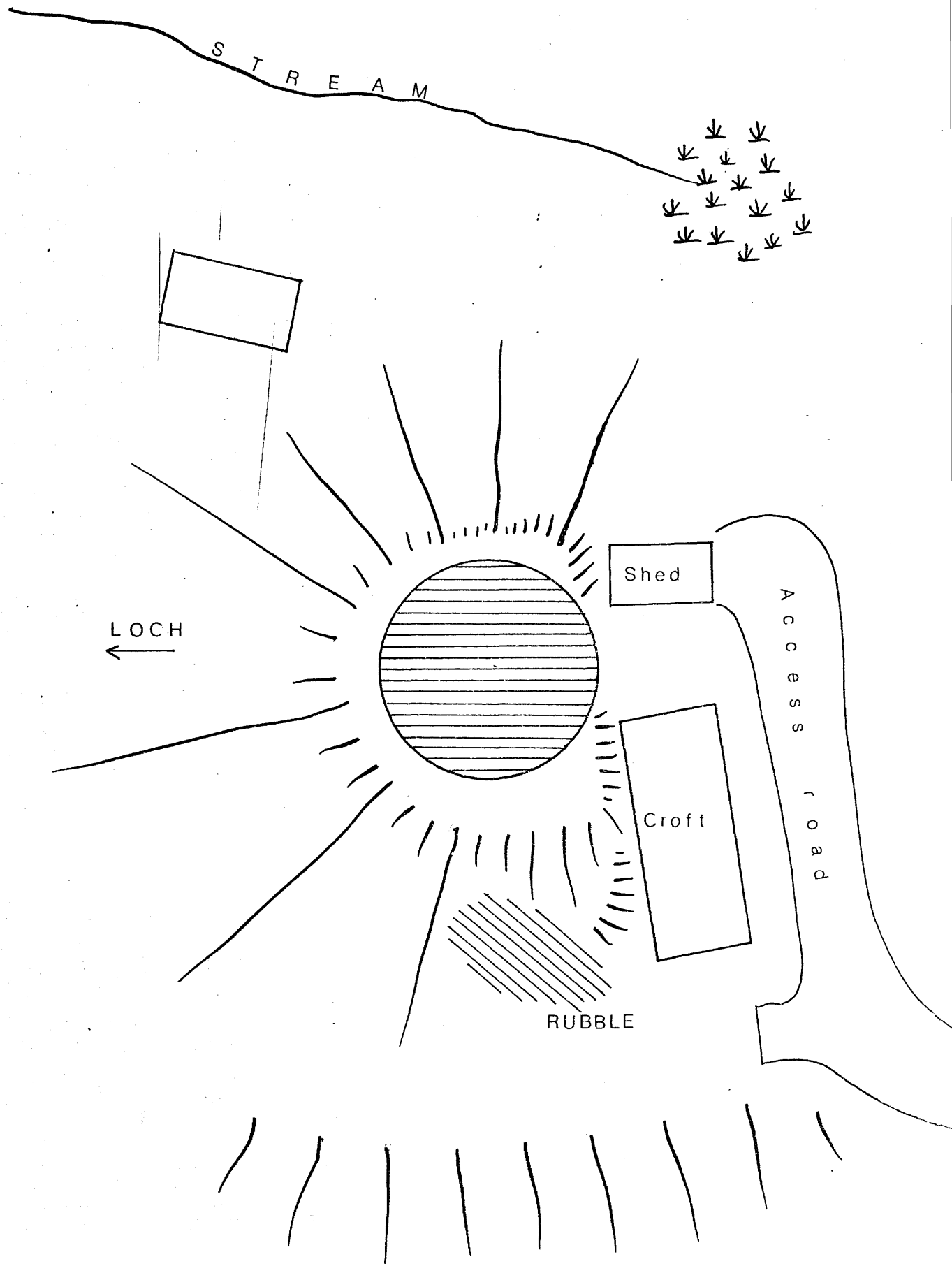
ALL DETAILS OF TOPOGRAPHY
HIDDEN BENEATH SAND AND
SUBSEQUENT STRUCTURES

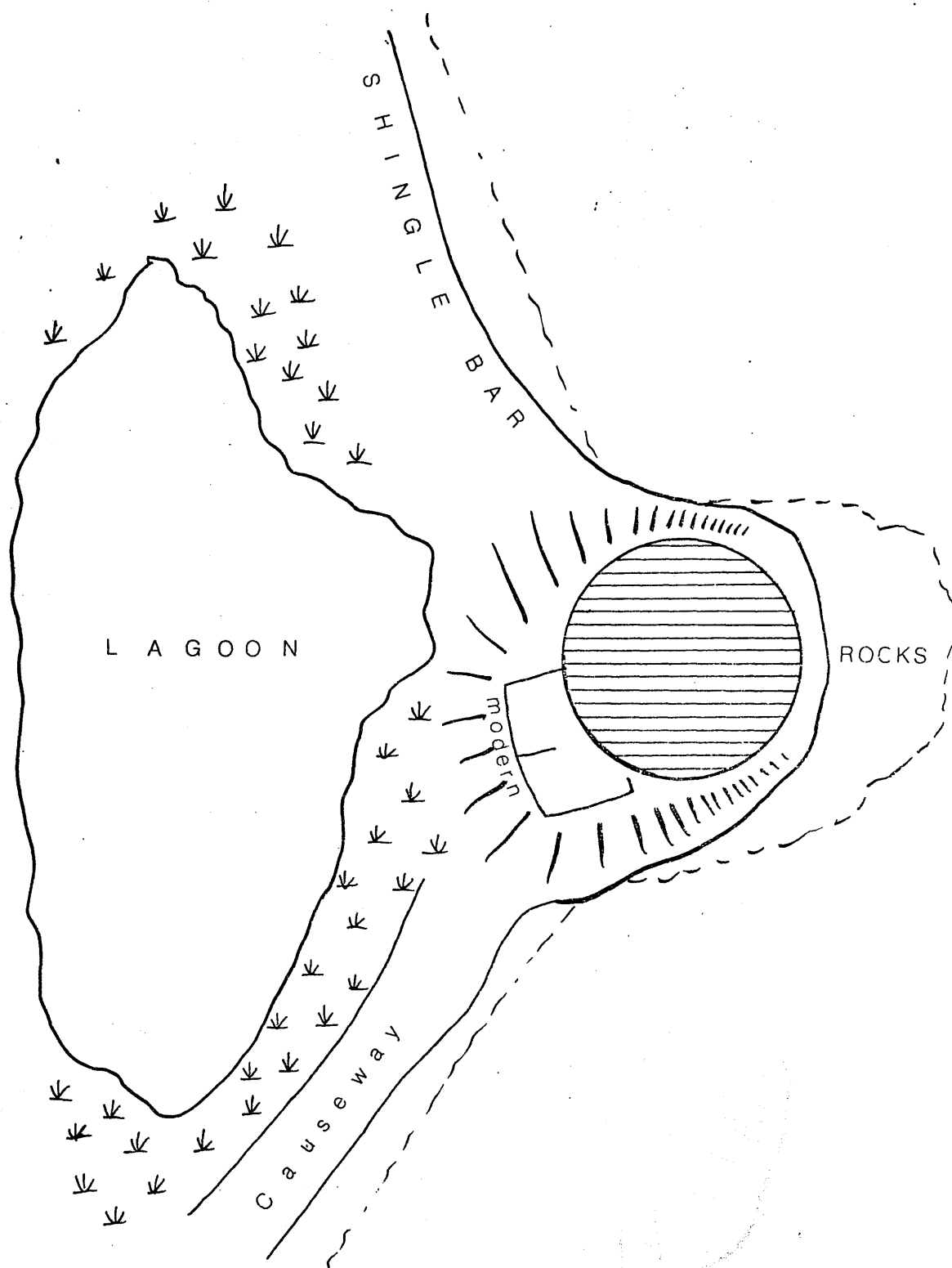


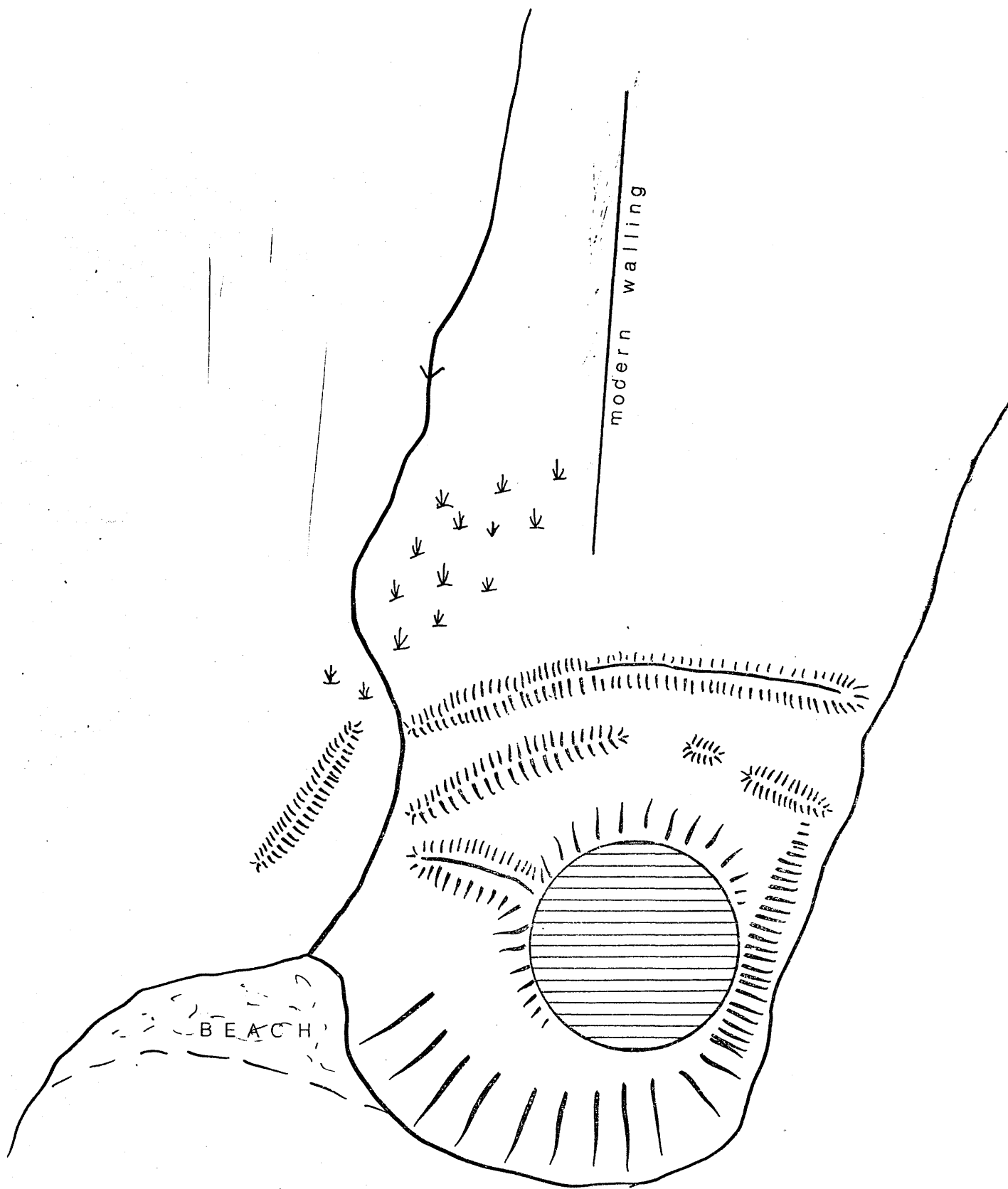
SEE FIGURE 1.iii.1

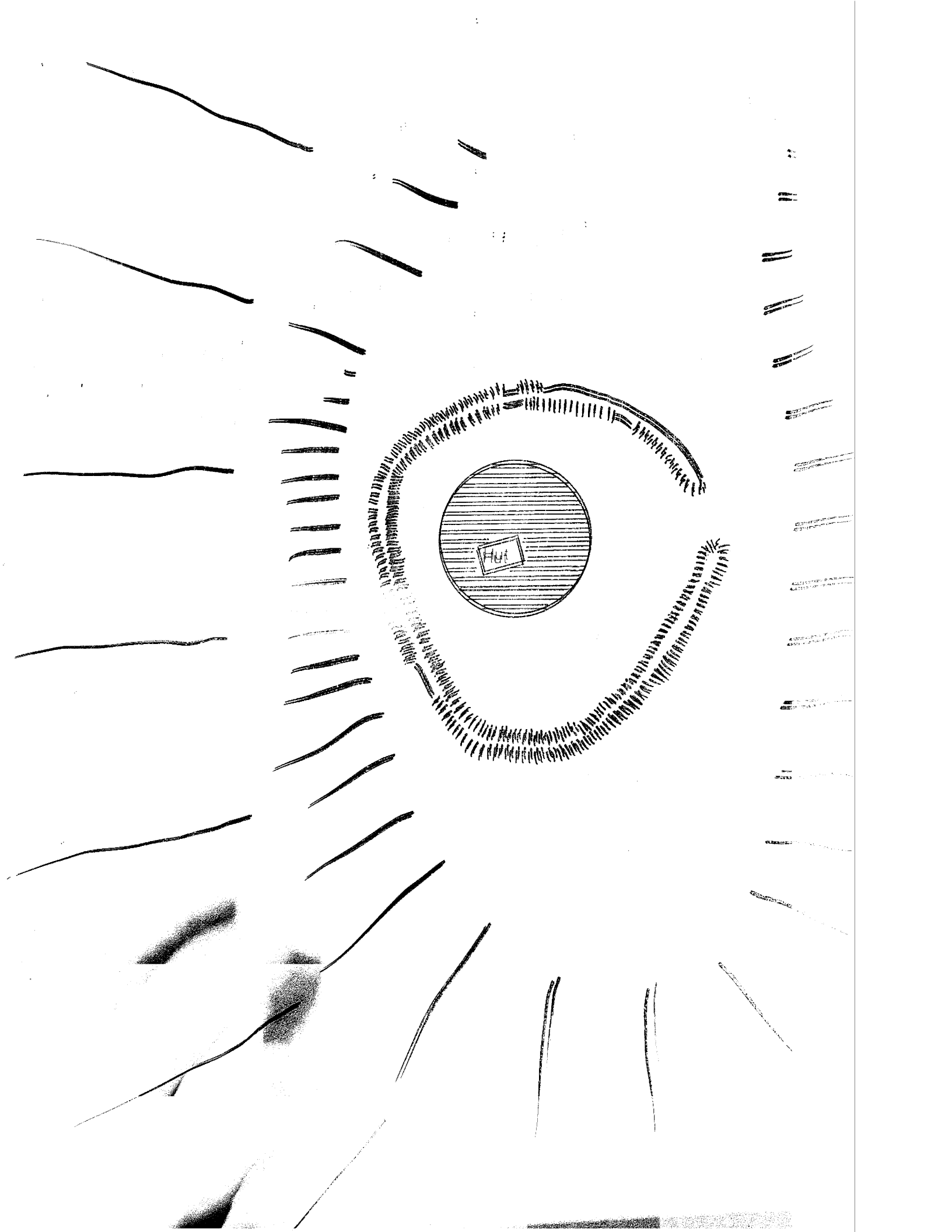


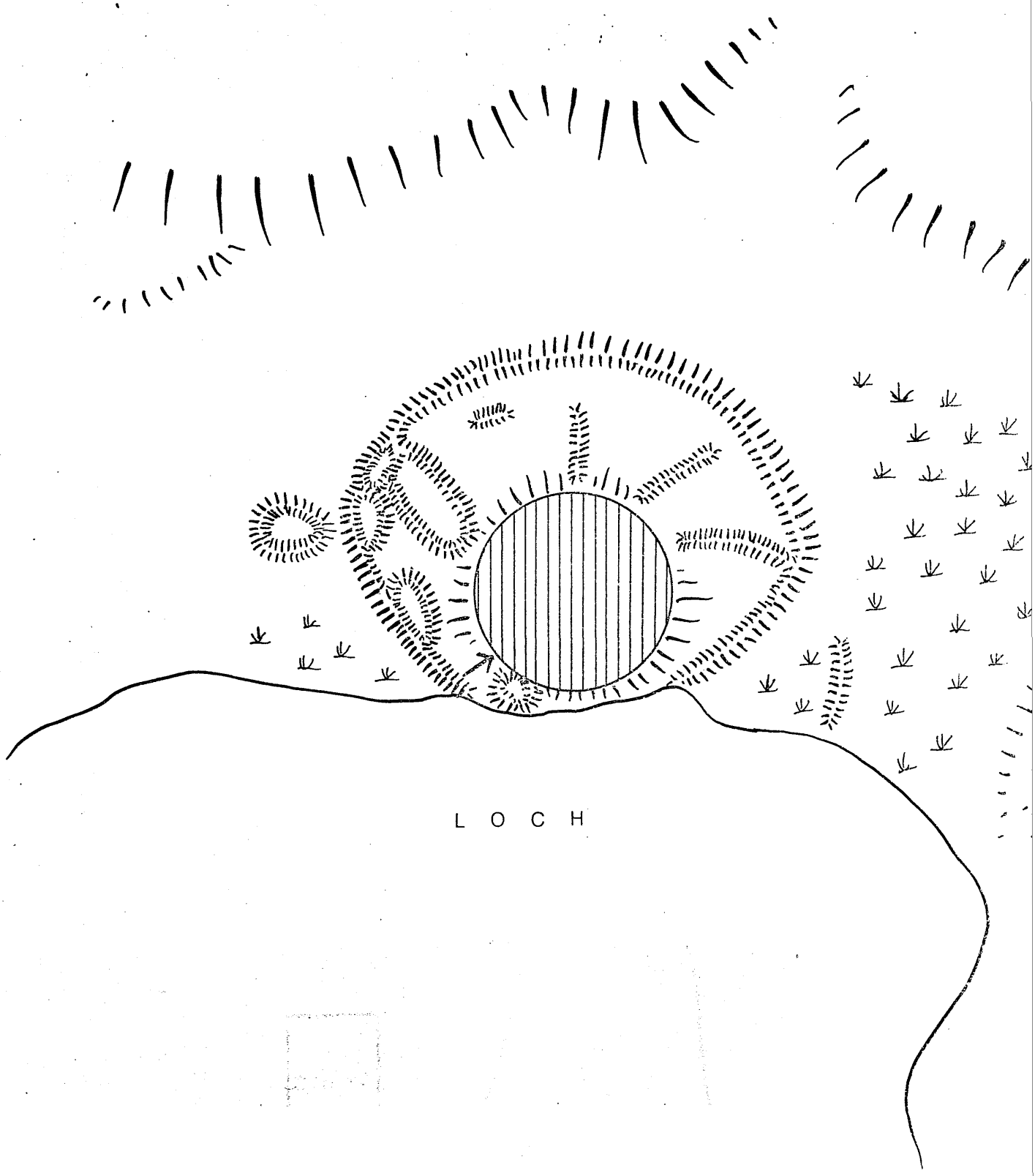


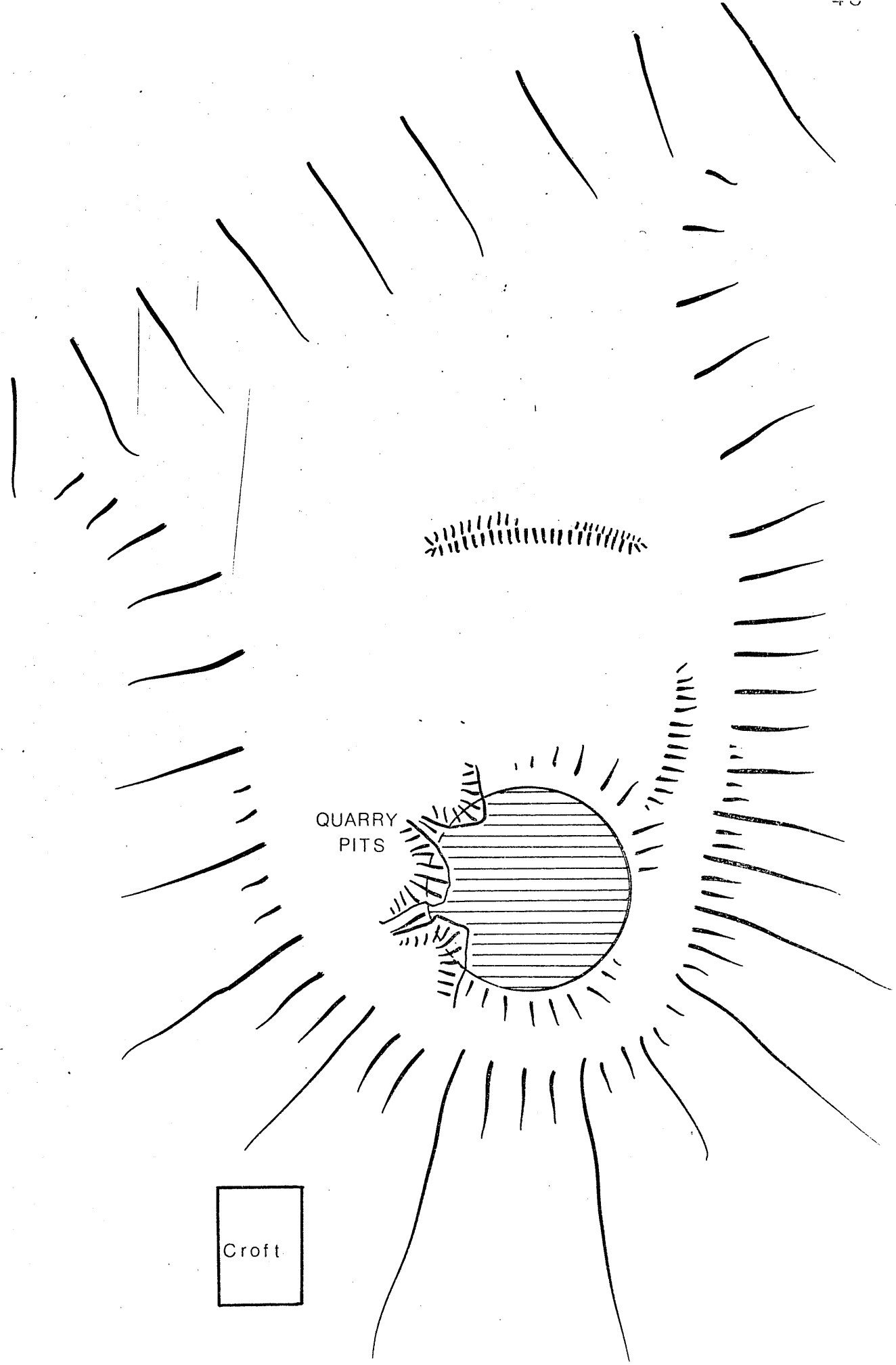






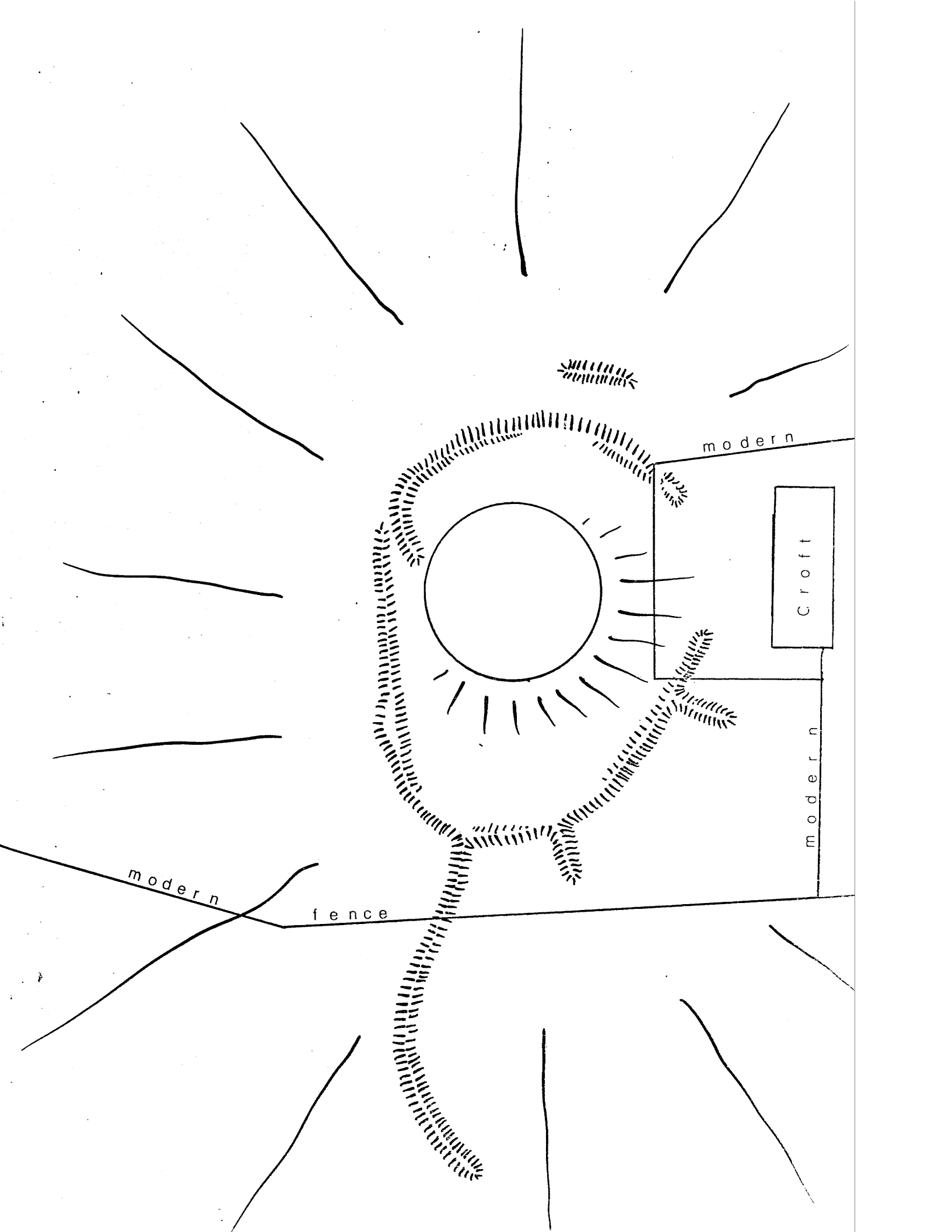


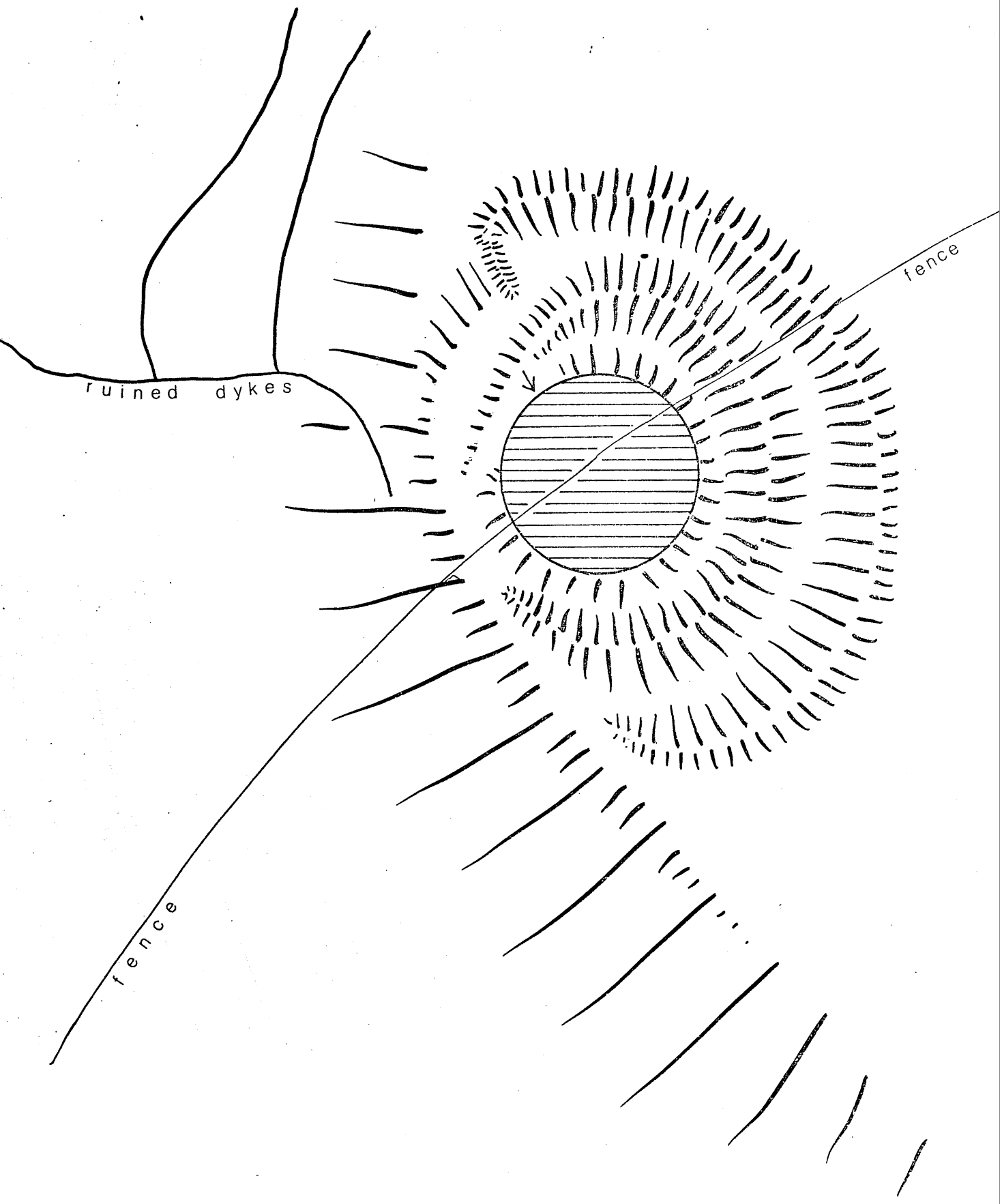




QUARRY
PITS

Croft





BEACH

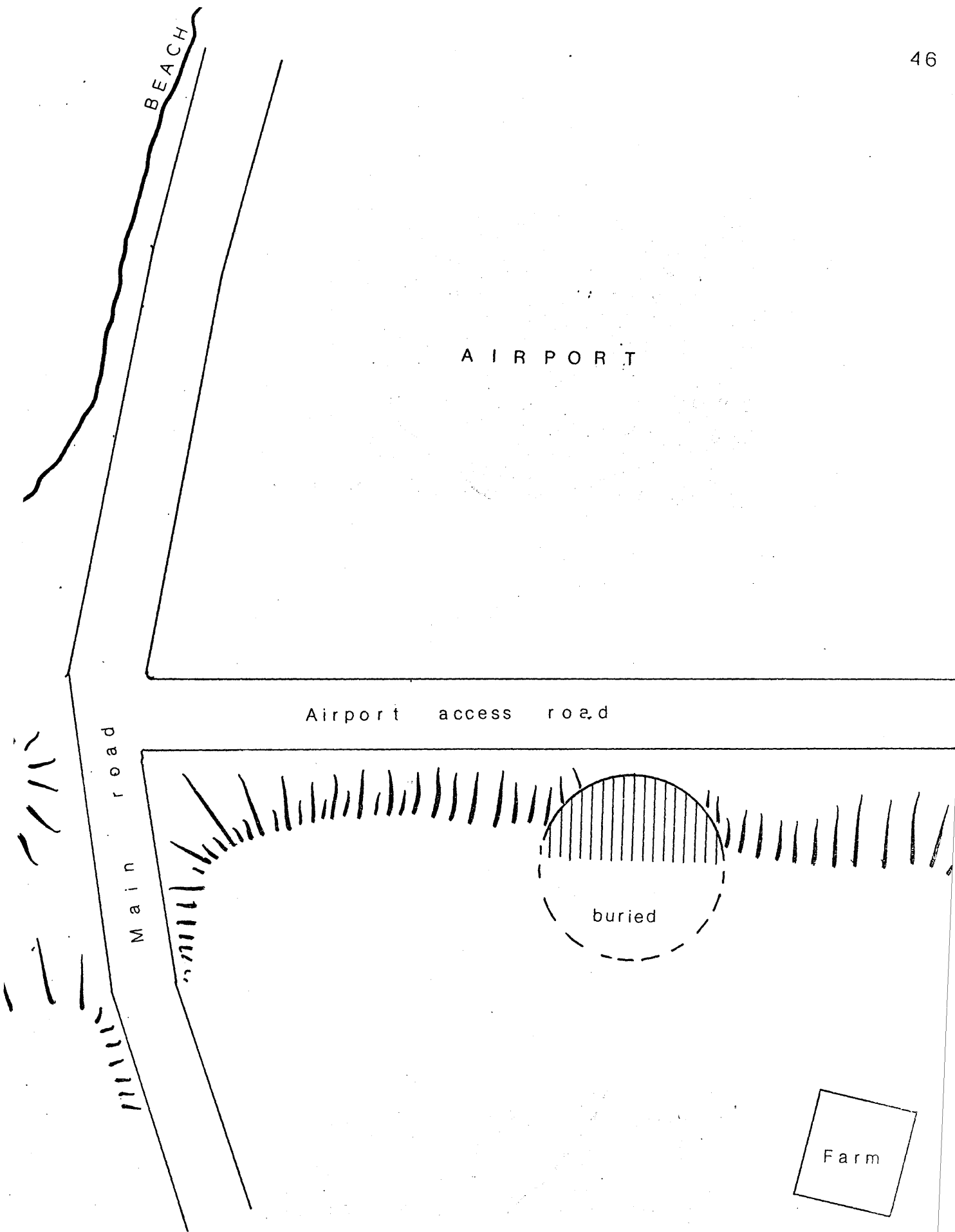
A I R P O R T

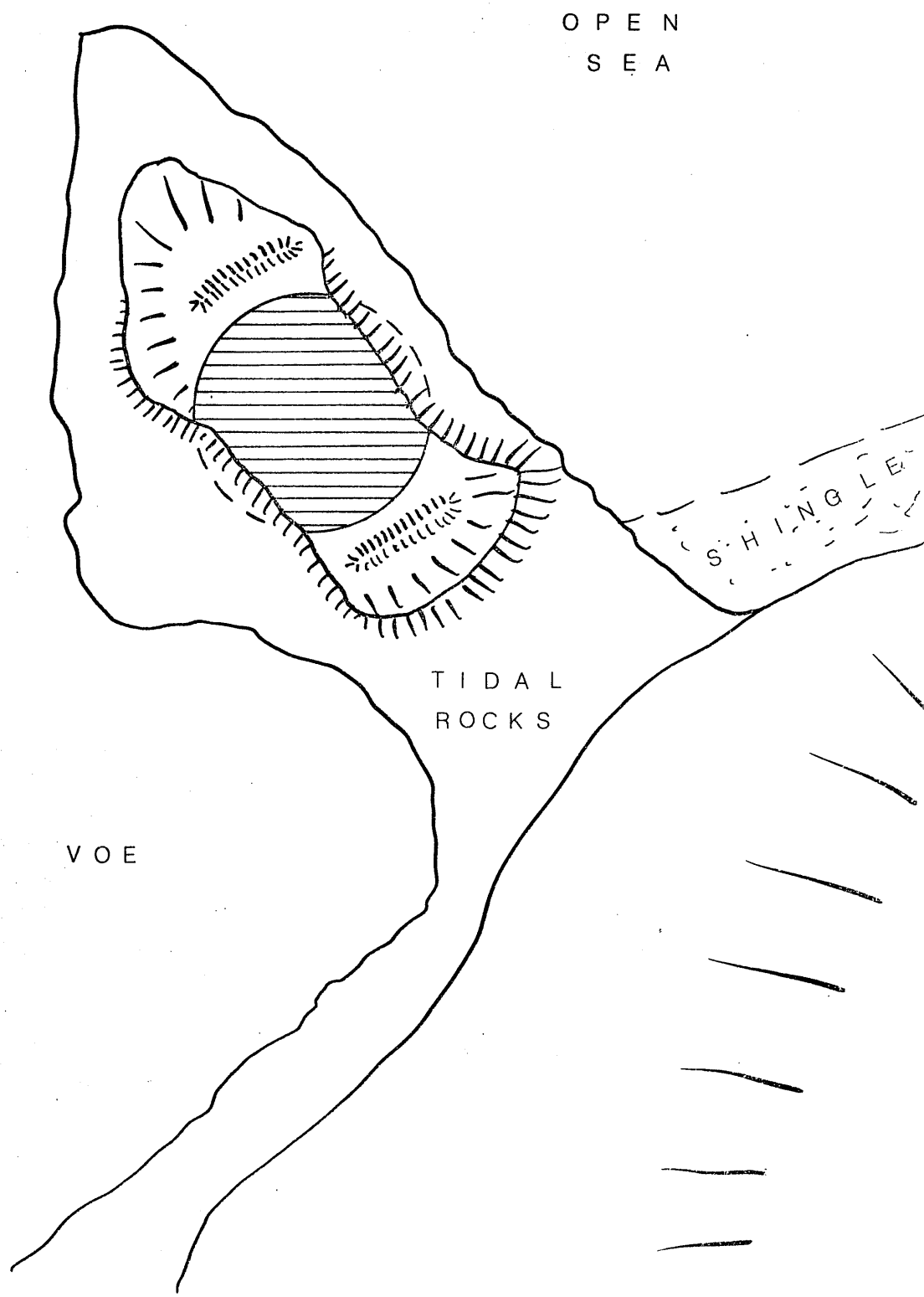
Airport access road

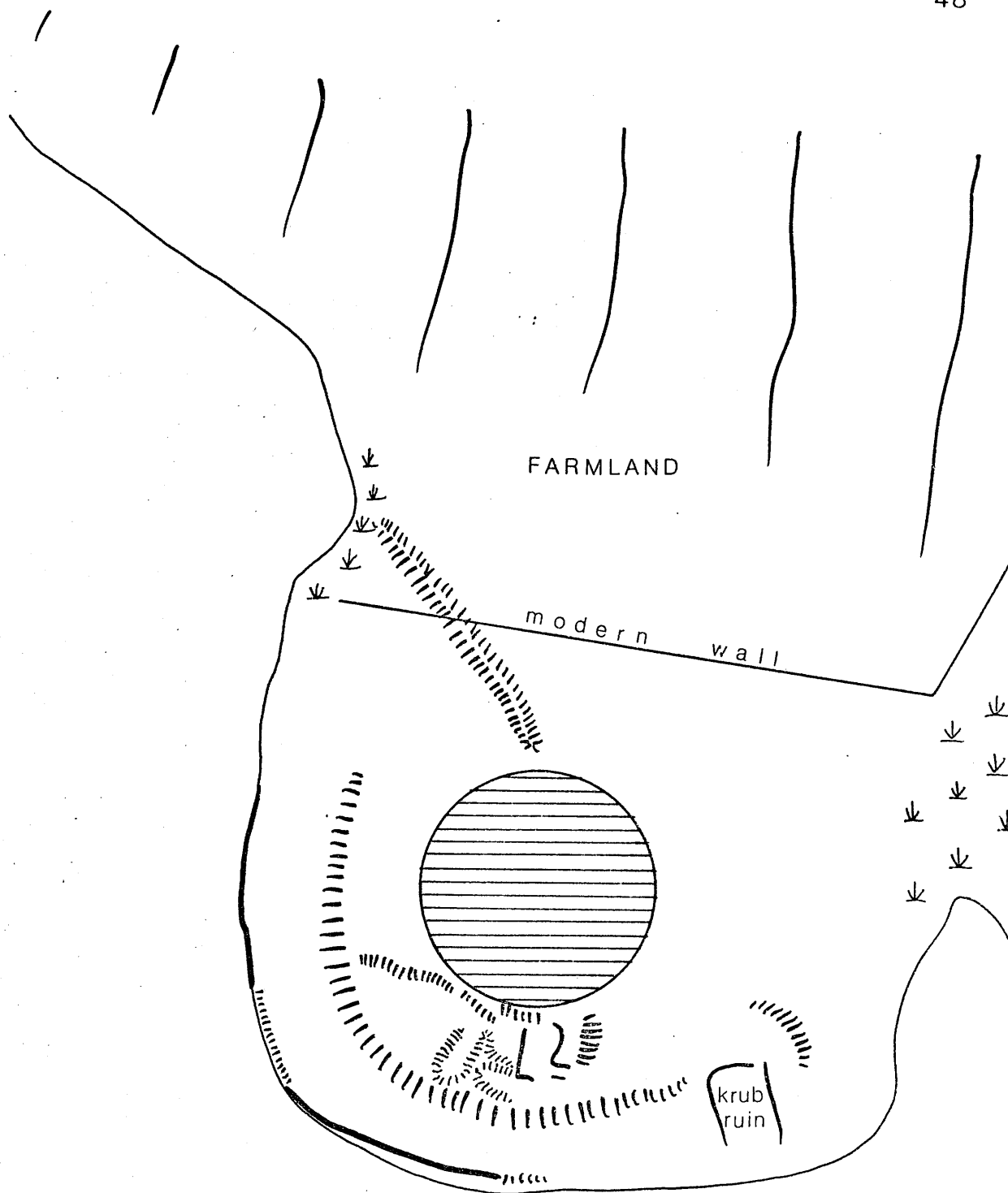
Main road

buried

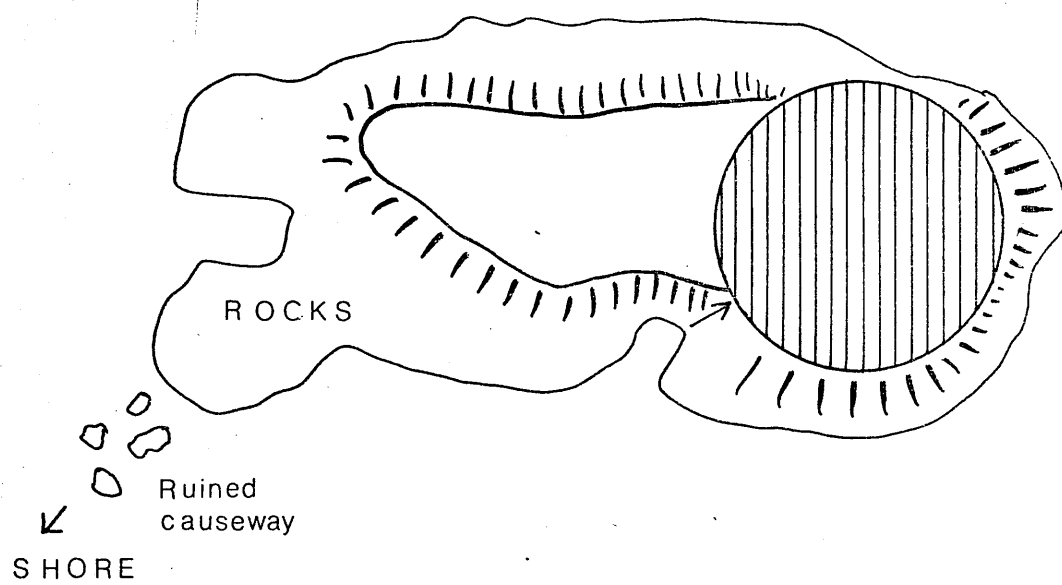
Farm

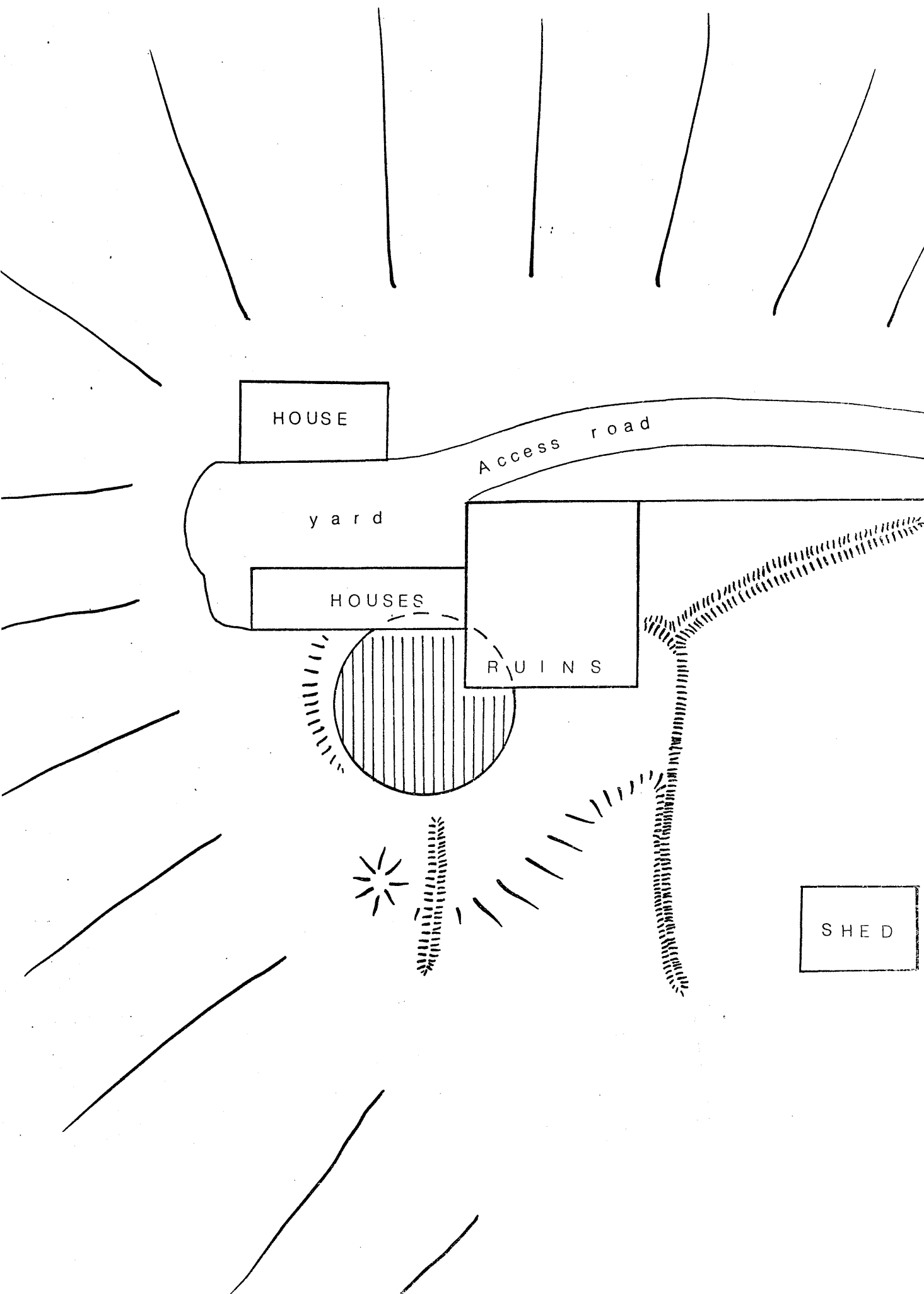






LOCH

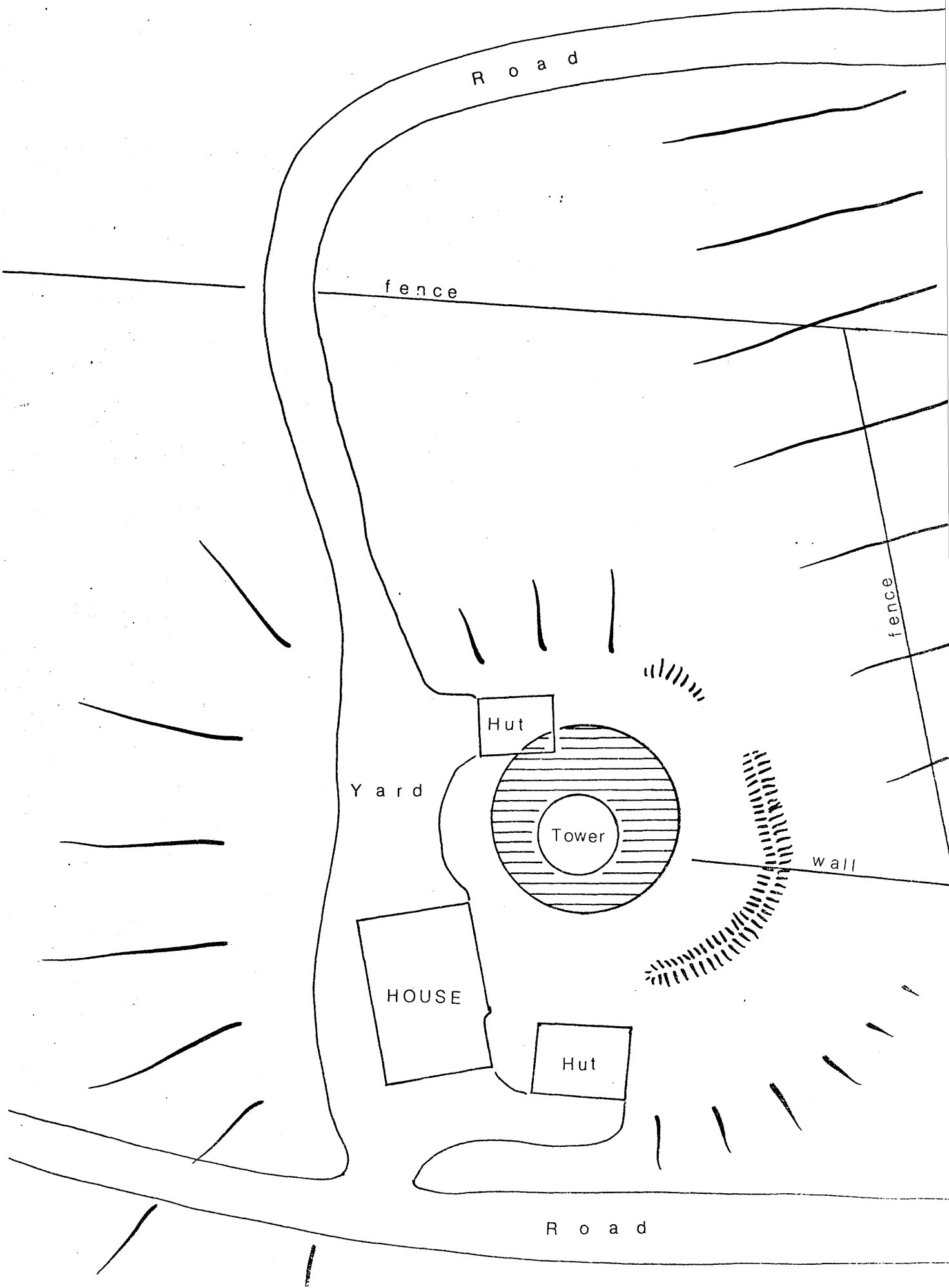


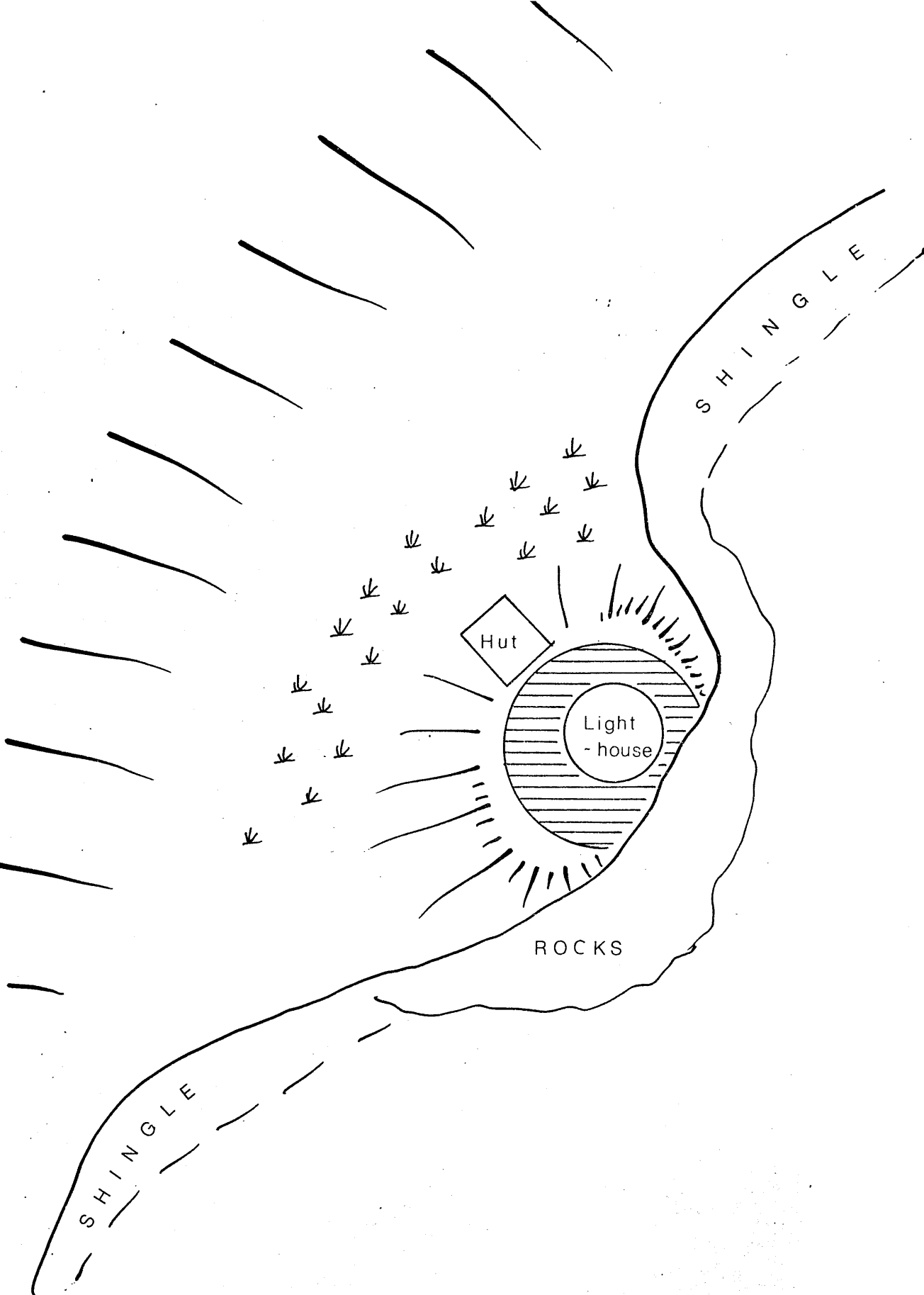


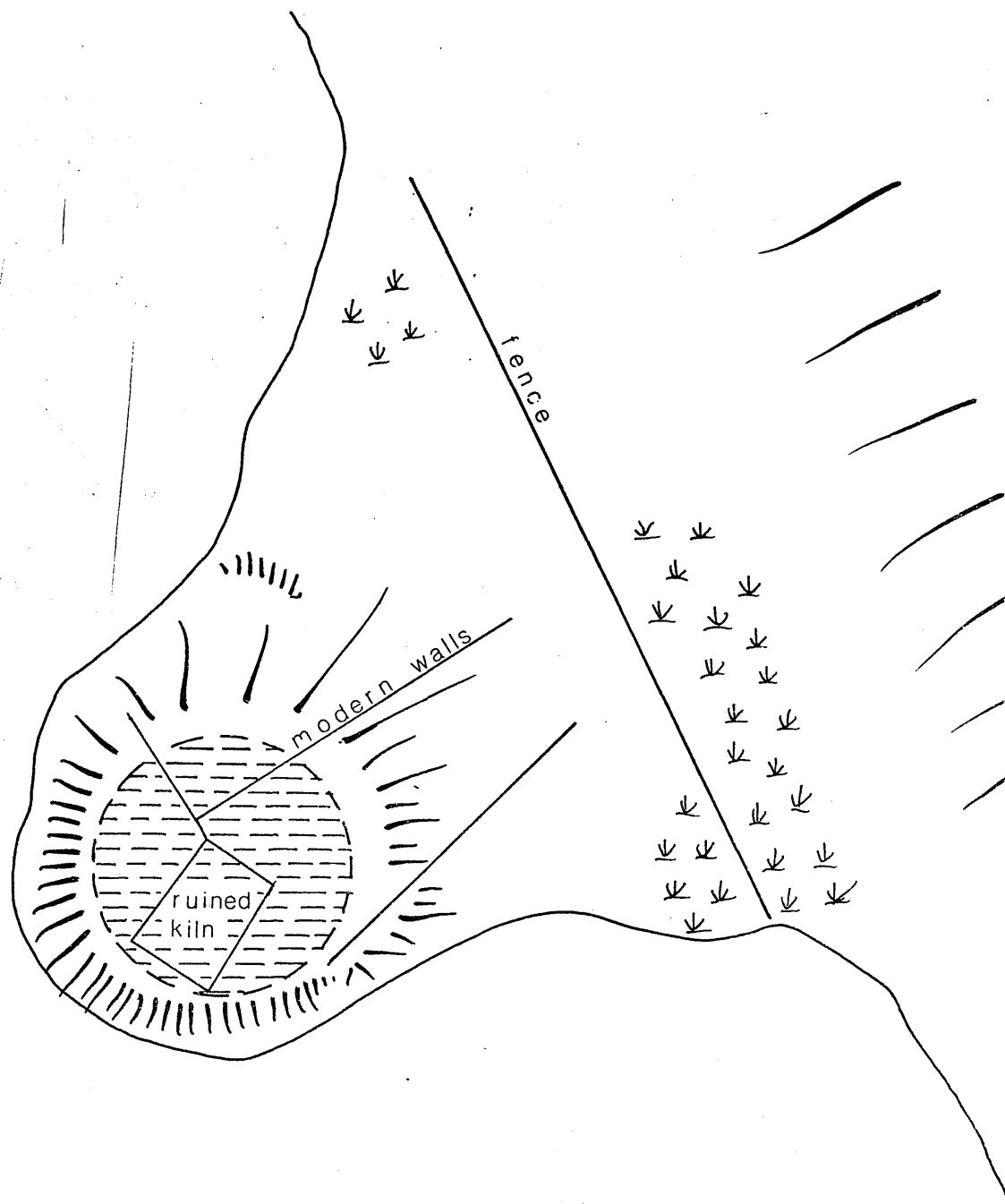
← SEA
(INLET)

HOUS

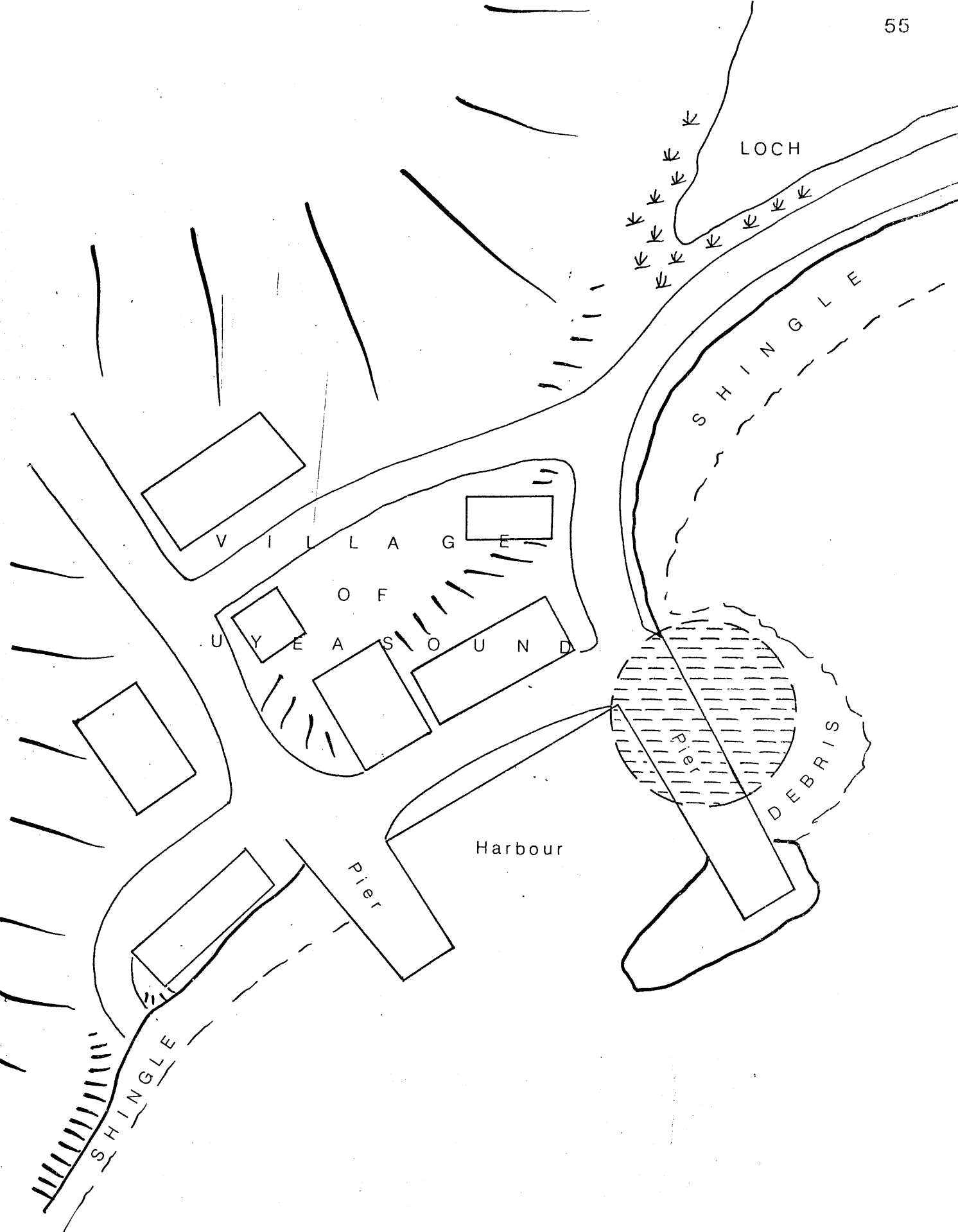
Trac

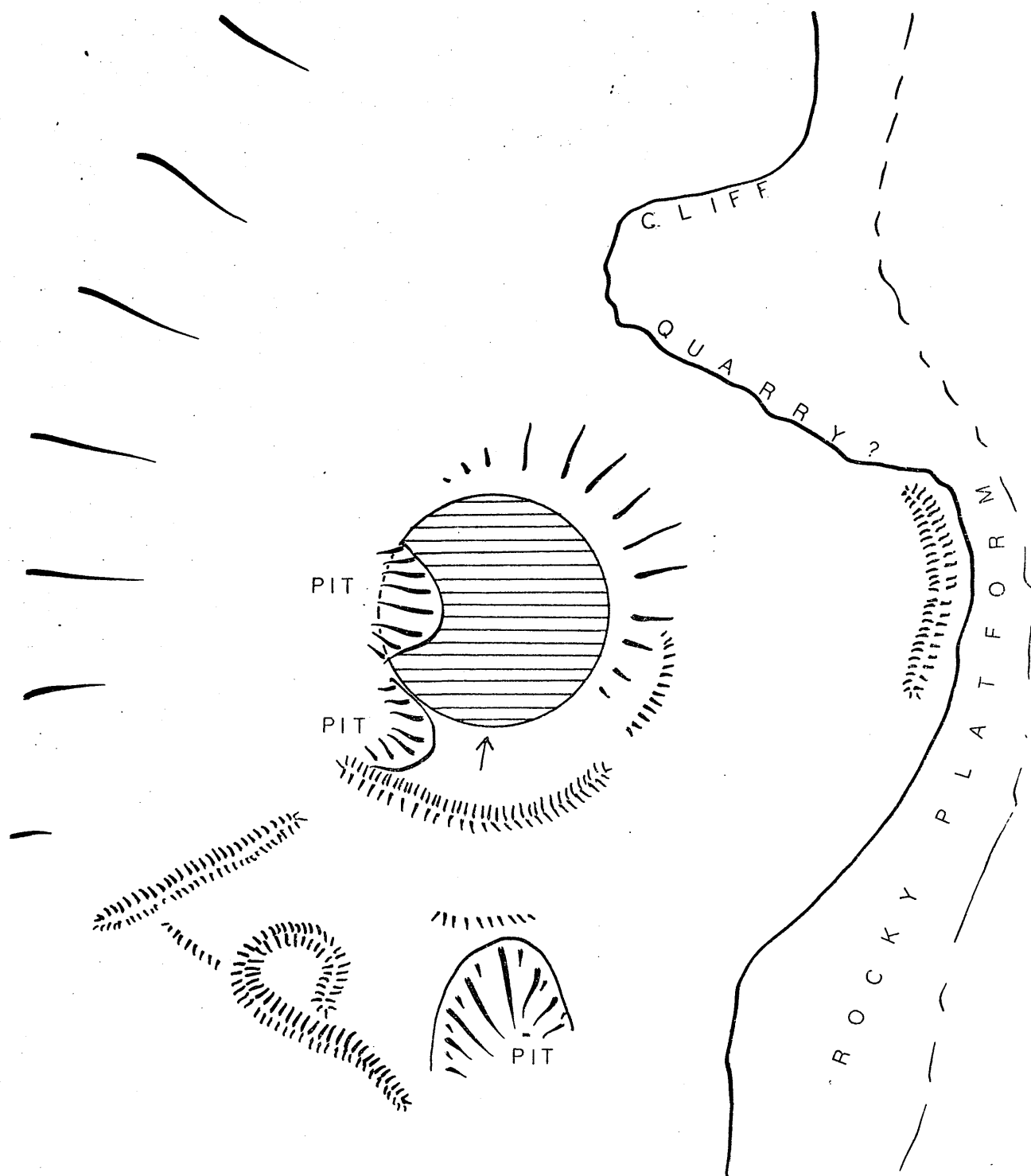


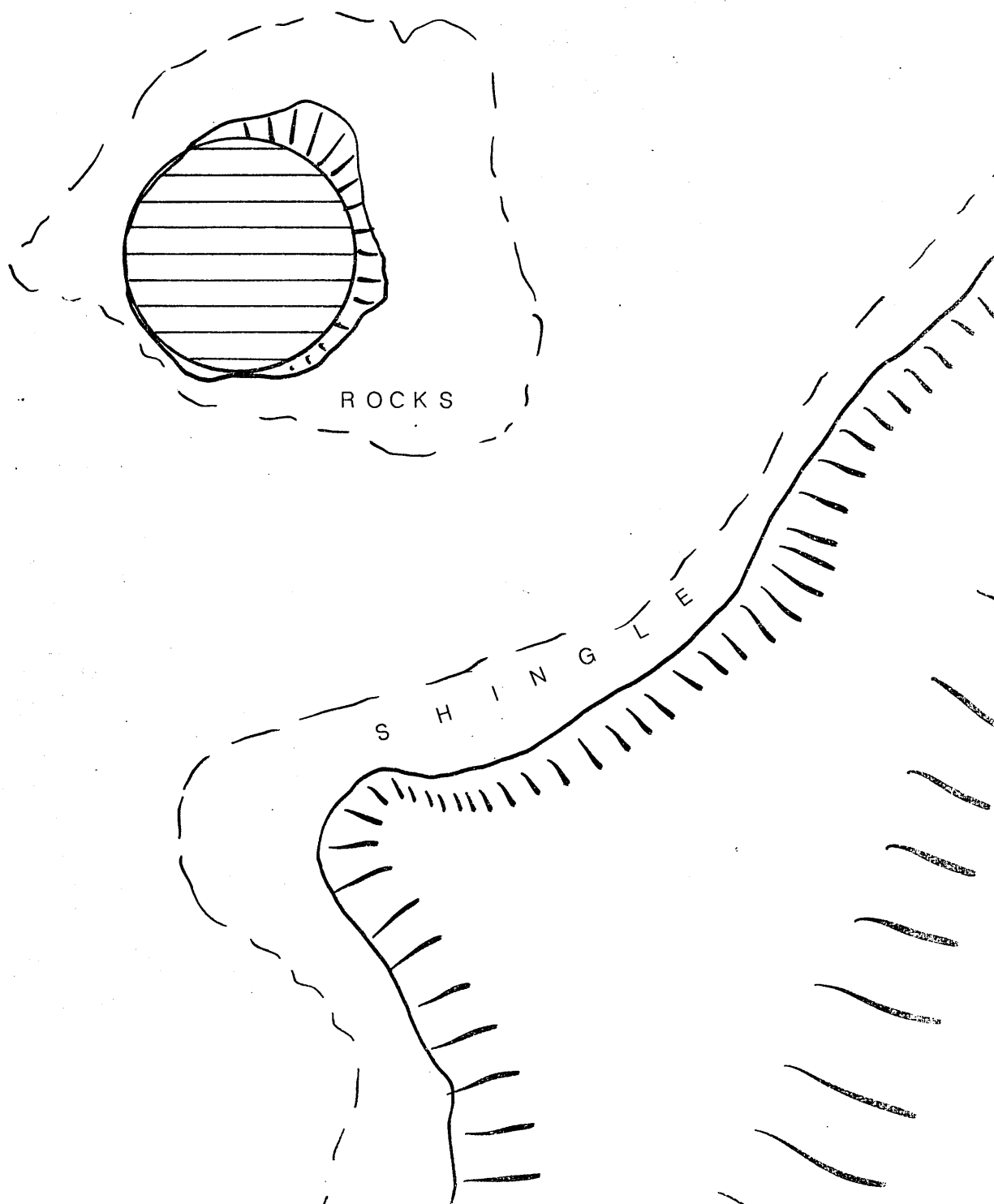


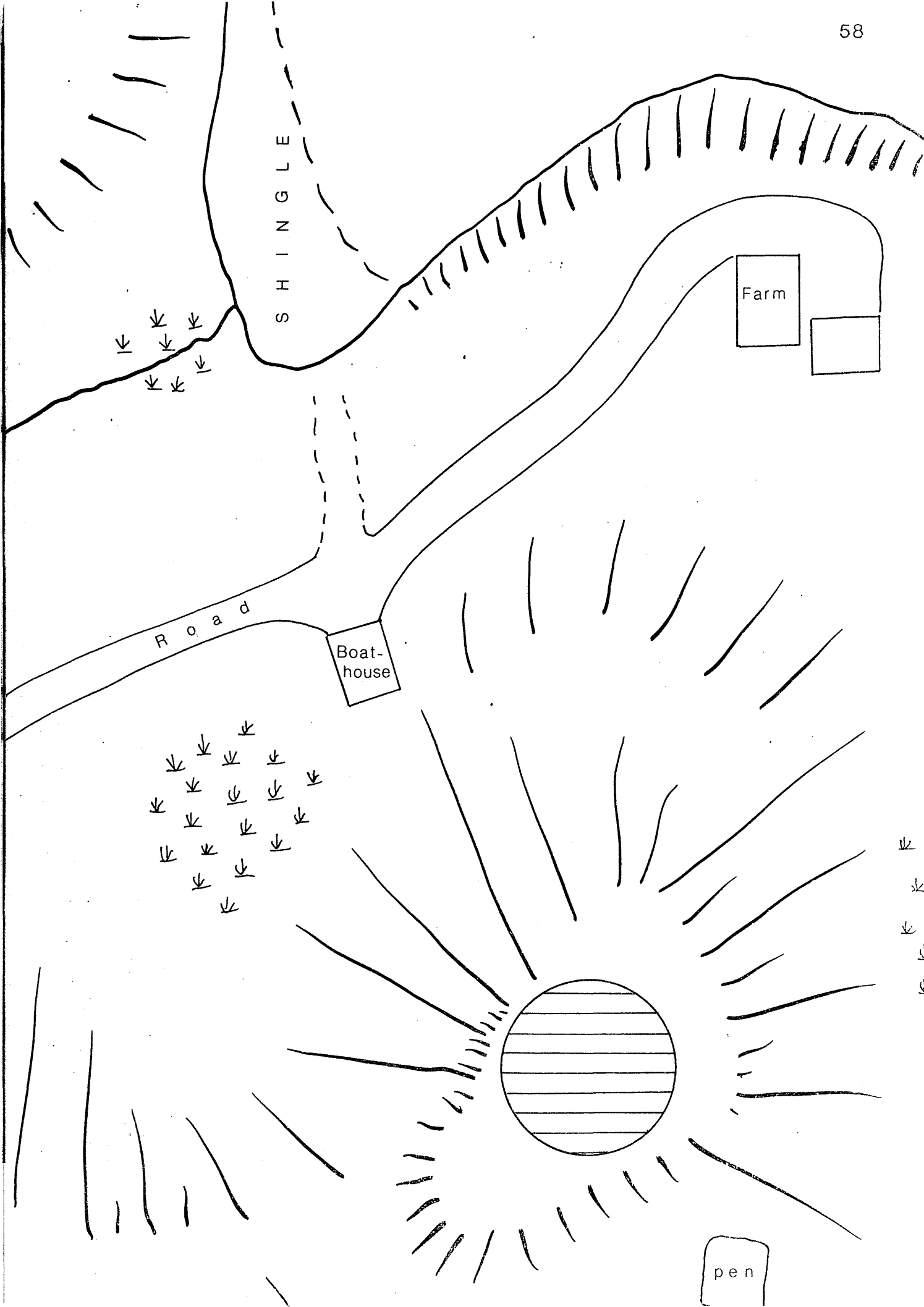


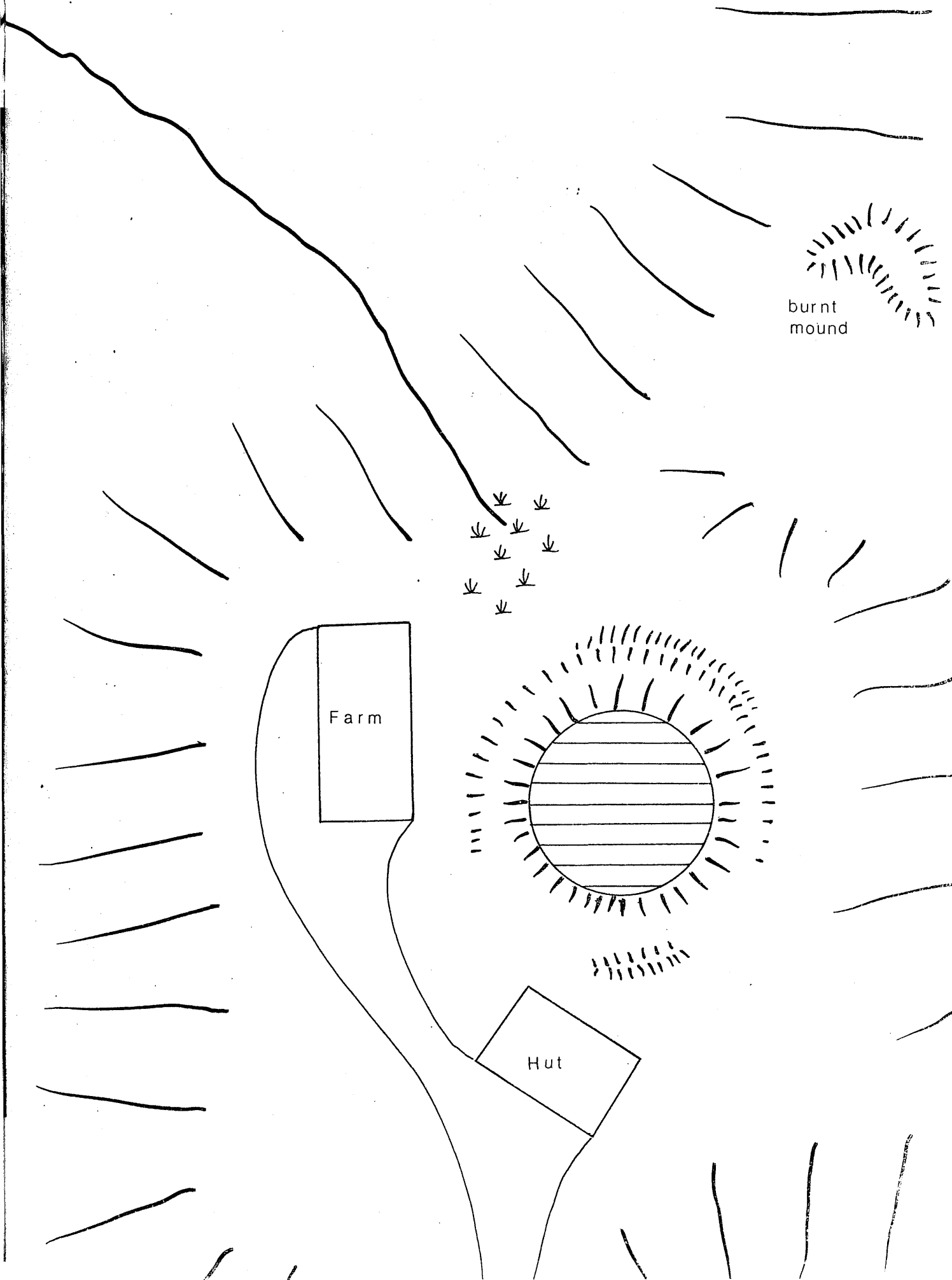
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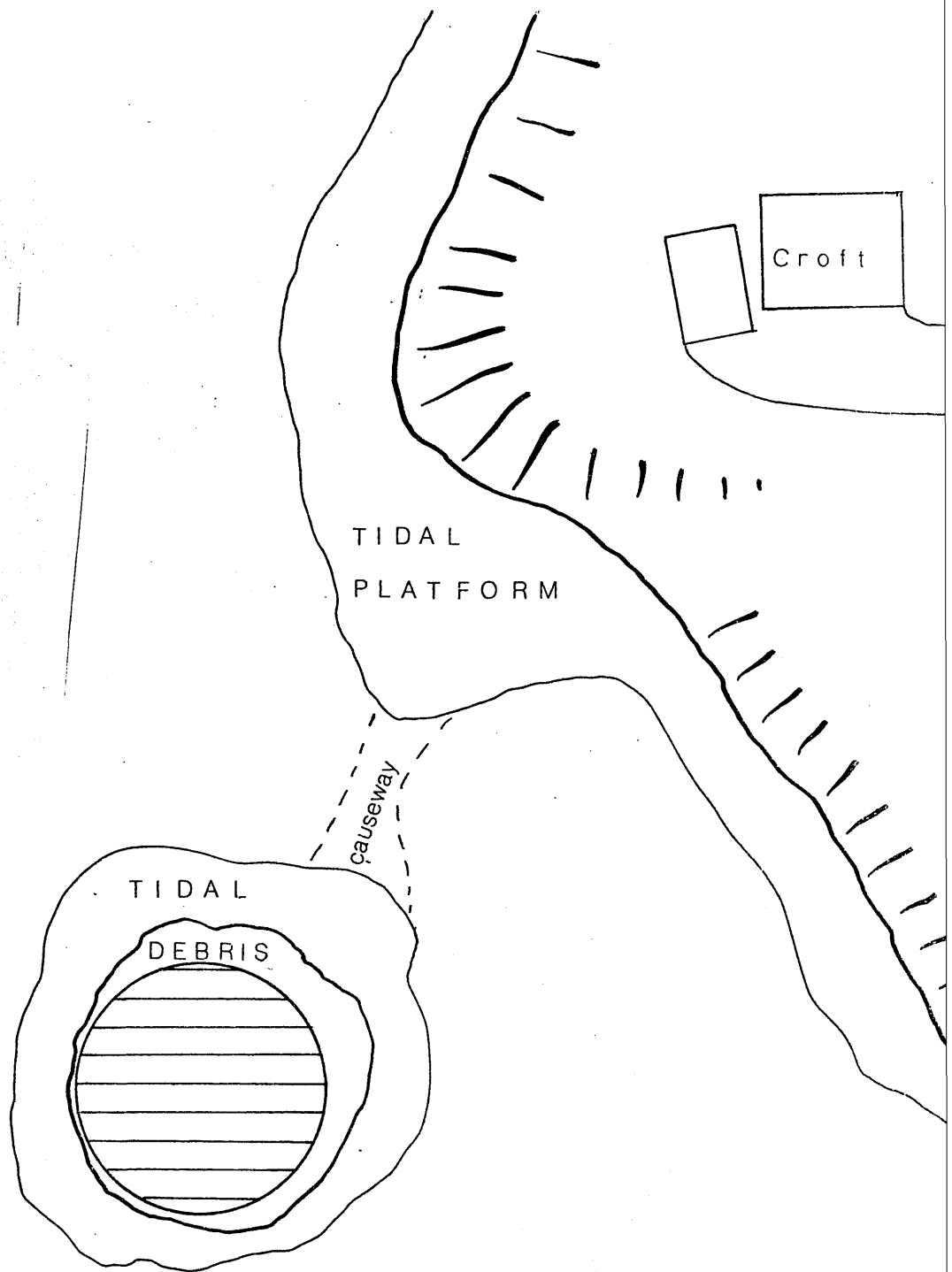


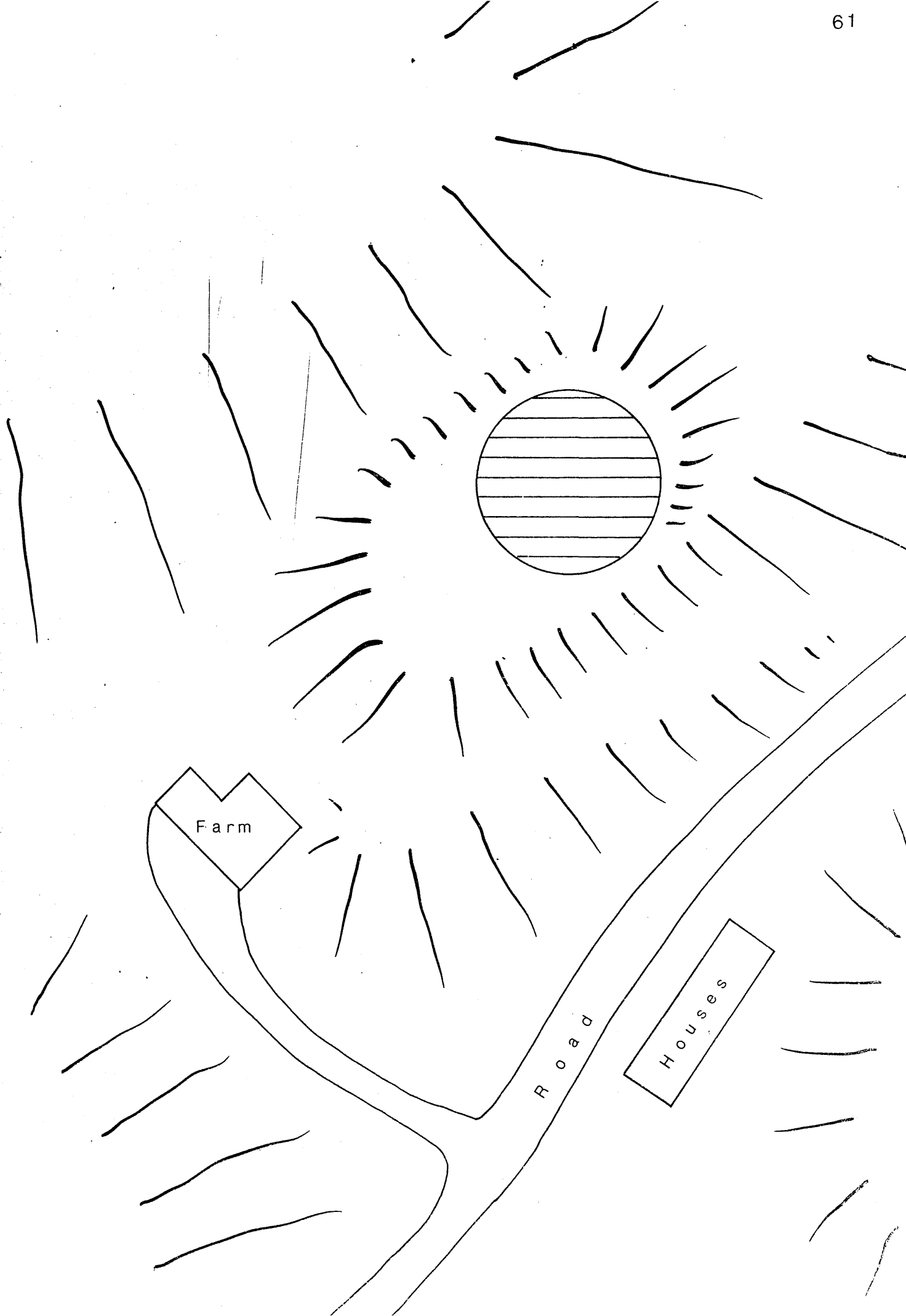


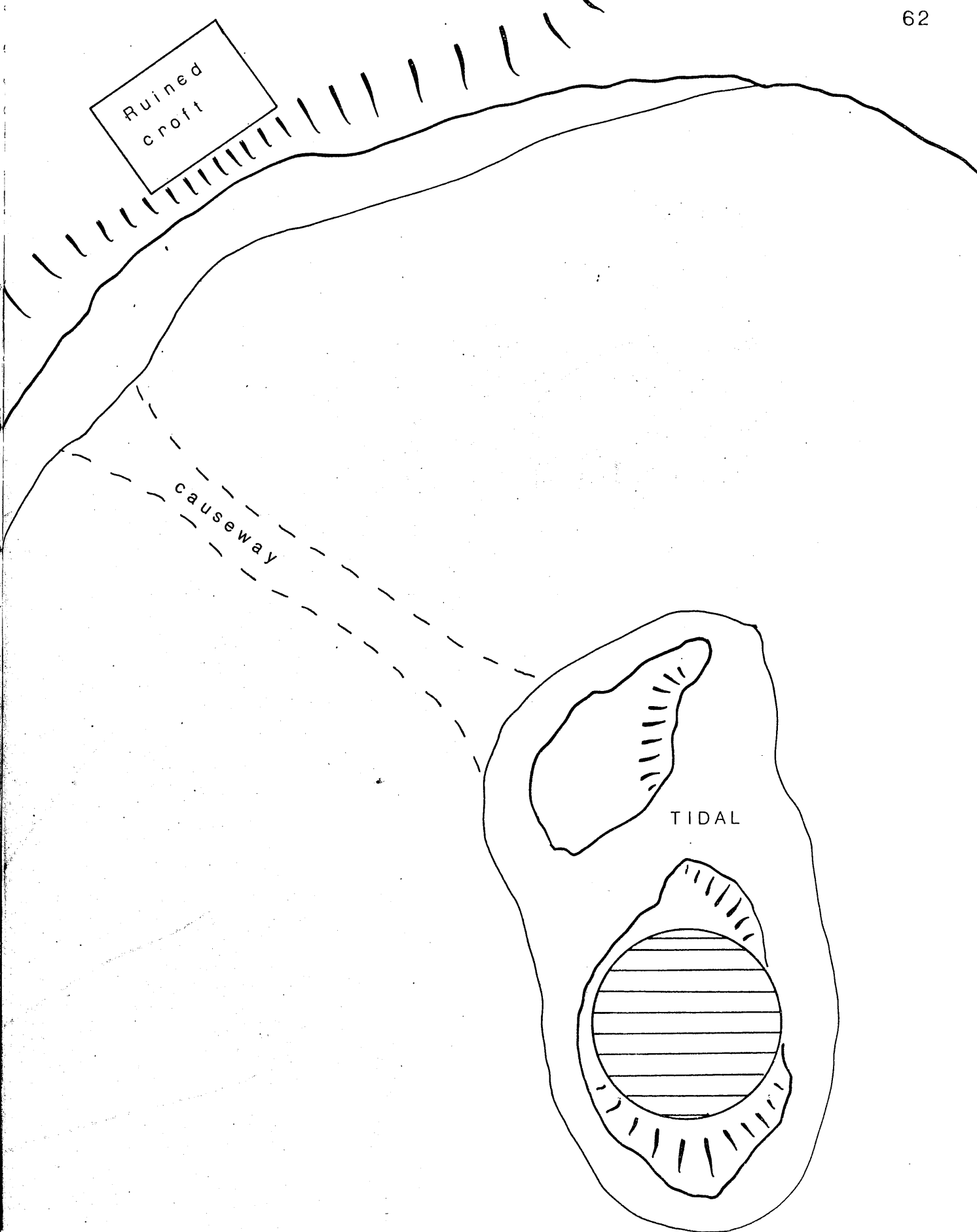


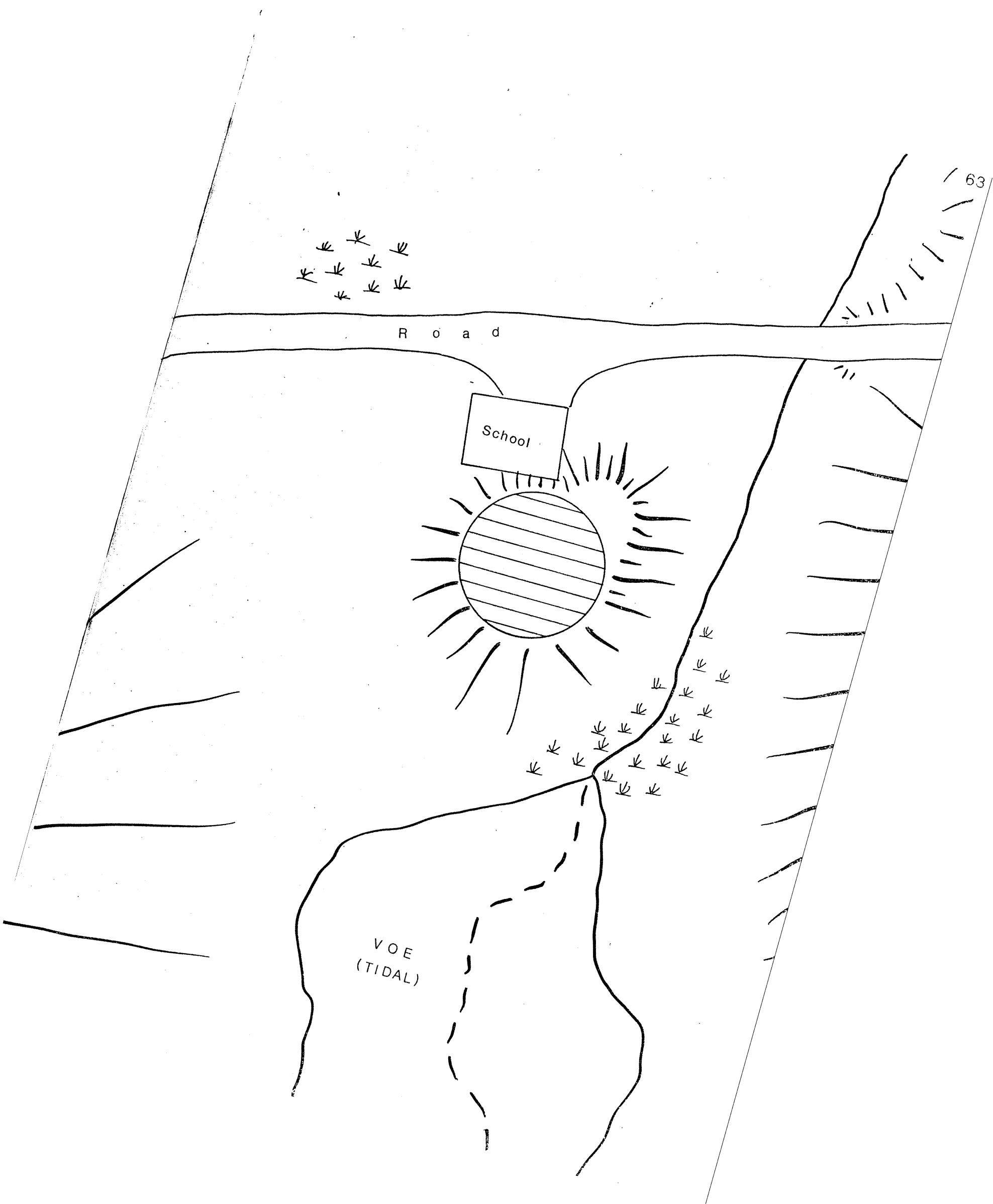


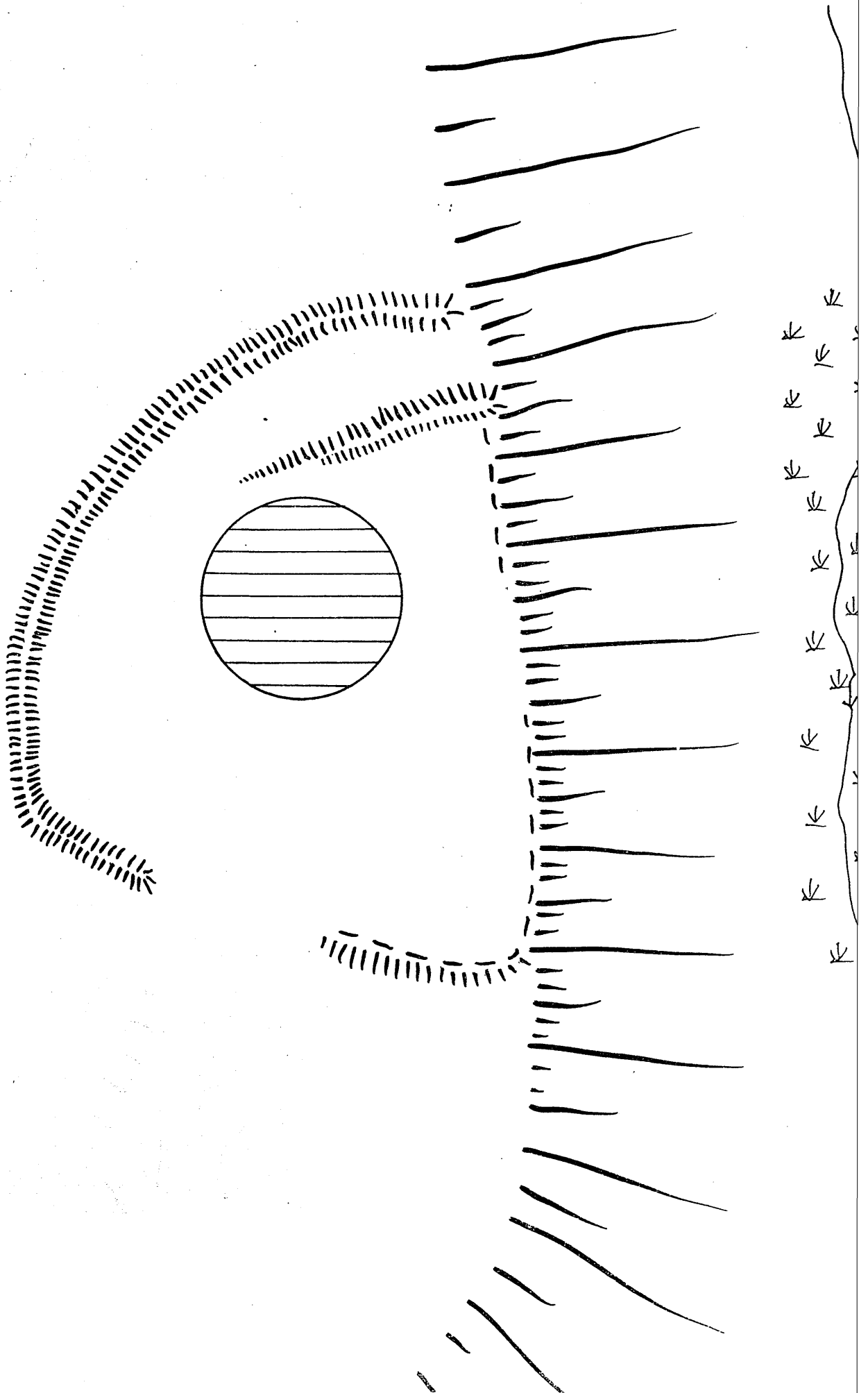


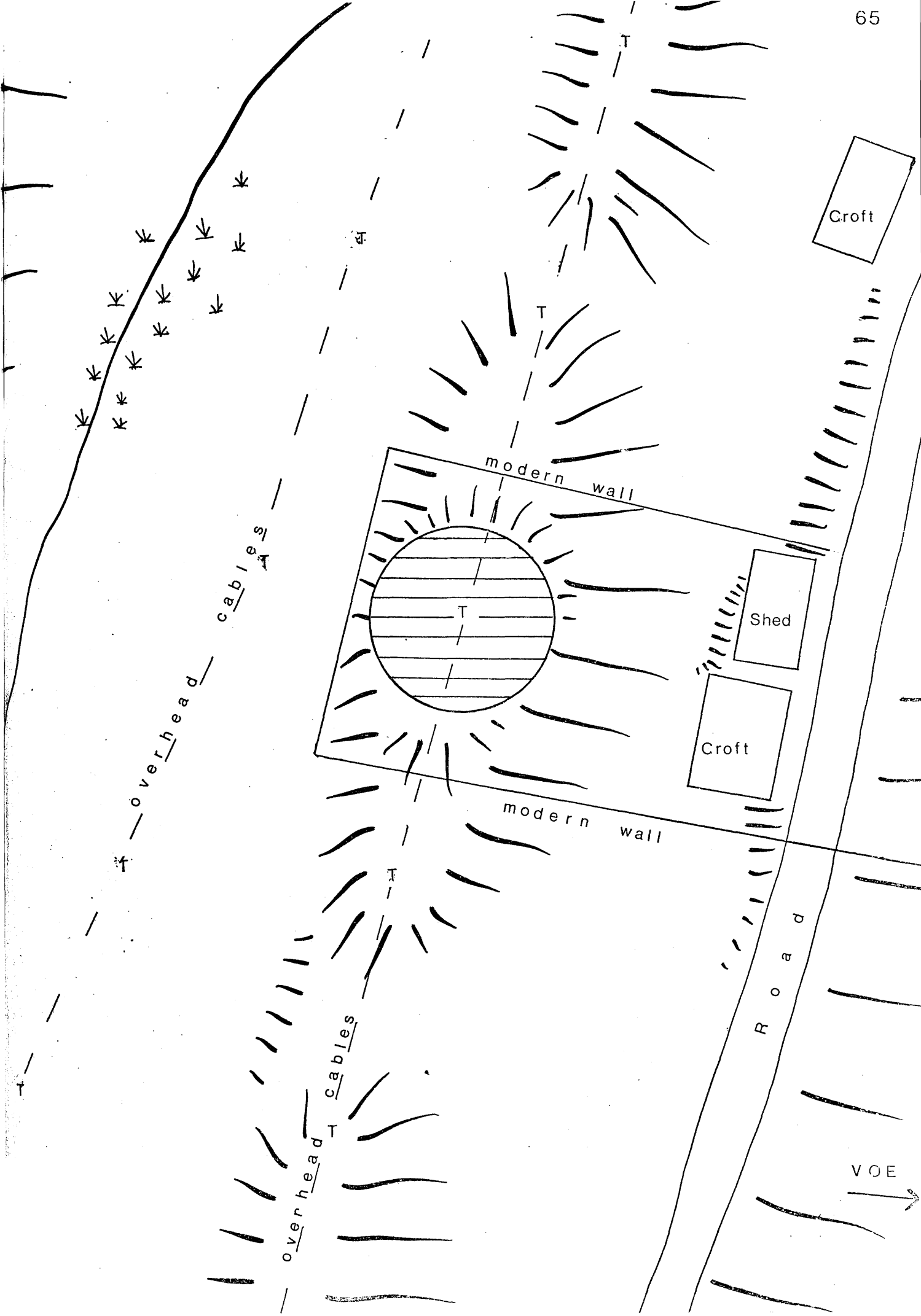


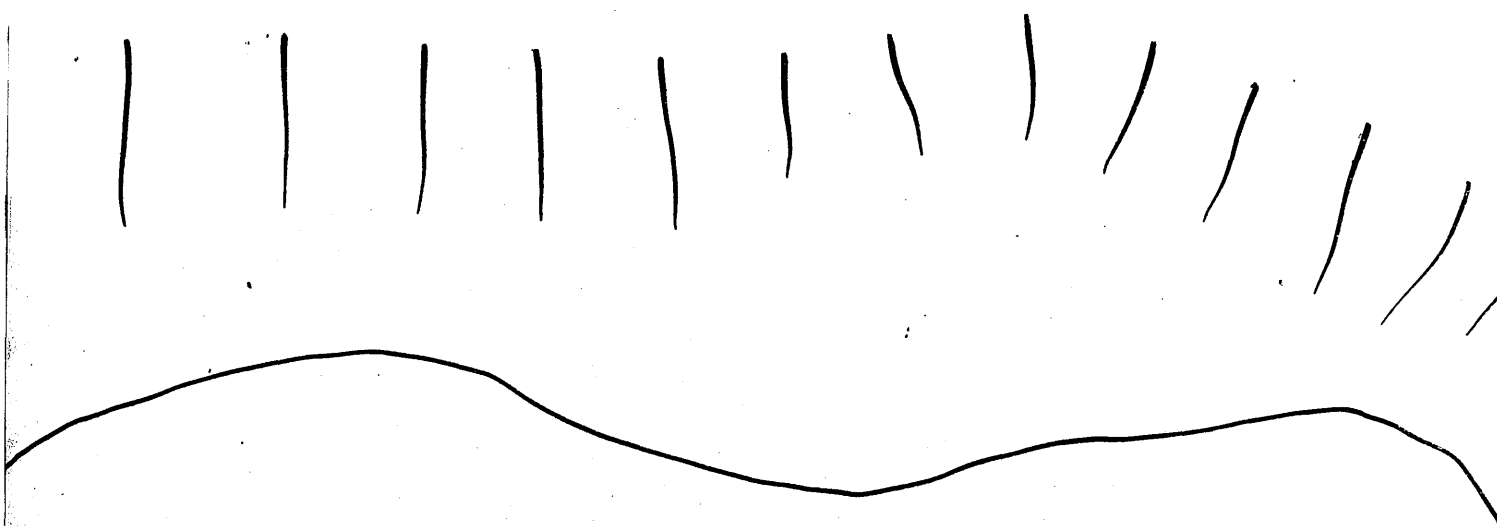




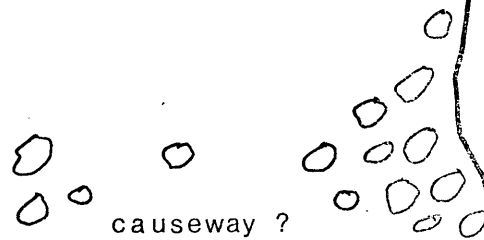
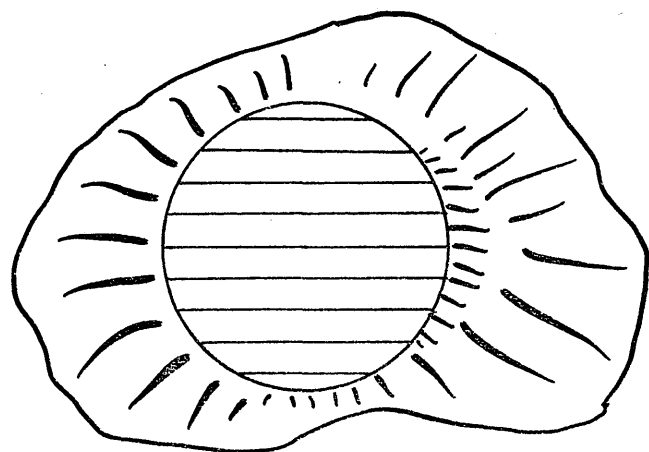




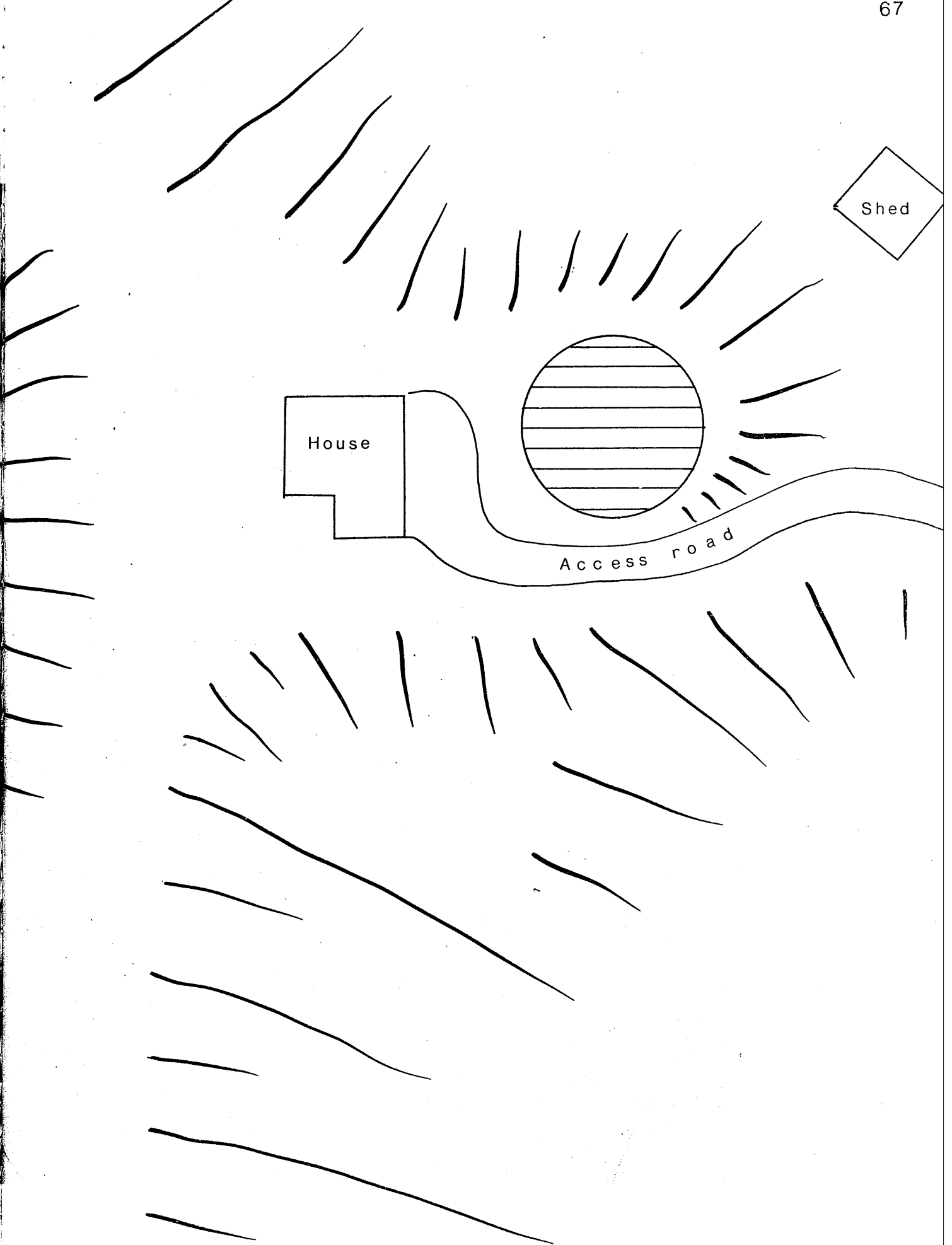


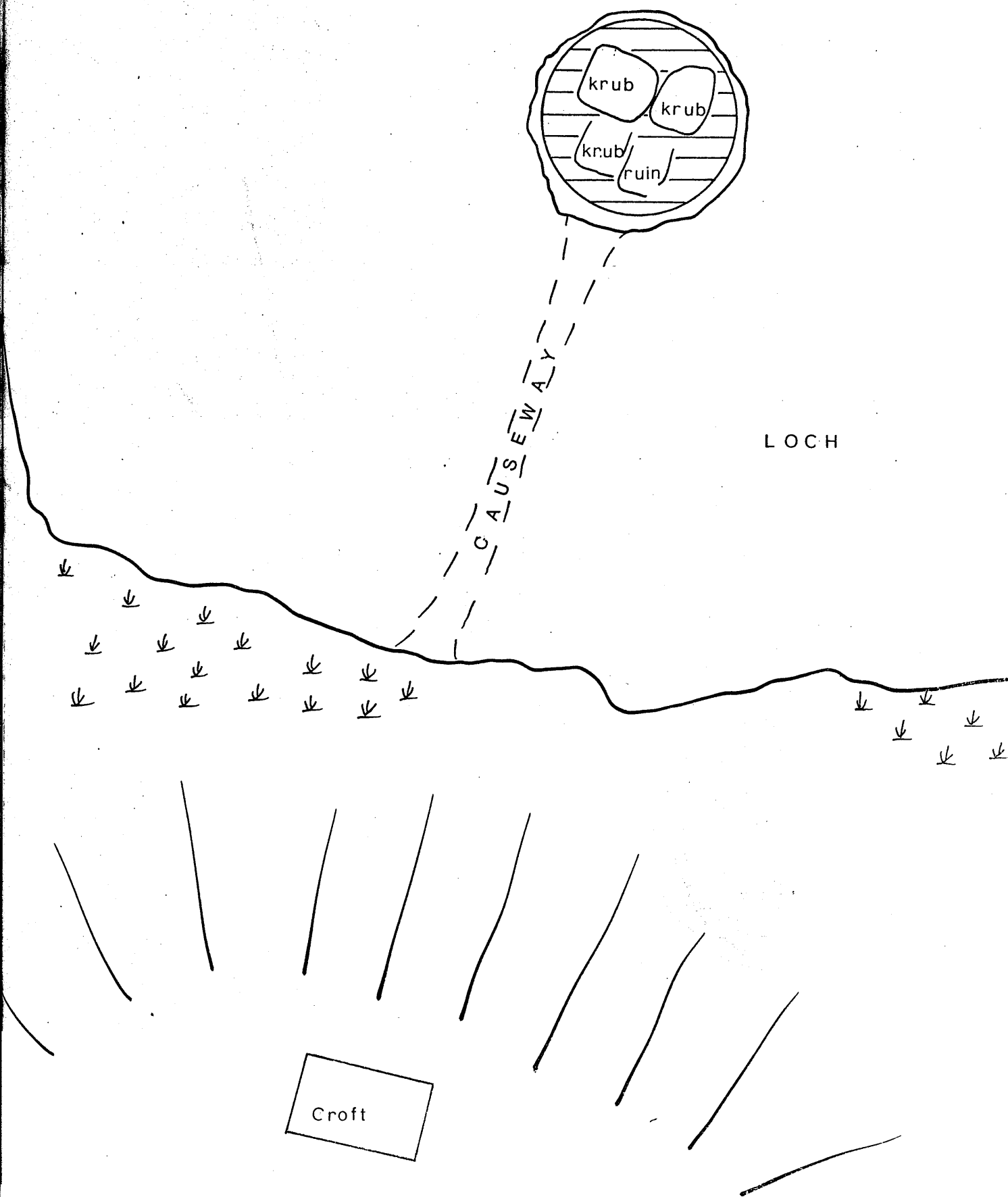


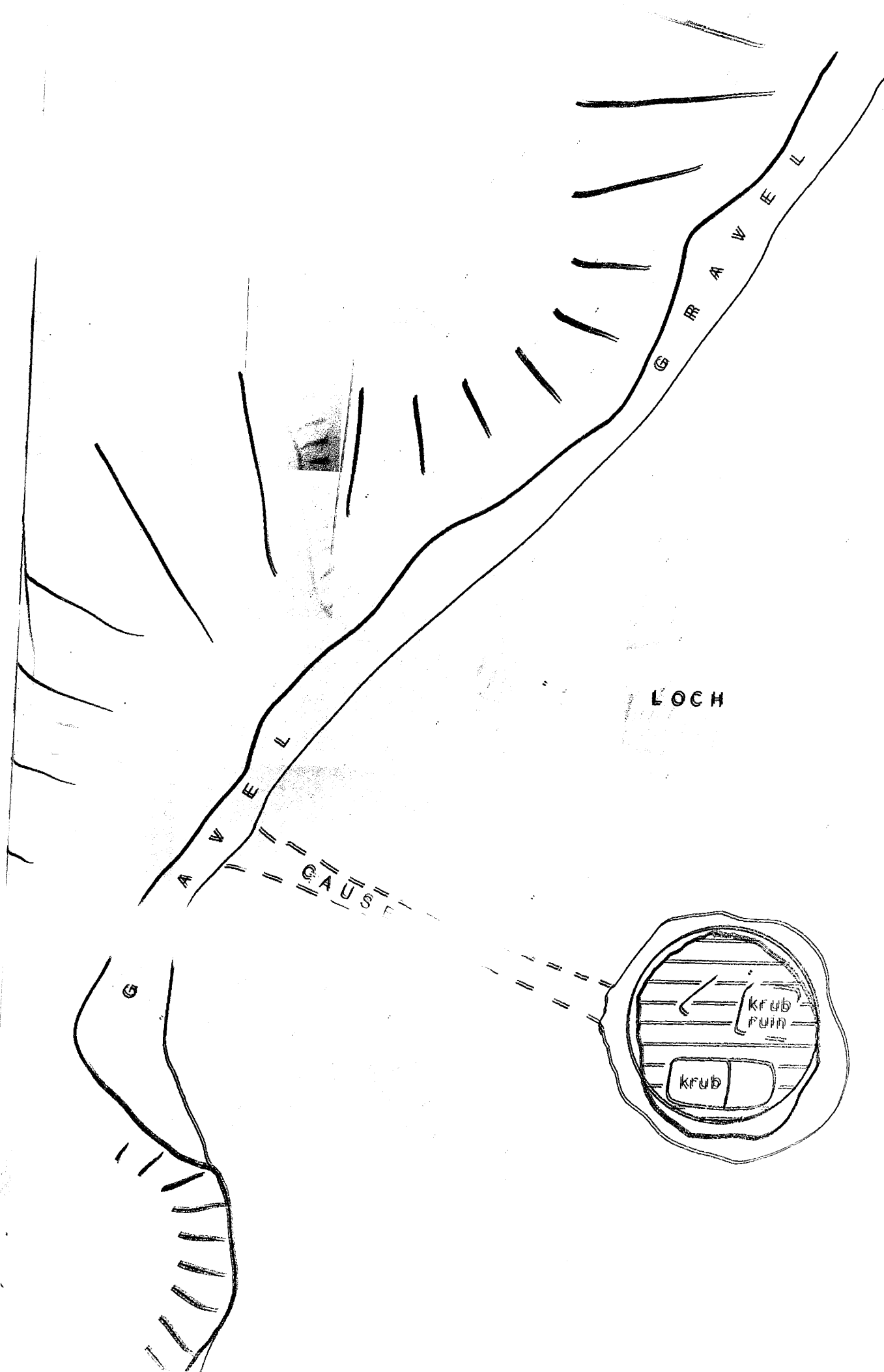
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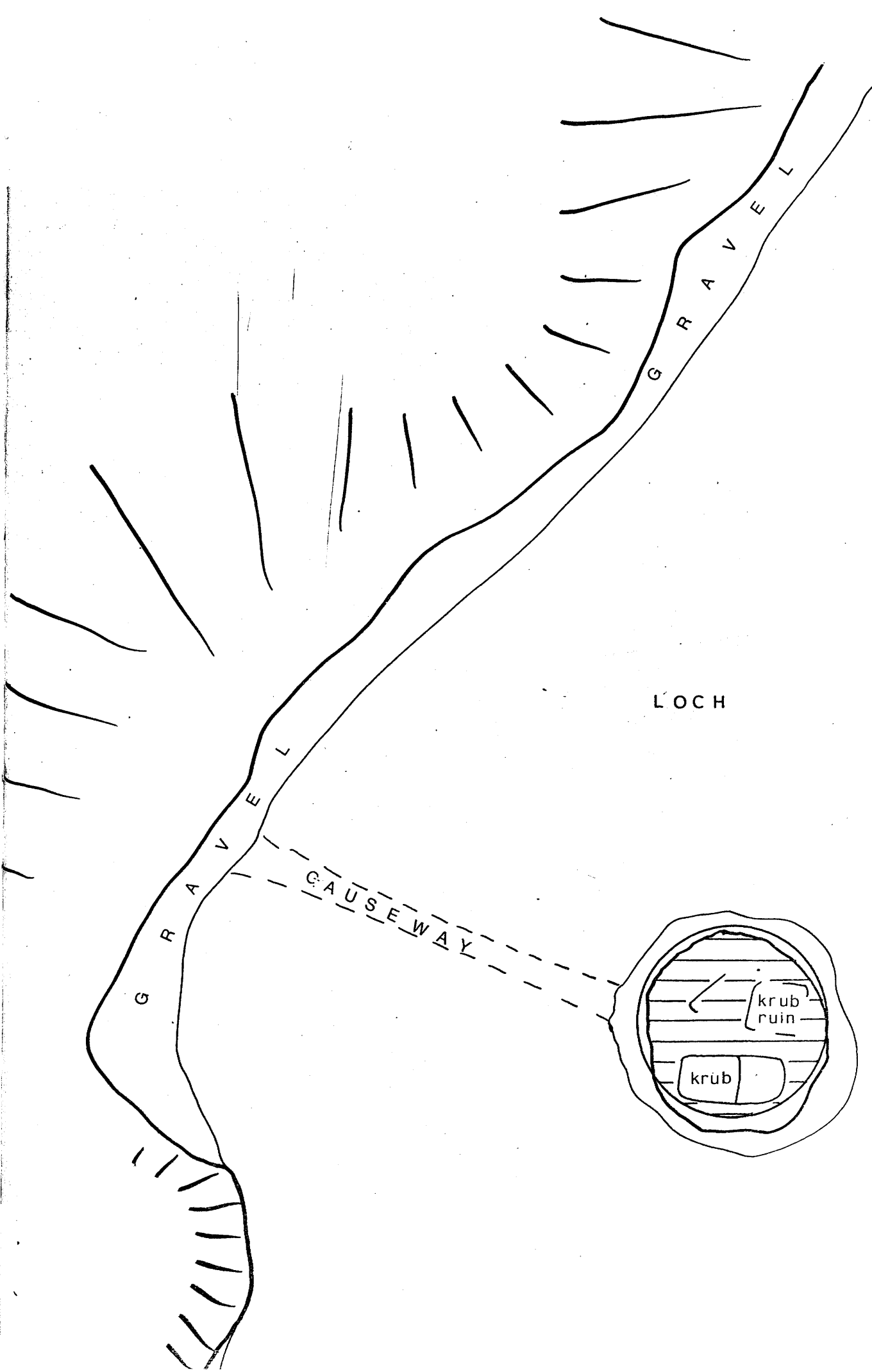


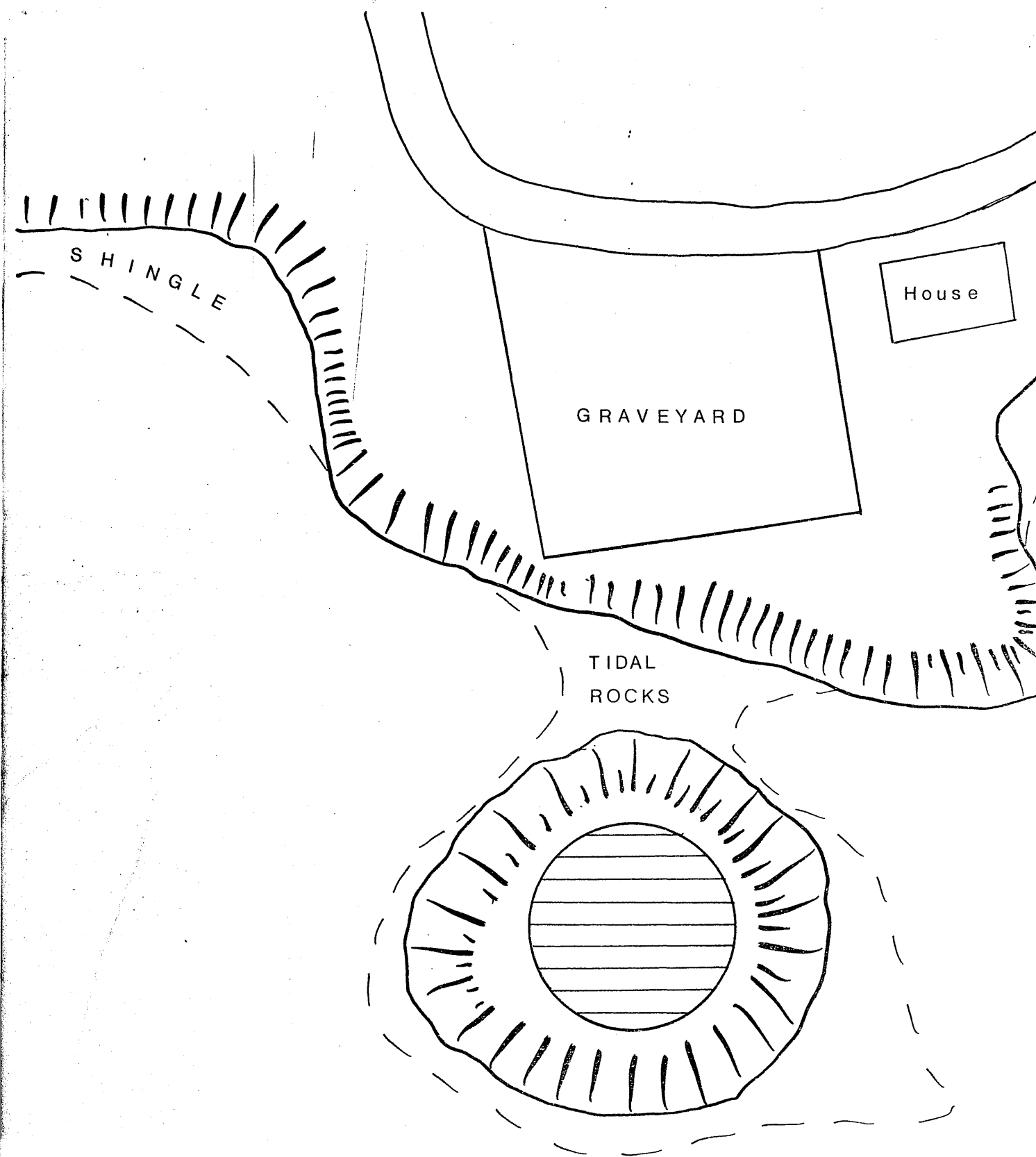
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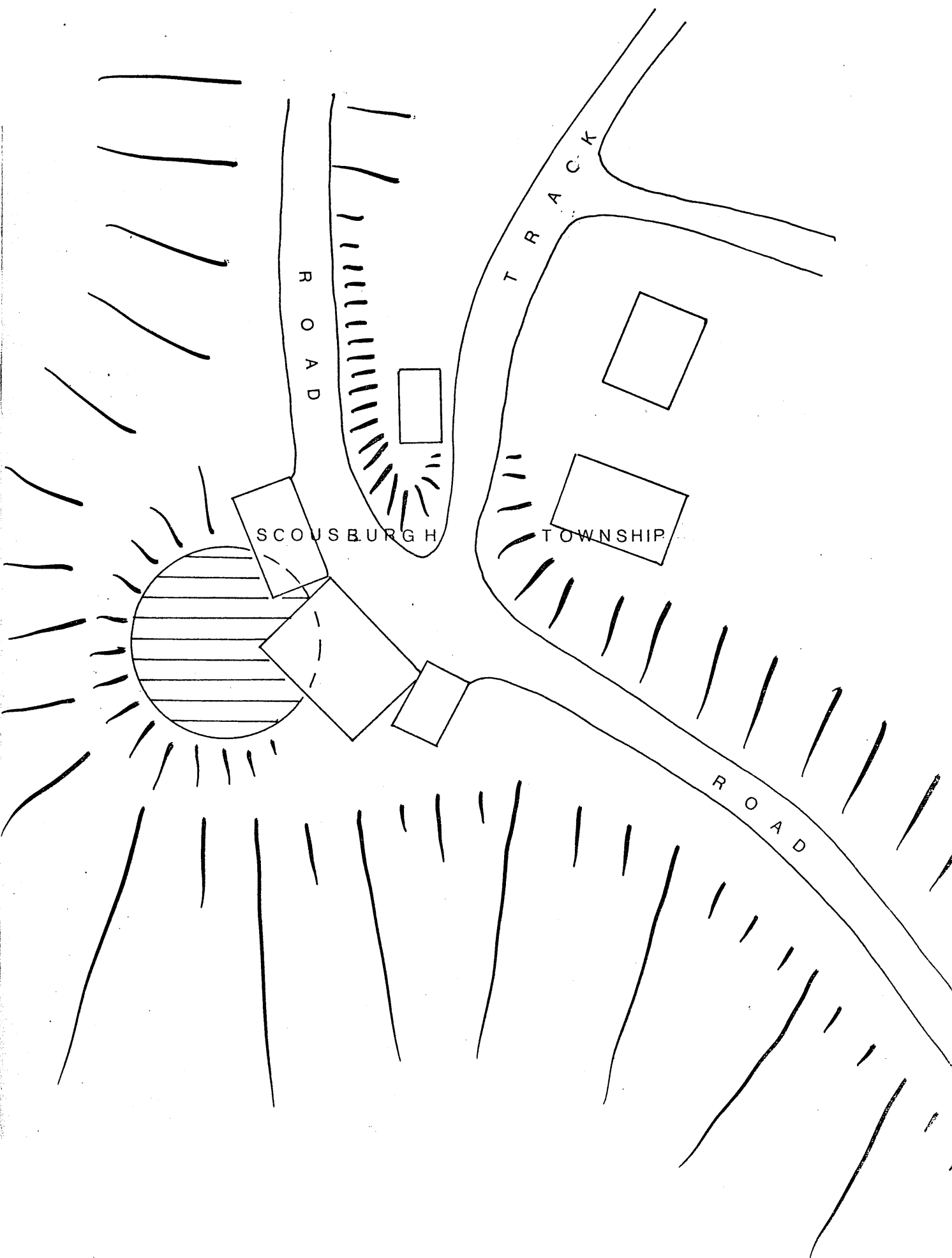


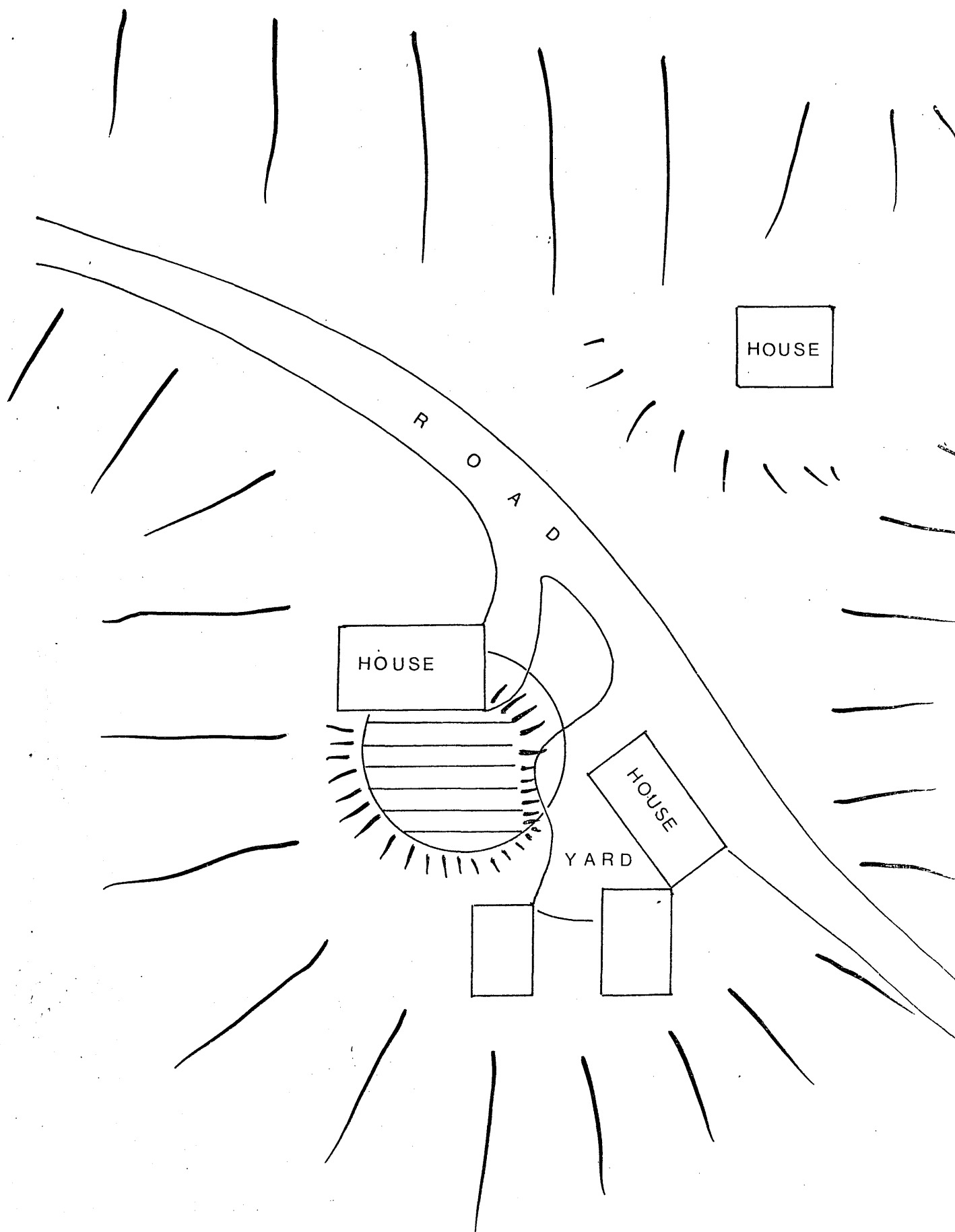












SYMBISTER

HU 539 627

Whalsay

1342

H

On the E shore of the entrance to Symbister Bay.

Only a low mound, some 25-30m across, with scattered blocks of greiss amongst numerous quarry pits. The rock outcrops on site.

The site is locally reputed to be that of a broch.

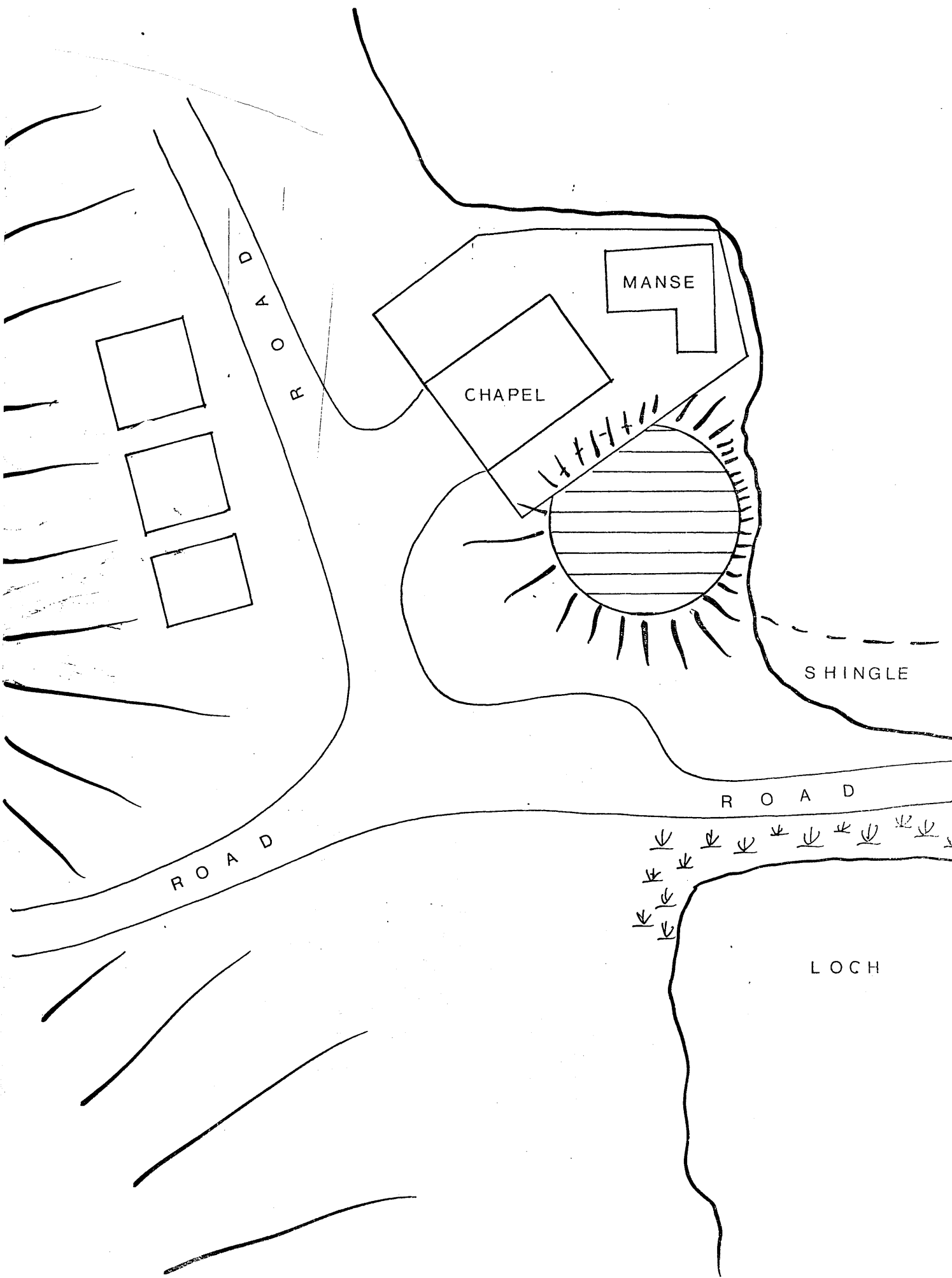
No finds are recorded.

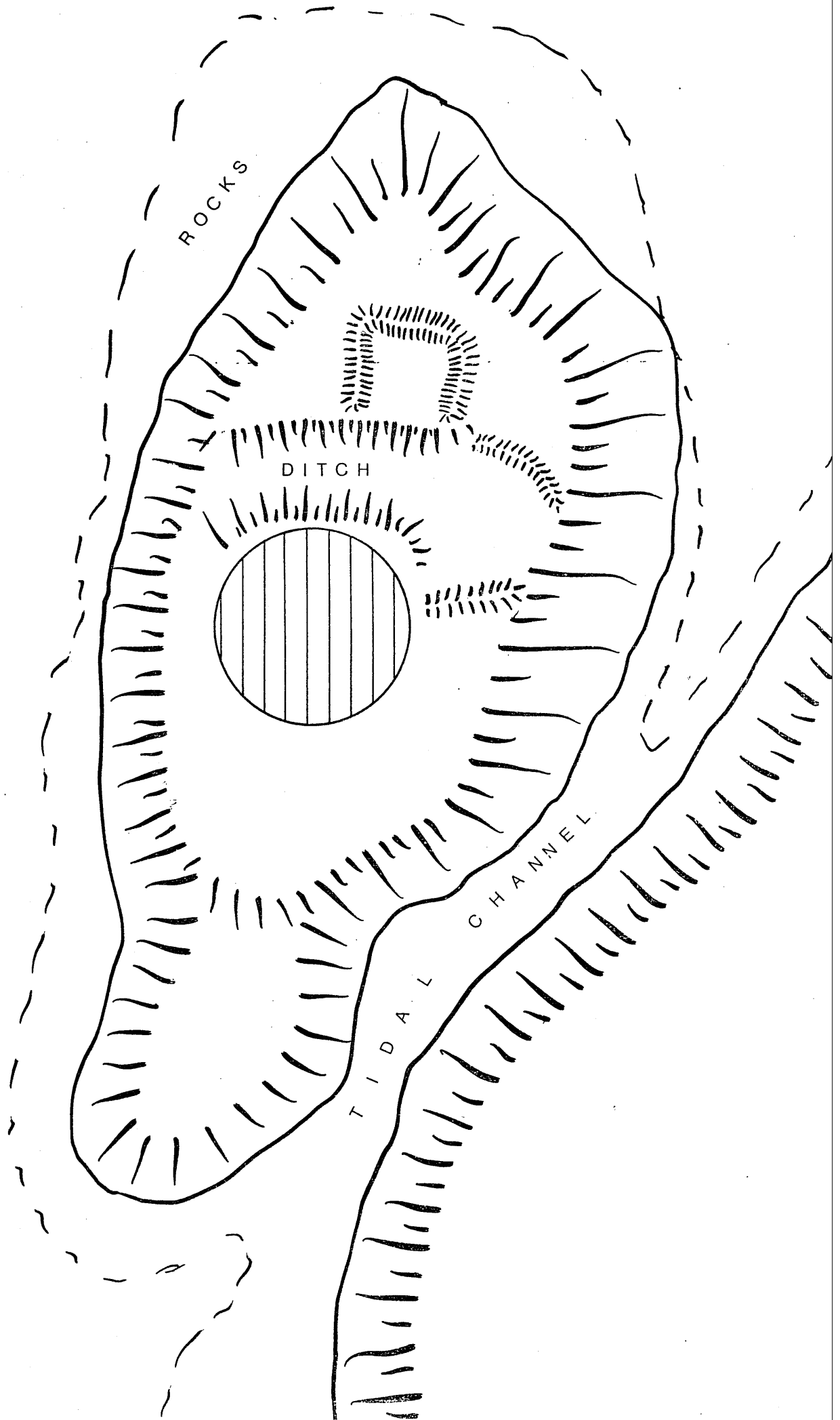
A low bank runs around the site at a distance of c.13m from the centre of the mound.

A landing place is available on the coast 50m SW, but the best beach is 125m S, on the E side of Symbister Bay. The local streams have been diverted at various times, but the nearest water supply at present is a spring 200m SW. Soils are deep and stoney, the ground having long been cleared of peat. The land is improved grazing with many small arable fields and gardens. This is part of the main, settlement area of Whalsay. The site is on a slight knoll on a convex break-of-slope above the shore.

A view over the sea approaches is available, although no other broch sites are visible.

Visited 3/6/77, 16/6/78.





APPENDIX FOUR

SECTIONS FROM THE REPORT
ON THE EXCAVATION OF THE
BROCH AT CLICKHIMIN, AS
DISCUSSED IN THE TEXT
(Section 1, Chapter iii).

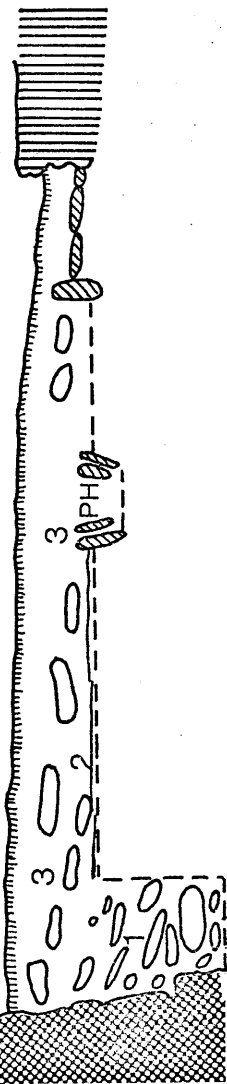
By kind permission of the author,

Mr J. R. C. Hamilton.



BROCH

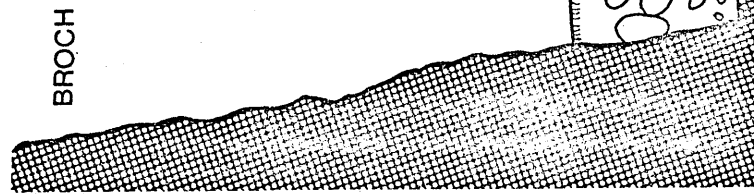
RINGWALL



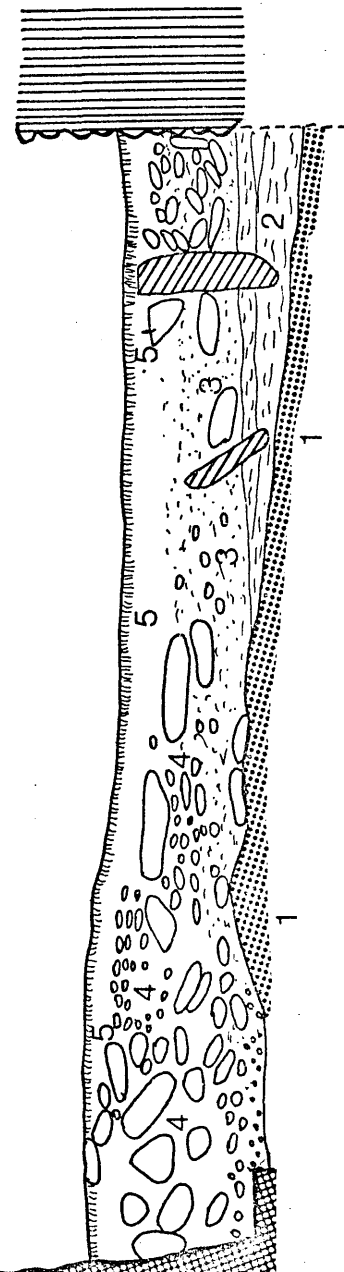
B

B'

- 1 Rubble from broch
- 2 Wheelhouse ground level
- 3 Earth & stones



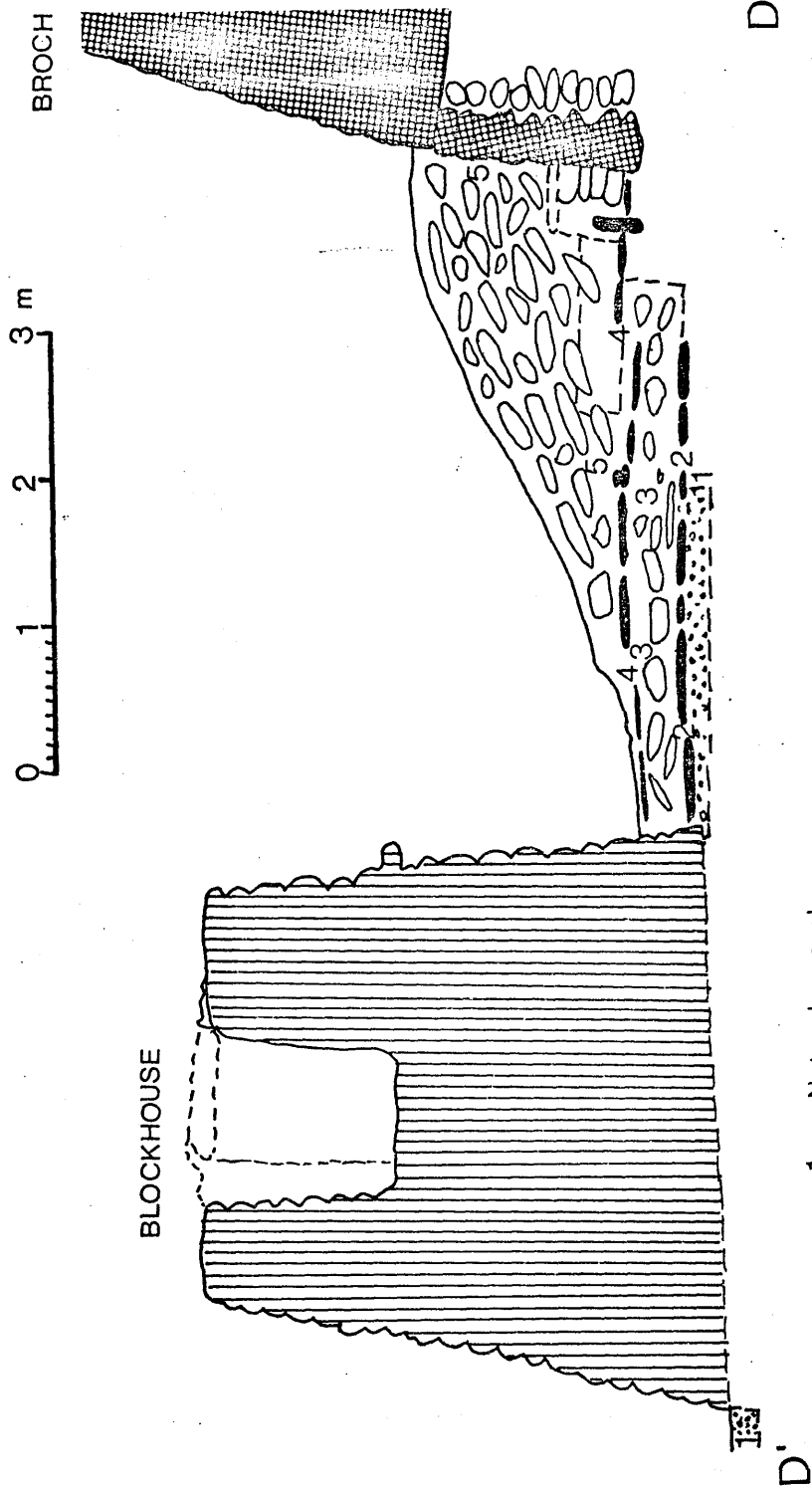
RINGWALL



C

C'

- 1 Bedrock
- 2 Gravels (natural)
- 3 Builders' rubble
- 4 Fallen rubble
- 5 Topsoil



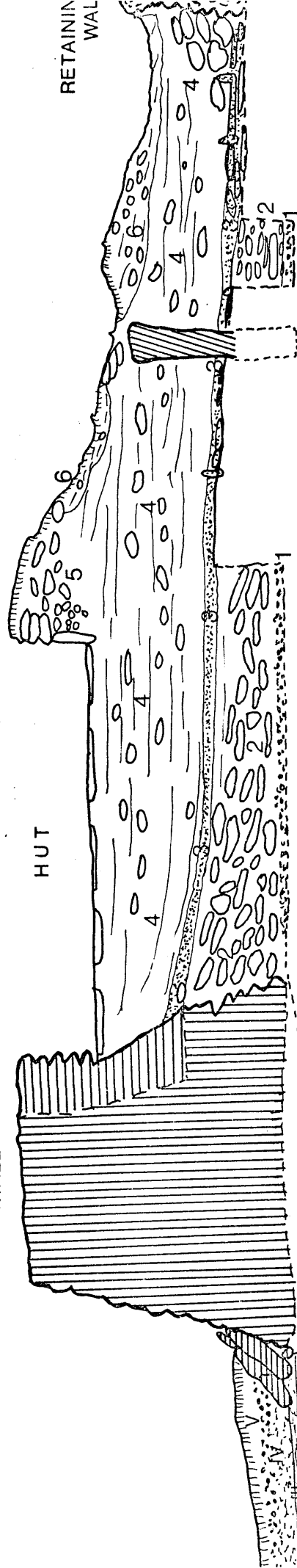
- 1 Natural gravel
- 2 Blockhouse paving
- 3 Stoney make-up
- 4 Wheelhouse paving
- 5 Rubble spread



RINGWALL

HUT

RETAINING
WALL



- | | | | |
|---|-----------------------|---|-----------------------|
| 1 | Natural gravel | 4 | Peat ash midden |
| 2 | Fallen rubble | 5 | Upper peat ash midden |
| 3 | Hearth level & spread | 6 | Disturbed soil |

C

C

SOURCES

Personal Communications

Many persons have contributed to this research through verbal or written comments, often giving details of work which will eventually be published. Such contributions are acknowledged in the text, and the consolidated list provided here acts as an index of the assistance afforded by fellow archaeologists.

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Abbreviated Journal Titles

Arch Scot	Archaeologia Scotica
GAJ	Glasgow Archaeological Journal
Med Arch	Mediaeval Archaeology
PPS	Proceedings of the Prehistoric Society
PSAS	Proceedings of the Society of Antiquaries of Scotland
SAF	Scottish Archaeological Forum
TIBG	Transactions of the Institute of British Geographers.

