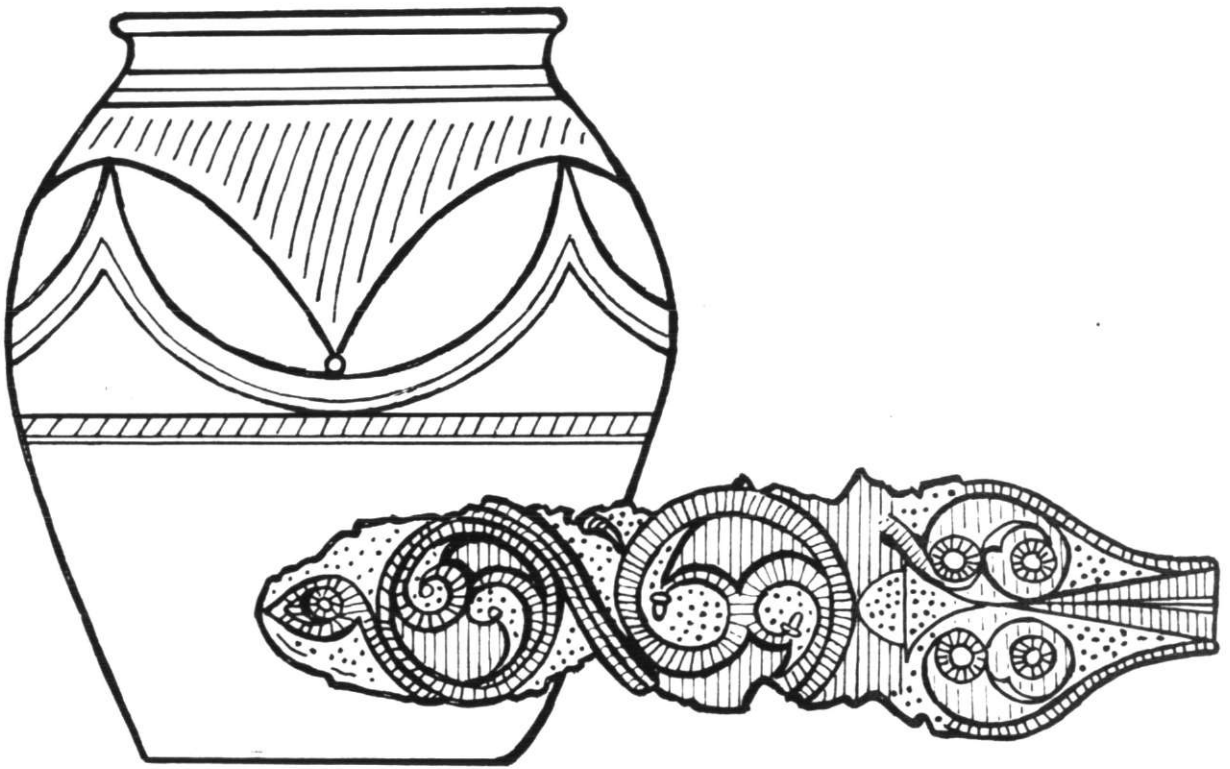


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CORNISH ARCHAEOLOGY

No. 14 1975



HENDHYSCANS KERNOW

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MEMBERSHIP OF THE SOCIETY is open to all individuals or groups interested in the history and material culture of Cornwall and the Isles of Scilly (persons under 16 being admitted at the discretion of the General Committee). The annual subscription (£2.00, or £1.00 for persons under 18 and for full-time students under 23) is payable each January 1st, and entitles members to receive a free copy of this, the Society's annual journal, the thrice-yearly Newsletter, and notification of all activities. At least one excavation is held annually, and the AGM normally takes place in the spring. Enquiries about membership should be sent to the Hon. Membership Secretary; requests for any publication of the Society or of the former West Cornwall Field Club should be sent to Mrs V. Harris, Forest House, St Erme, Truro.

CONTRIBUTIONS to *Cornish Archaeology* should be sent to the Hon. Editor, Mrs H. Miles, Extra-Mural Dept., University of Exeter, Gandy Street, Exeter.

ERRATA

R.T. Brooks, 'The Excavation of The Rumps Cliff Castle, St Minver, Cornwall' in the previous issue of *Cornish Archaeology*, No. 13, should be corrected as follows:

p. 22, line 46, for '(pl. XXII)' correct to '(pl. XXI)'

p. 29, line 17, for 'cordoned jars (group 3)' correct to 'cordoned jars (group 2)'

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Editorial

This volume of *Cornish Archaeology* is something of an anomaly. It is the issue for 1975, to be distributed to everyone who was a member of the Society in that year, but it is being edited by an Editor who took office only in April 1976! It has been decided that a change of editorship is an opportune time to alter slightly the material to be included in each issue. If a volume of *Cornish Archaeology* is to be issued within, or just after, the year of its date of issue, i.e. the 1977 volume is to be issued at the end of 1977, it cannot contain a complete account of activities in that year. Instead, it should contain summaries for the previous year, 1976. The present volume for 1975 should then contain summaries for 1974, but much of this material has already been published. The next volume, No. 15 for 1976, will therefore contain an editorial covering important events during 1975 and the Excavation News for that year. One exception has been made for the obituary on Dorothy Dudley, who died in March 1975; it was felt that members should be able to see in print at the earliest opportunity the summary of her work and the tribute to her contribution to Cornish archaeology provided by Charles Woolf.

This volume has been prepared by the 1976 Editor, but with much assistance, gratefully acknowledged, from the former Editor, Charles Thomas, who is now acting as Editorial Consultant to the Society. The Editor also now has the benefit of the work of an Assistant Editor, Mrs Brenda Duxbury, who has put much time and effort into ensuring that the present volume is accurate, consistent and attractive in appearance, and to her, also the Society is much indebted.

HENRIETTA MILES

Dorothy Dudley — Historian, Teacher, Archaeologist. An Appreciation

CHARLES WOOLF

Dorothy Dudley was born in Liverpool on 13 December 1885. She died in Cornwall, the county she loved so much and to which she gave a great part of her life, on 26 March 1975, in her ninetieth year. The years between record the life of a truly remarkable woman.

Miss Dudley read history at Liverpool University and was awarded her M.A. degree in June 1909. Having trained as a teacher, she settled at the County School (girls), Wolverton, where she was senior history mistress until her retirement in 1947. 'Her work has been invariably marked by sound scholarship . . . and (she) has proved herself to be a very capable teacher,' wrote her headmaster. 'She has taken a strong, personal interest in her pupils with whom she is deservedly popular . . . She has initiated and carried out most successfully each year a summer series of archaeological outings for the pupils of the Upper School.' This assessment of Dorothy Dudley in her younger days, sums up this lady to her end.

She became captivated by Cornwall and in the early 1930s occupied a flat at St Ives from which, during vacations, she studied the moors and archaeology of West Penwith. From 1933-35, Lt. Col. F. C. Hirst, a noted local antiquary, excavated the courtyard house site at Porthmeor; Miss Dudley was quick to offer her assistance, which was readily accepted. The teacher was always willing to learn, and learn she must have done from this excavation. Like herself, Col. Hirst was a disciplinarian, was meticulous in his methods, a teacher and a great fieldworker. It is not surprising, therefore, that he and Miss Dudley were excavating the longstone at Kerrow together in May 1935. In August of that year, the West Cornwall Field Club was formed, Dorothy Dudley being one of the six founder members. In 1936, she was elected to the committee, and in the same year was excavating at the Bronze Age settlement of Trewey-Foage — writing the final report of the work there. In 1939, she was excavating at Gurnard's Head.

In 1947, after the archaeological hiatus of the war years, Miss Dudley retired from teaching, settled at Looe, and was now able to devote her whole time to archaeology. She was assistant director at the West Cornwall Field Club's excavation at Maen Castle, 1948-49, and from 1950-55, dug at the major excavation at Bodrifty; in its last year, she directed the work, eventually writing the lengthy report on this important site.

Living at Looe, Miss Dudley turned her attention to the more accessible Bodmin Moor which, like West Penwith, she came to love and to know intimately. Her first work there was an exploration of the Bronze Age site on the northern slopes of Rough Tor, but she really made her name on Garrow Tor (1958-59), which she alternately described as 'an enchanting place' and an 'archaeological museum'. On this hill, she excavated Bronze Age and Iron Age sites, but her major work was the excavation of a Medieval long house site — one which has received national acclaim.

By now, she had been appointed Correspondent in Cornwall to the then Ministry of Works. This office imposed upon her time, but she was glad to accept this additional commitment for it kept her in touch with people and archaeological work. She was ready at any time to receive a call to view a chance discovery or to inspect a threatened site. Land-owners and farmers alike knew her and admired her for her knowledge and dedication. Thanks to this, her work, we are indebted to Dorothy Dudley for the fact that many of our ancient monuments are now scheduled, and we hope, safe.

Her association with the Ministry of Works involved her in many excavations — she claimed twenty two in all. The more notable were the barrows at Carvinack, Woolley, Otterham, Glendorgal, Carnon Downs, the dagger burial at Rosecliston and the Medieval long house site at Treworld. Undoubtedly, her two most important digs must have been at Nornour, Isles of Scilly (1962-66) and at Tregiffian, St Buryan (her last), in 1967. I would here emphasise the great spirit and determination of this lady, who, at Tregiffian, in the month of October, in all winds and weathers, was digging at an age approaching 83 years!

In 1948, Dorothy Dudley was appointed Recorder in Archaeology to the Federation of Old Cornwall Societies, an office she held for twenty-four years. She was initiated as a Bard of the Cornish Gorsyth in 1949. By May 1957, she was elected a Vice-President of the West Cornwall Field Club and in 1962, of the Cornwall Archaeological Society, which was formed out of that Club. From 1957, she sat on the Council of the Royal Institution of Cornwall and in 1962 was awarded the Henwood Gold Medal of the Institution for her archaeological work in Cornwall. In 1973, a proud moment in her life, she was elected one of its Vice-Presidents. She readily identified herself with any cultural activity which needed encouragement. She was a committee member of the Axehead Society, a member of the Society for Medieval Archaeology, a one-time President of the Lizard Field Club. Humbler activities such as the Truro and Newquay Old Cornwall Societies and the Mevagissey Museum Society also received her support.

The culmination of Miss Dudley's archaeological work was undoubtedly in 1955, when she was elected a Fellow of the Society of Antiquaries — only eight years after she turned to full time archaeology. This national recognition as an archaeologist of repute is not easily attained and it indicates the high regard in which she was held by leading archaeologists.

Even so, I have often thought that her local Cornish achievements meant just as much to her.

I did not know Miss Dudley closely until she moved to Truro in 1963. From that year onwards, it was my pleasure and privilege to motor this indefatigable lady around Cornwall. A day out with this great fieldworker was an experience and an education — sometimes arduous, for even on the hottest of summer days, there was little relaxing. Every hour had to be given to the study and exploration of the Cornish scene — often archaeological sites identified at home by means of aerial photographs and 6-in OS maps. She was a tireless walker and her trained eyes missed not a thing; to explore a parish church with her was a history lesson — the ‘capable and inspiring teacher’ of Wolverton days. The teacher whose front door was ever open, and whose library available to anyone wishing to learn about the Cornish scene and its history. The teacher, who on many a dark winter’s night, at an advanced age, would set off by bus or taxi, slides in one hand, projector in the other, to any remote society in the endeavour to instruct and interest its members. The teacher who, although not always easy to get on with for she had a strong mind and personality of her own, has left behind numerous students who admired her for her knowledge and enthusiasm, and who owe her a great debt.

At the age of sixty-one, when many are thinking of relaxing, Miss Dudley embarked upon a new career, that of archaeology. She distinguished herself in it for twenty-eight years. At her funeral, a mutual friend turned to me and said, ‘This is the end of an era.’ Her passing was indeed so. She had outlived all her earlier contemporaries who, with her, founded Cornish archaeology as we know it today — Col. F.C. Hirst, the Rev. C.B. Crofts, Mr J. J. Judge, Mjr and Mrs Lloyd, Miss Florence Patchett, Miss Ada Williams. It is good that she did, for Cornwall was given the bonus of many years of her work. We, who knew her and admired her, must also pass from the scene, but the name of Dorothy Dudley will live for ever by virtue of her work and her written reports which accompany it.

EPILOGUE

No appreciation of the life and work of Dorothy Dudley would be complete without reference to the Dudley who only a few people knew; I am proud to have been one of them. Although she could sometimes employ her almost dominating personality, D.D., as she was affectionately known to her closer friends, was a simple person who loved simple and beautiful things. She was an avid reader and the following words of G. Bernard Shaw were amongst her favourite quotations: ‘I believe in the might of design, the mystery of colour and the redemption of all things by beauty everlasting.’ She adored the peaceful Cornish countryside — the form of trees, a beautiful landscape, the hedgerows and the flowers which grew in them. She was a keen botanist, and the memory of exploring Cornish lanes in search of wild flowers will ever remain with me.

On a beautiful May day, the month she loved the most, a small party of friends carried Dorothy Dudley’s ashes to Garrow Tor, where, with bluebells all around, one of her favourite flowers, we left them in an Iron Age hut of her own excavation. Surely, there could be no better resting place for the historian, teacher and archaeologist who dearly loved Cornwall, but in the end loved Bodmin Moor above all, in particular her ‘enchanted place’, Garrow Tor.

6 Arundel Way, Newquay



I Miss Dorothy Dudley, pictured by Nigel Tangye (member); during her excavation of the Glendorgal barrow (reported in CA 1), April 1957.

Barrows on the St Austell Granite, Cornwall

HENRIETTA MILES

Six excavated sites were placed in sequence on palynological evidence. The earliest, Cocksbarrow, was a low turf mound which covered a double cairn ring enclosure, the outer ring supporting posts, and a partial cremation accompanied by a horn ladle. At the next, Watch Hill, a ditched cairn ring enclosure had been left open for some time before the insertion of two burials in wooden coffins and the building of the mound; radiocarbon dates of 1520 ± 70 bc and 1470 ± 80 bc were obtained from primary contexts, together with sherds of an Enlarged Food Vessel. Three structures in line at Caerloggas could not be distinguished chronologically from Watch Hill: I was a three-period ring banked enclosure surrounding a remnant tor on the hill top; there was no burial but the interior was scattered with artefacts including a Camerton-Snowhill dagger fragment, tin slag and a scrap of amber; II was a simple mound, badly damaged; III was a similar mound constructed over a miniature standing stone. The latest structure, on Trenance Downs, consisted of a ring cairn without a burial, its centre subsequently infilled. All structures were linked by the use of yellow kaolinised granite.

The interrelation of mound and enclosure and the function of burial deposits on ritual sites are discussed; sites in South West England are distinguished as a regional group.

The St Austell granite forms the highest area in mid Cornwall, rising to 312 m OD at Hensbarrow (Fig. 1). The outcrop, covering about 130 sq km, is of Armorican date, as are those of Dartmoor, Bodmin, Carnmenellis and Land's End. The granite is surrounded by an extensive metamorphic aureole which contains a wide range of minerals, in particular tin and copper, both of which have been commercially worked during the last two centuries. Parts of the granite, mainly the highest areas in the centre and west of the outcrop, have been completely kaolinised, that is the rock has been altered by pneumatolytic action into kaolin, a fine white clay mixed with quartz, mica and other impurities. These St Austell deposits represent the most extensive occurrence of kaolin or china clay in Europe. The clay has been extracted on an increasing scale since the eighteenth century and its production is now being expanded to supply home and overseas markets. The extraction process destroys the landscape where pits are dug and plant is sited and uses large areas for the dumping of overburden, mica waste and quartz sand. Most of the china clay area will be affected in this way by the end of the century. The waste dumps will be eventually landscaped so that the natural environment will be replaced by one made by man.

The kaolinisation process has affected the granite unevenly and areas of kaolinisation are interspersed with outcrops of unaltered rock. Both kaolin and granite have been weathered under pre-glacial and periglacial conditions and are covered in most areas by a varying thickness of head, consisting of blocks of granite in a yellow-brown gritty matrix. The head

deposits deriving from the kaolinised granite can be distinguished from those whose parent materials are weathered but non-kaolinised rock, except where mixed on slopes. Veins of white quartz occur in the granite and lumps of this material are scattered through the head. Blocks of granite still protrude through the surface vegetation as moorstones in the higher areas despite the use of considerable quantities in buildings and field walls. The soil cover is of the Hexworthy series (p. 66), as on the other south western granite outcrops, with some growth of peat in places. Trees today grow only in the valleys. Much of the area has been used for agriculture but the tops of most of the higher hills have remained unenclosed. Here the flora consists mainly of rough turf with much heather, bilberry, bracken and gorse.

The landscape has been extensively scarred by trial digging for minerals and the extraction of moorstones, making the recognition of smaller field monuments difficult. A spread of round barrows represents the earliest identifiable use of the area by man. As no systematic antiquarian work was carried out before the development of china clay extraction, there is no means of establishing the number of barrows originally present. The map, Fig. 1, is based on the parish check-lists for the area (Roche, Sheppard, 1971b; St Stephen-in-Brannel and St Mewan, Sheppard, 1970; St Austell, Sheppard, 1972; St Dennis, Sheppard, forthcoming; St Blazey, Beagrie, 1972; Luxulyan, Beagrie, forthcoming). The symbols used on the map for excavated and for still surviving barrows can be taken together as a minimal statement of barrow distribution. Not all the sites listed in the check-lists need have been barrows; two such excavated at Watch Hill (p. 8) proved negative. The barrows were sparsely scattered, crowning each of the major hills on the granite. The majority would have been intervisible. By contrast the group on Gwallon Downs, just off the granite itself, consisted of at least fifteen barrows; these are all now levelled. The surviving barrows are all bowl shaped with occasional ditches. A distinctive feature is the low, flat-topped, 'plate' variant. A standing stone known as the Longstone formerly stood at SW 98385614 on the St Stephen-in-Brannel and St Mewan parish boundary. After excavation (Miles, 1971) it was re-erected at SW 986601 in Roche village. Another stone still stands at SX 03445448 in St Austell parish and a third on Gwallon Downs in the area of the former barrow cemetery. There may originally have been others (Sheppard, 1970, 1971b).

There are no detectable hut circles or prehistoric field systems. Flints, including leaf arrowheads, have been found near Penwithick (SX 02255590 and Fig. 10) (Sheppard, 1972, 79, No. 7) and at SW 9861 on Goss Moor (Sheppard, 1971b, 106). A barbed and tanged arrowhead comes from Trethowel at SX 00865366 (Sheppard, 1972, 79, No. 5) and another from Restineas at SX 04465511 (Beagrie, 1972, 72). There are early finds of flat axes from Trenovissick, St Blazey (Beagrie, 1972, 72), of a single flat axe from Tregonjееves Quarry, St Austell (Sheppard, 1972, 79), of spearheads from streamworks at Loath-to-Depart and elsewhere in Roche parish and an object described as a gold fibula, perhaps a dress fastener, from a streamworks in St Stephen-in-Brannel (Rogers Portfolio, pre-1880, Royal Institution of Cornwall at Truro).

There is no record of any early investigation of barrows on the granite. A number of those on Gwallon Downs were dug into during the nineteenth century but only confused accounts survive (Borlase, 1872; Sheppard, 1971a).

Six barrows were excavated between 1970 and 1973 in advance of china clay extraction processes, all those threatened under the present permissions for extraction and dumping. Their excavation was regarded as an opportunity for a comparative study of barrows in similar environments within a small geographical area. Permission for excavation at Cocksbarrow in 1970, Caerloggas I, II and III in 1972 and Watch Hill in 1973 was given by English China Clays Ltd and for Trenance Downs in 1973 by Berk Ltd. English China Clays also gave generous assistance with accommodation, machinery and back-up services. Finance was provided by the Department of the Environment and administered by the Cornwall Archaeological Society. The report on Cocksbarrow has already been published (Miles, 1971) but a brief re-assessment of its significance is included below. The present article comprises the reports on the five other sites in their probable chronological order.

The finds have been donated by English China Clays Ltd and by Berk Ltd to the County Museum, River Street, Truro, where the records will also be deposited.

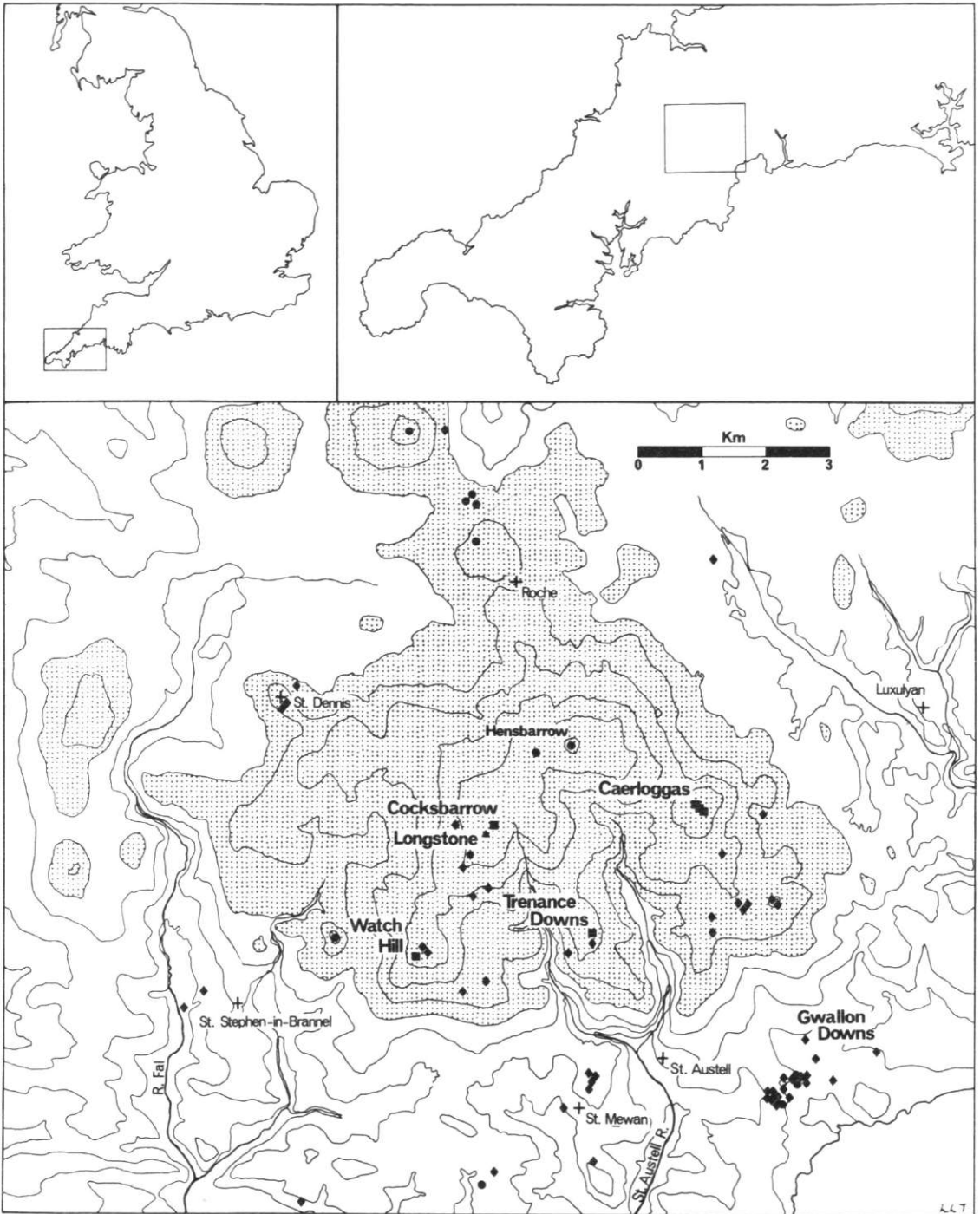


Fig. 1
 Barrows on the St Austell granite. Contours at 30.5 m intervals.
 Land above 152.5 m shaded. Circles indicate barrows surviving 1975,
 squares excavated barrows, diamonds barrows destroyed without excavation.

WATCH HILL, ST STEPHEN-IN-BRANNEL

(Figs. 2-4, 6-9)

The barrow, situated at 263 m OD on the west side of the granite (SW 97275424), formed the lowest sited and most westerly of a group of three (Fig. 2). The two other barrows, on the hilltop, were covered by a china clay waste dump within recent years; their positions are marked on the modern OS 1:2,500 map. They were described by Richard Thomas in 1852 as being 70 ft and 60 ft across respectively (Sheppard, 1970, 145, Nos. 10 and 11). The barrow excavated in June and July 1973 is No. 12 in the check-list (Sheppard, 1970, 145) which includes a comprehensive list of references. The site has now been covered by a dump of china clay waste. Two other sites in the immediate area, listed as barrows in the check-list, were investigated. No. 13 (SW 97285440 and Fig. 2) was a small, and recent, carefully constructed dump of waste material from mineral trial digging. No. 14 (SW 97745388, just off the SE of Fig. 2) was a natural protuberance.

The barrow mound, 24 m across and 1.20 m high, was flat-topped with a slight rise over its centre. A shallow depression indicated the position of a ditch. The west edge of the mound was clipped by a recent field boundary with slight scrape ditches on either side. An Observer Corps post of the 1939/45 war had been built in the south west quadrant of the mound; its ditch, enclosing a horse-shoe shaped area 12 m across, had cut down into and almost through the barrow. The barrow was covered by heather and grass with some gorse and bilberry but the depression over the ditch grew mainly grasses.

The barrow was contour surveyed (details filed with the excavation records) and all levels connected with the Observer Corps post were then removed. A base line was established, aligned due north, and octants laid out from the apparent central point of the barrow. Section drawings along the octant baulks across both the mound and ditch are filed with the excavation records. The turf on the sides of the mound and over the ditch was removed by a back-actor machine. The barrow was then completely excavated by hand, all baulks were removed and the ditch totally cleared. In addition a strip 12 m wide was cleared for 15 m outside the barrow ditch to the north, the only accessible area.

The surface beneath the barrow

The granite beneath the barrow had not been kaolinised. On its north side a small remnant tor projected through the head and both it and some granite blocks in the latter had protruded through the soil and vegetation at the time the barrow was built. This buried soil was otherwise preserved over the whole area enclosed by the barrow ditch. The remnant tor had been pruned, as a few stone removal holes were found on its edge; there were no stone holes beneath the remainder of the barrow. The soil was generally an acid podzol, its upper zone smooth, black and greasy with very little grit, but a small area over the centre of the barrow, an exceptionally clayey patch in the head, was gleyed through frequent waterlogging. The soil had been compressed by the weight of the barrow, but appeared to represent a complete soil profile (see Soils p.66).

The ditch

The ditch was between 2.2 and 2.8 m wide and varied in depth between 1.3 and 1.6 m (Fig. 6). Its profile was irregular, because of the large granite blocks in the head, but in general the sides were steep and the bottom flat. A single distinct pit, 1.2 m across and 0.25 m deep, had been caused by the levering out of an angular rock from the ditch bottom (NE Fig. 3). It was tightly packed with non-kaolinised head, presumably derived from the ditch, mixed with a quantity of charcoal which yielded two radiocarbon determinations (p.14). Two ledges, both 6.4 m long and 0.15 to 0.20 m deep, had been cut along the sides of the ditch opposite each other across the barrow centre. That to the NE lay on the inner edge, that to the SW on the outer.

Rapid silting filled the ditch to between 0.3 and 0.6 m, its depth being greatest where the ditch was narrowest. It consisted of yellow-brown gritty soil washed in from both sides with

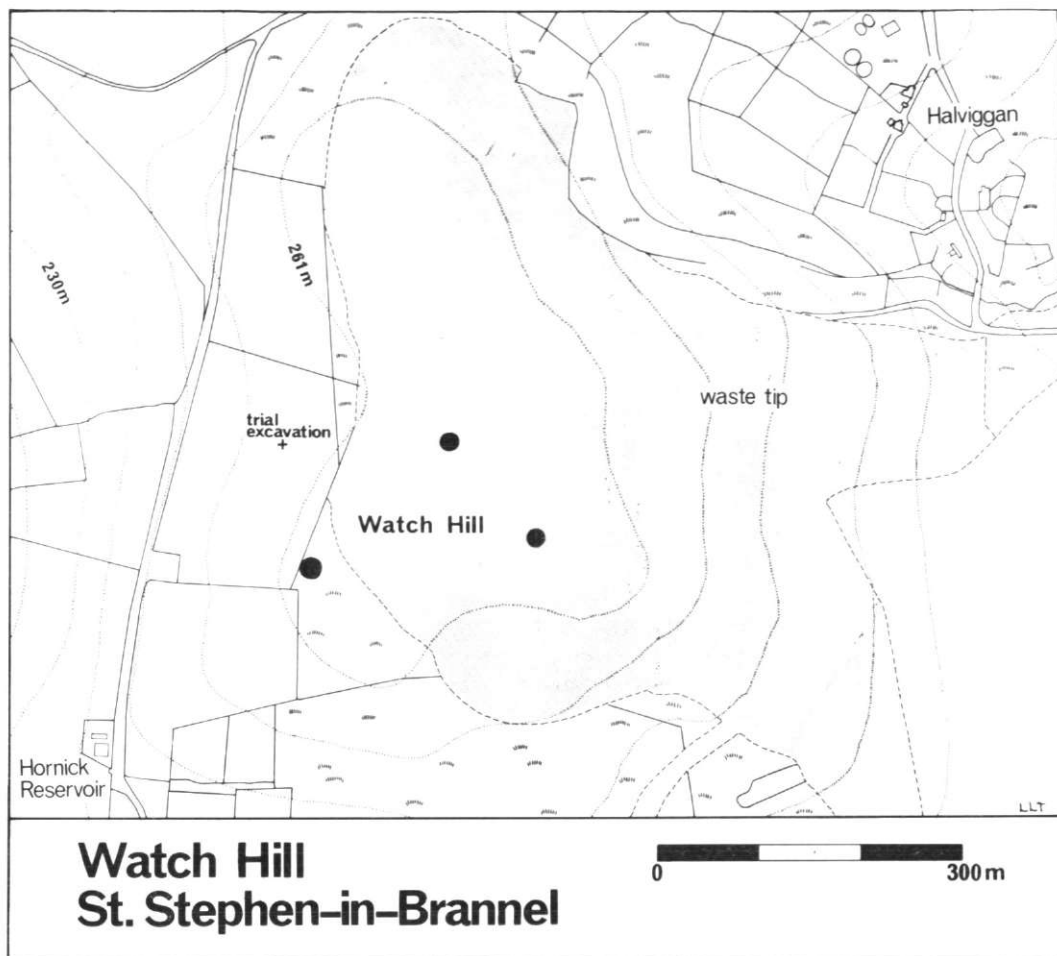


Fig. 2
Location of Watch Hill barrows. Contours at 7.5 m intervals.

occasional humus lenses. In places its surface formed a compacted layer over which was a thin iron pan. Sherds from an Enlarged Food Vessel (Fig. 8, No. 1) had been placed in clumps on the compacted areas (Fig. 3). A fine black humic soil with a little grit had formed over the rapid silt. Its base was only clearly defined where iron pan occurred over the compacted areas. It included a few stones which had fallen onto it from either side of the ditch.

The cairn rings

The main cairn ring lay eccentrically within the ditch, equidistant from it on the east and west but twice as far from it on the north as on the south. The ring was oval rather than circular; the external diameter varied between 16.2 and 15.2 m. It consisted of granite and some quartz blocks, to a few of which traces of yellow head adhered, presumably from the ditch, and also some turves. It was faced on its outer edge by a dry stone wall, highest on the SE where in places six courses survived to a height of 0.7 m. On the north it was interrupted by a blocked entrance (Pl. II). This appeared from the outside to be flanked by two small orthostats on either side and blocked by two large stones on edge with smaller stones

in their interstices. However, while the orthostats on the west were put up before the blocking stones, those on the east were propped up against these stones. The entrance in use must have been a rough gap, later blocked to appear symmetrical. Because the apparent entrance could never have been used, it is described as a blind entrance.

Two arcs of a second, outer ring were situated symmetrically to north and south. These were low irregular banks incorporating some turves but without facing walls. The north arc, 18 m long, ended on the west at a small standing stone. An additional rough stone bank 5 m long blocked the gap between this arc and the main cairn ring. The south arc survived 6 m long but its west end had been removed by the 1939/45 disturbances. Both arcs had been constructed from stones dug from the ditch as patches of head adhered to the undersides of some.

The cairn rings were uncovered for some time, as they were partly ruined before the construction of the barrow. No trace of head was found on the upper sides of any stones, indicating exposure to weather.

The rings were carefully examined for post sockets with negative results.

The central deposit (Fig. 7 and Pls. III, IV)

An oblong flat-bottomed pit, 2.9 by 1.3 by 0.5 m deep, had been dug approximately east west and central to the main cairn ring. A thin layer of brownish silt covered its bottom on which were patches of black fibrous material, covered by large stones. The fibrous material was too decayed for its original nature to be ascertained. The pit was then filled to a depth of 0.25 m with mixed clay subsoil and small granite blocks. A lidded wooden coffin was set in the top of this filling. Its profile had been very distorted by settlement but it appeared to have had a narrow flat bottom, to have been about 0.2 m deep with maximum dimensions at its top of 2.4 and 0.65 m. The wood survived as a soft black fibrous material, its grain still detectable. The coffin had probably been hollowed from a single block of wood. A little gritty soil separated it from the remains of its lid, which had cracked during settlement, allowing filling from above to trickle in. The decayed wood of both coffin and lid was never more than 0.025 m thick but had been compressed from its original thickness. It was too decayed to be removed, for the wood to be identified or for a radiocarbon determination. Acid soil had destroyed all trace of bone but results from soil analysis for phosphates were consistent with presence of a body (p.22). The top of the fill around the coffin was packed with selected granite lumps including some quartz and a high proportion of a fine-grained bluish granite which occurs in small quantities in the local head.

A second wooden coffin had been placed immediately on top of the first. In places the decayed wood of its base could not be distinguished from the lid beneath. The upper coffin was 2.3 by 0.5 by 0.3 m deep with almost vertical sides and a flat bottom. Its wood was so decayed that the direction of the grain could not be ascertained. There was no trace of a lid. It was packed around with redeposited grey subsoil which spread up and outwards from its fill to form a spread 5m across around the central pit.

The soil packed around the upper coffin differed markedly from that around the lower. The upper fill derived from the leached upper zone in the subsoil, 0.2 m thick, which was divided from the lower, more clayey, unleached zone by a narrow dark band of redeposited leached minerals. The clayey lower subsoil was used to pack the lower pit.

A central cairn of turves and granite 3.6 m across was constructed over the pit, merging with the infill of the upper coffin. A rough kerb of large granite blocks occurred only on the west side.

The turf stack

The lower part of the turf stack consisting of turves, with grey gritty soil adhering to their bases, laid vegetation downwards, was probably constructed at the same time as the central cairn. It covered the main cairn ring and in places included numerous stones knocked from it (shown hatched in Fig. 3). The lower turf stack was topped by up to 0.2 m of peaty soil without any detectable turf structure, the surface of which was everywhere slightly compacted.

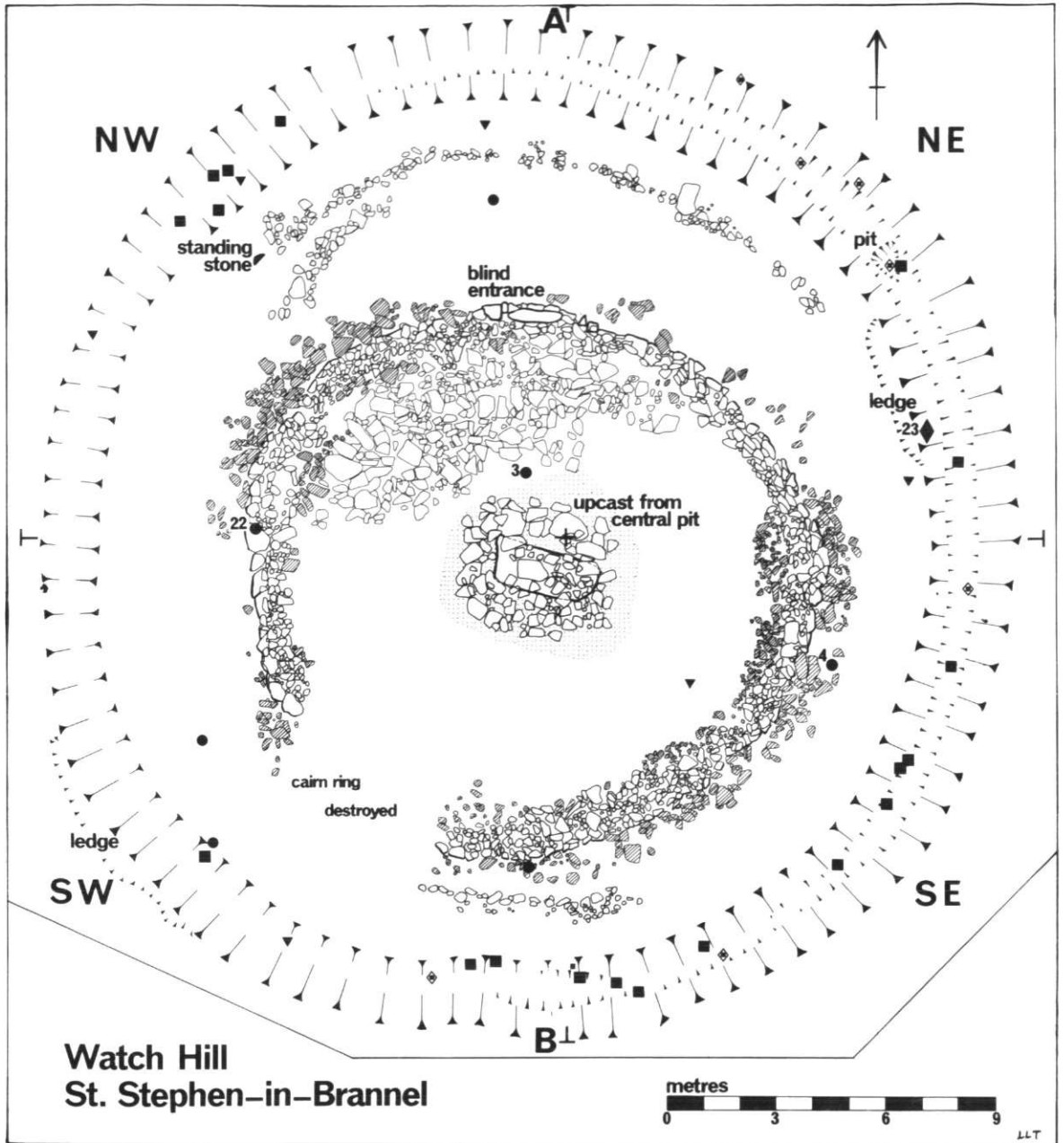


Fig. 3
 Watch Hill. Cairn ring phase.
 Moorstone grounders shown in light outline, tumble from
 cairn ring shaded. For find symbols see Fig. 5.

The turf stack was later built up to a maximum height of about one metre. The turves used were thicker and had a browner and less gritty subsoil than those in the lower stack. They were again placed vegetation downwards. The turves in the two parts may have been brought from different places as those in the lower stack produced no flint but those in the upper produced twenty seven pieces.

The yellow clay ring

The ring of yellow clay was deposited immediately after the turves of the upper stack as the clay had trickled into the gaps between these. The ring extended the mound beyond the perimeter of the turf stack. It was retained by a small kerb bank of granite lumps in brownish soil. Its lower levels consisted of gritty clay soils varying from grey through brown to orange and yellow in colour; these derived from subsoil over kaolinised granite. The upper levels consisted of almost grit-free kaolinised granite. Lenses of differing colours, cream, yellow and orange, suggest dumping by basketfuls. The lower part of this grit-free clay were generally lighter in colour than the upper. All the material in the ring had been dug from the iron-stained zone, often up to 30 m in thickness, overlying the white china clay deposits in the area. A probable source would be a stream which had exposed the yellow clay in its side.

The top of this yellow clay, although disturbed by rabbits, had a compacted surface and the overlying soil peeled off cleanly. The barrow mound appears to have been left for a while with the yellow clay forming its surface, and it was then tamped or trampled upon.

Features (a) to (e) were cut into the surface of the mound. They were distinguished when the overlying soil masking (see below) had been removed, but could have been cut through this. (a) SW, was probably a post hole, 0.15 m deep with packing stones and a smooth soil fill. (b) SW, 0.20 m deep, was filled with similar black soil, but lacked packing stones. (c) SW, (d) SW, and (e) NW were not post settings. They were filled with similar black gritty soil and small granite lumps much looser in texture than the barrow mound. (c) was 0.55 m deep, (d) 0.20 m deep and (e) 0.50 m deep.

The upper levels of the ditch

After the development of a soil over the primary silts the ditch had been deliberately infilled, first with stones and a few turves, then with a black gritty soil. Over this were lumps of the same yellow kaolinised granite which had been used in the mound (Fig. 4) and then more stones, some of them very large, and more gritty black soil. The largest stone directly overlay the pit in the ditch bottom in the north east and from its shape appeared to have been that originally dug from the pit.

The soil masking the mound and ditch

A layer of black gritty soil, up to 0.30 m thick, was placed over the compacted surface of the yellow clay ring and turf stack. It had been much disturbed by roots and rabbits but was clearly distinguishable from the base of the present topsoil. A similar soil on the berm incorporated spreads of small stones, especially on the north side, set in the surface of the soil as a capping. The soil on the berm spread down into the top of the ditch, infilling it completely and merging with the soil around the upper infill of stones.

The area outside the barrow ditch

No definite features were found. The soil in a 2 m zone around the edge of the ditch contained more stones than elsewhere.

Later features (not on plan)

A rectangular area 5 m by 1 m had been levelled back into the west edge of the barrow mound, possibly to hold some timber structure; its loose black soil infilling contained seventeenth century pottery. A pit 0.70 m across and 0.20 m deep was dug adjacent to it into the ditch infill.

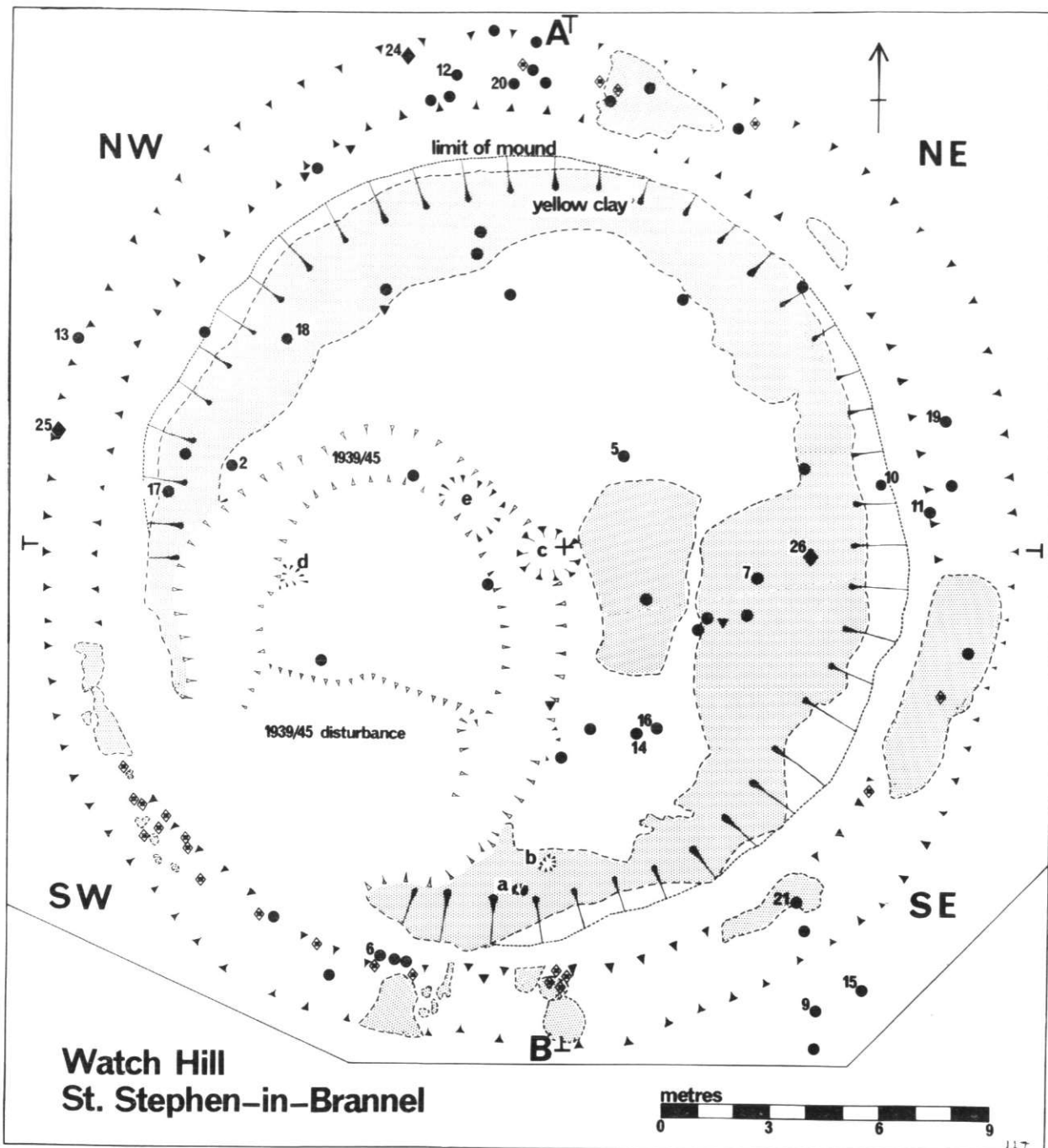


Fig. 4
 Watch Hill. Barrow phase. Yellow clay shaded.

RADIOCARBON DATES

Two determinations were obtained from twig charcoal from the pit in the ditch bottom sealed by primary silts (NE), HAR-654 3470 ± 70 bp, 1520 bc and HAR-655 3420 ± 80 bp, 1470 bc (based on 5570 year half-life). These dates, calibrated according to Suess's Bristlecone Pine curve, can be adjusted to centre on either 1740 and 1710 BC or 1790 and 1820 BC because of irregularities in the curve at this period. However Clark (1975) has stressed that it is at present misleading to produce calibration curves with detailed minor variations because of the size of the standard errors both of the determinations and of the curves. Because his approach presents calibrated dates with a broad and realistic range of error, it is used below to provide approximate indications of the dates in chronometric terms, all the data allows us at the present time. HAR-654 may thus be expressed at 2s as falling between 2156 and 1590 BC and HAR-655 between 2090 and 1546 BC (1s between 2013 and 1717 BC and between 1983 and 1657 BC).

Note provided by Carbon-14 Tritium Measurements Laboratory, AERE, Harwell, January 1977.

The sample type (twig) and archaeological context in which it was found suggest no real differences should exist in the two results given. Thus a mean result of bp 3445 ± 53 is recommended as the best value conventional radiocarbon date for the ditch in-filling.

The smaller error is in this case obtained by the statistical combination of the error estimate of each individual result, i.e. $\frac{1}{2}\sqrt{(70)^2 + (80)^2}$. This association is justified since both results were fully independently determined.

As a radiocarbon date this mean result falls in a difficult region for direct conversion to a true calendar date by Bristlecone pine calibration. The tables of Damon *et al* provide a means of expressing this uncertainty mathematically in terms of an increased error term on the calibrated result and will therefore be used in this case. The calibrated result (with rounding to the nearest 10 y) is thus, BP* 3840 ± 100 (1790-1990 BC).

* Correction by the method of Damon, P.E., Long, A. and Wallick, E.I., 1972. 'Dendrochronologic calibration of the Carbon-14 time scale', *Proceedings of the 8th International Conference on Radiocarbon Dating*, Wellington, New Zealand, 18-25 October 1972, pp 44-59.

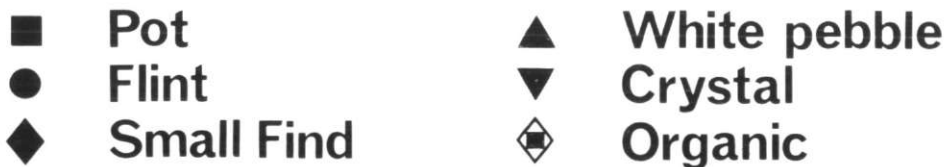


Fig. 5
Symbols used to indicate find categories on excavation plans.

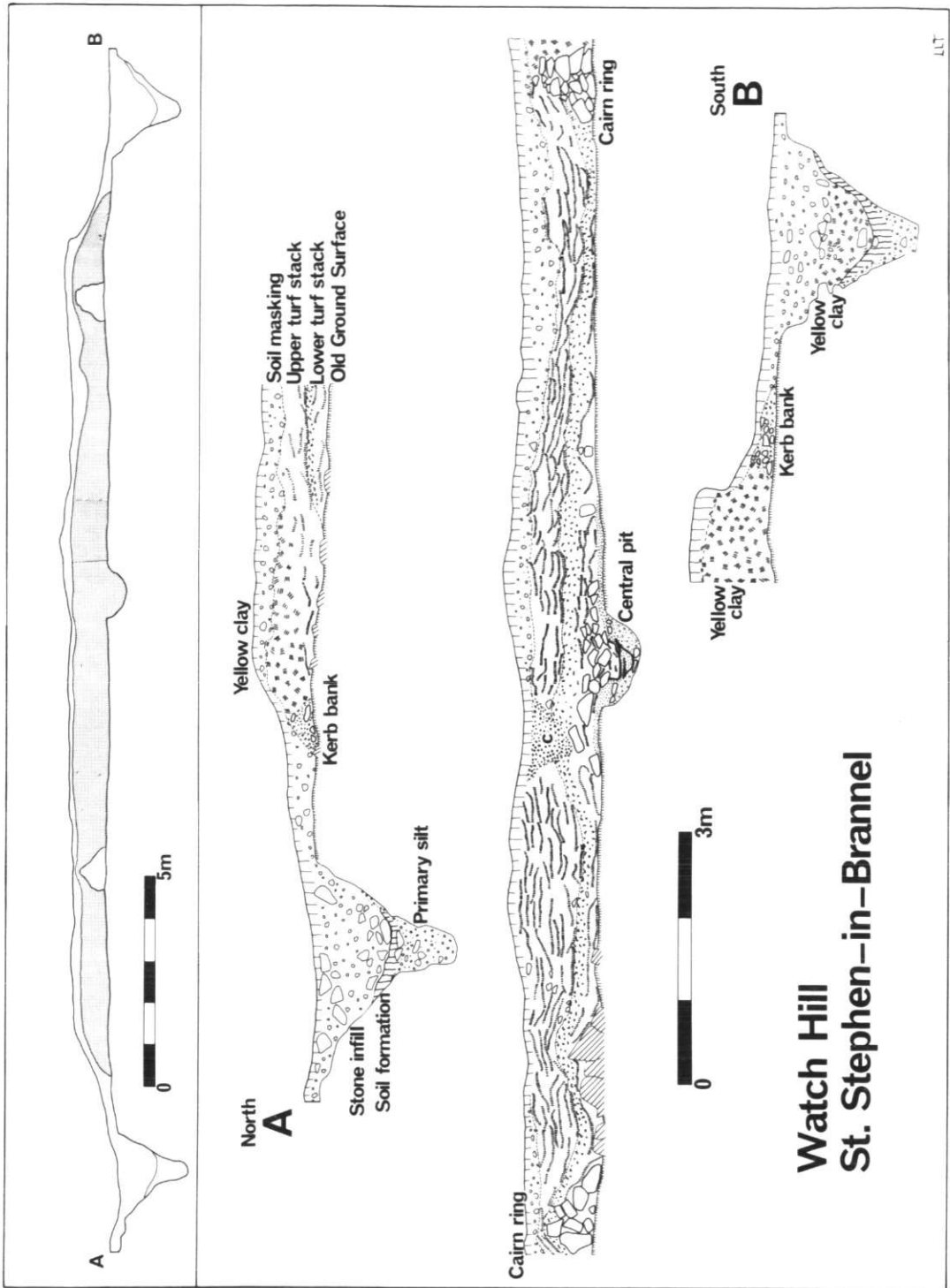


Fig. 6
Watch Hill. Section across barrow and ditch.

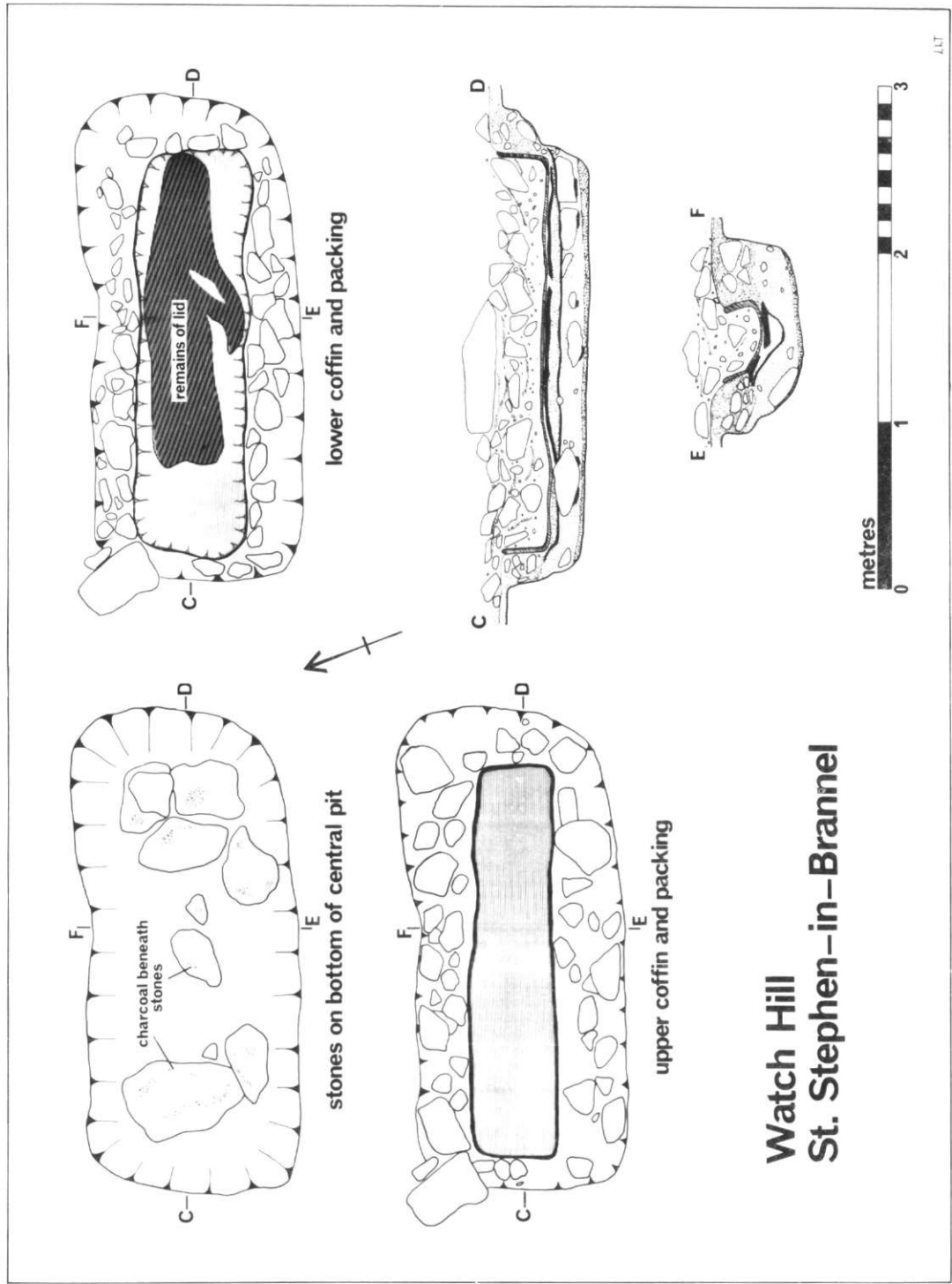


Fig. 7
 Watch Hill. Plans and sections of Central Pit.

FINDS

The Enlarged Food Vessel (Fig. 8, No. 1)

All sherds had been deposited, singly or in groups, on the compacted areas on top of the primary ditch silt. Breaks were unabraded. More than two thirds of the decorated part of the vessel is represented; the base was found in one piece; only a tiny fraction of the plain body joining shoulder and base was present. Most interiors, especially those from the upper zone, were coated with 2 to 3 mm of powdery black material.

The fabric varies between 7 and 12 mm in thickness, 20 mm on the base, and is friable with many grits. The interior surface and core are black but the exterior is oxidised reddish-brown to a depth of 3 to 5 mm. Both surfaces have been carefully smoothed: the grits hardly protrude.

The vessel belongs to the Enlarged Food Vessel class, a term preferable to Food Vessel Urn because, as at Watch Hill, they were not used to contain cremated bones. The vessel has two shoulder ridges and two applied lugs positioned below the ridges (enough of the circumference being present to determine this number). The decoration is 'stab-and-drag', with a square-ended tool, arranged so that the drag was always inwards in the paired herringbone lines.

A sherd was thin sectioned by Dr D.F. Williams of Southampton University who comments:

'Large inclusions of lava are present, set in an optically anisotropic clay matrix. The parallel orientation of microlite inclusions in the lava can be clearly seen. Scattered throughout the matrix are numerous subangular grains of quartz of a uniform size, rarely exceeding 0.03 mm across. Also present are a number of grains of pyroxene. The identification of some minerals is difficult due to the amount of alteration that has taken place. This sherd, from a site situated on the granite, must be regarded as a stranger to the immediate area. Instead, the nature of the temper indicates an area of igneous lavas.'

The precise identification of a particular lava source is difficult because of the variation within individual outcrops. Lavas occur in Cornwall in a zone stretching from Pentire Head on the north coast to Torpoint on the south. There are minor outcrops around the St Austell granite. In addition numerous small deposits of tuff along St Austell Bay weather to give similar materials. There are also lava outcrops further afield in Devon and Wales.

Enlarged Food Vessels have received no modern definitive study. The term is used for pots which display general similarities to Food Vessels but which are larger. ApSimon (1972, 148) has shown that the two groups are significantly different in size and suggests that this may relate to function, Enlarged Food Vessels being perhaps originally domestic. Enlarged Food Vessels as a group merge with collared urns and biconical urns and are best regarded as a part of the British EBA series of biconical vessels with decoration on their upper part. Within this series some regional concentrations occur, such as Food Vessel Vases in Yorkshire or the Trevisker series in South West England, but these are not exclusive. Until more is understood of the reasons for retention and repetition of form and decorative motifs on pottery by early societies, the value of breaking down this pottery tradition into groups, defined by traits which appear significant to modern scholars, is slight.

A number of Enlarged Food Vessels provide reasonable comparanda, apart from the lugs, for the Watch Hill pot. These are widely scattered, reflecting the distribution of Enlarged Food Vessels as a whole. The best Cornish parallel is the pot from Carnkief, Perranzabuloe (Patchett, 1950, E 14); this has the grooved shoulder and rim form of Watch Hill but only one row of rough stabbing on the exterior and four on the interior. It was found inverted over an undecorated vessel best described as a collared urn, but without cremation or other associations. The other Cornish Enlarged Food Vessels, some half dozen (Patchett, 1944), form a distinctive local sub-group. Their shapes are not biconical but vertical or slightly out-turned in the upper part of the body, with a number of horizontal ridges but little other decoration. They have no significant associations. The only Enlarged Food Vessel from

Devon, ploughed out from a barrow at Nymet Tracey during the nineteenth century, is close in form and decoration to the Watch Hill pot. It has a similar rim form, decorated inside and out with a single line of stabbed ornament, with two ridges and coarser stabbing around the shoulder, but also horseshoe handles which link it with biconical urns (Pearce, 1973, 47). No similar vessels are known from elsewhere in southern lowland England. The only vessel from northern England similar in size, form and decoration is that from Copt Hill, Houghton-le-spring, Durham (Abercromby, 1897, No. 484); nothing is recorded about its associations. There are four similar vessels from Wales. That from the cemetery barrow at Llandyfnan, Pentraeth, Anglesey, is decorated with twisted cord and was associated with a small flanged axe, a flanged chisel and a three-riveted dagger (Lynch, 1970, Fig. 48). The pot from Cerrig-y-Ddewi, Llangwyllog, Anglesey is smaller; it was found when levelling a barrow during the last century (Abercromby, 1897, No. 478). That from Lower Lledrod, Cardigan (Grimes, 1951, 210), again has cord decoration; it was found inverted over a cremation in a cist. The pot from Garthbeibio, Montgomery, with decoration roughly incised, was found on its own within a barrow mound for which the central deposit was a cremation in a cist accompanied by a battle axe of Roe's Wilsford class (Grimes, 1951, 194).

The unique feature of the Watch Hill Enlarged Food Vessel, the lugs, derive from the local Trevisker sequence. It should, therefore, almost certainly be regarded as a local product which shows that, despite the dominance of the local potting tradition, vessels in other styles were produced in the area.

The radiocarbon dates from Watch Hill (between 2156 and 1590 BC, 2090 and 1546 BC) can be applied to the Enlarged Food Vessel as the sample providing them is only separated from the sherds by the interval necessary for the accumulation of the primary silt. The only other date for an Enlarged Food Vessel, of different type, comes from the Earl's Farm Down Barrow (Amesbury G. 71) Wilts., 1640 ± 90 bc (Christie, 1967, 344): that is (Clark, 1975) between 2360 and 1680 BC. The association for the similar vessel at Llandyfnan in Anglesey suggests a date towards the end of the Early Bronze Age because of the nature of the decoration on the dagger (Lynch, 1970, 143). The lugs on the Watch Hill pot may have derived from the Trevisker sequence after that had developed over a period of some time. Such lugs were regarded by Patchett as a feature of her Class C Cornish pottery, viewed by her as a development from the ribbon handled Class B urns. The lugs are generally found on smaller vessels with more rounded profiles than the ribbon handled urns and with single cord rather than plaited cord decoration. Such vessels fall roughly into ApSimon's Style 2 (ApSimon and Greenfield, 1972, 326). Trevisker pottery with ribbon handles and plaited cord decoration (Patchett Class B or ApSimon Style 1) has been associated four times with Early Bronze Age daggers and once with faience beads (summarised in ApSimon and Greenfield, 1972, 338). The radiocarbon date from the Liskey Barrow, Perranzabuloe, NPL-193 1565 ± 90 bc, is associated with two ribbon handled urns; that is (Clark, 1975) between 2160 and 1636 BC. The few associations for Class C or Style 2, and Class D or Styles 3 and 4, all from domestic sites, are with Ornament Horizon bronzes. The development of the sequence is supported in a general way by the stratigraphy at Gwithian, West Cornwall, Stannon, Bodmin Moor (Mercer, 1970) and at Trevisker itself (ApSimon and Greenfield, 1972). The four lugged vessel of Style 2 from the Upton Pyne Barrow, Devon (Pollard, 1969, Fig. 6) is associated with a radiocarbon date of 1386 ± 53 bc BM-402. The date of the Watch Hill pot lies towards the end of the Early Bronze Age.

Flints (Fig. 9)

78 pieces were recovered. More came from the turf stack than from any other location, presumably brought in with the turves, but other pieces may have been deliberately deposited on the site. The flints cannot be regarded as a closed group, but all, with the possible exception of the microlith 9, could date to the Early Bronze Age. As cortex is always from pebble flint, and many pieces lacking cortex are typically crazed, and no piece is of a quality incompatible with pebble flint, all the flint probably came from Cornish beaches.

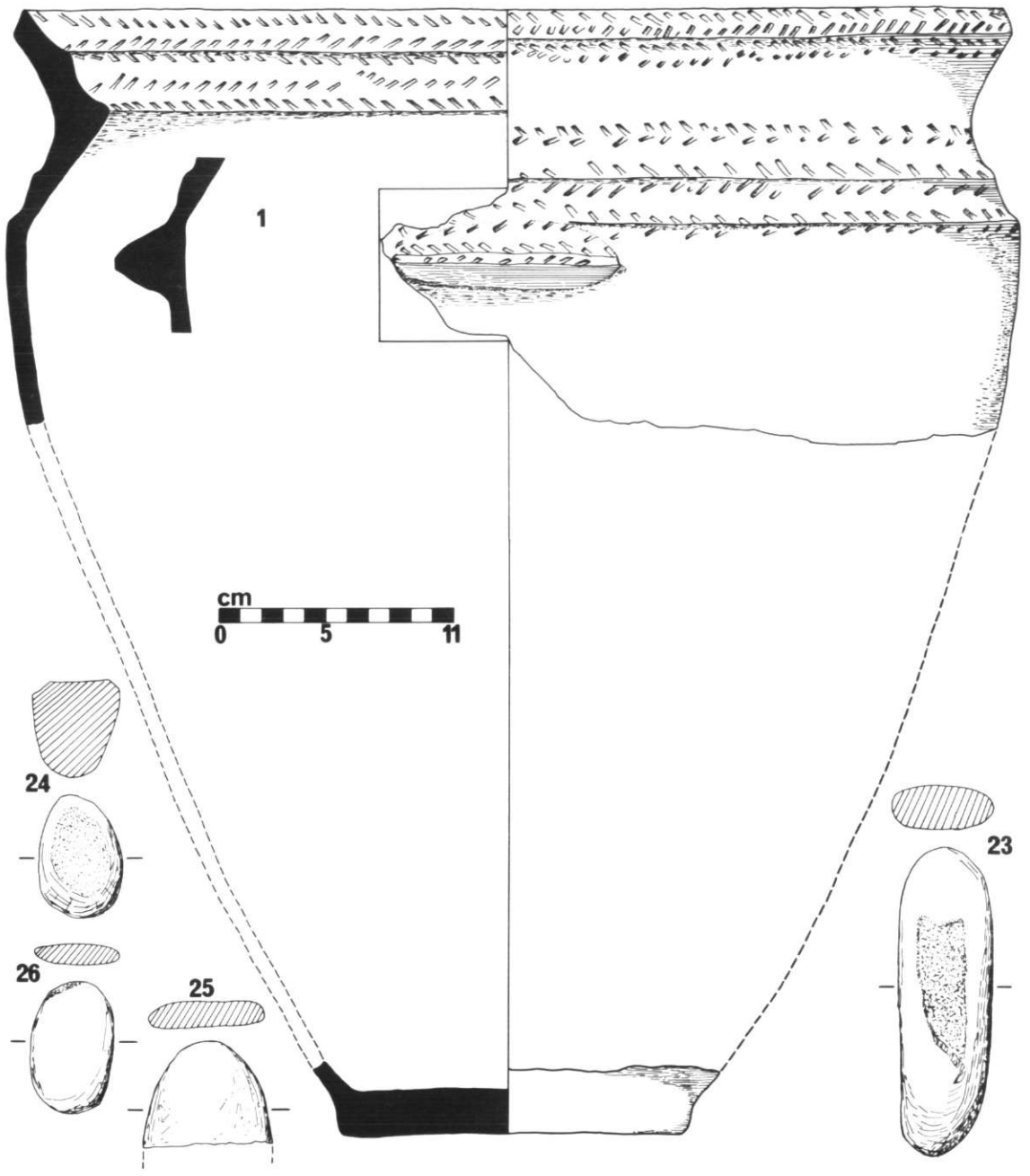


Fig. 8
Watch Hill. Enlarged Food Vessel and Stone Tools. All 1/3

Surface beneath the barrow	three including 3 and 22
Cairn rings	one, 4
Upper turf stack	twenty seven including 2,5,10,14,16 and 17
Yellow clay ring	five including 18
Upper ditch levels	eight including 13 and 19
Soil masking	twenty two including 6,7,11,12,20 and 21
Topsoil	two including 15
1939/45 disturbance	ten including 8 and 9

Arrowheads

2. Transverse. Upper turf stack, NW.

Knives

3. Blade with blunting along one edge and slight trimming along the other. Old Ground Surface, NW.
4. Blade with steep blunting on one edge, broken. Cairn ring, SE.
5. Blade with fine trimming on both edges, broken. Upper turf stack, NE.
6. Blade with fine trimming around point and along both edges, broken. Soil masking, SW.
7. Blade with fine trimming along one edge, broken. Soil masking, SE.
8. As 7. 1939/45 disturbance. (Not illus.)

Micro lithic forms

9. Obliquely blunted point. 1939/45 disturbance.

Retouched pieces

10. Flake, trimmed along one edge. Upper turf stack, NE.
11. Flake with notches either side, broken. Soil masking, NE.
12. As 10. Soil masking, NW.
13. Blade with single notch, broken. Upper ditch levels, NW.
14. Thick flake, roughly trimmed with battered end; perhaps used as a strike-a-light. Upper turf stack, SE.
15. Flake roughly trimmed on both sides. Topsoil, SE.

Pieces with utilisation traces

A total of 35 of which the illustrated pieces are representative.

16. Narrow blade, use on end, broken. Upper turf stack, SE.
17. Flake, heavy use on end. Upper turf stack, NW.
18. Blade, wear on both edges. Yellow clay ring, NW.
19. Irregular flake with slight use along both edges. Upper ditch levels, NE.
20. Irregular flake, heavy use towards one end. Upper ditch levels, NW.
21. Flake, heavy use on both edges. Upper ditch levels, SE.

Unused Flakes

Three

Chips

Thirteen

Core

22. Single platform with pebble cortex. Old Ground Surface, NW.

Stone tools (Fig. 8)

23. Pebble of local sandstone. One surface worn smooth, probably through use as a rubbing stone. Soil formation over primary ditch silt, NE.
24. Granite pebble with one surface worn smooth. Upper ditch levels, NW.
25. Thin pebble of fine-grained local sandstone, broken, with one surface worn smooth. Upper ditch levels, NW.

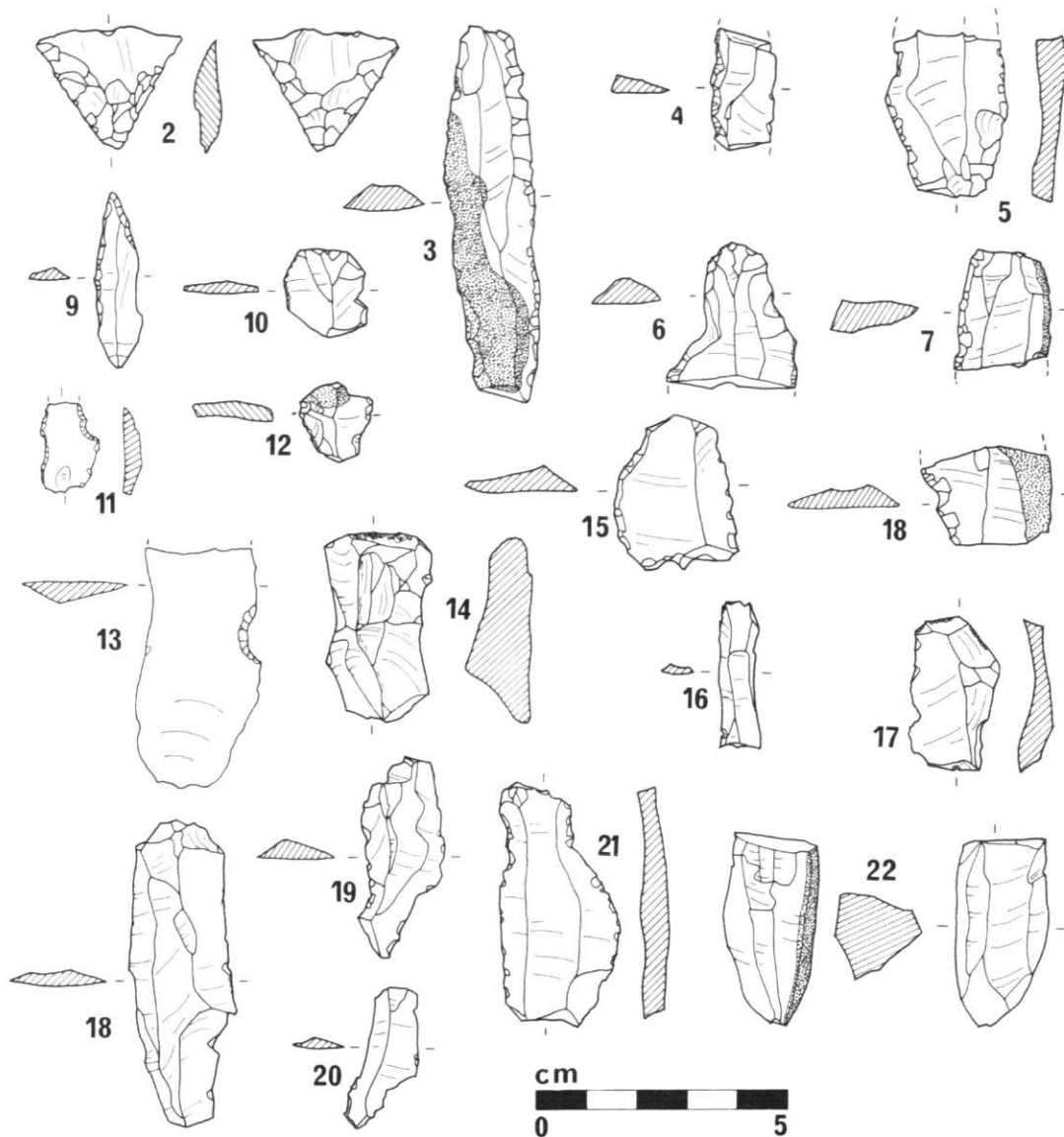


Fig. 9
 Watch Hill Flints. All 2/3.

26. Pebble of local fine-grained micaceous sandstone. Ground or worn facet on one end. Soil masking, SE.

A few fragments of unworked grey slate were also found. This occurs naturally on the St Austell granite. Thus the fragments may not have been brought onto the site and are not indicated on the plans. Worked pieces were found at Caerloggas I (62, 63 and 64) and at Trenance Downs (104-107).

White pebbles

Two (2) small white quartz waterworn pebbles were found in the 1939/45 disturbance.

Quartz crystals

19 quartz crystals of varying sizes, deriving from the local granite, were recovered. A number had slightly worn facets suggesting a long period of use. Although all the crystals recorded need not have been used or specially deposited, all those found have been listed as they were being deliberately looked for and recorded.

Surface beneath the barrow	1	Soil masking	7
Primary ditch silt	1	Topsoil outside barrow	5
Upper turf stack	3	1939/45 disturbance	1
Upper ditch levels	1		

Botanical material

A quantity of material was recovered, mainly from the ditch. Many fragments were found in small groups as though deliberately deposited. The densest concentration was in the south; it was totally absent from the west and sparsely scattered elsewhere. The wood had the appearance of very soft charcoal, but some pieces may have been preserved, without charring, by the dampness of the ditch. The fruit fragments were shrunken, hard and brown, but did not appear to have been charred. The wood was identified by Dr S. Limbrey and the fruits by Miss P.J. Paradine and Mr J.R.B. Arthur, F.L.S.

- Surface beneath the barrow: — *Crataegus* (hawthorn), one piece
Pit in ditch bottom, NE: — mixture of small, mainly twig charcoal fragments:
Prunus spinosa (blackthorn)
Crataegus Sorbus (probably rowan as white-beam, the other indigenous variety of *Sorbus*, is lime-loving)
Quercus (oak)
Alnus (alder)
Corylus (hazel)
Sambucus (elder)
- Primary ditch silt: — *Quercus*, at least four pieces
Corylus, at least three pieces
Alnus, one piece
Crataegus, at least three pieces
- Soil over primary ditch silt: — Filicales of *Pteridium* (parts of bracken fronds), at least two pieces
Quercus, fruit, one piece
- Lower coffin fill: — unidentifiable fragments
Central cairn: — unidentifiable fragments
Upper ditch levels: — *Quercus*, most probably *Q. Petraea* (*Mattuschka Liebl.*) (sessile oak), at least nine pieces of fruit
Prunus, three fruit including one definitely from *P. spinosa* (sloe), wood fragments
Malus sylvestris Mill. (crab apple), one fruit
Corylus avellana L., one fruit and some other possible wood fragments
Filicales of *Pteridium*, at least nine pieces
Sorbus, wood fragments
- Soil masking: — *Crataegus* and *Quercus*, fruit
Filicales of *Pteridium*, some fragments

Soil analysis

Samples from the infill of both coffins and from the soil on the bottom of the central pit were submitted to the Department of the Environment Ancient Monuments Laboratory, together with a control sample from the surface beneath the barrow. Phosphate analysis by

Dr H.C.N. Keeley showed that the only sample with a higher phosphate content than the others was that from the bottom of the pit. This is presumably explained by the down-washing of minerals in the pit and the fact that the fills of the coffins had trickled in after the cracking of their lids and the decay of bodies.

DISCUSSION AND HYPOTHESIS

The cairn ring was constructed with a gap, presumably to allow access for initial ceremonies. Access across the ditch, almost certainly dug before the construction of the cairn ring, may either have been by a causeway, later removed, or by temporary planking perhaps set in the ledges on its lip. Some stones from the ditch may have been piled in a low external bank; the remainder of the material dug from it was removed from the site. At this stage Watch Hill may be regarded as a ritual enclosure. The ditch, dug with care and regularity, relates to the enclosure tradition evidenced by henge monuments and not to barrow quarry ditches. There is no close comparandum. No other ditched barrows are known on the St Austell granite (though some may have been destroyed without record). Ditched barrows occur occasionally in South West England. The only two properly excavated and recorded were at Tregulland, Treneglos (Ashbee, 1958) and the Liskey Barrow, Perranzabuloe (Christie, 1960). In both cases the ditches had provided material for the mound and apparently had been cut late in the sequence on each site. However a single ledge was present in the Tregulland ditch, and a pair, both on the inner edge, at the Liskey barrow. It is possible that the sequence at these sites was comparable to that at Watch Hill, the ditches forming an initial enclosure phase needing temporary bridging, and the material dug out stockpiled, perhaps in an external bank, to be used later in the mound.

Pre-barrow cairn ring enclosures frequently have entrances, sometimes subsequently blocked. The blind entrance at Watch Hill appears unique in its design which allowed it to be viewed from the exterior but not used. It may derive eventually from the megalithic tradition, evidenced in the blind entrances of such Cotswold Severn tombs as Belas Knap or Poles Wood South, or the false portals of south western dolmens such as Trethevy Quoit, St Cleer, or Zennor Quoit in Zennor parish. A somewhat similar setting occurs at Culcharron Cairn, Lorn, Argyll (Peltenburg, 1972). The Mynydd Epynt cairn in Brecon had a setting of orthostats on the exterior of its coursed retaining kerb (Dunning, 1943). The positioning of some cup marked slabs may be related; one was set in the outer face of the ring cairn stage at Tregulland (Ashbee, 1958, 189) and another in the kerb at Treligga Site 2, Delabole (Andrew, 1946, 43). The deposition of the pot sherds in the ditch may relate to the blocking of the entrance, a final ceremonial before the site was left deserted for some time. Finds of deliberately deposited sherds are common in barrows, particularly in the south west (see for example details of sites in Andrew, 1946). Possibly the other sherds from the Enlarged Food Vessel, perhaps together with the ditch material, were deposited in another nearby barrow structure. The removal of ditch material has not so far been demonstrated elsewhere but would be difficult to prove in an area without frequent variations in bedrock.

The lower turf mound was constructed over the central double coffin deposit. About forty barrows in Britain have now produced monoxyloous timber coffins (Ashbee, 1960, Fig. 26; Elgee, 1949; H.M.S.O., 1961 to 1974) and their use was widespread in northern Europe. Their associations, from Beaker to the latest Wessex phase, suggest that they were used throughout the whole period that barrow construction was common in Britain. The Watch Hill coffins are the first to be identified in South West England. The only other possibilities are the line of eight beneath barrow II at Wrangworthy, East Putford, North Devon (Radford and Rogers, 1947, 162) which are better interpreted as the decayed timbers of a mortuary structure. Lids are common, for example at Loose Howe, Yorks (Elgee, 1949) and Bishop's Waltham, Hants (Ashbee, 1957). Two coffins in one grave were found at Dysgwylfa, Cardigan (Forde, 1939) where a hollowed trunk 3 m long was buried at the centre of a barrow with a second, 1.1 m long, above it containing a cremation and a Food Vessel. At Loose Howe the lidded coffin was buried next to a 'dugout canoe' (Elgee, 1949) which had been presumably interred as a coffin.

After an interval the turf stack was heightened, capped with yellow kaolinised granite and the ditch was infilled. The mound at this stage had the low flat-topped 'plate' or 'platform' shape found at Cocksbarrow, at the undamaged barrow 500 m west of Hensbarrow and occasionally elsewhere in South West England. The deliberate infill of the ditch cannot be paralleled. The only other infilled ditches recorded are from sites where the mound was enlarged, for example Earl's Down Farm, Wilts (Christie, 1967) or Arretton Down, I.O.W. (Alexander, 1960, 260). Some use of the Watch Hill mound at this phase is suggested by the compacted nature of its surface but thereafter the whole structure was masked with dark soil, counter to the traditional view of a barrow capped with bright material to render it clearly visible. The origins of this practice may be looked for in the deliberate blocking off and infilling of megalithic tomb forecourts. It may be regarded as a deliberate act, marking the end of the use of the structure for ritual purposes.

The length of time between the building of the initial cairn ring enclosure and the final masking is difficult to assess. Formation of the soil over the primary ditch silt may have taken a decade or a hundred years. The date for the use of the site, based on the radiocarbon dates and the Enlarged Food Vessel (p. 17), falls towards the end of the Early Bronze Age.

CAERLOGGAS DOWNS, ST AUSTELL

(Figs. 10 & 11)

The Downs, near Stenalees, form the highest eminence on the east side of the St Austell granite. As the area is described as Caerloggas Downs on current editions of OS maps, this name has been used. It was formerly known as Carliddan or Carludden, from Cruckledan (a reference of 1357 AD quoted by Gover, n.d.): references to the early forms of the name are given in the St Austell check-list (Sheppard, 1972). Caerloggas I, a ring banked enclosure, was situated at 266 m OD, the highest point of the Downs (SX 01705659). Caerloggas II (SX 01725657) and Caerloggas III (SX 01755655), both barrows, were aligned to the south east of I and lay one metre and two metres lower respectively. The alignment points to the end of the Gribbin, the promontory defining the east side of St Austell bay, some eleven kilometres away. The sites are listed as Barrows nos. 1, 2 and 3 in the parish check-list.

The ring banked enclosure and the two barrows were totally excavated during June and July 1972 and a small area between II and III was stripped without result. The remainder of the Downs had been so disturbed by extraction of minerals and moorstones that no other stripping was feasible. An additional mound was investigated but proved to be a waste tip. A bank, just south of the barrows, probably of medieval date, was sectioned.

CAERLOGGAS I: THE RING BANKED ENCLOSURE

(Figs. 12-15, Pl. V)

The structure covered an area about 25 m across. The ring bank, standing to a maximum height of 1.3 m, enclosed an irregular space 12 m in diameter. An entrance to the south west was flanked by rounded terminals. Recent destruction on the north east may have removed a second entrance. The interior was roughly level with some humps indicating moorstones, thinly covered by vegetation and a few hollows suggesting recent disturbances. A slight, intermittent depression could be traced along the exterior of the bank to the west, and to the south west were two more such depressions (Fig. 11). The vegetation was coarse grass, bilberry and gorse, the roots of which had penetrated deeply. The site had been interpreted as a barrow from which the centre had been removed.

The enclosure was excavated by quadrants; the two undamaged, to the south and west, were subdivided by octant baulks. The exterior of the bank was deturfed by a JCB 30 mechanical excavator. Small machine trenches were cut to test the small depressions to the south west. The remainder of the work was carried out entirely by hand.

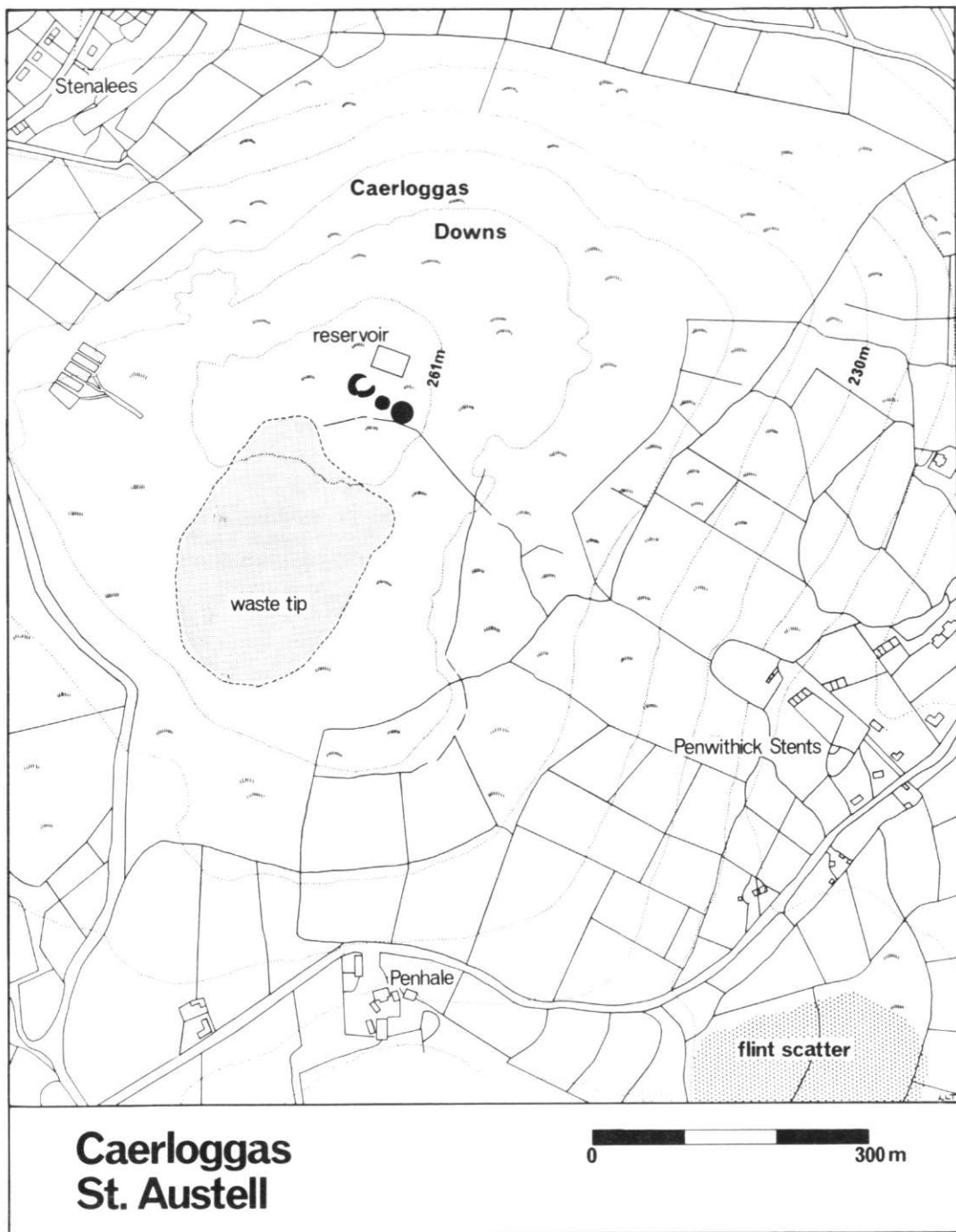


Fig. 10
 Location of barrows on Caerloggas Downs. Contours at 7.5 m intervals.

The surface beneath the enclosure

The enclosure had been roughly centred on a large flat-topped moorstone projecting 0.5 m above the surrounding rocks, which formed the top of a localised granite mass, a small remnant to which had resisted both weathering and kaolinisation. The ground had been littered with moorstones, many of which would have been partly or completely covered by vegetation. The compressed soil between the stones was smooth, black and almost grit-free. The subsoil was weathered granitic head, but kaolinised granite occurred 200 m to the south west.

The site had been prepared by the removal of moorstones, leaving angular hollows in the subsoil. Turves were then laid vegetation uppermost beneath the bank and over the interior (basal turves) to infill both natural hollows and those caused by moorstone removal. Some may have been cut from the ditch but this would not have provided a sufficient number.

The ditch and the initial entrance

The enclosure had been scarped on the west and south by a shallow ditch, apparently to give it a greater appearance of height. This ditch was of irregular profile, nowhere more than 0.6 m deep. Except for turf, the ditch material was not used in the enclosure. Its infill consisted of a slow silting of fine black soil with a few granite lumps derived from the exterior of the ring bank. A causeway, 4.8 m wide, had been sited to the south west over a solid granite outcrop, the surface of which appeared to have been much worn and trampled although modern roots extended right down to it.

The 'initial entrance', immediately within the causeway but not symmetrical to it (Pl. VI), consisted of four naturally rooted stones (a) to (d), left as 'standing stones' after moorstone removal, and two further stones (e) and (f) wedged upright with turves. A flat moorstone (g) had been left *in situ* in the 0.9 m wide entrance gap between (a) and (e).

As the initial entrance is covered by the Phase 1 bank, the entrance in which is not aligned on the ditch causeway, the ditch and the initial entrance may be interpreted as the preliminary phase of ritual enclosure. Patches of yellow clay (not shown on plan) scattered over the basal turves in a rough circle beneath the later bank should relate to this preliminary phase.

The central pit complex (Fig. 15, Pl. VII)

A pit, 1.8 m long, 1.0 m wide and 0.45 m deep, had been dug beneath the north east side of the moorstone central to the enclosure. Its lower fill consisted of redeposited head dug from the pit mixed with a little black soil and presumably tamped so that the upper fill peeled off cleanly. The latter was composed of tightly wedged granite lumps with some turves and gritty black soil. The size and shape of the pit suggested a grave but the fill was too tightly packed for the presence of a large organic object. Soil analysis (p. 42) showed an abnormally high phosphate content. Objects from the fill represent all the common categories present on the site; seventeen flints, fourteen white pebbles, one worn quartz crystal, one incised slate (63), a burnt and broken killas pebble with a worn facet, three apparently unused killas pebbles, a tourmaline pebble and two fragments of heavily burnt bone.

The south east corner of the pit deeped to (h) 0.3 m deep (Fig. 12). To the south was a shallow extension (j) 0.15 m deep. The fills of (h) and (j) were continuous with the upper fill of the main pit. Two small separate pits to the south of (j) were 0.2 m deep and filled with fine black soil and small granite lumps. The basal levelling turves appeared to have been continuous over the pit complex which is regarded as belonging to the phase of preliminary ceremonial. However, as the turves were much disturbed by roots, this phasing is not absolutely certain.

The Phase 1 ring bank (Fig. 12)

The bank, surviving to a maximum height of 0.8 m, consisted of turves wedged around and laid over an irregular ring of granite blocks. The turves, almost all laid vegetation side down, had settled and compressed; the bank surface would originally have been more regular. The top of this bank was distinguishable as a continuous darker soil, suggesting

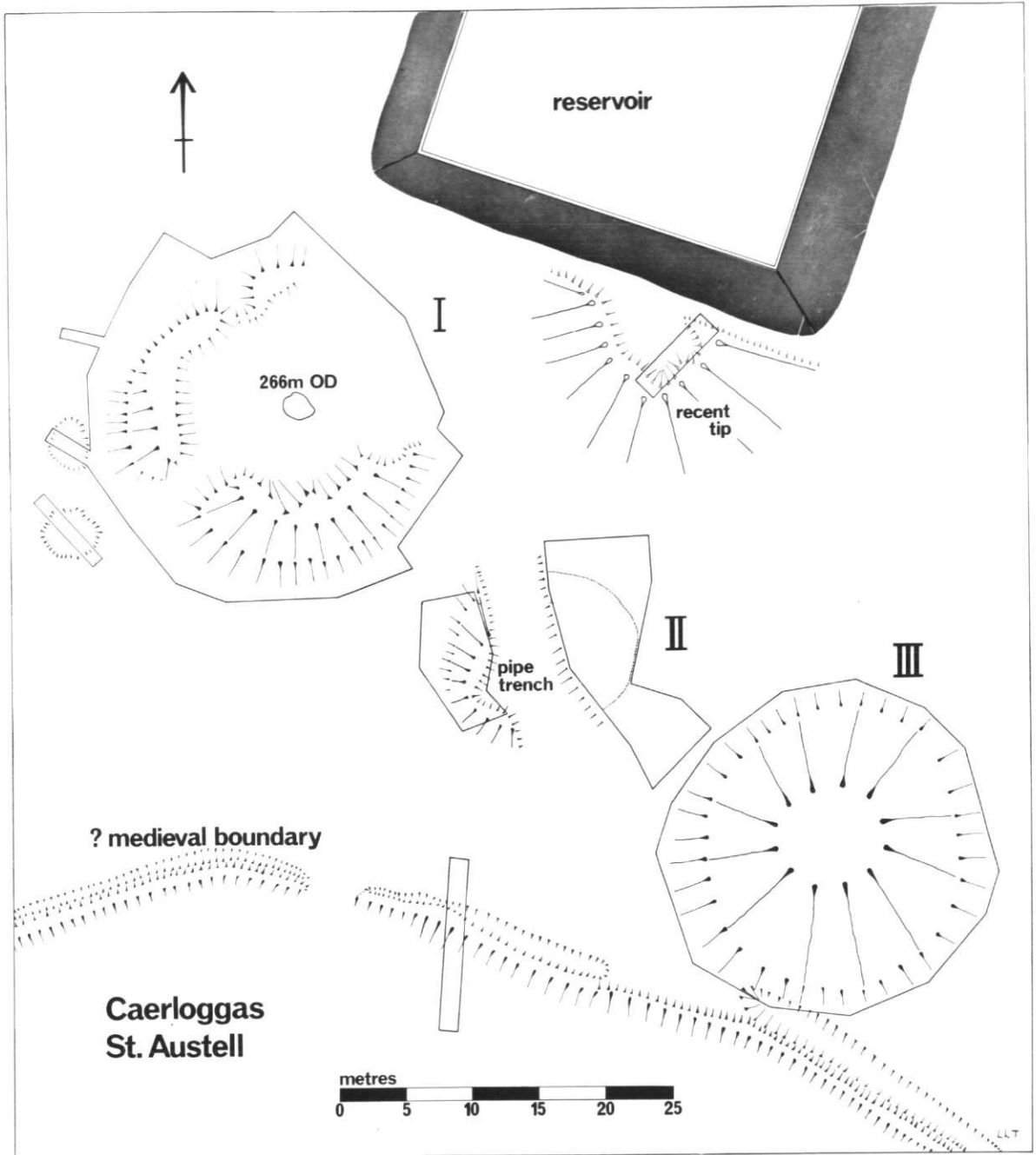


Fig. 11
Caerloggas. Location of excavated areas.

that its surface had been left to develop as a soil for some time. The bank ran over the initial entrance. Its own entrance, south east of the former, was 3 m wide flanked by slightly enlarged terminals. A hard trampled surface of gritty black soil in the entrance way overlay both basal levelling turves and the spread of the yellow clay used in the preliminary phase. The stones in the bank had supported a number of posts which had projected through the bank; more may have existed than the 43 detected. In the damaged north east sector, post sockets only survived where wedged between moorstones. Post diameters varied between 0.15 m and 0.4 m. A post in the middle of the entrance way and the line of seven forming a chord across the interior within the entrance were ground-set, some in moorstone-removal hollows. The post-hole dimensions varied between 0.22 and 0.3 m across and 0.10 and 0.25 m deep, but post pipes did not survive. All post sockets were infilled with hard black soil.

The Phase 2 ring bank (Fig. 13)

The bank was heightened by up to 0.3 m of bright yellow clay, kaolinised granite, mixed with bands of smooth dark soil, lighter brown gritty soil and stones. Its surface was reasonably level and distinct with the yellow colour deepening towards the top. In the entrance a thin layer of hard, gritty, yellow clay with a very distinct surface appeared to be trampled material; this extended for some distance into the interior. The yellow clay had supported at least twenty posts, the sockets of which were found infilled with hard black soil. Evidence for others may have been removed by rabbits which had disturbed the upper levels of the bank. The sockets, possibly distorted by the rotting or removal of posts, varied between 0.2 and 0.5 m in diameter.

The Phase 3 ring bank (Fig. 13)

The bank was enlarged and heightened with black gritty soil similar to that infilling the Phase 2 post sockets. A rough cairn ring, very ruined and never more than two stones high, had been built over the soil heightening; many stones from it were scattered in the eroded soil at the base of the bank. (All stones on Fig. 13 form part of this ring.) No stones overlay the Phase 2 posts but some appeared to cluster around them, so that it is possible that the posts were still standing in this phase, although removed eventually and their sockets back-packed.

The interior of the enclosure

This was covered by about 0.2 m of soil below the topsoil, much disturbed by roots and rabbits. Sufficient undisturbed material remained for turves of the basal levelling to be distinguished; the soil above consisted of disturbed turves mixed with eroded materials from the bank. The levelling turves had probably been laid several thick over the interior. A large number of objects were found but the lack of clear stratigraphy prevents their being grouped into phases.

Later activity

A stone foundation one course high (Fig. 13), 3.5 m long with short rectangular extensions at either end, had been set back into the Phase 3 soil on the west of the interior and was covered by a substantial thickness of eroded soil. Two small pieces of brick were found in this soil but no further finds, other than prehistoric, were made in its vicinity. Its dating is therefore uncertain.

A pit, 0.7 by 0.4 m across and 0.4 m deep, between the entrance and the central moorstone, was filled with loose black soil containing sherds from a medieval jug. A circular pit, 0.4 m across and 0.4 m deep, just south west of the central stone, contained late nineteenth century stoneware sherds and a complete iron pulley wheel 0.3 m across. These are not shown on plan. The east entrance terminal had been dug over to a depth of 0.3 m producing a soft mixed yellow and black layer much riddled by rabbits whose burrows extended into the levels beneath. This feature is interpreted as warrening, probably of medieval date.

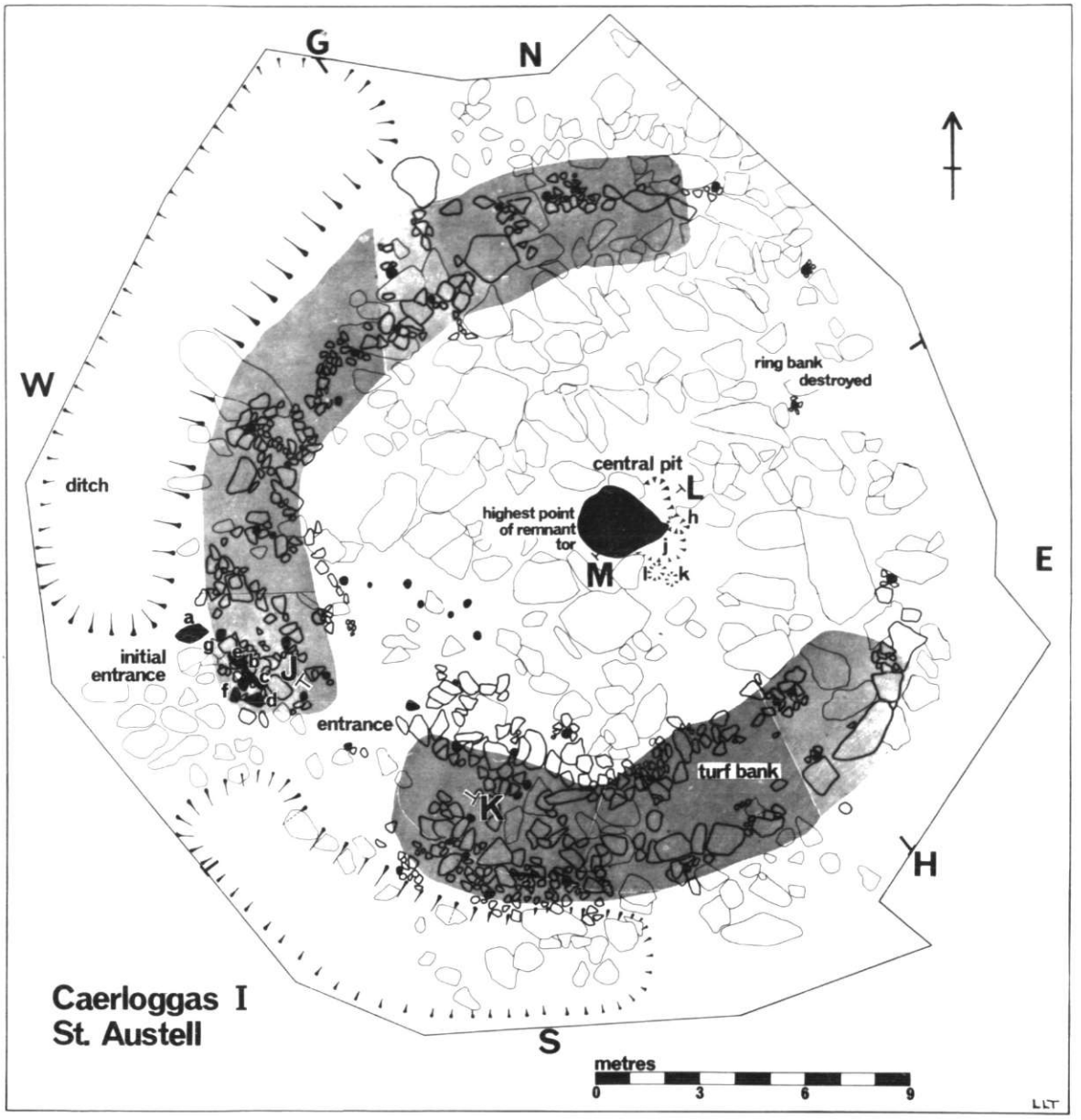
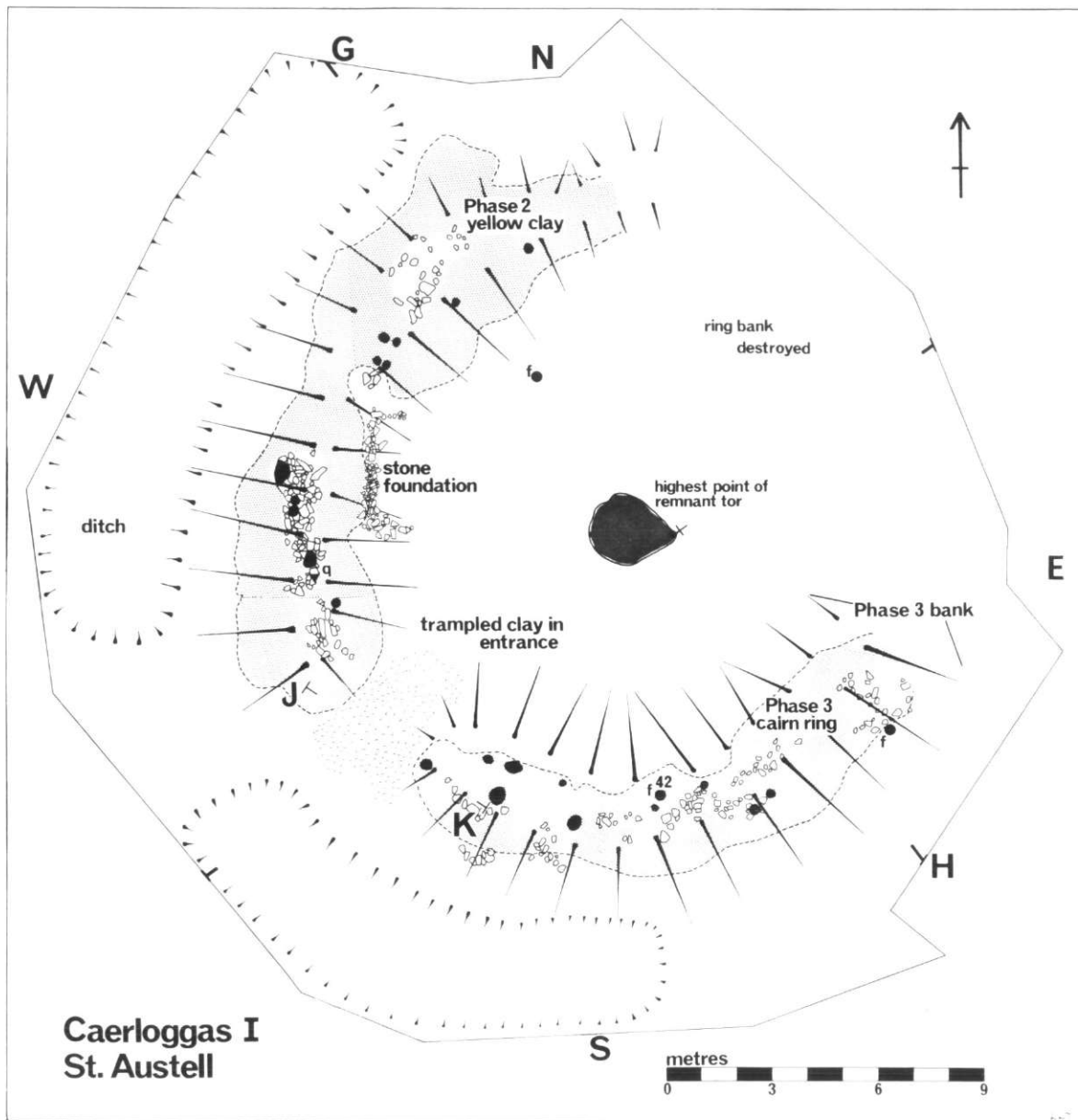


Fig. 12
Caerloggas I. Phase 1 plan. Moorstone grounders shown in light outline.



Caerloggas I
St. Austell

Fig. 13

Caerloggas I. Plan of Phases 2 and 3. All stones on Ring Bank belong to Phase 3 Cairn Ring. Finds for Phase 2: f = flint, q = quartz.

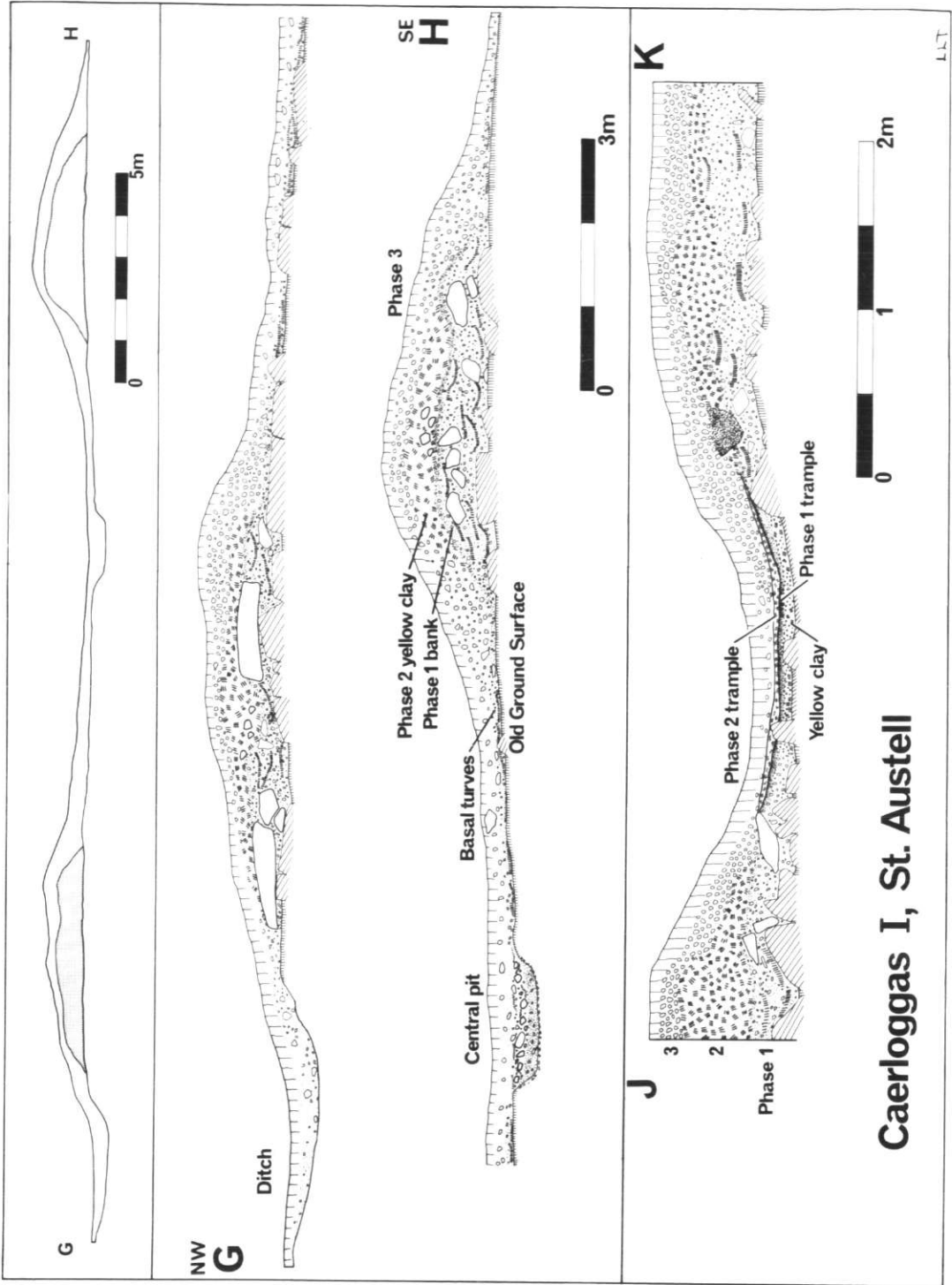


Fig. 14
 Caerloggas I. Sections G - H across Ring Bank Enclosure and
 Section J - K across entrance.

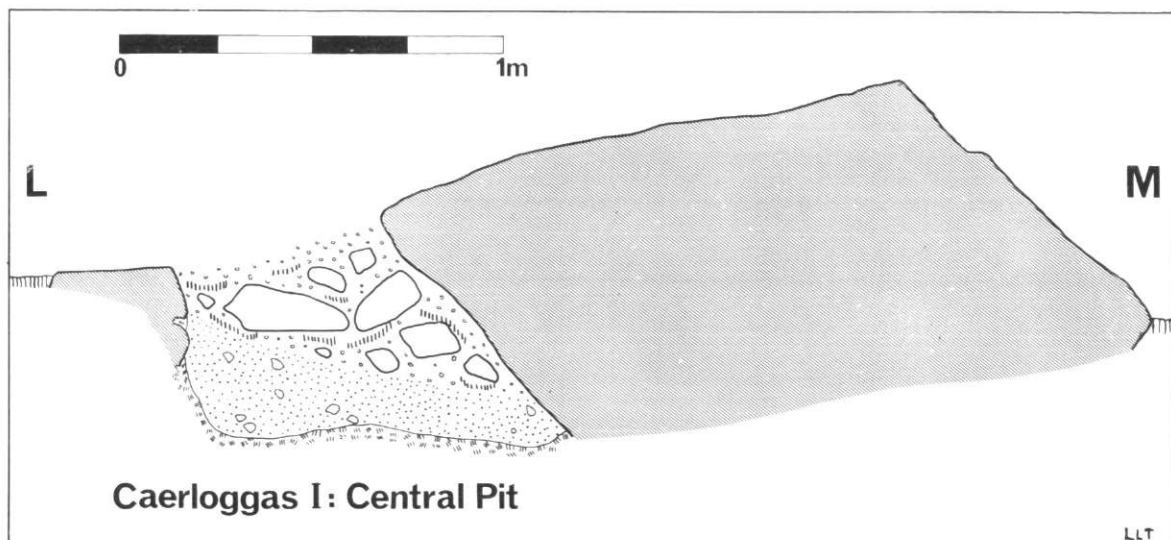


Fig. 15
Caerloggas I. Section through Central Pit.

Eroded gritty black soil masked the lower bank slopes on both interior and exterior but could not be clearly distinguished from the Phase 3 soil.

THE FINDS

Finds consisted of a crumb of pottery, parts of a bronze dagger, slag, an amber fragment, a stone bead, flints, white quartz pebbles, quartz crystals, stone tools and unused pebbles. As the majority came from the interior, clustering around the central moorstone, they may be regarded as deposited on site and not incorporated in construction materials. They have been plotted in three groups. Those from the old ground surface, ditch, central pit complex, basal levelling turves and Phase 1 bank are shown in Fig. 16. Finds from Phase 2 levels are plotted in Fig. 13. Objects from the Phase 3 enlargement, the disturbed soil in the interior and erosion levels are shown on Fig. 17.

Pottery (not illus.)

One small fragment of fine, buff ware with some micaceous sand, probably from a rim with an internal bevel. Basal levelling turves, W.

Bronze (Fig. 18 and Pl. IX)

27. From basal levelling turves, E. Two joining fragments found close together from a dagger with flat, pointillé decorated midrib flanked by a single pronounced groove on either side; all breaks were patinated.

A corpus of Early Bronze Age daggers from Britain has been published by Gerloff (1975). The outline and the cross-section of the Caerloggas fragment fit best against the drawing of Gerloff's No. 156 from Barrow G.27, Wilsford, Wilts, on which the reconstruction in Fig. 18 is based. The pointillé decoration, the outline and cross-section, are more appropriate to a three-riveted dagger of the Camerton-Snowhill series than to the straighter sided blades either of the Armorico-British/Bush Barrow series or of the knife daggers. Gerloff suggests a date range for the series from the late sixteenth to the early fourteenth century BC, based on a detailed study of its continental and mediterranean associations and continental affinities. This dating is in fact only a closely argued confirmation of the fifteenth century BC suggested by ApSimon in his initial recognition of the Camerton-Snowhill group (1954, 49).

The Caerloggas fragment fits well within the known distribution of Camerton-Snowhill

daggers. There is a Type Snowhill dagger from Huntshaw, North Devon (Gerloff, No. 157) and Type Camerton daggers from Farway (No. 193) and Hammeldon (No. 194) in Devon, Rillaton (No. 195), Pelynt (No. 196), Mullion (No. 201) and Harlyn Bay (No. 202) in Cornwall. The blades from Hammeldon and Rillaton also have pointillé decoration. A detailed study of pointillé decorated daggers has been made by Proudfoot (1963). No blade of the Armorico-Bush Barrow series has yet been identified from South West England. It appears probable, from Gerloff's reconsideration of the evidence, that this series is indeed a little earlier than the Camerton-Snowhill; the typological division is backed by differences in composition (Britton, 1961). The absence of this earlier series must be borne in mind in any consideration of the role of Cornish metals in the development of Wessex-centred

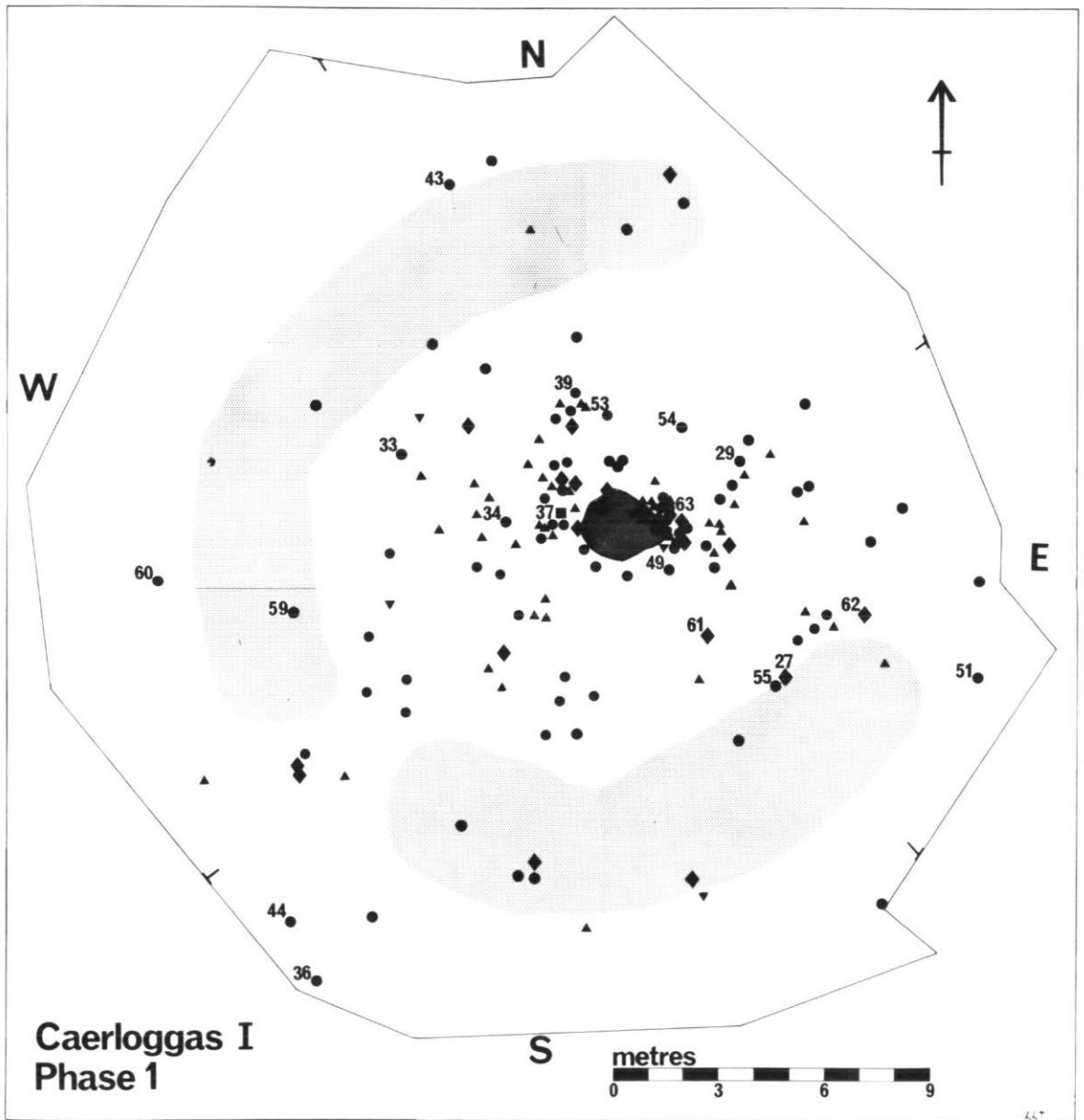


Fig. 16
 Caerloggas I. Location of finds from Phase 1 levels. For find symbols see Fig. 5.

metallurgical traditions. Daggers of Gerloff's flat-riveted type occur at Woodbury, East Devon (No. 64), of flat-riveted knife-dagger type at Newquay, Cornwall (No. 270), Fernworthy, Devon (No. 280) and of the grooved knife-dagger type at Upton Pyne, East Devon (No. 326). Daggers now lost or not available for study appear to have been found at Denzell Downs, St Columb, Cornwall (Borlase, 1872, 243), Fore Down, St Cleer, Cornwall (Patchett, 1944, Table II), Cheesewring, Linkinhorn, Cornwall (Patchett, 1944, Table II), Moor Barton, Moreton, Devon, (Worth 1882, 154) and Barrow I, Wrangworthy, East Putford, Devon (Radford and Rogers, 1947, 161). Three daggers in the Arretton tradition were found in the Plymstock hoard (Gerloff's No. 207, 208, 213). The deposition of grave goods in barrows was probably not as common in the south west of England as in Wessex (p. 75) but daggers appear to be the most frequently occurring type apart from flints and pottery.

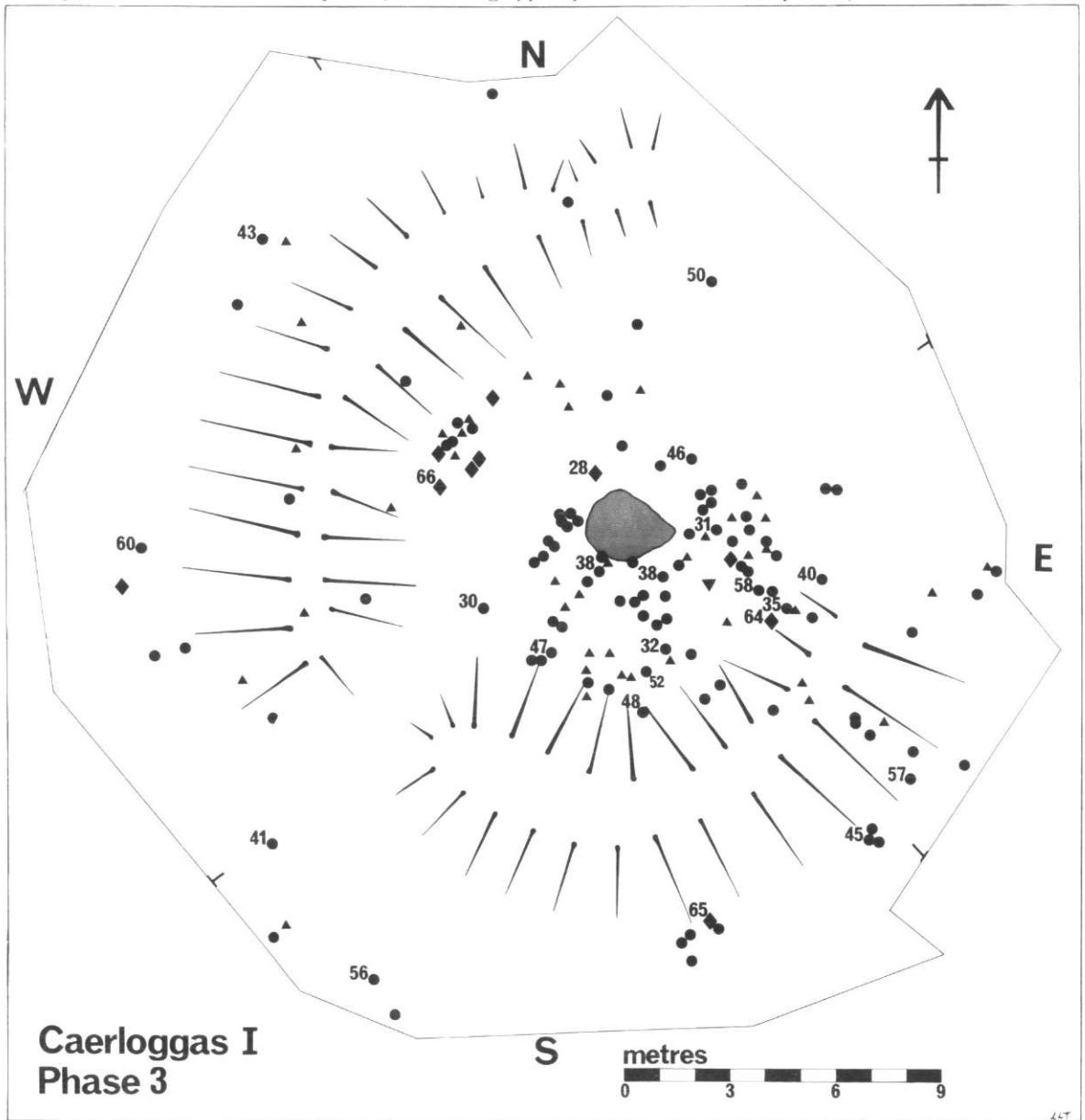


Fig. 17

Caerloggas I. Location of finds from Phase 3 levels. For find symbols see Fig. 5.

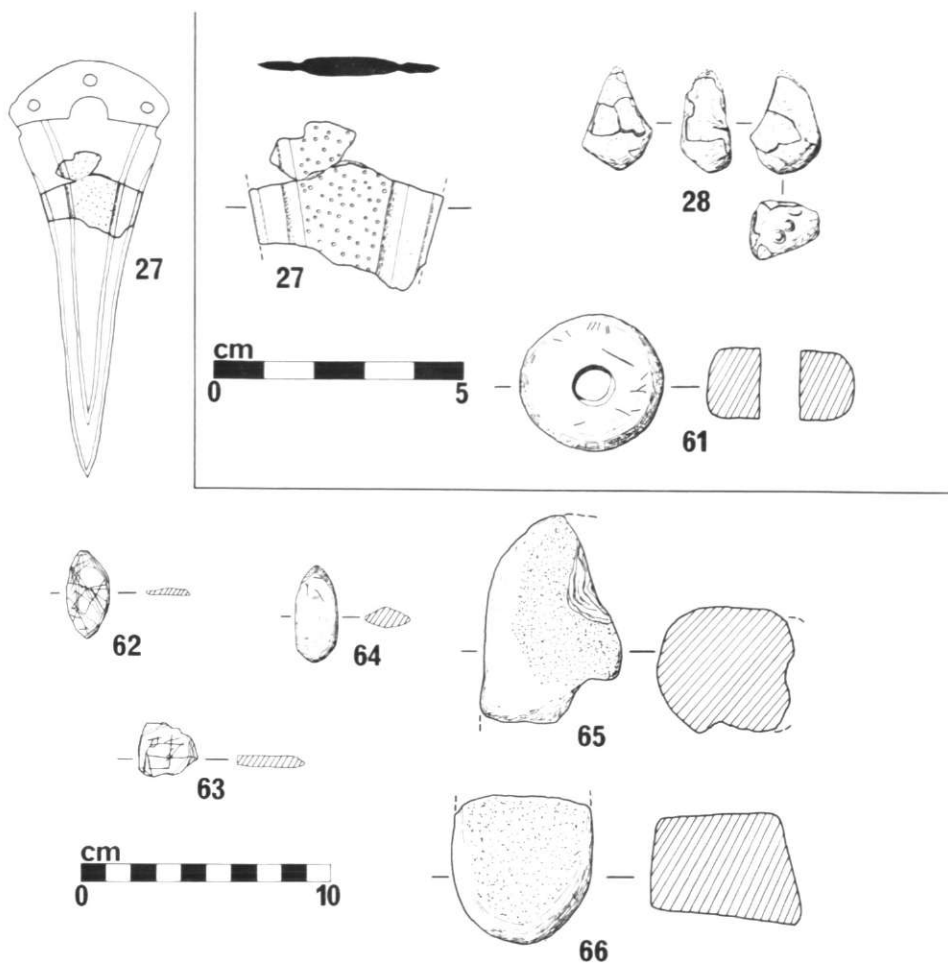


Fig. 18
Caerloggas I. Finds of bronze (27), amber (28) and stone (61-66).
27, 28, 61 2/3; 62-66 1/3.

Tin slag

Seven small pieces of glassy slag were found in an area 2 m across in W, six from the basal levelling turves and one from the disturbed soil above. They are regarded as a single group, the seventh piece disturbed from its original position.

Scientific examination of dagger and slag fragments.

By H. S. Campbell, Metal Users' Consultancy Service

R.F. Tylecote, Department of Metallurgy, University of Newcastle

L. Biek, Ancient Monuments Laboratory

R.E.M. Hedges, Research Laboratory for Archaeology, University of Oxford

In view of their common context and, more particularly, common denominator — tin — the fragments of dagger and slag are here considered together. Both the materials are in a highly interesting and informative state of preservation, in its different ways quite perfect and unique.

Description (LB). At first sight (Pl.IX) the surface of the dagger reminds one of polished bone — or perhaps opalised glass, or some glazed or slag-like material. Closer inspection confirms the extraordinarily flawless smoothness of the surface but invites comparison with 'perfect' patinas on certain bronzes. At this level the colour is perhaps adequately described as pale olive grey. There is a fine mottle of greenish white — which on one side coalesces into a single large area covering over $\frac{1}{3}$ of the surface — and occasional, larger and less well defined darker spots are produced by local intensification of a reddish brown colour. Under a low power microscope this picture is resolved into a random pattern of mainly white and brown, discrete fluffy growths seen at varying depths within a uniformly pale grey translucent matrix. In fracture (Pl.X) this surface layer can be seen, clearly, to be extremely uniform in both colour and depth and to follow the original surface in every particular — including the pyramidal depressions of the decoration. Below it are equally clear and uniform continuous bands of varying thickness and alternating clean white and lustrous golden brown colour, the white predominating and forming the core.

The most significant surface markings are straight striations along the grooves, showing relatively coarse graving tool marks compared with the fine polish of the flat surfaces. These marks remain in an exceedingly thin layer only; where this has flaked off the marks have gone with it (Pl. XI). Over the main body surface only a few random scratches can be seen.

The X-radiograph shows a coarse network of numerous cracks, in most cases joining the decorative depressions, and one major crack completely bisecting the large fragment longitudinally. Otherwise the radio-density is completely uniform and there is no indication of any residual pockets of metallic core.

Apparent physical densities were determined by Justine Bayley as follows: dagger fragment 2.36, slag 4.93, cassiterite pebble 5.39. For comparison (pure materials: published values): 10% tin bronze 8.8, tin 7.3, tin oxide crystalline powder 6.95, tin oxide (tinstone) cassiterite, massive up to 7.1, glassy 'iron' slag 4.

In confusing contrast, the slag fragments not only look like, but really are, glass. Some had weathered on the surface — slightly but typically — to a patchy, thin golden brown iridescent flaky skin of 'hydrogen glass': i.e., largely silica. But the dominant impression is of a black glass, with sharp, smooth conchoidal fracture. The surfaces have the satin-like texture associated with cooling under viscous, thermal stress. The thickness is largely uniform within one piece — several fragments being similar (ca. 3 mm max.) but some up to twice as thick, and of these, two found $1\frac{1}{2}$ m apart give a matching fit. All the fragments show some curvature and half of them even have a 'pseudo-rim' profile; in a different context they might easily be mistaken for vessel glass. Closer inspection indeed shows the colour to be a transparent 'bottle brown'. The X-radiograph (Pl. XII) reveals numerous spherical blobs of metallic tin (like the few visible, uncorroded, through a thin layer of glass just below the surface) throughout the thickness.

Analysis dagger fragments

Isoprobe examination (REMH; Hall et al, 1973, 53-57) gave the following results:

	Surface	Fracture
Tin	50-80% . . . (this value)	. . . x 0.75
Copper	ca.5% (3-10%)	
Iron	ca.5% (3-10%)	
Arsenic	10-20% . . . (this value)	. . . x 1.25

X-ray diffraction (HSC). A powder diffraction pattern obtained by C.G. Purnell gave only rather diffuse bands but their positions were reasonably well identified at $D = 3.4, 2.6, 2.3$ and 1.75 \AA , the line at 2.3 \AA being weaker than the other three. Among the indexed structures that include the three strongest lines is varlamoffite ($\text{Sn,Fe}(\text{O,OH})_2$). We have previously found varlamoffite as a corrosion product on bronze samples from the Association wreck and think it very likely, therefore, that varlamoffite is a principal constituent (of the order of 10%) in the corrosion product from the dagger. One should

mention, however, that when we found it on the bronze items from the sea it was not in the compact form reproducing the original surface that was such a remarkable characteristic of the dagger.

In addition to the powder pattern we tried to obtain a glancing incidence pattern from the shiny outer surface of the corrosion product but this gave no discernible diffraction lines whatever and it appears, therefore, that the outer layer is virtually amorphous.

Analysis slag fragments (RFT)

A piece (AM 733106; site ref. 596NW (15)) as received had weathered to give a brown-coloured exterior. A new fracture had a black, glassy appearance and closely resembled the slag from Carnelloe (*vide inf.*). Even to the naked eye small globules of metal (*c.* 65 μm) were visible.

Microscopic examination confirmed the visual appearance, and a micro-hardness test on the white metal globules gave a figure of 8.4 HV50g. This value is in keeping with that of elemental and impure tin metal (5 to 9.6 HV) and quite out of the lead range which is about half this.

An attempt was made to etch the glass to see if there was any crystalline component but this was unsuccessful and we can therefore assume it to be a true glass. In this sense it agrees with that from Carnelloe although the latter was devoid of tin globules — all of its tin being in the glass phase.

The following results (%) were obtained on a series of Cornish tin slags and residues (Tylecote, 1965) which are probably of modern or fairly recent origin:

	Sn	Pb	Zn	Cu	Mn
A. United Mines	0.8	1.3	0.17	0.015	0.40
B. Seligan East	0.5	—	0.10	0.22	0.70
C. Seligan West	22	—	0.5	0.04	0.50
D. Bissoe	60	0.3	0.3	tr	0.40
E. Carnelloe	2.8	—	0.5	0.7	0.50

The rest was FeO, SiO₂, and CaO. A typical modern tin smelting slag would contain:- 35% SiO₂, 18% FeO, 28% CaO, 17% MgO + Al₂O₃, and 2.5-3.0% Sn.

In the series above, B and C showed the usual fayalite crystals in a glass matrix, but the slag from Carnelloe was entirely structureless. The difference is probably due to different cooling rates. Both B and C contained tin-rich globules.

The only early tin slag known to the author comes from Portugal (Maia e Costa and dos Santos, 1965-66). It came from an Iron Age hillfort dated from the 8th century to the 2nd century BC. The composition was:-

Fe ₂ O ₃	64.43%	MnO	0.40	S	0.005
SiO ₂	21.46	TiO ₆	0.96	Cu	tr
Al ₂ O ₃	9.34	P ₂ O ₅	0.30	SnO ₂	2.03

The structures vary from tin metal in a grey-black matrix to fayalite laths with wüstite or magnetite. The spherical globules of tin were about 150 to 200 μm diameter. Some FeSn₂ phase was also present. It is claimed that the above composition confirms the use of hematite or limonite as a flux. This may be so in Portugal, but the main impurity in Cornish tinstone pebbles is iron and this would need fluxing with sand. The smelting temperatures were estimated to be up to 1300 °C and I would agree with this in both cases.

Discussion

Nothing is known about tin smelting during this period (Tylecote, 1962, 63) and the slag is in fact the first to be recognised in this country. Although the association of ore, slag and metal here is symbolic it is clear that tin smelting was carried out nearby. It is not possible to be precise about the original arsenic content in the dagger but it would appear to have been of the order of 1%. No lead was detected in such quantity. Comparison with published analyses would suggest that it belongs to the earlier rather than the later Middle Bronze Age and could be equally consistent with Bush Barrow or Camerton/Snowhill types (Britton, 1961; Tylecote, 1962, 322). A mechanism for the alteration of the dagger material is proposed on p. 70; its present condition makes it certain that the breaks pre-date burial.

It is interesting to note that the encapsulated tin globules have been totally protected in the slag even by a very thin layer of its glass matrix. The slag was also broken before burial.

Amber (Fig. 18)

28. Fragment 14 by 14 by 9 mm from soil in interior, W, possibly from an amulet. Decayed surface facets on three sides are at approximate right angles to each other; the central facet has possible traces of three small incised circles. There are only four other recorded finds of amber from Bronze Age ritual deposits in South West England. A possible pin head, from a round barrow, near the Woolley long barrow, Morwenstow, Cornwall, was associated with a cremation and 'some fine plaster-like material used as a backing for a flat metal object about eight inches across' (Dudley, 1968b, 80). A pestle-shaped amulet was found with pottery, both now lost, and cremated bones at Burrow Park, Halwill, Devon (Burnard, 1896). A single amber bead accompanied eight of faience and nine of lignite, some bones and potsherds in a deposit ploughed out of a barrow at North Molton, North Devon, in the nineteenth century (Fox and Stone, 1951). There is lastly the amber dagger pommel from Hammeldon on Dartmoor (Kendrick, 1937). This sparse distribution is consistent with that of other 'exotic' objects of this date in the area.

Flint (Fig. 19)

208 pieces were recovered, all apparently of pebble flint (see Watch Hill flints, p. 18).

Surface beneath the structure:	three including 51
Ditch silt:	four including 36 and 44
Basal levelling turves:	fifty two including 29,33,34,37,39,53 and 54
Central pit complex:	eighteen including 49
Phase 1 levels:	seventeen including 59
Phase 2 levels:	three including 42
Phase 3 levels:	fourteen including 41,43,45,48,56 and 60
Soil in interior:	ninety three including 30,31,32,35 38,40,46,47,50,52,57 and 58
Topsoil:	four

Arrowheads

29. Leaf, bifacially worked. Basal levelling turves, E.
30. Leaf, bifacially worked, plano-convex section. Soil in interior, W.
31. Possible leaf, slight trimming confined to one face. Soil in interior, E.
32. Transverse, Soil in interior, S.
33. Triangular. Basal levelling turves, W.
34. Barbed and tanged. Basal levelling turves, W.

Scrapers

35. End scraper, very heavily burnt, Soil in interior, E. Also a burnt fragment from the central pit.

Knives

Eight: 36 - 40, two fragments similar to 36 from basal levelling turves and one from Phase 3 soil.

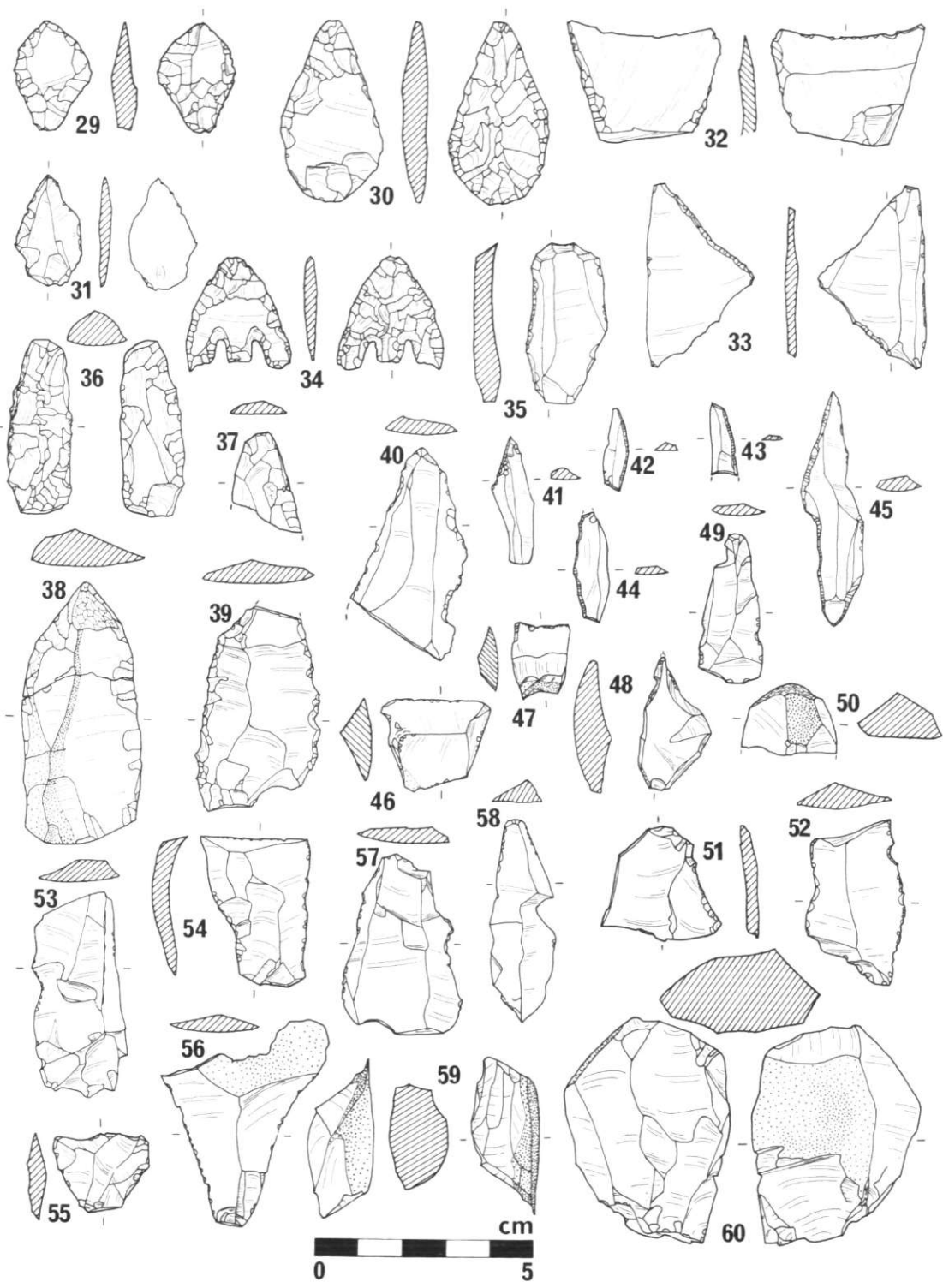


Fig. 19
 Caerloggas I. Flints. All 2/3

36. Plano-convex, one edge much battered. Ditch silt, S.
37. Plano-convex, broken, heavily burnt. Basal levelling turves, W.
38. Plano-convex, found in two pieces, heavily burnt, Soil in interior, S.
39. Flake retouched along both edges, point broken. Basal levelling turves, N.
40. Part of blade, fine retouch on both edges. Soil in interior, E.

Microlithic forms

41. Obliquely blunted point. Phase 3 soil, S/W.
42. Blade with blunted back. Phase 2 yellow clay, S.
43. Blade with blunted back, broken. Phase 3 soil, W.
44. Blade with blunted back, tip broken. Ditch silt, S.
45. Blade, steeply trimmed along one edge, slight trimming along other. Nature of the trimming is more comparable to that on the microliths than on other forms. Phase 3 soil, S.

Segmented blades

Nos. 46, 47 and another all from soil in interior. Broken blade segments apparently deliberately broken and used after breakage are occasionally found in West Country Bronze Age flint groups. They compare closely in form with lathe flints as exemplified by the Iron Age and Romano-British Kimmeridge shale industries (Calkin, 1955) but no certain lathe flints have yet been published from the Bronze Age.

46. Soil in interior, N.
47. Soil in interior, S.

Borer

48. Point worn. Phase 3 soil, S.

Flake with faceted point

49. Pit K in central complex.

Fabricator

50. Broken, end and edge heavily battered, burnt, Soil in interior, E.

Pieces with retouch

Six flakes with retouch did not fall into definable tool categories, 51, 52, two from Phase 3 soil and two from soil in interior.

51. Hinge fracture flake with retouch on one edge; probable silica gloss. Old ground surface, E.
52. Blade, broken and then retouched on both edges, small notch. Soil in interior, S.

Utilised pieces

Forty seven pieces. The selection illustrated indicates the shapes of flakes apparently used as tools without retouch. One from the old ground surface, eleven including 53 and 54 from basal levelling turves, three from the central pit, five including 55 from Phase 1 levels, one from ditch silt, one from Phase 2 levels, four including 56 from Phase 3 levels and nineteen including 57 and 58 from soil in interior.

53. Basal levelling turves, N.
54. Wear traces all round circumference. Basal levelling turves, N.
55. Phase 1 levels, S.
56. Phase 3 soil, S.
57. Soil in interior, E.
58. Notch accidental, not worn; point very worn. Soil in interior, E.

Unused flakes

Forty three.

Chips

Eighty.

Cores

- Five: 59, 60 and three very rough examples from soil in interior.
59. Two partial platforms at 120° to each other. Phase 1 levels, W.
60. One platform at either end. Phase 3 soil, W.

Stone objects (Fig. 18)

61. Serpentine bead or whorl with cylindrical bore; slightly irregular, exterior fairly well polished with many scratches running around the circumference, interior of bore highly polished with no wear traces on junctions with the flat surfaces. Basal levelling turves, S.

Serpentine outcrops in the St Keverne area of the Lizard in Cornwall. It is a soft rock, easily worked but no Bronze Age artefacts are recorded. However gabbroic clay in the immediate vicinity of the serpentine was extensively used for Bronze Age potting (ApSimon and Greenfield, 1972, 333). There are no close comparanda to its form, as Early Bronze Age beads are all much smaller and lighter. The object recorded as a spindle whorl, and now lost, apparently found with a Trevisker Style 1 ribbon-handled urn, ogival dagger and incense cup from Barrow III at Harlyn Bay (Patchett, 1944, Fig. 6) was similar in shape and size and may have had a cylindrical bore. If the Caerloggas example was a whorl, it was never used.

The high polish on the interior of the bore can be paralleled on a number of battle axes, for example that from Bratton Fleming, North Devon, in Rougemont House Museum, Exeter, and is a result of the hole-boring process. The use of decorative rock suggests either an object of personal adornment or a utilitarian object made specially for ceremonial deposition.

- 62 and 63. Small fragments of slate with sharply incised lines on one surface: the slate, from the now eroded mantle over the granite, is of frequent occurrence in the subsoil. 62 from the surface beneath the ring bank enclosure E; 63 from the central pit. A third, smaller fragment with less definite incisions, came from the basal levelling turves in W. Worked slate discs and other shapes are often found in south western barrows (see Trenance Downs p. 57) but no incised examples of this date or context are recorded.
64. Slate pebble, probably from a local stream, with two ground facets joining to form a point at one end. Soil in interior, E. Similar to 26 from Watch Hill. The facets have the appearance of being caused by use.
65. Fragment of large quartzite pebble, with part of one surface worn smooth but matt. Phase 3 soil. S. Such pebbles occur in the beds of streams running down from the granite.
66. part of granite pebble, one naturally flat surface worn smooth, the opposite surface less worn. Soil in interior, W.

A granite pebble, slightly worn, probably through use as a quern rider, was found in the ditch silt in S. A burnt and broken slate pebble with a worn facet similar to 26 came from the upper levels of the central pit and a slate pebble with worn patches from the soil in the interior in E. A number of pebbles exhibited no obvious traces of use: two of cassiterite (which occurs in veins in the granite), from the ditch silt in W and the basal levelling turves in W; one of gritstone (from the Devonian Beds around the granite), from the basal levelling turves in N; five of quartz tourmaline (frequent veins in the granite), one from the basal levelling turves in W, two from the Phase 1 bank in W and one from this context in E, one from the central pit; one of fine-grained quartz greisen (veins in the granite), from the Phase 3 level in N; three of local slate, one from the central pit and two from the soil in the interior in N.

White pebbles

105 small white waterworn quartz pebbles were recorded. Some had highly polished surfaces, probably produced by handling.

Basal levelling turves	42	Post hole in Phase 1 entrance	2
Ditch silt	1	Phase 3 soil	3
Central pit	14	Soil in interior	42
Pit K	1		

Quartz crystals

Five crystals were recorded. That from the central pit was very worn. The others came from the basal levelling turves in S, Phase 1 levels in W, Phase 2 levels in W and soil in the interior in E. Thirty lumps of white quartz were also recorded but because this occurs naturally these need not be of significance.

Bone

Two small pieces of heavily burnt bone, from the central pit, were from long bones not otherwise identifiable.

Insect remains

A sample of turf from the Phase 1 bank was examined by P.J. Osborne of the Department of Geology, Birmingham University, who reported that soil conditions were unsuitable for insect preservation.

Soil phosphate analysis

A sample from the bottom of the central pit and a control sample from the buried soil beneath the ring bank were submitted to the Ancient Monuments Laboratory of the Department of the Environment for phosphate analysis. The phosphate content of the control sample was low but distinctly higher than that of the present soils, indicating continuing impoverishment of the soil since the Bronze Age. That from the central pit was higher, consistent with the original presence of a burial. Alternatively the humic soil in the pit may have leached to produce concentrated phosphates at its base, or other organic residues in the pit could have contributed phosphate to the soil.

DISCUSSION AND HYPOTHESES

Caerloggas I forms a variant, at present apparently unique, of Bronze Age ritual enclosure sites. The site was first partially defined by a ditch, levelled up with turves, and a token enclosure formed by the ring of yellow clay scattered over the levelling turves and entered across the ditch causeway through the carefully constructed initial entrance; the focus of preliminary ceremonial was presumably the central moorstone, against and under which the central pit complex was set. The site was then enclosed by a bank, subsequently heightened twice. During the first two phases at least, a ring of posts projected from the bank top. Throughout, the bank enclosed a roughly level area of turf through which only the central moorstone projected. A single post stood in the entrance way, probably during the first phase, and a line of posts inside the entrance may have supported a screen or barrier. A large quantity of flints, white pebbles and other objects were deposited in the interior either during or subsequent to construction.

The enclosure around the central moorstone can be paralleled in a number of instances, although the central rocks are normally larger, as for example with the ring around Showery Tor on the north edge of Bodmin Moor. The unexcavated stone ring around Cox Tor on Dartmoor is comparable in size (Worth, 1898, 104). Borlase notes stone rings around rocks at Carnmenellis in Wendron, Trannack in Sancreed, both in West Cornwall, and on Treseo in the Isles of Scilly (1872, 136 & 180). Evidence for this practice in Wales has been summarised by Lynch (1975). Barrows may incorporate rock outcrops, for example that excavated in 1974 at Polcoverack in the Lizard (G. Smith, per. com.), but this may only have been done to minimize the labour of mound construction.

The pit beneath the central moorstone is unlikely to have contained an adult burial because of its tightly packed fill; the high phosphate content might have been caused by the inclusion of other organic materials. The range of objects in its fill, representative of those

found in the interior of the enclosure, confirms its interpretation as a ceremonial, dedicatory deposit. The position of the pit is paralleled by that beneath a cairn incorporating a rock outcrop on Trevea Hill, Morvah, Cornwall, which contained no finds (Borlase, 1872, 247), the deposit of cremated bones against the side of the rock central to a cairn on Trebartha Hill, North Hill, Cornwall (Malan, 1889, 499) and by the cremation beneath a boulder incorporated in the Druid's Circle, Penmaenmawr, North Wales (Griffiths, 1960).

The length of time during which the structure was in use cannot be estimated. No posts appear to have been replaced but it is not known whether the site was left abandoned between constructional phases. Phase 1 post sockets were infilled, probably after the posts had rotted, as withdrawal of posts would have dislodged some stones noticeably. The Phase 2 posts may still have been standing when the Phase 3 soil and stones were added. Allowing a minimum of thirty years for each definite post phase, the use of the site would have extended over a minimum of sixty years. The only datable object is the dagger from the end of the Early Bronze Age, a date appropriate to the presence of amber and a decorative stone object. Caerloggas I was then probably in use at approximately the same period as Watch Hill; this contemporaneity is consistent with the evidence from pollen analysis.

CAERLOGGAS II

(Fig. 20)

The barrow had been badly damaged by a pipe trench which had cut through its centre and removed the east part of its mound. A slight scar suggested that its original diameter had been about 15 m. The surviving west segment of the mound was excavated in one trench entirely by hand. The area east of the pipe trench was mechanically stripped and the excavation completed by hand.

The surface beneath the barrow

The ground beneath the barrow was covered by moorstones (not shown on plan) in the interstices of which a black grit-free soil survived, but nowhere sufficiently deep soil for pollen analysis to be feasible. Two probable tree holes, much pre-dating the barrow, were found in the east area. A pit, 0.8 by 0.2 by 0.2 m deep, had been cut through the old soil and infilled with hard black soil and lumps of granite all 0.1 m across. Although barrow mound levels did not survive over it, the nature and compaction of its fill suggested a prehistoric date.

The turf stack

The main part of the mound, surviving to a height of 0.65 m, was built of turves, thin with little subsoil adhering. Those (individual turves) distinguishable had been placed vegetation side down.

The kerb

The outer edge of the turf stack had been roughly kerbed with granite blocks put in place as the stack was built; spreads of stones ran back between the turves in places. Parts of the kerb were found in the east area but most of the stones were out of position.

The yellow clay capping

Patches of yellow clay, kaolinised granite, browner and grittier than that used in I and III, overlay the turf stack and some of the kerb stones. These were overlain in places by further turves.

FINDS

Three flints were recovered, a segmented blade and a utilised flake from the surface beneath the barrow and a chip from the topsoil. A pebble of local slate was found among the kerb stones.

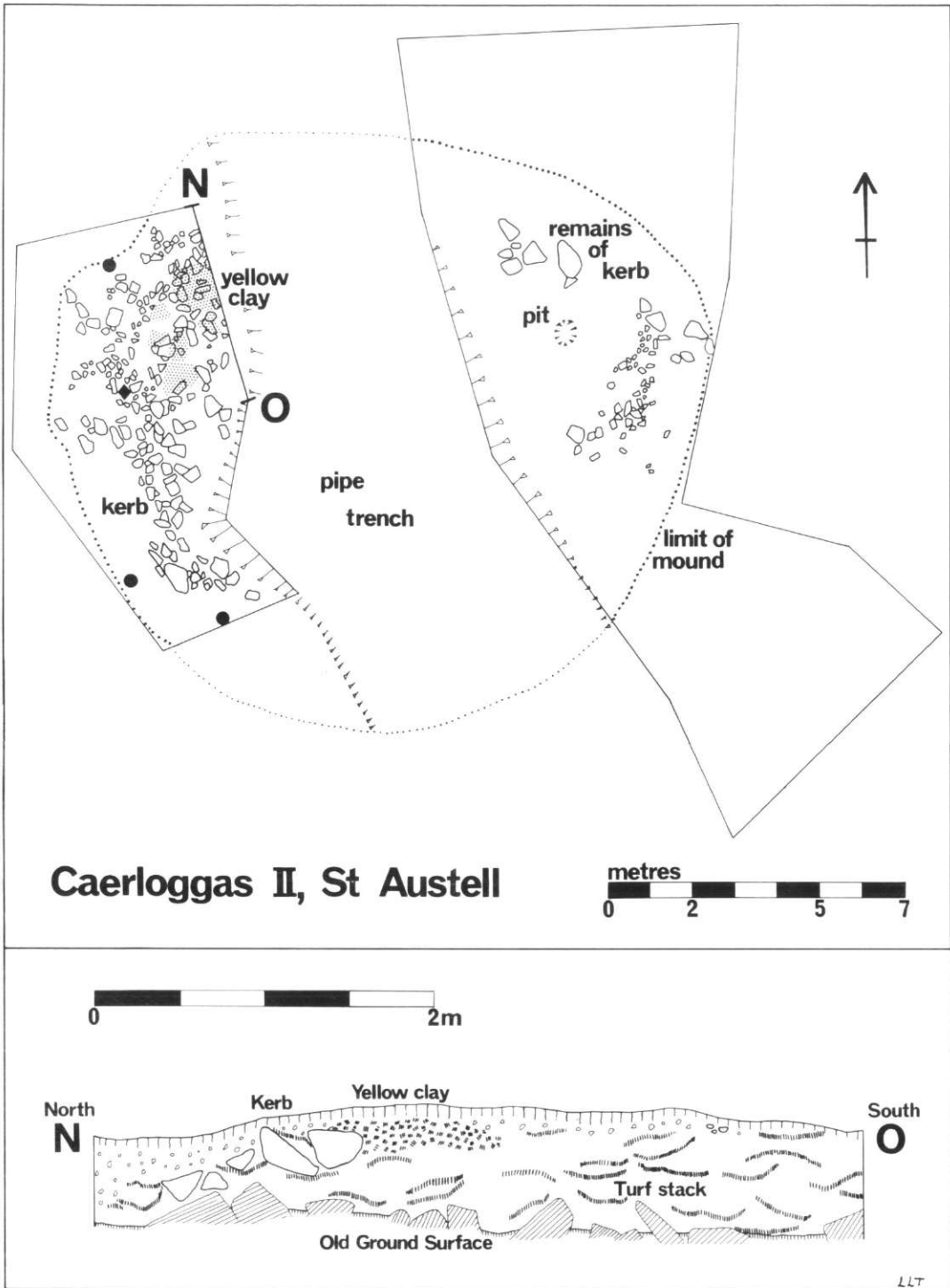


Fig. 20
Caerloggas II. Plan and section. Location of finds shown.

DISCUSSION

The barrow had been built in a continuous process, the kerb stones and yellow clay added as the turf stack was constructed, but its similarity to Caerloggas III (p. 49) need not imply that its ritual focus had been identical. The pit beneath is only paralleled among the St Austell barrows by those beneath Cocksbarrow, in particular Pit Z containing lumps of white quartz of a similar size. Caerloggas II may be reasonably assumed to post-date Caerloggas I which was built on the actual hilltop.

CAERLOGGAS III

(Figs. 21 & 22)

Barrow III was a smooth oval mound, 23 by 25 m across and about 1 m high. Its south edge had been slightly disturbed by the medieval ditch. The vegetation was coarse grass with gorse and bilberry. A contour survey is filed with the excavation records. Turf was stripped mechanically and the mound then totally excavated by hand in octants.

The surface beneath the barrow

The barrow had been built upon a fairly level area littered with moorstones, which in places had rested up against each other (not shown on Fig. 21 as they were evenly spread). The former topsoil survived as a black, almost grit-free zone very much compressed and only 0.03 to 0.04 m thick. Eight angular small holes (a) to (h) filled with soft slightly gritty black soil were produced by the removal of small moorstones, probably to demarcate the edge of the mound. Their depths were: (a) 0.28 m (b) 0.20 m (c) 0.20 m (d) 0.20 m (e) 0.30 m (f) 0.15 m (g) 0.20 m (h) 0.25 m. Two branches, 0.80 and 0.10 m in length, had been placed close together on the old soil in E, but were too decayed for the identification of their wood or a radiocarbon determination.

The standing stone

A small orthostat 0.40 m in height had been wedged upright by turves set over the old ground surface 4 m to the north west of the barrow centre.

The turf stack

The mound was built of large thick turves, mostly placed vegetation upwards. Their sub-soil was browner and grittier than that beneath the barrow but pollen analysis (p. 61) indicates an area of similar vegetation; a number of small granite pieces were brought in with the turves. The stack had been constructed upwards and outwards from the centre; a slightly compacted surface over an initial mound 6 m across and 0.3 m high indicated a short pause in construction. Depressions were left in the top of the stack to accommodate yellow clay capping.

The kerb

The edge of the turf stack was defined by an intermittent kerb set in short straight lengths, the longer stretches two or three stones high. As the kerb rested on turves or was overlain by them in places it was positioned during the construction of the turf stack.

The yellow clay capping

Yellow clay, kaolinised granite, was placed in the hollows left to the south and west in the top of the turf stack and a few small patches were scattered around the north and east. Some of the clay was bright red with concentrations of ferric oxides. In W a quantity of stones had been laid within the clay which was carefully smoothed over so that none were visible on its surface. These stones had been dug with the clay as quantities of it adhered even to the undersides of those stones resting directly on the turf stack. The junction

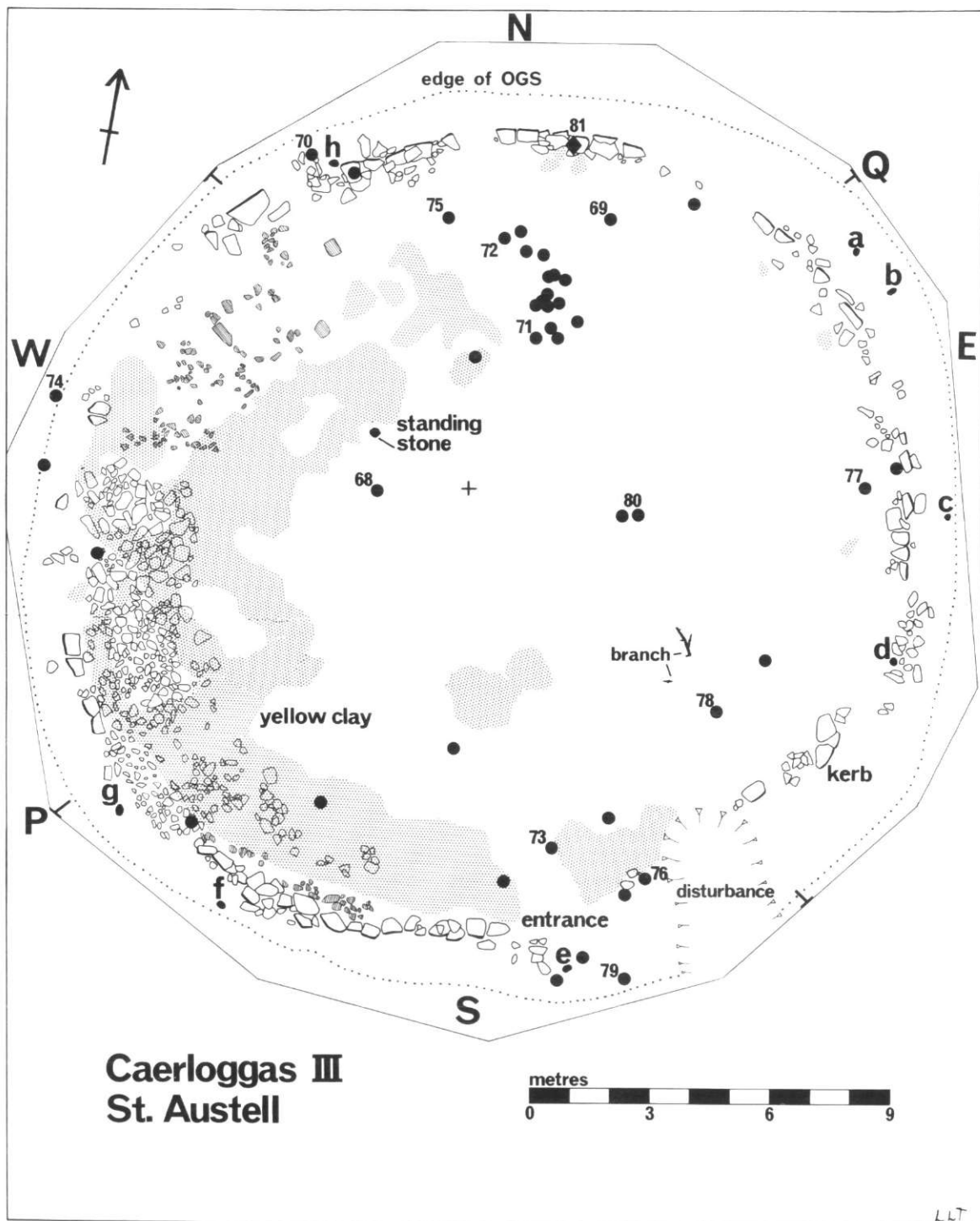


Fig. 21
Caerloggas III. Plan. Location of finds shown.
a - h are post-holes. Stones in turf stack shaded.

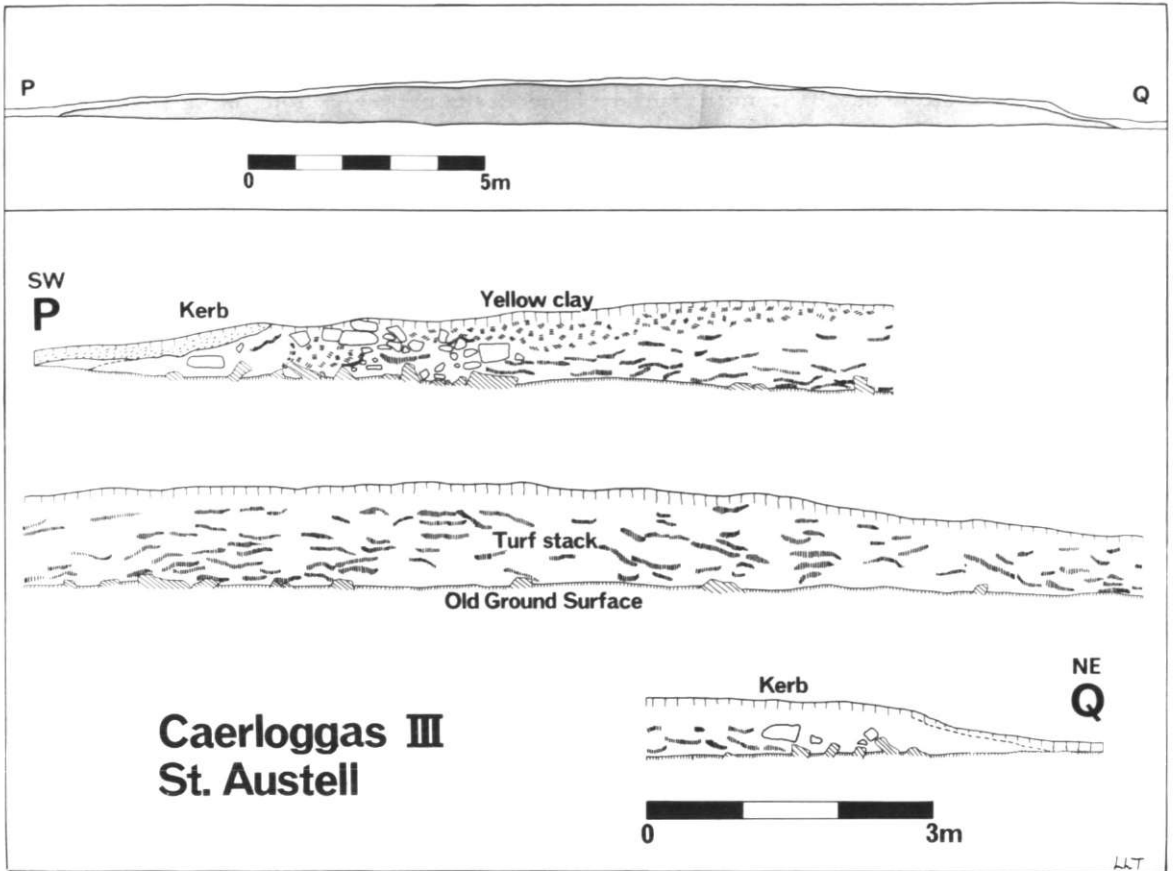


Fig. 22
Caerloggas III. Section.

between the clay and the turves was irregular with clay lying between individual turves in places.

The entrance

On the south side of the mound a gap in the yellow clay 0.7 m across was apparently intentional as the hollows in which the clay was set on either side were steep-edged and regular. The kerb stopped just west of this gap and possibly turned outward for a short distance; it was absent to the east of the gap. The gap is interpreted as an entrance designed for access to the mound top. There was no wear or trampling associated with it.

The surface of the mound

The surface of the completed mound was not compacted nor were there any features indicating activity upon it. Topsoil immediately overlay the turf stack and yellow clay, except around the edge of the mound. Here a soft, only slightly gritty, black soil intervened, covering the kerb and preserving the old ground surface up to 2 m out beyond it. This soil may have been deliberately deposited as its quantity, particularly on the east of the mound, was greater than might be expected to have eroded from a turf stack mound.

FINDS

Flint (Fig. 23)

45 pieces were found, 34 from the surface beneath the barrow, 5 from the turf stack, 1 from the yellow clay and 5 from the black soil around the edge of the mound. 14 of the pieces were burnt. The flints from beneath the barrow may be regarded as a group of Mesolithic date as all the classifiable pieces with secondary working were microliths; 16 clustered in a tight group around the findspot of No. 71. The flints from the barrow mound are not diagnostic in type; they may either have been incorporated in turves or have been deliberately deposited.

Microliths

68. Obliquely blunted blade, point broken, slight retouch on opposite edge to blunting. Soil beneath barrow in W.
69. Broken blade with steep blunting on one edge. Soil beneath barrow, N.
70. Obliquely blunted blade, tip broken. Soil beneath barrow, N.
71. Small blade with blunted back. Soil beneath barrow, N.
72. Lower part of blade with blunted back. Soil beneath barrow, N.

Pieces with retouch

73. Blade with fine, shallow retouch along one edge, broken. Soil beneath barrow, S.
74. Flake with worked notch, slight utilisation traces. Turf stack, W.

Utilised pieces

Twenty one: fifteen including 75-6 from soil beneath the barrow; three including 77-8 from the turf stack; one from the yellow clay; 79-80 from the soil around the edge of the mound. The illustrated pieces are representative.

75. Blade, heavy utilisation along one edge. Soil beneath barrow, N.
76. Flake, partial utilisation traces along one edge. Soil beneath barrow, S.
77. Flake with utilisation traces all around circumference. Turf stack, E.
78. Thick flake with slight utilisation. Turf stack, E.
79. Flake, utilised along one edge, other edge battered. Soil around edge of mound, S.
80. Blade, utilisation along one edge. Soil around edge of mound, E.

Unused flakes

Five

Chips

Eleven

Cores

One core with a partial single platform from soil beneath the barrow, N.

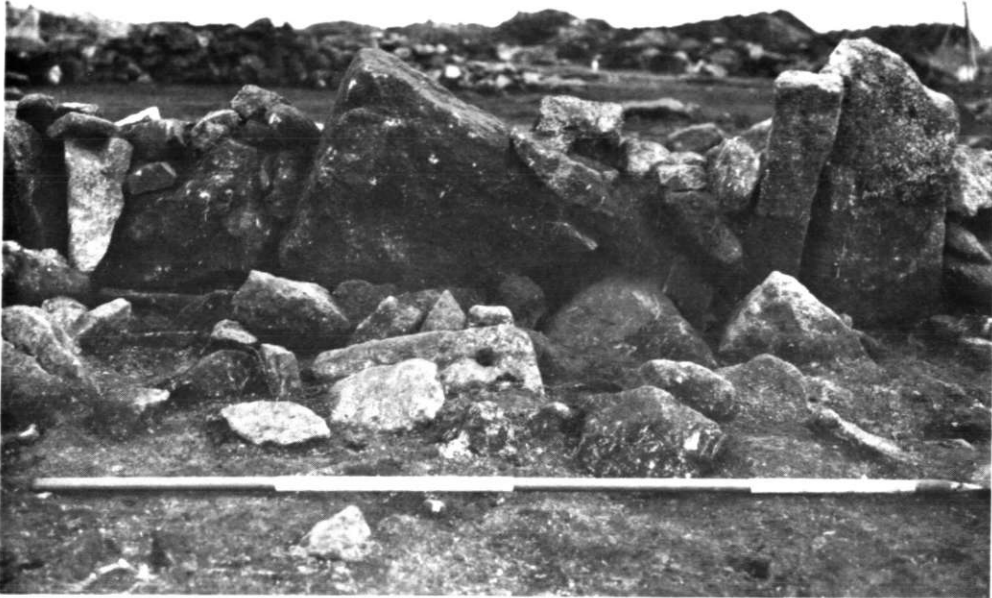
Stone

81. Pebble of mottled brown and white quartz, broken; its surface has a slight gloss, apparently from use as a rubbing stone; worn facet on surviving end; found directly on a kerbstone and covered by turves in N.

Wood

Two branches placed on the surface beneath the barrow. Dr S. Limbrey, then at the Ancient Monuments Laboratory, Department of the Environment, reports:-

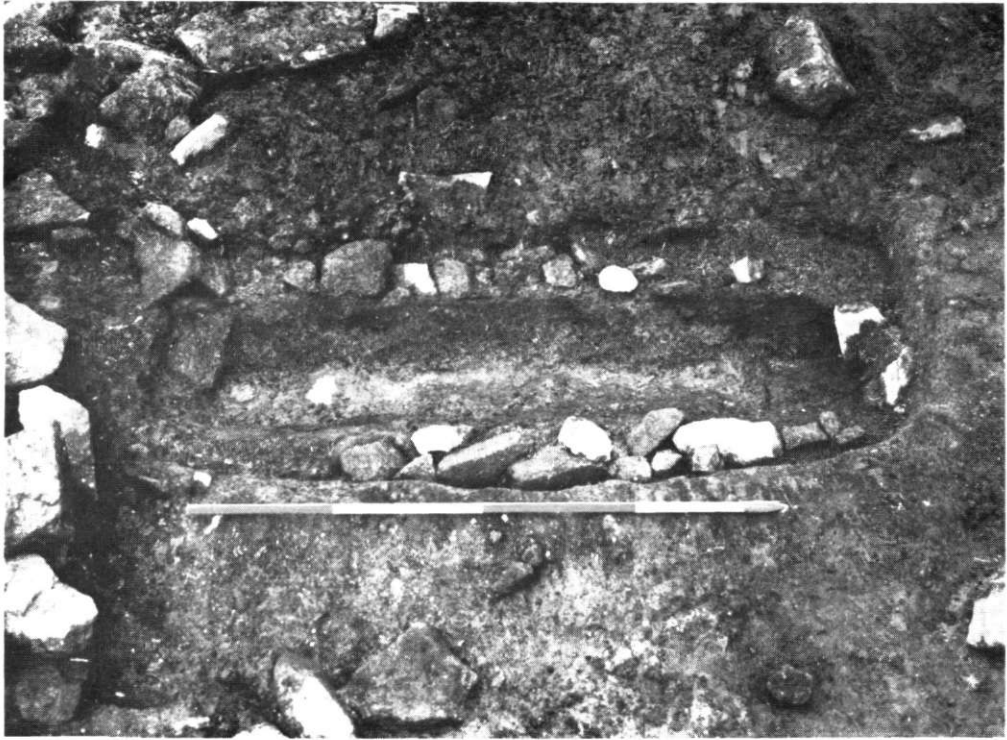
'The wood is to a large extent replaced by iron oxides, probably in the form of a chemical complex with humus substances. Traces of wood structure are present, but insufficient for identification, and it is not possible to tell whether they are of the original wood or of roots which have penetrated the wood and become fossilised in the same way. Much of the carbon of the wood is now in a similar chemical form to that derived from roots and to the humus substances which have probably been leaching down from the soil over the mound, and the presence of an iron complex would make elimination of humus by alkali pre-treatment very



II Watch Hill: the blind entrance from the exterior (north). Photo: author.



III Watch Hill: the upper coffin, from the north east. Photo: author.



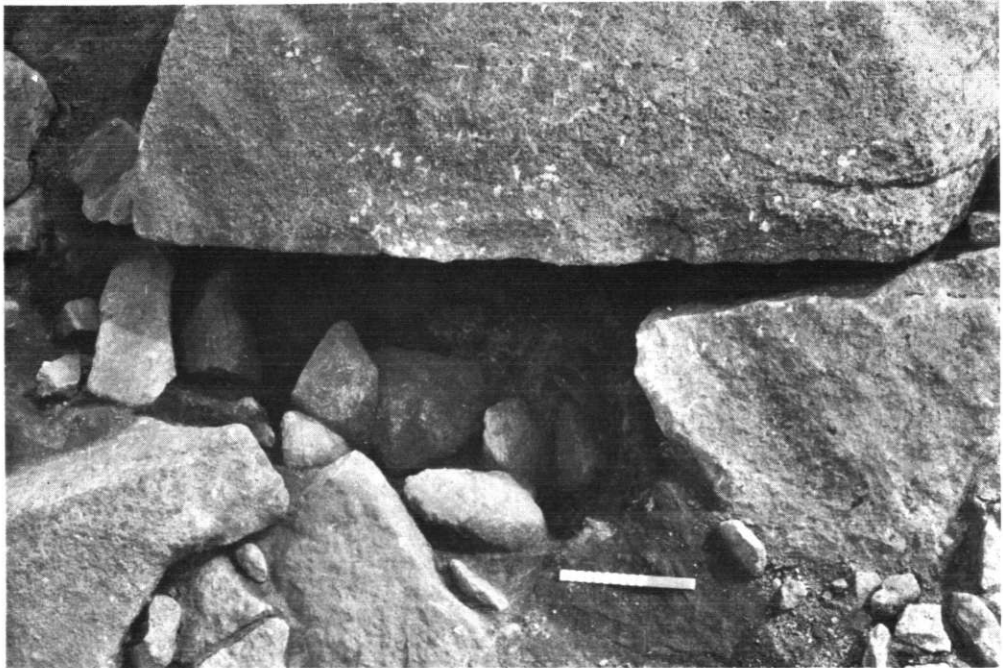
IV Watch Hill: the lower coffin, from the south. Photo: author.



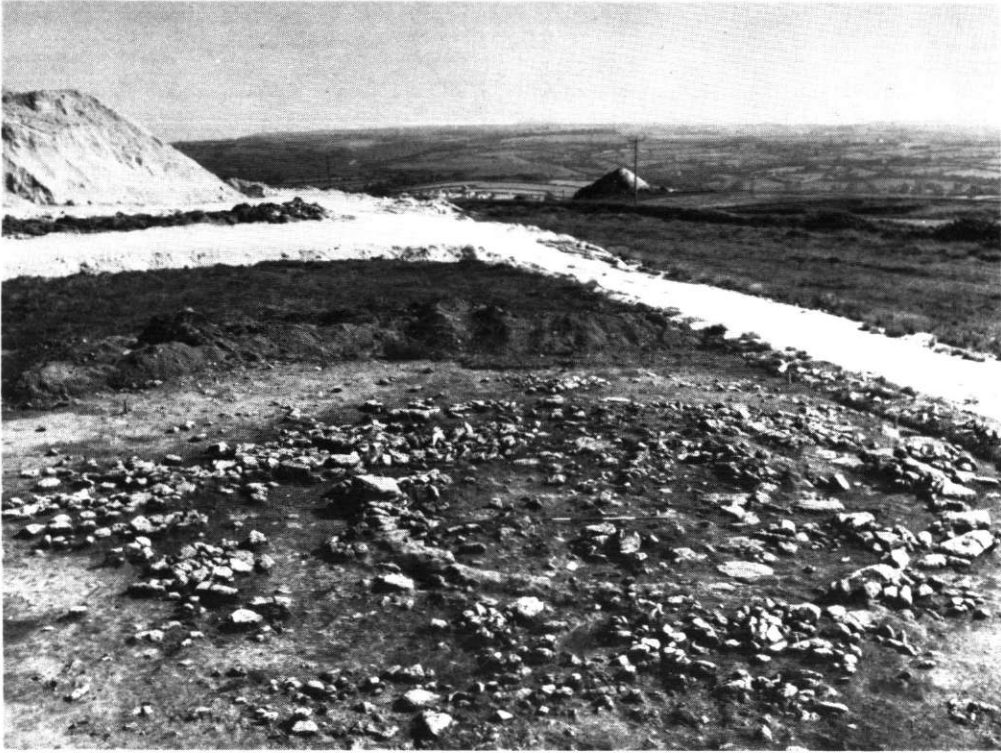
V Caerloggas I: ring bank enclosure in Phase 3 from the north east; part of the central moorstone is visible in the upper left quadrant. Photo: author.



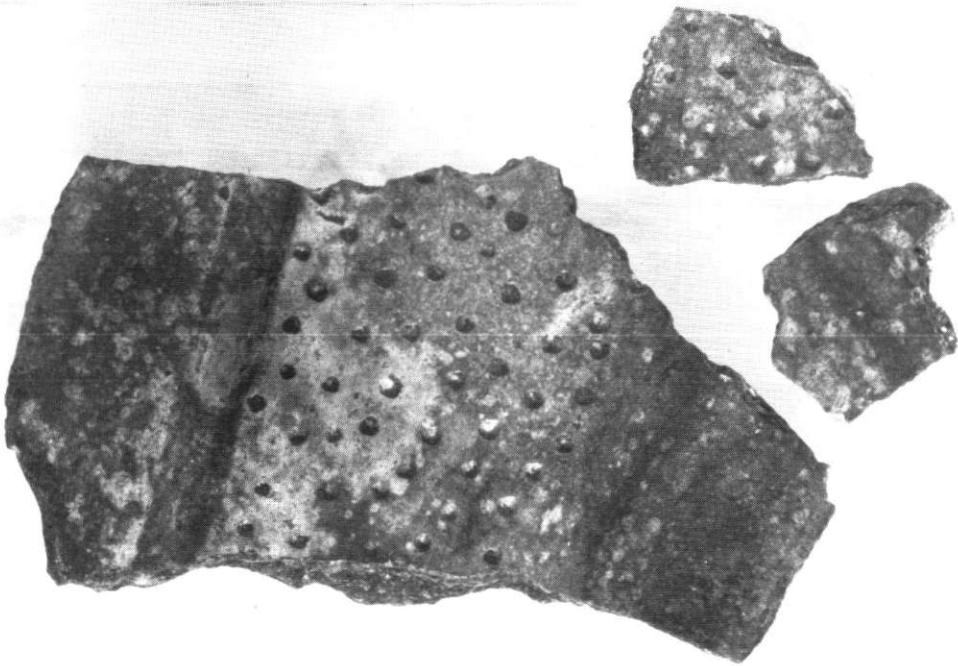
VI Caerloggas I: the initial entrance from the exterior (south west); the ranging rod lies on the ditch causeway. Photo: author.



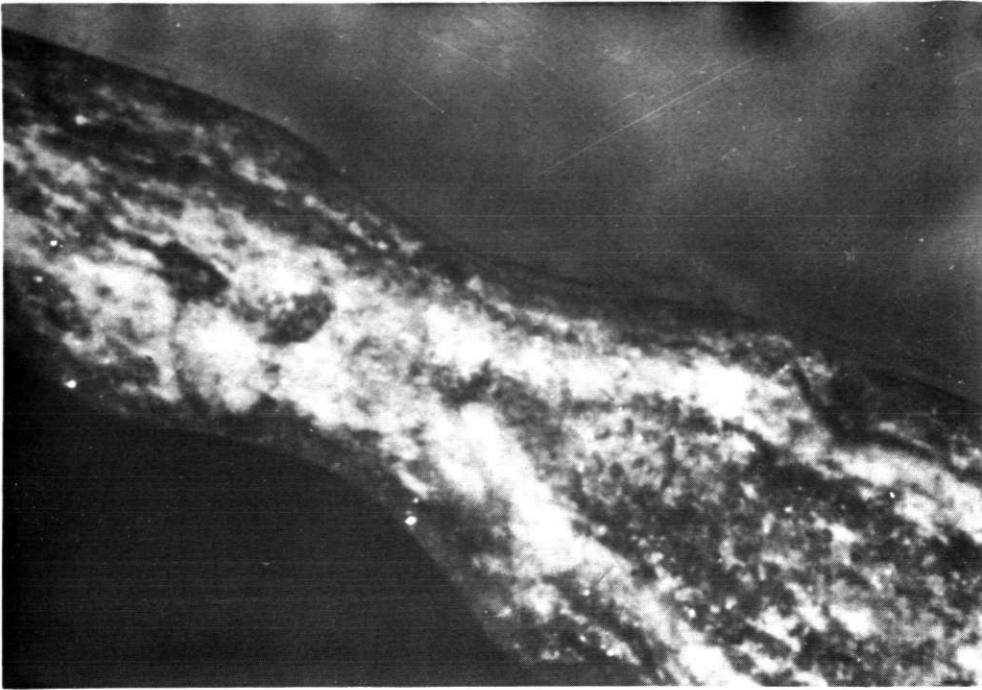
VII Caerloggas I: stone packing in the pit beneath the central moorstone, from the north east. Photo: author.



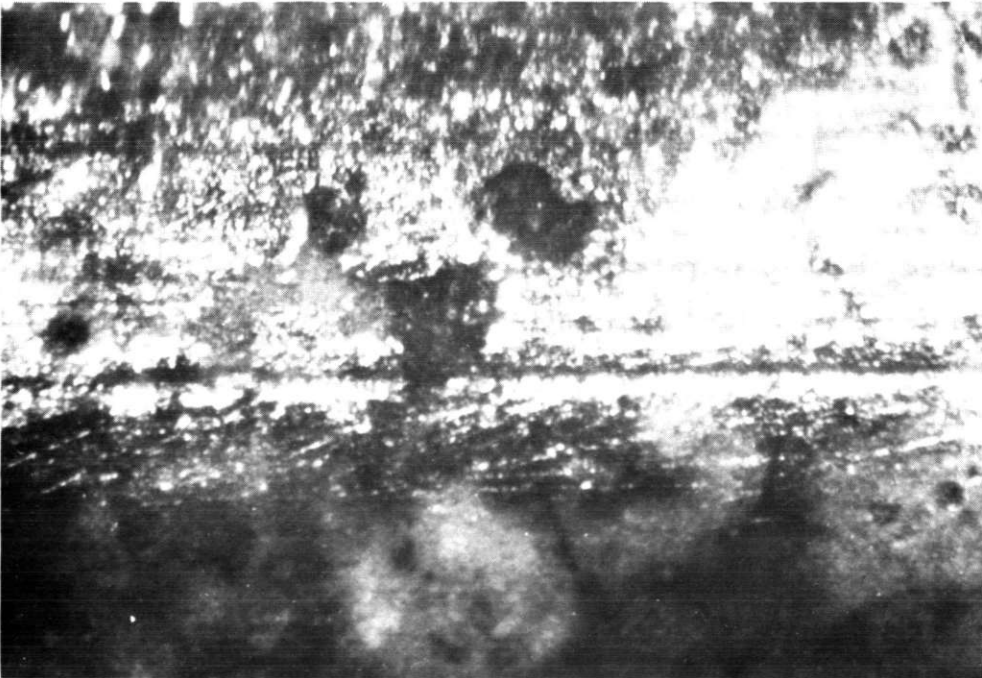
VIII Trenance Downs: stones of ring cairn from north. Photo: author.



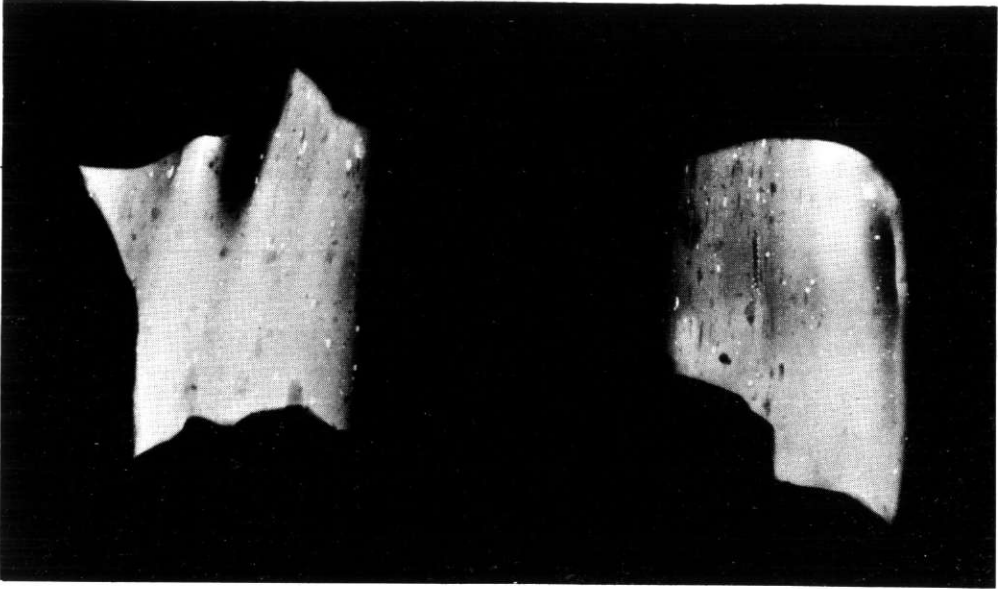
IX Caerloggas I: dagger fragments. *Ca* x 4. Photo: AMLab., DOE.



X Caerloggas I: fracture face of dagger. *Ca* x 24. Photo: AMLab., DOE.



XI Caerloggas I: detail of groove surface of dagger. *Ca* x 130. Photo: AMLab., DOE.



XII Caerloggas I: X-radiograph of slag fragment showing white spots due to metallic tin in glassy matrix. *Ca* x 4. Photo: AMLab., DOE.



XIII The earthwork near Restormel: aerial view. North is to the left.

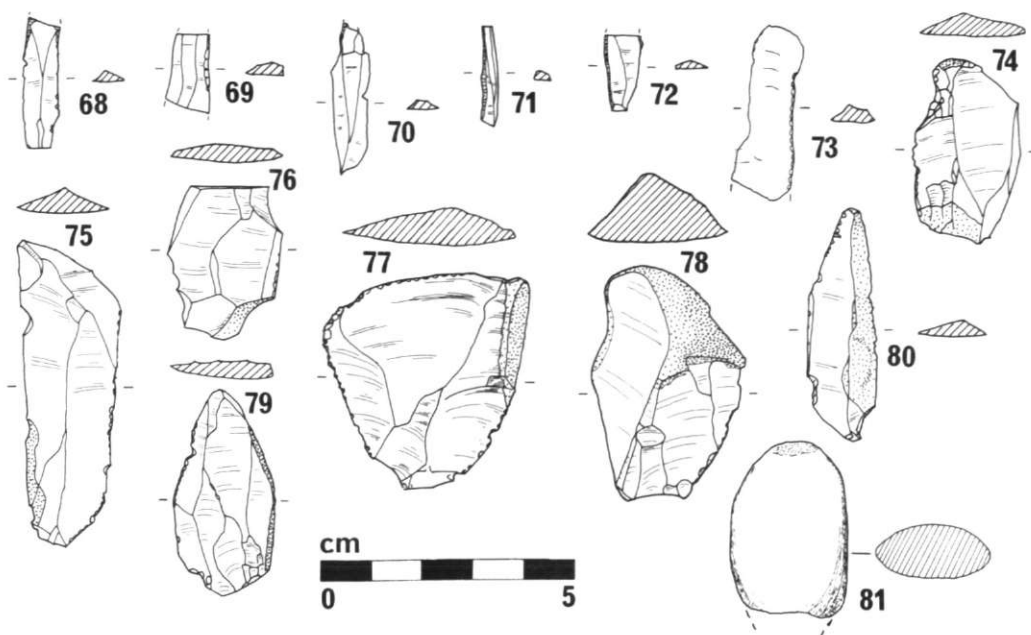


Fig. 23
Caerloggas III. Flints (68-80) 2/3; Stone Tool (81) 1/3.

difficult. Separation of material which could be guaranteed to contain only the original carbon of the wood itself would be impossible: the sample is therefore not suitable for dating.'

DISCUSSION

The barrow was constructed of turf, kerb stones and yellow clay in one continuous process. Its probable ritual focus, the small standing stone, can only have been erected a short while before the mound was constructed as its turf packing would not have been durable. The only close comparandum in size and position is the upright slate beneath Barrow A at Trevone, Padstow (Buckley, 1972). More than half of this barrow had eroded into the sea before excavation so that a central deposit may have originally been present; the slate was set well off centre. A stone of similar size was supported by a small heap of stones within the ring cairn phase at Trenance Downs (p. 52). The fallen 'totem', apparently a carbonised post, beneath one of the mounds without burials on Davidstow Moor (Andrew, 1946, 45) may reflect the equivalent practice in timber. The close links between standing stones and barrows have been recently demonstrated by the excavation of the Bedd Branwen mound in Anglesey (Lynch, 1971, 57) where a standing stone, 1 m high and probably very much earlier in date, had been used as a focus for the construction of the mound, and at Ystrad-Hynod, Llanidloes, Montgomery, where a standing stone was set immediately adjacent to a cairn (ApSimon, 1973).

The branches on the surface beneath the barrow may be compared to those found in a similar context at Carvinack (Dudley, 1964, Fig. 1) and at Gloweth (Dudley, 1967, 7), both near Truro. This would appear to be a variant of the widespread practice of depositing charcoal in the area on which a barrow was to be built.

The kerb and yellow clay were arranged to define access to the mound top from the south. The entrance so formed can only have been used occasionally, as no evidence for trampling or wear survived, and was covered over by the black soil around the edge of the mound. There appears to be no other recorded example of an entrance to the top of a barrow mound but this could only be detected where a mound survived to its full original height.

Barrows without burials have been identified at the Liskey Barrow, Perranzabuloe (Christie, 1960), at three sites on Davidstow Moor (Andrew, 1946), both in north Cornwall, and possibly at Gloweth, Truro (Dudley, 1967). Several barrows dug during the nineteenth century have no recorded burials but such evidence cannot be regarded as definite, e.g. Stephenstone Farm, Upton Pyne (Worth, 1880, 120) and at Thorveton (Kirwan, 1869) both in Devon. The structure on Trenance Downs also lacked any evidence for burial.

Caerloggas III appears to be the least complex structure of its size on record for the West Country, combining simplicity of ritual with single period construction and the deposit of very few objects. It was probably built a little after the hilltop-sited Caerloggas I but pollen analysis suggests approximate contemporaneity with it and Watch Hill.

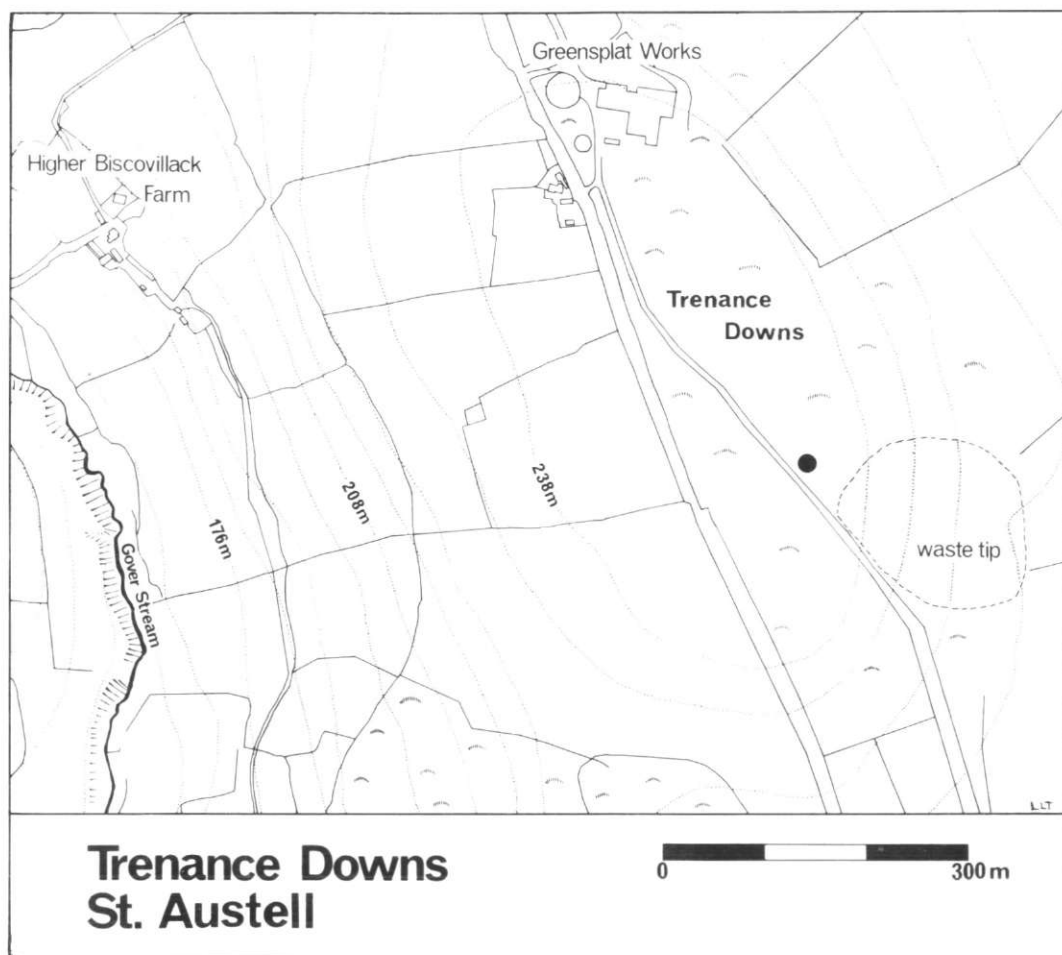


Fig. 24
Location of barrow on Trenance Downs. Contours at 7.5 m intervals.

TRENANCE DOWNS, ST AUSTELL (Figs. 24-26, Pl. VIII)

The barrow was situated at 243 m OD on Trenance Downs (SW 99985461) 400 m south of the Greensplat china clay works. It was referred to during the excavations and in interim accounts as 'Greensplat'; site records and finds are marked GPL. The barrow, No. 8 in the

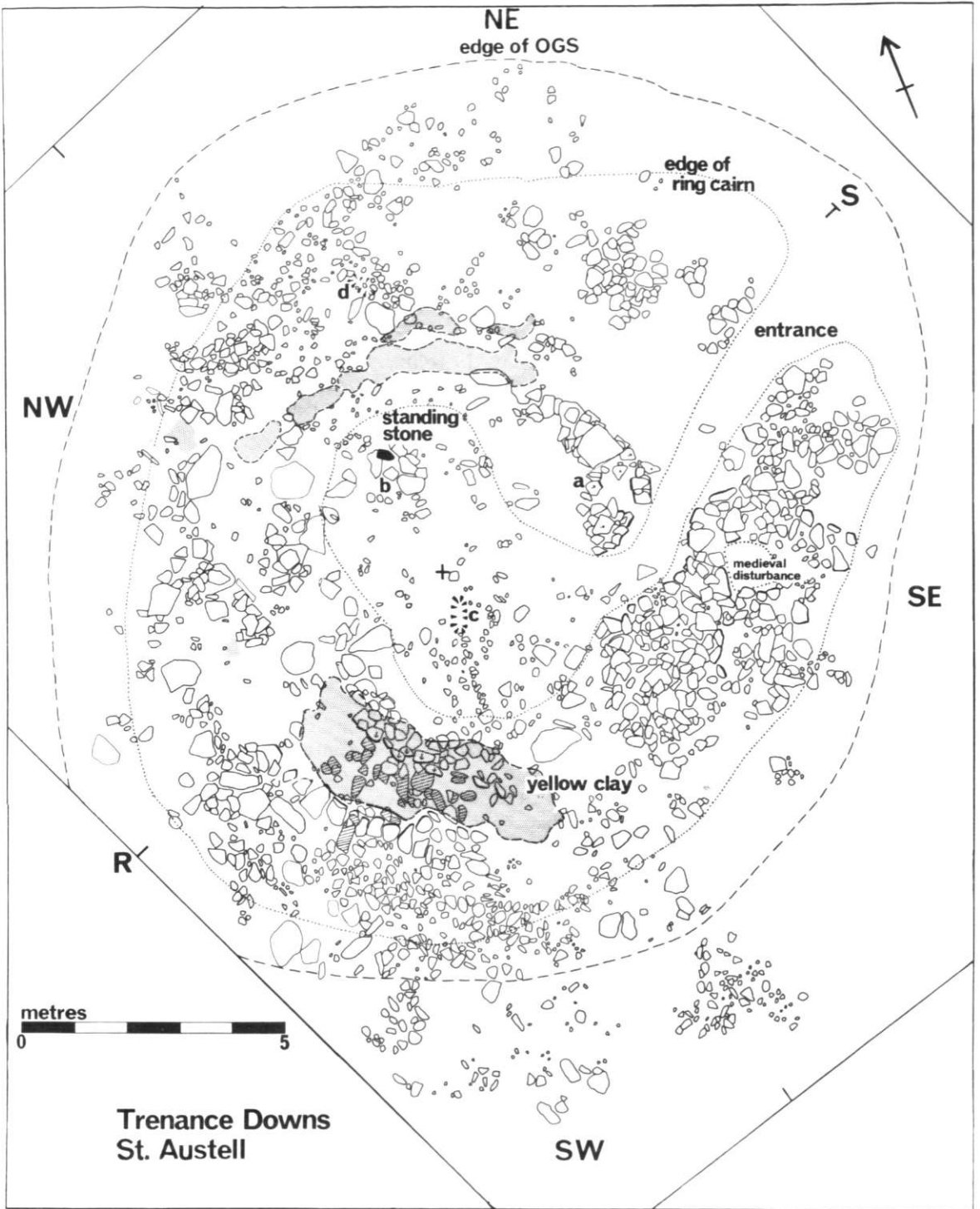


Fig. 25
Trenance Downs. Plan. Moorstone grounders shown in light outline.

St Austell check-list, was described by Richard Thomas, who recorded a second mound on the Downs 50 ft in diameter, given as No. 9 in the check-list (Sheppard, 1972). Both barrows were scheduled as Ancient Monuments by the Department of the Environment but a stringent search of the Downs failed to reveal the second, presumably already covered by a waste tip. The barrow was totally excavated in quadrants, entirely by hand. A contour survey is filed with the records.

The barrow mound was about 20 m across and 0.6 m high with a slightly sunken centre and covered with thick gorse, in contrast to the heather and coarse grass of the surrounding moorland. Several small irregular depressions upon it were accompanied by slight mounds of upcast, and its upper levels proved to have been much disturbed by roots and rabbits.

The surface beneath the mound

A number of moorstones had protruded through the surface, mainly beneath the west side of the mound. Several stones had been extracted and their sockets packed with black gritty soil. The area beneath the centre was free of stones. The old soil had compressed and was black, smooth and almost grit-free. Patches of white clay, none more than 0.2 m across, were laid on the old soil in SE and SW. A pit (d), 0.6 by 0.4 by 0.06 m deep, filled with brown soil and stones, was sealed beneath the mound in NE.

The ring cairn

The primary structure was an oval ring cairn of soil and stones. The soil was homogeneous, brown-black and gritty; the stone, weathered granite with a few white quartz lumps, in places set in short lines or small piles. Parts of the outer edge were badly defined and scatters of stones were found beyond it on the old ground surface. The inner edge of the ring was capped with patches of clay, kaolinised granite, in places white or greyish rather than yellow, concentrated in two main spreads, in NE and SW. This infilled irregularities in the top of the ring which was apparently unweathered before its deposition. An entrance 1 m wide on the north east was defined on one side by an edging of stones. Its other side was less definite but incorporated at its inner end a carefully constructed cavity (a). This was 0.8 by 0.5 by 0.2 m deep, filled with loose gritty black soil containing no artefacts, and covered by a single fairly level slab. The rough cairn of stones on its south side may have supported a post.

The oval area enclosed by the ring, 7 by 4 m, was scattered with small stones. Towards its north edge a small heap of stones (b) had been wedged around a stone 0.4 m long. This stone was no longer vertical but its angle and that of the surrounding stones suggested that it had originally been set upright. A small pit (c) 0.75 by 0.25 by 0.20 m deep and a little south of the centre of the interior was probably caused by the removal of a moorstone: it was filled with gritty black soil.

The ring cairn infill

The interior of the ring cairn had been filled with black gritty soil, darker and more stony than that used in the construction of the ring. The soil spread over the ring in places, perhaps originally covering it, and extended beyond it, preserving the old ground surface outside the ring cairn. The interior of the ring may have been first filled to the depth of 0.1 m as a short line of stones was set at this level.

Later disturbances

None of the visible depressions had caused any significant damage. A pit containing thirteenth or fourteenth century pottery had been dug through the ring cairn into the underlying subsoil.

THE FINDS (Fig. 27)

Finds consisted of flints, stone objects and white pebbles. There was no distinctive grouping. The term 'top of ring cairn infill' has been used for finds from the 0.1 m beneath topsoil all over the site as the distinction between the top of the ring cairn and its infill

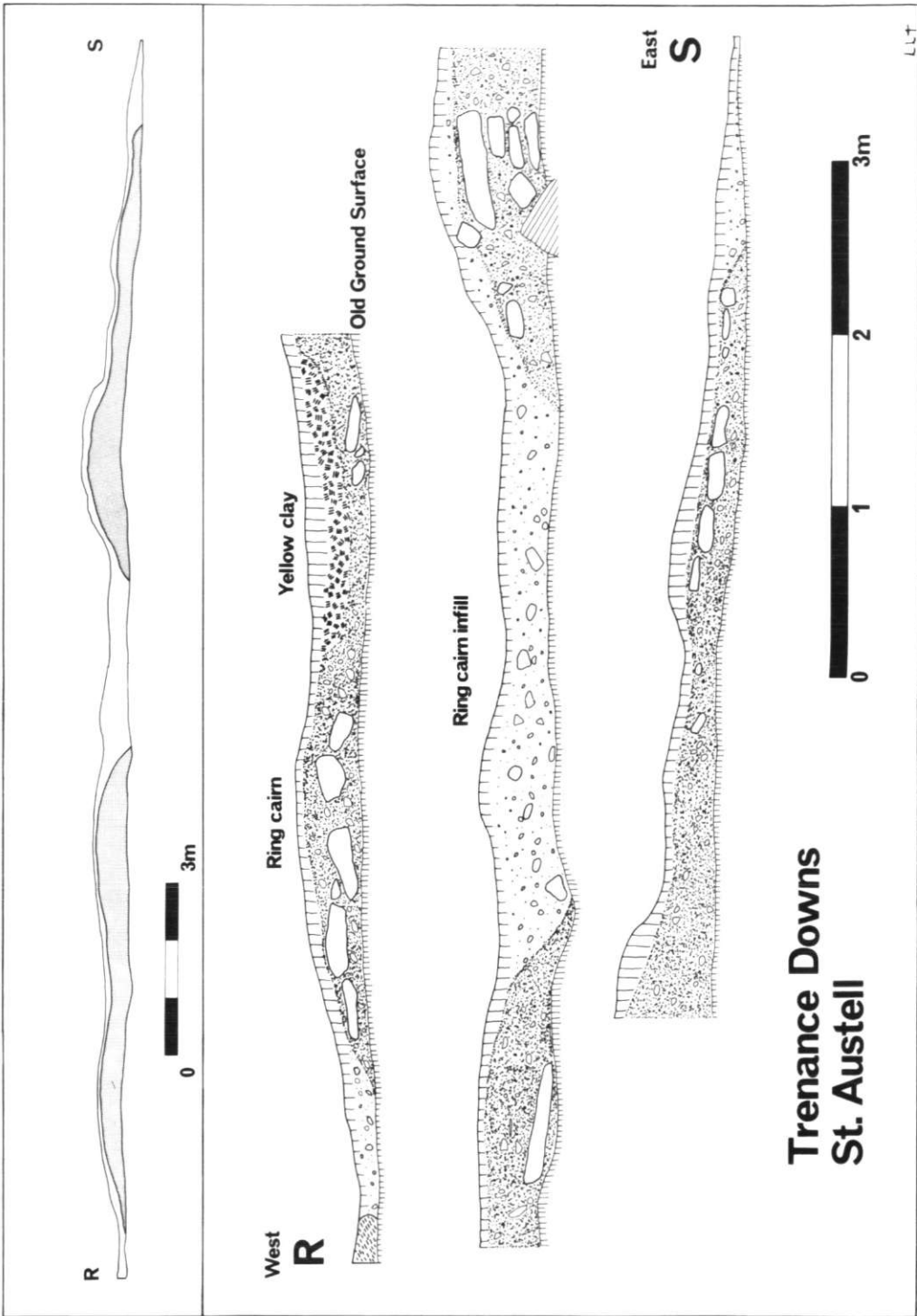


Fig. 26
Trenance Downs. Section.

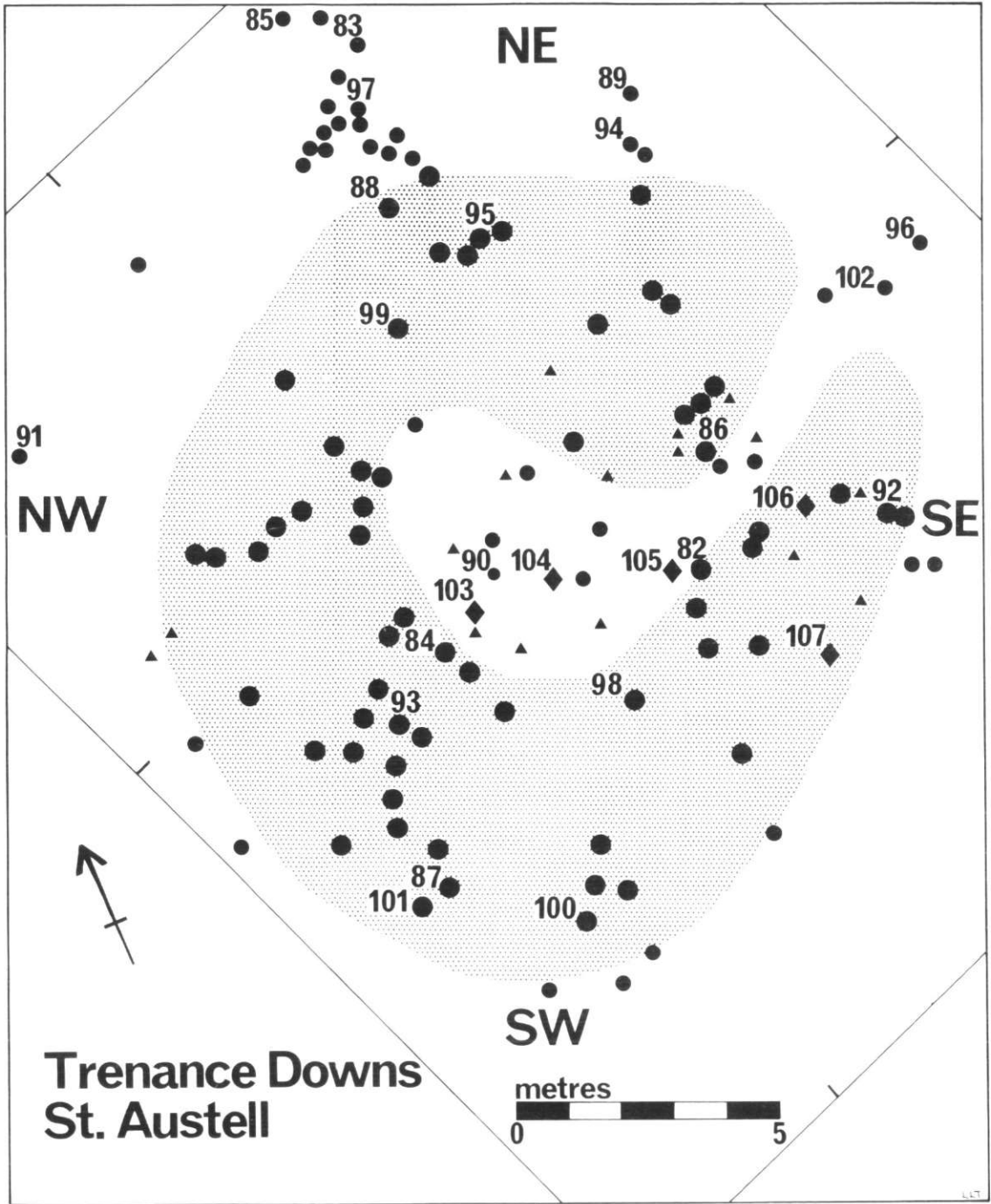


Fig. 27
Trenance Downs. Location of finds. For find symbols see Fig. 5.

was not always clear because of root disturbance. The majority of finds came from the ring cairn infill and the 'top of ring cairn infill'.

Flint (Fig. 28)

110 pieces were found, 11 of them burnt and all apparently of pebble flint (p. 18). 14 came from the surface beneath the structure, 19 from the ring cairn, 49 from the ring cairn infill, 26 from the top of ring cairn infill and 2 from the medieval disturbance. The flints may have been deliberately deposited or have been brought in with construction materials. The microliths 87-91 and the broken pick or adze 102 may be Mesolithic and residual.

Scrapers

82. Rough end scraper, heavily burnt, end battered. Ring cairn infill; SE.
83. Rough end scraper, cracks indicate a pebble flint, end battered. Ring cairn infill, NE.
84. Scraping edge of end scraper. Ring cairn infill, NW.
85. Rough end scraper, one edge heavily utilised. Top of ring cairn infill.

Knives

86. Rough plano-convex knife, much used. Surface beneath structure, SE.

Flake with faceted end

A broken example from the ring cairn infill, SW.

Microliths

87. Crescent, trimmed all round circumference. Surface beneath structure, SW.
88. Obliquely blunted blade, heavily utilised. Ring cairn, NE.
89. Point of blade, steeply blunted along one edge after breakage. Ring cairn infill, NE.
90. Flake, obliquely blunted, point missing. Ring cairn infill, NW.
91. Blade, steeply blunted along both edges, point missing. Top of ring cairn infill, NW.

Segmented blades

One from the ring cairn infill and a second from the top of the ring cairn infill (see Nos. 46-7 from Caerloggas I).

Retouched pieces

Ten: one from surface beneath structure, No. 92 from ring cairn, four including 93-5 from the ring cairn infill and four including 96-8 from the top of the ring cairn infill.

92. Flake, one edge steeply blunted, second edge less regularly trimmed. Ring cairn, SE.
93. Heavily patinated flake, trimmed on both edges subsequent to patination. Ring cairn infill, SW.
94. Blade, retouched along one edge and traces of utilisation along the other, broken. Ring cairn infill, NE.
95. Irregular flake with fine retouch around most of circumference, point missing. Ring cairn infill, NE.
96. Blade, retouched along both edges after breakage, butt carefully trimmed to knob. Top of ring cairn infill, SE.
97. Flake with worked notch, traces of utilisation on opposite edge. Top of ring cairn infill, NE.
98. Thick flake, short length of retouch, point battered. Top of ring cairn infill, SE.

Utilised pieces

Thirty two: nine including 99-100 from surface beneath structure, four from ring cairn, eleven from ring cairn infill, eight including 101 from top of ring cairn infill.

99. Blade, heavily utilised at one end. Surface beneath barrow, NE.
100. Flake with traces of use all around circumference. Surface beneath structure, SW.
101. Flake with heavy use traces on both edges. Top of ring cairn infill, SW.

Adze or pick

102. Butt end of rough chert adze or pick. Ring cairn, SE.

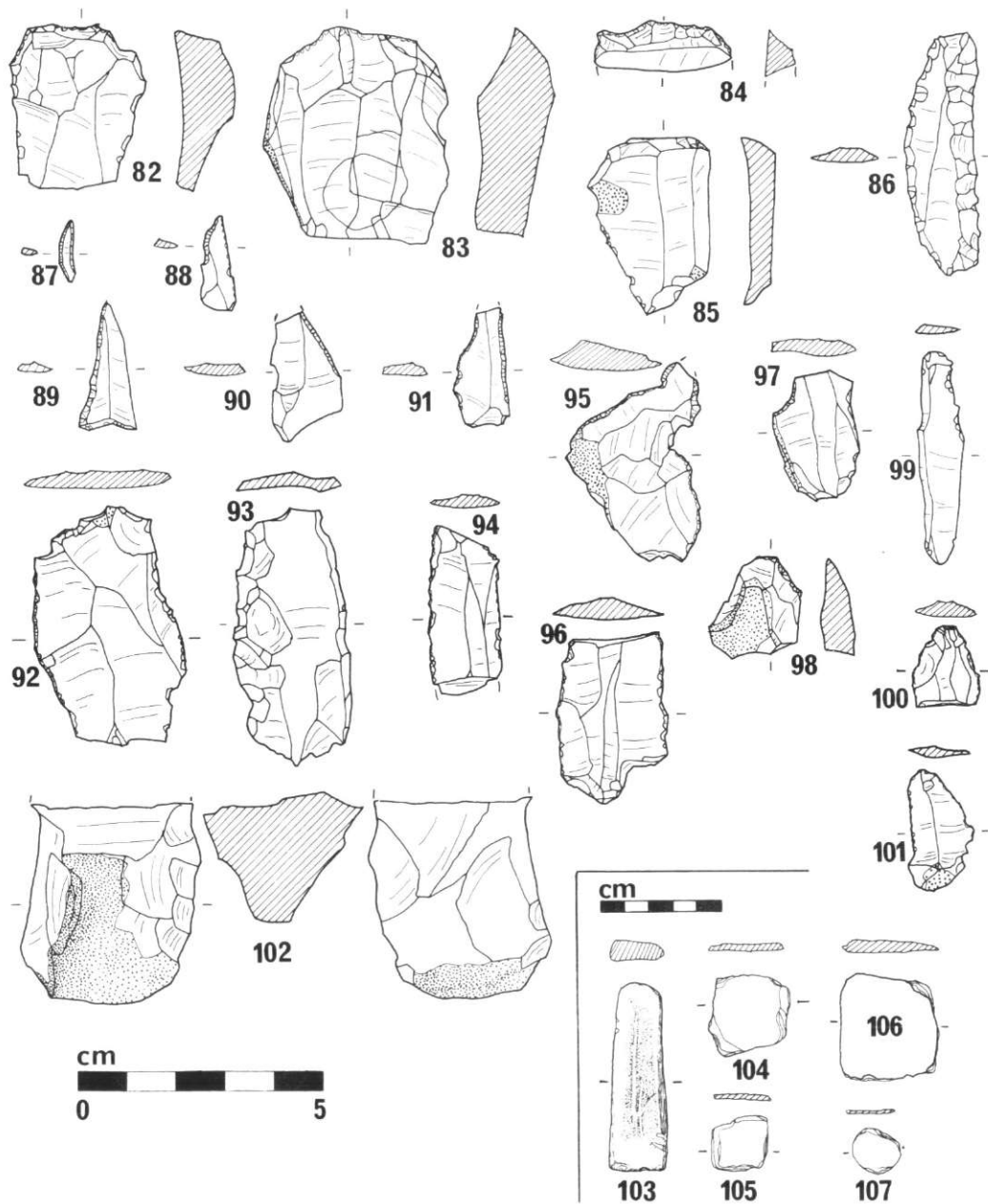


Fig. 28
 Trenance Downs. Flints (82-102) 2/3, stone objects (103-107) 1/3.

Unused pieces

Sixteen.

Chips

Thirty eight.

Cores

Rough, partial single platform core from ring cairn.

Stone (Fig. 28)

103. Whetstone made from a sub-rectangular pebble of local fine-grained micaceous sandstone; some shaping by grinding on sides, edges and wider end; smooth, worn facets on both faces and sides; shallow grooves on one surface only, probably for sharpening points. From infill of ring cairn, SW.

Whetstones are fairly frequent finds on Bronze Age ritual sites and a number have been found from such contexts in Cornwall (summarised in Patchett, 1950, 58). These range from pebbles with traces of use as that from Otterham barrow, North Cornwall (Dudley, 1961, 76) to the finely worked and perforated rectangular examples found with a collared urn at Sancreed near Land's End (Patchett, 1944, 37). The grooves are paralleled in a Late Bronze Age context by those from the settlement site at Dean Moor on Dartmoor (Fox, 1957, Fig. 23).

104. Fragment of local slate, derived from the metamorphic mantle which once covered the granite, chipped into a rough square. Ring cairn infill, SW.
105. As 104 but from SE.
106. As 104 but from top of ring cairn infill, SE.
107. Chipped disc of local slate. Top of ring cairn infill, SE. These chipped slate shapes compare closely with the group from Tregulland, North Cornwall, three discs, one oval and one square shape (Ashbee, 1958, Fig. 7) and to the two discs from the Carvinack barrow near Truro (Dudley, 1964, 432). They are too small to be regarded as 'pot lids' and may perhaps be interpreted as objects made specially for ritual deposition, possibly a local tradition dependent on the presence of soft slate or shale.

White pebbles

17 small white quartz waterworn pebbles were found, one from the surface beneath the structure, two from the ring cairn, twelve from the ring cairn infill and two from the top of the ring cairn infill.

Quartz crystals

6 were recorded from the site, none with any signs of wear.

DISCUSSION

The structure on Trenance Downs is interpreted as a ring cairn, subsequently infilled to produce a barrow-like mound. The most comparable ring cairns in South West England have their centres similarly infilled. (c.f. Cocksbarrow, p. 58). The Tregulland barrow, Treneglos (Ashbee, 1958) was a ring cairn in its primary phase, higher and more carefully constructed than Trenance Downs; it was subsequently infilled to form a level-topped mound. The cairn at Higher Draynes, St Neot (Wainwright, 1965) may have been left open for a while as a ring cairn. A central space was enclosed by a broad cairn ring revetted on the inner side by a continuous line of orthostats, in the manner of some Welsh and Scottish ring cairn sites and the stones infilling the central space were smaller in size than those used in the cairn ring, suggesting a time interval before their deposition. Infilled ring cairns are known from Wales, for example Pond cairn, Glamorgan (Fox, 1937) and Mynydd Epynt, Brecon (Dunning, 1943).

Cocksbarrow and Tregulland included cremation burials within their central spaces, and Higher Draynes a probable inhumation. The majority of excavated Welsh sites (Lynch,

1972, 72-3) appear to have enclosed burials, even if only token. Those at Penard Burch near Swansea and Cefn Caer Euni II, Merioneth did not. There is no evidence for any burial at Trenance Downs (although phosphate tests were not carried out). The small cairn supporting an upright should probably be regarded as the ritual focus of the site. The cairn may have covered some token deposit of which no recognisable trace survived, or the upright stone may have been of significance in itself. No similar setting is recorded in the literature on ring cairns.

The structure cannot be dated closely; the only distinctive artefact recovered, the whetstone 103, could be of any date from the Beaker period onward. Palynological evidence suggests that it was constructed at a time when the surrounding countryside had progressed further towards an open landscape than when the other sites were built. The structure may be also subjectively considered late or devolved as it lacks defined structural details or good stone settings and included much less yellow clay than the other sites. It may thus have been constructed in the Middle or even in the Late Bronze Age.

COCKSBARROW, ST MEWAN

(Fig. 29)

Cocksbarrow SW 98505630 was the first site on the St Austell granite to be excavated by the author, in 1970, and has already been published (Miles, 1971). Experience gained in subsequent excavations suggests that some of its features should be re-interpreted.

The primary structure was a cairn ring supporting a double circle of at least 87 posts set in pits, with an additional three (a) - (c) inside the ring. Re-examination of the site records suggests that further posts may have been set among the stones of the cairn ring without post holes, as in the first phase at Caerloggas I. Post pits only are shown in black on the plan (no clear post pipes survived); the arrangement of stones should allow readers to assess the probability of other posts. An entrance to the south east was floored with yellow clay on which a fire had been lit; it is probable that additional posts stood in the stretch of cairn ring to its north where no post pits occurred. In the excavation report the post holes were assumed to form a separate phase predating the cairn ring, partly because six, (e) (f) (h) (j) (k) (l) were sealed by stones in the ring and two (d) (g) by patches of yellow clay laid on the ground surface beneath it, and partly because of the traditional assumption that post rings and cairn rings were different in type. Stones in the cairn ring clustered closely around and partially over post pits, sometimes difficult to separate from packing stones. If the cairn ring had been constructed around the posts, and these were subsequently withdrawn, as is probable, the post pits sealed by stones can be accounted for by collapsed packing stones. Alternatively the sealed post pits may belong to an initial phase with (d) and (g), which definitely predated the ring.

The outer cairn ring supporting the posts incorporated a number of turves. The inner cairn ring consisted of a single line of stones leaning against a backing two or three turves thick. It is probable that these backing turves were the edge of a layer continuous with those in the outer cairn ring. The primary structure at Cocksbarrow would then have been a low ring cairn defined by the inner and outer cairn rings. Its central area would have been approached through the outer cairn ring entrance, up and over the turf layer and then down through the entrance, to the inner ring. The additional stones north of the outer entrance forming a blocking between the rings indicate that this approach was clockwise.

The three pits (x), (y) and (z) were sealed by turves and probably predated the ring cairn. (x) was filled with a mixture of fine black soil and rab surrounding a single granite slab set at a steep angle. (y) had a similar fill but no slab. (z) was packed with small blocks of white quartz in black soil.

The only burial was a cremation deposited in a slab-lined pit almost exactly central to the ring cairn. The cremation represented only part of one individual, who could not be aged or sexed, and was accompanied by a horn ladle. The upcast from the pit, to its south east, was fresh and unweathered when the turf stack was constructed over it. The burial therefore

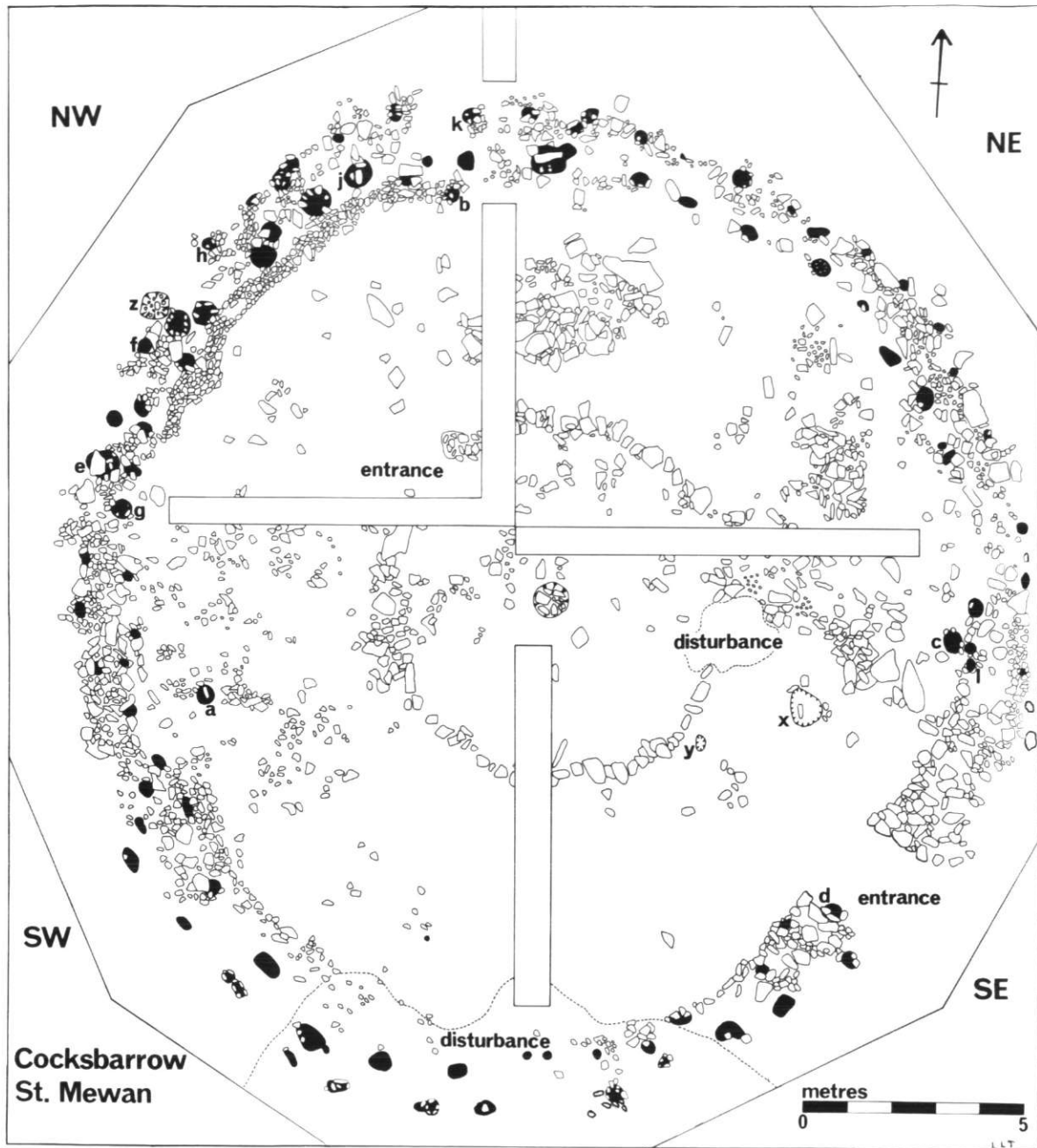


Fig. 29
Cocksbarrow. Revised plan.

appears to have immediately predated the addition of the barrow mound of turves and yellow clay, kaolinised granite. The surface of the yellow clay was everywhere clearly defined, with a slight iron pan in places, and had probably been left uncovered for some time. It was masked by a black, slightly gritty soil surviving up to 0.1 m thick beneath the topsoil over most of the barrow.

In addition to the horn ladle, twenty-one flints were recovered, mainly from the turf stack, and, with the exception of a single microlith, form an acceptable Bronze Age group. There were also two white quartz pebbles.

Cocksbarrow produced no material for radiocarbon determinations and no closely datable artefacts. Pollen analysis (p. 65) suggests that it may have been the earliest of the excavated St Austell barrows.

POLLEN by Justine Bayley, M.Sc.

Introduction

All samples were taken from cleaned sections dug through the buried land surface below the barrow concerned. The samples were taken at 2 cm (and occasionally 1 cm) vertical intervals. The method of preparation is essentially that described by Dimbleby (1961). The preparation was carried out quantitatively so that absolute pollen frequencies (APF) could be calculated in addition to the relative frequencies of the different species present. All the pollen diagrams are double barred, that to the left representing absolute pollen frequencies (in grains per gramme of dry soil), and that to the right relative frequencies expressed as a percentage of the total count of pollen and fern spores.

The pollen grains identified as *Calluna* are a mixture of *Calluna vulgaris* and *Erica tetralix*, the two species being too similar to be readily distinguished. The distinction is not ecologically important as both species are characteristic of the same conditions. Those identified as miscellaneous Ericaceae are of the same type as *Vaccinium myrtillus* which at present grows on the undisturbed ground round the site at Caerloggas. Rosaceae includes some woody species, e.g. *Prunus*, *Sorbus*, as well as many herbaceous species. Much of the pollen was heavily corroded which increased the difficulties of identification. This probably added to the real differential destruction a recognition factor as some species (e.g. *Alnus*

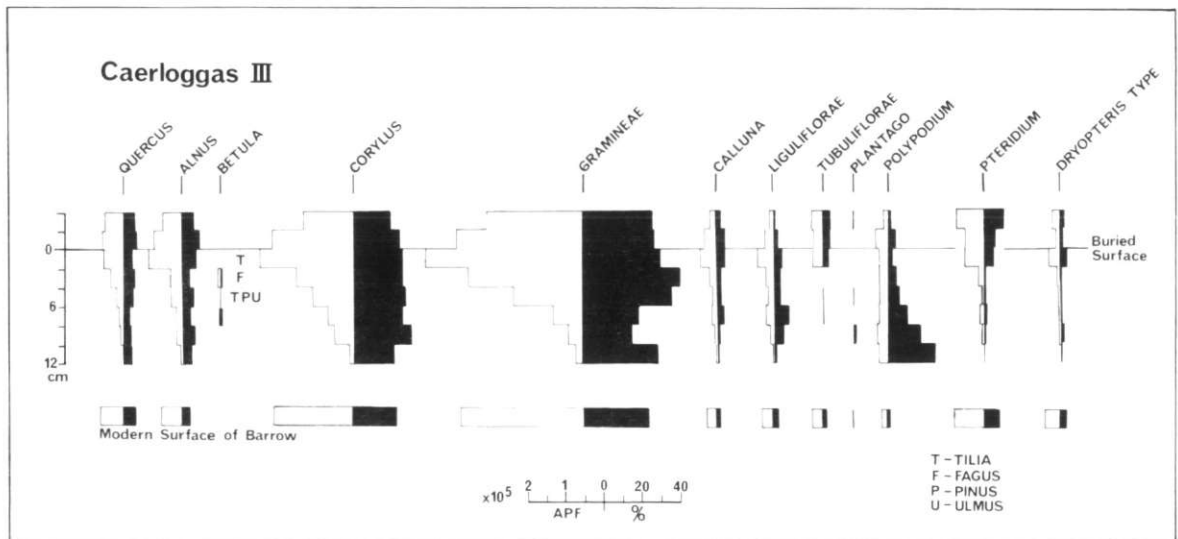


Fig. 30
Caerloggas III. Pollen analysis.

and *Liguliflorae* are still readily identifiable when other less characteristic species (e.g. *Quercus*) are already being overlooked.

Long profiles were sampled for the modern land surface and all the barrows except *Caerloggas I*. Counting stopped when the percentage of spores began to rise swiftly and the absolute pollen frequency dropped to very low levels. These two factors taken together indicate that the level has been reached where differential destruction is playing a major part in determining the frequency of the different species recorded so the counts are no longer representative of the general vegetation.

At *Caerloggas* profiles were sampled through the buried land surfaces under barrows I and III. Only a small part of barrow II remained, no buried land surface was visible so no samples were taken. A sample was also taken from the buried land surface under a linear bank across the top of the moor thought to be of medieval date. For comparative purposes a further profile, from the present relatively undisturbed land surface was also taken.

At Watch Hill and Trenance Downs a single profile was sampled through the buried land surface under the barrow.

The pollen record does not reach as far down as the iron pan in the soil. At *Caerloggas Barrow III*, where the iron pan was only 21 cm below the buried land surface, the pollen count was continued below the iron pan to see if any concentration of pollen occurred at that level. It did not.

English equivalents of botanical names

TREES

<i>Alnus</i>	Alder
<i>Fagus</i>	Beech
<i>Prunus</i> type	e.g. Blackthorn, Wild Cherry
<i>Sorbus</i>	e.g. Rowan
<i>Tilia</i>	Lime
<i>Betula</i>	Birch
<i>Pinus</i>	Pine
<i>Quercus</i>	Oak
<i>Ulmus</i>	Elm
<i>Corylus avellana</i>	Hazel

FERNS

<i>Polypodium</i>	Polypody
<i>Dryopteris</i>	Male Fern
<i>Pteridium</i>	Bracken

OTHER PLANTS

<i>Hedera</i>	Ivy
<i>Gramineae</i>	Grass family
<i>Ericaceae</i>	Heather family
<i>Calluna vulgaris</i>	Ling
<i>Erica tetralix</i>	Cross-leaved heath
<i>Vaccinium myrtillus</i>	Bilberry, Whortleberry
<i>Liguliflorae</i> }	Compositae family
<i>Tubuliflorae</i> }	'Dandelion' types
	'Daisy' types
<i>Rubiaceae</i>	Madder family
<i>Chenopodiaceae</i>	Goosefoot, etc.
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago coronopus</i>	Bucks' -horn Plantain
<i>Plantago major</i>	Great Plantain
<i>Umbelliferae</i>	Parsley family
<i>Rosaceae</i>	Rose family
<i>Ranunculaceae</i>	Buttercup family
<i>Caryophyllaceae</i>	Pink family
<i>Succisa</i>	Devil's bit Scabious
<i>Rumex</i>	Dock
<i>Cyperaceae</i>	Rush family

Caerloggas III (Fig. 30)

The profile was sampled 4 m from the centre of the barrow. The floor of the barrow was clearly identified by the dark humic layer of the buried turf. Its position is confirmed by the high absolute pollen counts at this level (0.2 cm Fig. 30). The steady drop in absolute pollen frequency going down the profile indicates that the soil is undisturbed.

The dominant species at the time of the construction of the barrow were *Corylus* and *Gramineae*. Present in smaller quantities were *Quercus* and *Alnus* as well as weeds of the *Compositae* family. This mixture of species with plants of the forest, forest margin and open land all represented implies a mosaic of vegetation with patches of woodland surviving in a matrix of mixed scrub and open land. The barrow was probably built in a clearing as the tree

pollen would find its way into neighbouring open areas far more readily than herbaceous pollen would be carried into a wood. The floristic composition is remarkably similar all down the profile. This implies either an ecologically stable flora or a short time span covered by the pollen record. A sample taken from the surface of one of the turves that made up the barrow mound was found to have an almost identical pollen profile to that of the buried land surface. This indicates that it came from an area where the vegetation was the same, most probably the area immediately around the barrow.

Caerloggas I (Fig. 31)

The ring banked enclosure had been built on a surface from which many moorstones protruded which made the location of a buried land surface far more difficult than for Barrow III. Only a short profile was sampled because of this difficulty. The vegetational picture is similar to that from Barrow III showing a mixture of species of woodland and open habitats. The 0-2 cm measuring upwards sample does not represent the buried land surface despite its high absolute pollen frequency, but comes from the mound. The buried land surface is represented by the 0-1 cm sample. The absolute pollen frequency does not drop off evenly down the profile which indicates a disturbed soil. Taken in conjunction with the

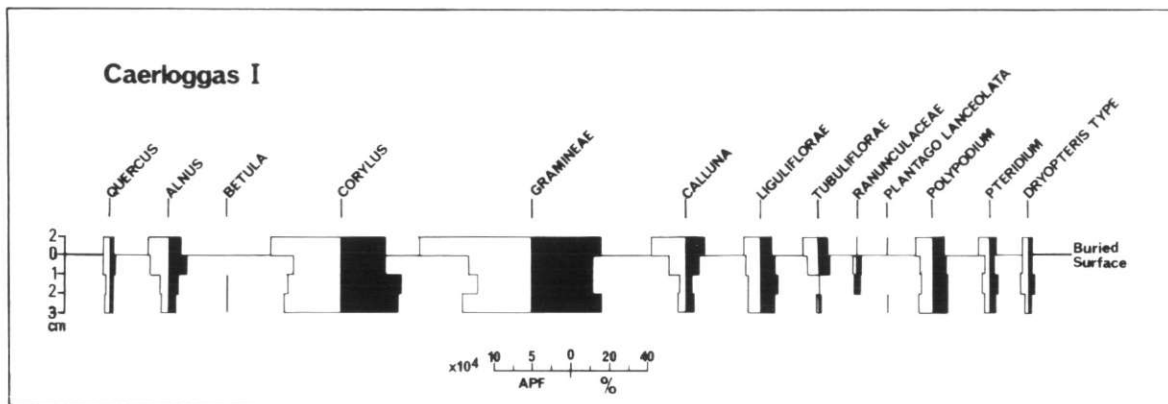


Fig. 31
Caerloggas I. Pollen analysis.

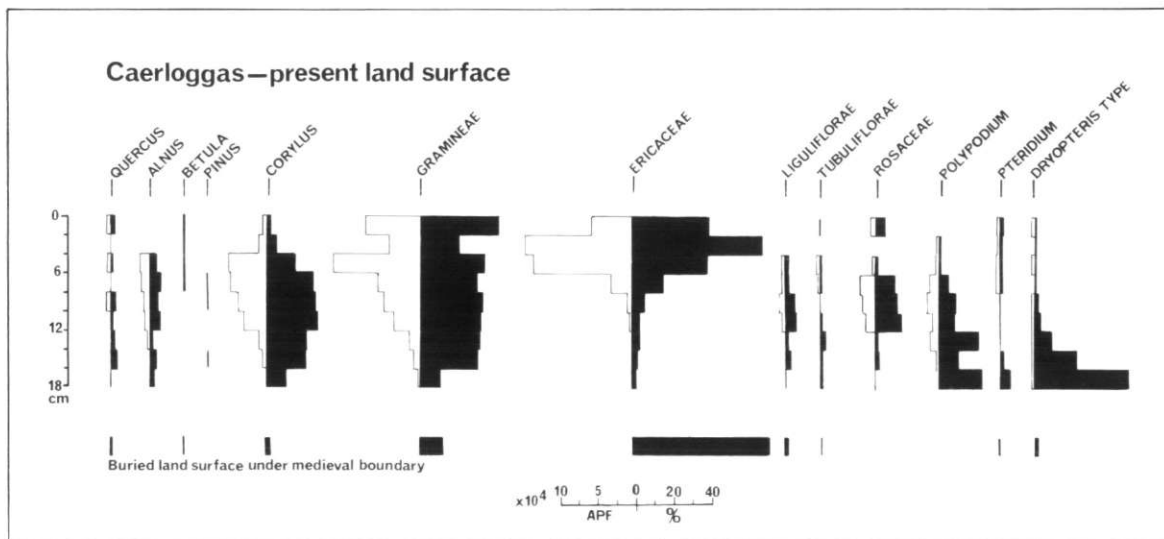


Fig. 32
Caerloggas. Pollen analysis of the present land surface.

high counts of 'weed' pollen (up to 10% Compositae) this is indicative of cultivation on that spot some time prior to the construction of the barrow. *Calluna* is a latecomer in the vegetation — perhaps coming in as the land was abandoned after the agricultural phase. Simmons (1964b, 38) has found the same effect on Dartmoor.

The present land surface at Caerloggas (Fig. 32)

To provide a comparison with the analyses from the barrows a profile was sampled and pollen analyses made from the modern land surface. The samples were taken at an apparently undisturbed spot a few hundred yards east of the barrow group.

The present vegetation is heather moorland with *Calluna vulgaris*, *Erica tetralix* and various Gramineae as the dominant species. Also present are *Vaccinium myrtillus*, *Ulex europaeus*, *Potentilla erecta* and *Polygala vulgaris*. This is reflected in the top few samples where the Ericaceae and Gramineae are clearly dominant with ericaceous pollen reaching nearly 70% of the total in one sample.

The discontinuities, e.g. that at 4 cm, may be due to burning of raw humus leaving a gap in the pollen record. (See *Soils* p.67) Below 6 cm the profile closely matches those from under the barrows with *Corylus* and Gramineae dominant and *Alnus*, *Quercus* and many herbs also present.

The vegetation changes since Bronze Age times can therefore be seen as a continuation of the forest clearance with trees and scrub giving way to open land. The Ericaceae became dominant but the ratio of Gramineae to Ericaceae varies, probably mirroring the changes in the grazing pressure on the land (Tansley, 1939, 130 and Pennington, 1969, 111).

A number of low linear banks run across the top of the St Austell granite. One near the Caerloggas barrow group was sectioned and a pollen analysis made of a sample from the buried land surface. This is drawn out below the profile from the modern land surface on the diagram in Fig. 32. The pollen spectrum is very similar to that of the 2-4 cm sample in the modern land surface profile, which would agree with the medieval date postulated for these linear banks.

Watch Hill (Fig. 33)

The samples were taken at a point towards the edge of the mound, covered by about 1 m of barrow levels. The buried land surface was clearly visible in the section but does not show up very clearly in the pollen profile. As at Caerloggas the pollen profile shows a mixture of

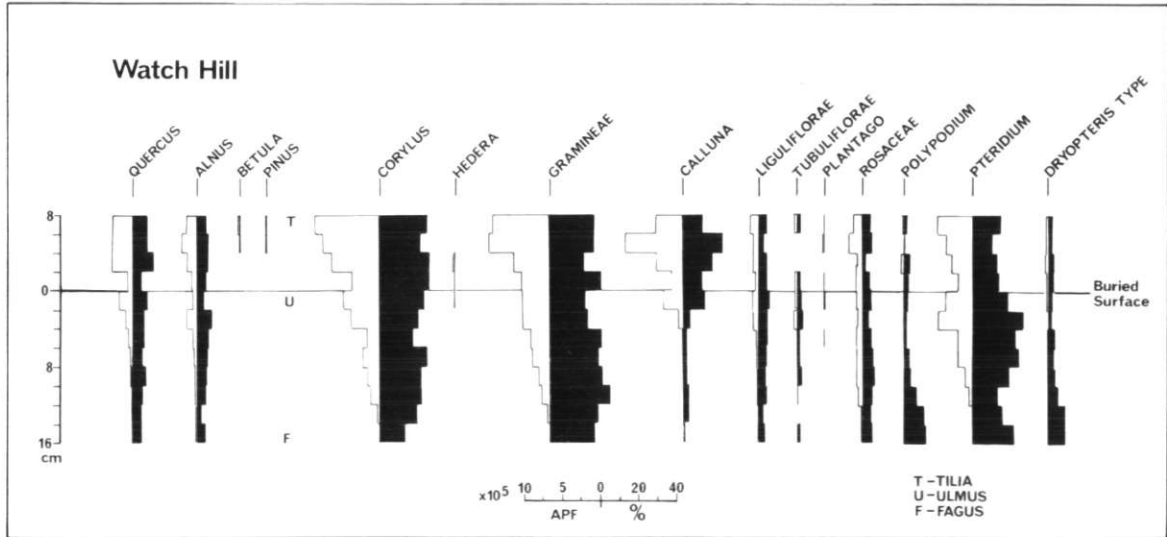


Fig. 33
Watch Hill. Pollen analysis.

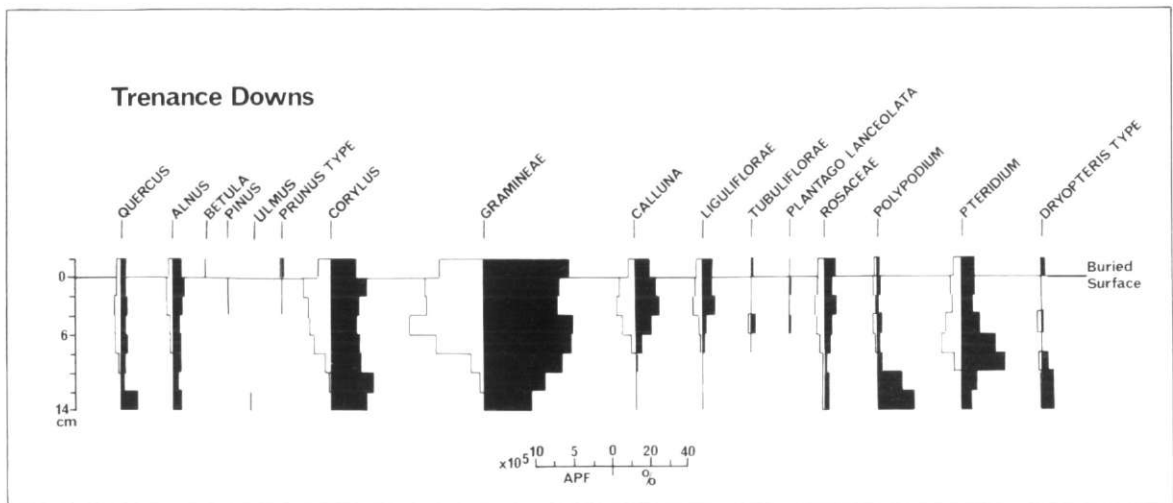


Fig. 34
Trenance Downs. Pollen analysis.

forest, forest margin and open land species indicating, as before, a mosaic of vegetation types. *Calluna* can be seen as a late addition to the vegetation.

Trenance Downs (Fig. 34)

This low barrow, standing only about 0.5 m high was sampled about 5 m from the centre. As before the pollen spectrum shows a variety of species with the Gramineae and 'herbs' especially well represented. *Corylus*, *Alnus* and *Quercus* are less well represented than at the other sites except for the bottom two samples, implying that this barrow is later in date than the others, the progression towards open land being further advanced.

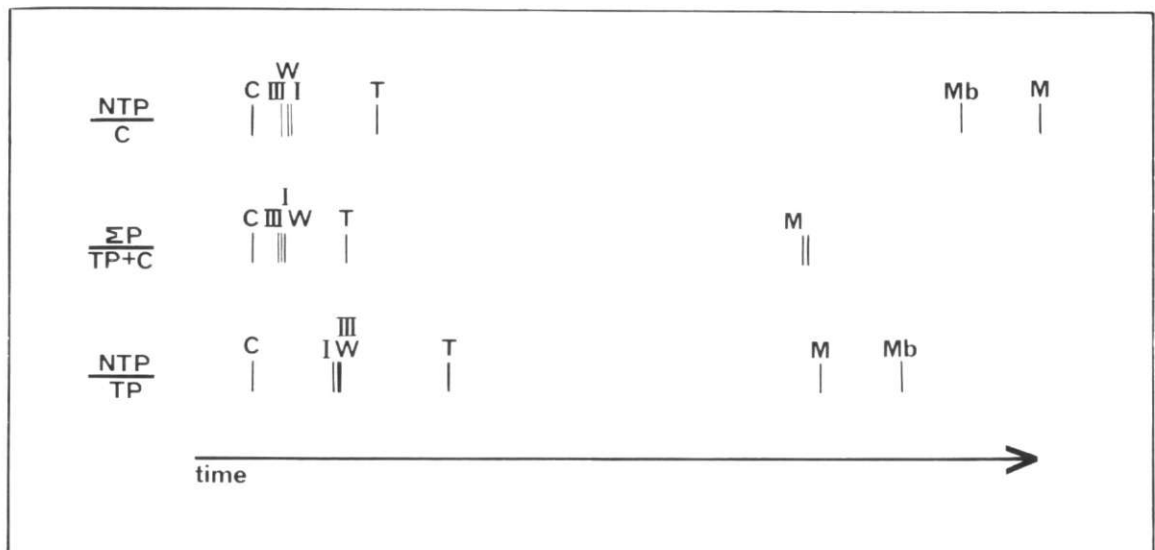


Fig. 35
Logarithmic representation of proportions of tree pollen (TP) *Corylus avellana* pollen (C) and other pollen and spores (NTP) (arbitrarily aligned on the first value).
C = Cocksbarrow, W = Watch Hill, I = Caerloggas I, III = Caerloggas III, T = Trenance Downs, M = Present land surface, Mb = Medieval boundary.

Cocksbarrow

A sample from the turf line buried beneath the barrow was analysed by Dimbleby and is already published (Miles, 1971, 26-7).

Discussion

The four barrows for which detailed pollen analyses are given in this report and Cocksbarrow form a group on the high points of the St Austell granite mass.

The geography, pedology and geology of all the sites are very similar and so direct comparisons can be made between them. For these reasons the sites can be put in a chronological order based on the vegetational changes evident in the pollen analyses.

Over the country as a whole man gradually changed the vegetation from forest to hazel scrub to open land. The vegetational changes would have been in a mosaic with clearings appearing in the forest and expanding until finally only a few patches of woodland were left in an otherwise open environment. Dimbleby (1954) uses three ratios in an attempt to quantify this change. The absolute values of the ratios are not significant in themselves, but their values, when compared with those from other sites in the same area, can be used to arrange the sites in relative chronological order.

The total pollen count (ΣP) is made up of pollen from trees typical of high forest (TP), pollen of *Corylus avellana* (C) and pollen of all other plants and fern spores (NTP). The three ratios used are:

$\frac{NTP}{TP}$ A measure of the replacement of high forest by open land.

$\frac{\Sigma P}{TP + C}$ A measure of the predominance of woody species in the vegetation.

$\frac{NTP}{C}$ A measure of the replacement of hazel by non-woody species.

$\frac{NTP}{C}$ A measure of the spread of open land.

All the ratios increase as the vegetation becomes more open in character.

The results are given below in tabular form and have been plotted on a logarithmic scale to spread out the Bronze Age samples in Fig. 35.

Site	$\frac{NTP}{TP} \%$	$\frac{\Sigma P}{TP + C} \%$	$\frac{NTP}{C} \%$	Symbol in Diagram
Caerloggas III	539	278	266	III
Caerloggas I	532	282	275	I
Caerloggas Modern	3025	1820	4033	M
Medieval Boundary	4050	1850	3037	Mb
Watch Hill	539	284	273	W
Trenance Downs	807	357	376	T
Cocksbarrow	397	254	242	C

It can be seen that the samples fall in the same order for each ratio; first Cocksbarrow, then a group of three, Caerloggas I and III and Watch Hill, then Trenance Downs and finally the medieval and modern samples. No great weight should be attached to the absolute values of these last two as the counts of tree pollen and *Corylus* on which they are based are really too low to be statistically significant. It is sufficient to say that they both represent conditions far less wooded than any of the barrow samples. The group of three cannot be placed in a reliable chronological order from the pollen analyses. This is because the ratios quoted have errors attached to them which arise from the sampling and counting processes. These errors would be minimised if far larger samples were counted, but even then the results might not show a consistent order for the sites, as they are very similar.

The depletion of the forest did not proceed at a constant rate so distances on Fig. 35 should not be interpreted as being simply related to time. Probably the hilltops were cleared first, hence the high percentages of non-tree pollen and *Corylus* at the barrow sites,

while the lower slopes and the valleys remained wooded until much later, providing the tree pollen still present in the pollen rain.

The values of the ratio NTP/TP all fall well above those obtained for forest. Dimbleby (1962, 25) quotes values of 40% for high forest, 100% for more open woodland and up to 1700% for open land. The range of values here is 400-800% for Bronze Age samples rising to 4000% for the later ones. This indicates that even the earliest phase recorded here was one where the forest was already well on the way to total destruction. The lack of pollen from the forest phase can be readily accounted for by soil changes. Clayden and Manley (1964) working on Dartmoor suggest that the soils on the granite were originally Brown Earths. These have degenerated into the podzols preserved under the barrows and which also form the present day soils. In their original state they would not have been sufficiently acid to preserve pollen, hence the lack of record from this period.

The presence of *Fagus* at Caerloggas III and Watch Hill is somewhat unexpected. It is generally thought to be found only in south and east England. However Simmons (1964a) has found it on Dartmoor from mid zone VIIb onwards, which suggests the Early to Middle Bronze Age transition as the earliest likely date for these two barrows.

It has thus been possible to construct a chronology for the barrow group based on the changing proportions of tree and non-tree pollen. This puts Cocksbarrow as the earliest, followed by Caerloggas I and III and Watch Hill which were vegetationally too similar to be separated, and finally Trenance Downs as the latest of the group. All the barrows demonstrated the mosaic of woods and open land which succeeded the high forest and in its turn gave way to even more open conditions which still exist today.

A number of other Bronze Age barrow sites in Cornwall have already provided pollen analyses; they are Crig-a-Mennis on the Killas near Liskey and a group of three, Otterham, Wilsey Down and Tregulland to the north of Bodmin Moor on the Upper Culm. Dimbleby (1963) provides a summary and discussion of the results. The buried land surfaces from these sites show very similar profiles to those found beneath the barrows on the St Austell granite, which agree with the general picture of Bronze Age forest clearance in the British Isles.

SOILS

by S.J. Staines, M.Sc.

The soils beneath the barrows examined (Caerloggas, Trenance Downs, Watch Hill and Cocksbarrow) showed very similar features. All occur in similar landscape positions on the crests of ridges or on hilltops on the St Austell granite.

The soils are developed in earthy, gravelly granitic head, that is in places partially kaolinised. The sequence of horizons developed beneath the barrows is very similar to that of soils belonging to the Hexworthy series (Clayden and Manley, 1964) which have been mapped extensively by the Soil Survey over the granite moors of Devon and Cornwall. The Hexworthy series have moderately coarse textures and are characterised by the presence of a thin hard ironpan at about 45 cm below the surface. This is normally overlain by a greyish (bleached) subsurface horizon which is itself overlain by 20-30 cm of greasy peat. A brightly coloured, friable horizon below the pan passes rapidly into compact earthy head.

The profiles beneath the barrows are broadly similar to the present day soils except that surface peat horizons are thin or absent and ironpans may be less coherent. An abbreviated description of a profile beneath the centre of the barrow at Watch Hill is given below. The profile description begins at the old land surface.

Depth

cm

0-4 Black highly humose sandy silt loam.

4-18 Greyish brown sandy silt loam, bleached granite fragments are present.

18-30 Dark brown sandy silt loam with rusty mottling and veining, indicating periodic wetness.

at 30 Thin, hard undulating ironpan, impeding root penetration.

30-65 Yellowish brown sandy silt loam.

65 + Extremely stony, compact gravelly granitic head, kaolinised in places.

The soil beneath the bank at Caerloggas had a similar arrangement of horizons and a much thicker peat surface horizon, while the 'modern soil' within the field system around the barrows had much thinner surface horizons. This suggests that ploughing, possibly of Mediaeval date, has resulted in oxidation of thick surface organic horizons (c.f. discontinuity in pollen diagram, p. 63).

The Hexworthy series at present occurs mainly beneath the heather moor, but pollen analysis of a number of soil profiles on Dartmoor (Staines, 1973) has revealed a vegetational history similar to that found beneath these barrows (see Pollen, p. 66). Pollen spectra that may be taken to indicate oak woodland below the ironpan give way to spectra indicating more open conditions with scrub and open grassland. Pollen within the relatively thick peaty surface horizons is dominated by ericaceous species. This may be interpreted as forest clearance with later development of heather moorland. The evidence from Dartmoor and other areas suggests that forest clearance of upland areas had begun during the Neolithic and continued apace during the Bronze Age. It seems likely that, on Dartmoor at least, the spread of heather moor can be associated with worsening soil and climatic conditions during the Iron Age, or at least before the Medieval period. Micromorphological evidence from Hexworthy soils points to the presence of brown earths beneath the oak forest, i.e. brown coloured soils with no ironpans or peaty surface horizons. Pan formation seems therefore to be related to forest clearance. The spread of grassland may have led to increased leaching and acidification. Acid surface humus forms thus produced could have led to the mobilisation of iron compounds and their deposition lower in the profile as a pan. Peat formation and the spread of heather moor may be related to worsening climatic conditions at about 500 BC. These processes appear to be fairly complete at most barrow sites, with the exception of peat surface horizons, and indicate that open conditions and acid soils were present for some time prior to barrow construction.

A NOTE ON THE STATE OF PRESERVATION

by L. Biek, Ancient Monuments Laboratory

Data are sparse from these sites, as from most others, as no specific series of samples were taken to study factors responsible for preservation. Nevertheless — and especially in view of the remarkable state of the dagger fragments (p. 36) — it seemed worth while ordering and collating the findings into one Table (Copies available on request from the Ancient Monuments Laboratory), if only to produce an integrated picture in which a search for some general pattern might be made. Relevant parallels in the Laboratory's experience are quoted but a thorough study of the literature remains to be done; even so, the preliminary conclusions have some value in their wider application to other similar sites in Cornwall and Devon, and possibly also in Wales.

As the pollen and soil reports show (pp. 60-67) all five sites were found to have a general micro-environment in common. Certain direct comparisons can therefore be made for states of preservation much as for the pollen evidence not only within sites but also across them. In this context, time differences between sites are as always less significant than localised differences in drainage and stratification.

The bare essentials of this complete table have been condensed into Table 1. Generally the preservation of pollen structure (i.e. walls empty of original contents) in these circumstances implies a continuously acid soil of about pH 5 or less — no actual pH figures are available here — and this is borne out by the examination of the soil profiles and the absence of insect remains (p. 42). In similarly general terms one might expect mound interiors to have had a fairly static and stable water regime for most of the time since their construction. In well-drained acid soils it is theoretically possible for any phosphates to be totally removed within a relatively short time (e.g. Stephenson, 1958). Within a more

TABLE 1
COLLATION OF DATA ON PRESERVATION

Site	Table Ref.	Medium (Field description)	Feature	Nature	Soil phosphate	Horn	Bone ('burnt')	Polen	Wood	Fruit	Bronze	Slag ('glass')	Scientific	Comments	Archaeological
Caerloggas I	A3	Basal turves in interior	Basal turves	Several turves high, sporadic, probably continuous over pit (A61), mostly with vegetation up - under spread of mixed eroded (A1) & basal (A3) levels (A2)				+			+		pH \leq 5 Exceptional (p.36) Normal (6 figs., 2 match-fit, a 7th in A2 above, dis- turbed, p.35)	Some turves possibly E A4 from ditch area	
	A4	Buried soil surface	Buried soil surface	Smooth black almost non-gritty soil buried under pre-monument moorstones - under A3	2			+					Modern soil = 1 pH \leq 5		
	A62	Pit complex: Lower pit-filling		Redeposited head mixed with some black soil, well-defined surface - under granite lumps tightly wedged with some turves & gritty soil (A61)	3								Significantly high Ca. 10 cm above sample taken for soil phosphate pH \leq 5	Filling too compact for pit to have held 'large organic object'	
Caerloggas III	B4	Buried surface	Buried surface	Natural moorstone litter, some airspaces between; former topsoil highly compressed (0.04 m max) black, almost grit-free - under stack of large & thick turves (B31)	(-)			+		+			pH \leq 5 (no pollen below ironpan, p.61) 2 branches too far altered, with more recent roots (?), also fertifed, for identification; yet any 'coffin'/ 'planking' would have been noted (cf E9-11)	Absence of archaeological markers argues against inhumation burial (p.45)	
Trenance Down	C3	Buried surface	Buried surface	Compressed black smooth almost grit-free - under infill of black gritty stony soil (C2)	(-)			+					pH \leq 5	No evidence for inhumation burial	
Cocksbarrow (Page numbers refer to	D22	Buried surface	Buried surface	Compressed fine black (0.05 m) layer with moorstones protruding - under stack of turves	(-)			+						No evidence for inhumation burial 'Soil distinctly	

D3	Watch Hill	E103	Burial pit fill	(-)	+	Black soil filtered through gaps between pitched moor-stone slabs, with some air-spaces, over compact cremation with ? turf-sandwiched horn ladle beside, lying at base of slab-lined pit (p.17) - under stack (D21; p.14)	?	Organic material, possibly botanical in origin?	Cremation buried in bag (?) - in upper surface triangular hollow: ? decayed object
E103	Masking soil		Black gritty layer (0.3 m) spread over mound, distinct from overlying topsoil		+			Acorn etc. rare, nut-shells common uncharred: innate resistance?	Hard, shrunk & brown, uncharred?
E6	Buried soil		Smooth black & greasy with very little grit	1	+			cf E13 pH \leq 5	
E9-11	Central pit fill		Subsoil redeposited in distinct layers around two superimposed 'coffins' - under granite and turves of central cairn (E8)	1			+	Both upper & lower 'coffin fills' 'Wood' too altered for identification	Soft, black fibrous: upper coffin too decayed but lower (inc. lid) allows longitudinal grain to be felt: (both?) made of felt?
E12-13	Primary fill		Mixed clay subsoil & small granite blocks over thin brownish silt with large stones - under E9-11	3			?	$>$ 0.8% P_2O_5 : suggests phosphate from bodies (?), at lower level	Inhumation postulated
E14	Ditch - upper fill		Gritty black soil & stones over yellow clay over more black soil & stones with turves - over soil cover (E15)		+			Acorn, sloe, hazel nut & crab apple: see E103	Patches black unidentified fibrous material
E15	Ditch - intermediate soil cover		Fine black humic with a little grit - under E14		+			Acorn (see E103)	See E103
E16	Ditch - rapid primary silt		Yellow-brown gritty soil with occasional humus lenses; in places compact surface covered by thin ironpan - under E15		?				Clumps of pottery sherds on ironpan, 3 mm max. black powdery coating inside most

⁹ Soil phosphate: by ammonium molybdate/ascorbic acid method; rating 3 ca. 18 P_2O_5 lower ratings decrease by a factor of ca. 10
Bronze: 'as buried'
Bold lines: iron pans or other lines of drainage impedance, below or above levels as indicated.
(Table Refs., Al etc., given in text of table but not tabulated refer to more detailed chart held by the Ancient Monuments Laboratory (p.67).)

restricted, or even virtually static, aqueous system it is still feasible for phosphate to be sufficiently mobilised and dispersed by diffusion and gravitation over long periods.

Archaeological soil phosphate, and indeed some other, values cannot therefore be interpreted without due regard to their 'drainage' domains. Table I suggests that within their separate but comparable micro-domains, similar phosphate levels indicate inhumation(s) at Watch Hill (E12/13) but merely reflect the presence of odd scraps of burnt bone at Caerloggas I (A62). Also, the concentration in E12/13 is some 20 cm below the original location of any body in E11 where the phosphate level is negligible. Isolated, low phosphate values from, say, buried turf lines could thus be misleading. Systematic data from such contexts are needed even where they might appear useless, as for the Cocksbarrow cremation 'bundle' (D3).

One might have expected silhouettes of bodies to accompany those of coffins and lids. Normally body residues (Hudson 1974; Keeley, 1976) are fainter and less compact than stains due to wood or other vegetable material and could therefore be more difficult to see in a dark soil. Although usually discrete (Biek, 1969), body and coffin-bottom stains could sometimes merge, and there is at least a possibility that the central complex of upper coffin bottom and lower lid (E9-11) at Watch Hill also incorporates a body silhouette.

The 'wood' in this complex provides some of the most valuable data on preservation at the five sites. The double burial took place at the same time and was evidently packed and filled in again at once, at least with the lower fill. Also, the upper fill, cairn and lower turf stack were laid down in one operation. One needs to explain the inferior state of preservation of the upper coffin which lacked both grain and lid. It is true that the upper fill differed from the lower and was on the face of it more acid; but there was no sign of secondary iron movement within the fill. Clearly the lower coffin would have been more protected from aerobic degradation than the upper; but the difference would appear insufficient to account for the observed results.

If there ever was an upper coffin lid, and it had not become merged in the coffin stain, the observations here — taken with those at Caerloggas III (B4) — would suggest that the lidded upper coffin had been left unprotected on the lower fill for a period. Data for B4, D3 and 12/13 also indicate that no major artefacts of vegetable origin had been buried, or (posts) left standing, on 'old turf lines' at Caerloggas I, Trenance Down, Cocksbarrow or Watch Hill, and none in pits at Caerloggas I or III.

The absence of insect *chitin* at Caerloggas I contrasts with the horn *keratin* found at Cocksbarrow. This may simply reflect a difference in oxygen tension, at a crucial early stage, between the turves in a ring bank (A72) and turf sandwich at the bottom of a well-covered pit (D3). But systematic data are, again, needed for the micro-environment before any specific inferences can be drawn. It is hoped that reports on material recovered from the British Association's (1963) 'acid' earthwork will shortly begin to provide a useful basis. Conversely, the glass of the tin slag from Caerloggas I (p.37) provides a valuable marker in time even though it shows little apparent weathering.

Against this background one sees the bronze dagger fragment at Caerloggas I (p. 36) being buried in a turf sandwich on a living moorland surface under the middle of a huge flan of disturbed soil. Initially great corrosive activity is polarised fairly rapidly in presence of large complex metallorganic ions, colloids and clay particles. Eventually the new iron pan formed inside the flan surface and joined to the old pan at its base, becomes impermeable enough to seal the interior more or less completely against 'fresh drainage'. Within this capsule copper ions diffuse away from the dagger and (further) inhibit any disruptive biological activity near it. The difference between the highly polished dagger surface and its rough fractured section tends to preserve the former at the expense of the latter.

It seems improper at this stage to sacrifice even any of the small fragments in further study; but future work on this or a similar object might usefully check the following hypothesis; under such conditions, a thin, uniform, close adherent envelope of amorphous tin oxide could have been formed around the fragment — probably a hydrated colloidal form, at least in the first phase, firm enough not to distort, yet permeable enough to allow corrosion

to proceed. The metal-oxide interface would gradually retreat inwards until all the metal had been converted, the primary envelope remaining largely unaltered in nature and position.

There is some evidence that such retreat occurs in stages — by a Liesegang type of cycle involving film growth, arrest and rupture — and this would seem to be borne out in this case (Pl. X). In the process, iron from ambient soil solution could become incorporated in the film, and ultimately nucleate part of the forming tin oxide into the varlamoffite crystals detected by X-ray diffraction — the residual bulk setting to a gel, a brittle and unfamiliar corrosion product. The primary envelope would appear to be distinct in being virtually 'pure gel'. When examined, this dagger fragment was unique; more recently, a somewhat similar condition has been recognised in a Bronze Age spearhead found on the Breiddin in Wales (Musson, 1977).

DISCUSSION OF THE ST AUSTELL GRANITE BARROW GROUP

The development of the Prehistoric environment

Study of both soils and pollen beneath the excavated barrows suggests that, at the time of their construction, at least the higher part of the St Austell granite had been extensively cleared of trees and that podzols had subsequently developed. This is consistent with the evidence from beneath all other excavated Bronze Age ritual sites in South West England and indeed the Highland Zone as a whole. It is now usual to attribute such tree clearance to the needs of arable farming. However, recent work, especially in Wales (summarised in Ball, 1975), shows that decline in forest cover and subsequent soil deterioration can be due to the effect of climatic change in certain environments. It is not therefore certain that much or any of the St Austell granite was cleared for agriculture during the Neolithic or Early Bronze Age. Evidence for settlements pre-dating or contemporary with the barrows is slight. The concentration of microliths in the turf beneath Caerloggas III suggests Mesolithic activity; these flints are not sufficiently distinctive to be assigned to a particular part of this period. The occurrence of microliths, presumably residual, in all the other excavated sites (except the damaged Caerloggas II) indicates that Mesolithic material may be widely, if not densely, scattered over the St Austell granite. Flints should also provide indication of the location of Neolithic and Early Bronze Age settlement but little of the area has been arable in the present century and so finds are not common. The only concentration, over fifty pieces found during ploughing at Penwithick Stents (Fig. 10), suggests a settlement in a sheltered level area well below the top of the Granite. Finds of Early Bronze Age metal work (p. 6), and indeed the tin slag from Caerloggas I, indicate activity connected perhaps with local deposits of tin and copper ores. The absence of hut circles and field systems is due to the sparsity of loose surface stone and to intensive clearance and enclosure from the Medieval period onwards.

The artefacts

Artefacts may occur in ritual structures for a variety of reasons. They should be termed grave goods only when a close personal connection with the dead, either in life or expected after-life, can be presumed. They may be chance losses, residual in construction materials or deliberately deposited domestic or ritual debris. They may be containers for ashes or foodstuffs. Lastly objects may be deposited either individually or in groups as ritual tokens, perhaps intended to benefit the depositor or his associates; this practice may be compared to the votive offerings found on Romano-British temple sites.

Only the horn ladle from Cocksbarrow can reasonably be interpreted as grave goods. The deposition of these is in fact uncommon in South West England. Of the fifteen sites dug in Devon and Cornwall since the last war only Rosecliston near Newquay (Dudley and Thomas, 1965) and possibly the Woolley round barrow, Morwenstow, Cornwall (Dudley, 1968b) have produced probable grave goods, and of the twenty or so sites dug by Andrew during the last war (1946) probably only Fore Down, St Cleer, Cornwall. Because of the

sparsity of grave goods, even the Cocksbarrow ladle may be alternatively regarded as a votive offering.

The excavated sites produced very different quantities of objects: Caerloggas I 345, Trenance Downs 132, Watch Hill 85, Caerloggas III 45 and Cocksbarrow 24 (part of the mound was mechanically removed). Most of the material from Caerloggas III probably derives from previous Mesolithic occupation and some of the flint from other sites may well be residual. The deposition of dagger and amber fragments at Caerloggas I and sherds at Watch Hill suggests votive offerings. The distribution of finds at Caerloggas I, clustering around the central stone, suggests deliberate deposition and the quantity may reflect the fact that the enclosure was never infilled but left accessible. This implies that the quantity of finds may be used as an indicator in interpreting the function of a site, the number of votive offerings reflecting accessibility and visiting. Trenance Downs was also an enclosure site of the ring cairn class without burial, although subsequently infilled. It may be significant that, after Caerloggas I, this site produced the greatest quantity of finds. Watch Hill and Cocksbarrow, enclosure sites with subsequent burials and mounds, produced smaller quantities of finds. Caerloggas III, as a simple one-period mound, probably only had one or two objects deposited upon or within it.

Comparanda are difficult to produce because little notice has normally been taken of flints and white pebbles on barrow sites. Of the sites in Devon and Cornwall excavated since the war, Higher Draynes, St Neot (Wainwright, 1965) produced no flint, Glendorgal, Newquay (Dudley, 1962, 6) less than a dozen pieces, as did Carvinack, Truro (Dudley, 1964), the Liskey barrow, Perranzabuloe (Christie, 1960, 6) and Tregulland, Treneglos (Ashbee, 1958); Upon Pyne (Pollard, 1969, 69) produced twenty one pieces, Otterham (Dudley, 1961, 76) twenty seven, and two adjacent Farway rings in East Devon fifty nine (Pollard, 1971, 174), the White Cross and Burnt Common rings in the same area one hundred and twenty one and sixty one respectively (Pollard, 1967, 29 & 1971, 174), the Farway, Daggers Piece and White Cross cairns in East Devon, six, ten and fourteen (Pollard, 1967, 36). It is noticeable that the rings, enclosure sites left open, produced by far the greatest quantity of this material. Such quantities of flint and other small objects are not recorded from Welsh sites and their deposition on ritual sites may be a feature peculiar to Devon and Cornwall.

Small white pebbles, often polished by handling, appear to have no utilitarian function and have not yet been recorded from Bronze Age settlements. They have been recorded from the Longstone by Cocksbarrow (Miles, 1971), Try menhir, Gulval, Cornwall (Russell and Pool, 1964, 16), Lousey Barrow, St Juliot, Cornwall (Andrew, 1946, 41), Glendorgal Barrow, Newquay (Dudley, 1962, 6), the standing stone at Pickwell Manor, Georgeham, North Devon (Tyler, 1930, 70) and from Barrow 89 near Sidmouth excavated by Hutchinson in the nineteenth century (1880, 149). A less exhaustive search of the Welsh literature has produced no instances, suggesting that the votive use of such pebbles should be regarded as a local feature.

Quartz or other crystals may also be regarded as of potential votive significance, despite the difficulty of distinguishing these from those naturally present. Twenty one were recorded from Watch Hill, five from Caerloggas I, including a large and worn example from the central pit, and six from Trenance Downs. A barrow near Great Torrington in North Devon produced 'a good sized rock crystal' associated with a central cremation (Doe, 1899, 99). A cist without a covering mound, at Calveslake on Dartmoor, produced another together with a tanged arrowhead and other flints (Worth, 1900, 53). The interior of the Metherel ring cairn in Chagford parish on Dartmoor produced four (Worth, 1937, 149).

The flints, even if votive deposits, should reflect contemporary domestic working traditions. Excluding the Mesolithic material and the arrowheads, they form a reasonably cohesive group and no real differences can be seen in the material from the various sites despite a large potential date range. Many of the pieces are chunky and rough. The scrapers are small and uneven and differ from the larger and better worked pieces from the late Neolithic to Early Bronze Age scatters in the area. The rough plano-convex knives, 3, 4, 36 and 86 and No. 12 from Cocksbarrow are entirely in keeping with full Early Bronze Age

contexts. An example was even found on the Later Bronze Age settlement at Stannon on Bodmin Moor (Mercer, 1970, 42). The assemblages as a whole compare closely with that from Stannon and appear to belong to a tradition relying entirely on pebble flint when the mined flint available down to the Beaker period in the area was no longer available. The wide range of arrowheads at Caerloggas I presents a problem. Leaf and transverse arrowheads are not thought to have been made during the second millennium BC. Their presence might suggest that they had been picked up elsewhere and kept for use as votive offerings. The barbed and tanged arrowhead could be contemporary with the structure. However a large number of unpublished flint scatters from South West England contain leaf, transverse and barbed and tanged arrowheads. These may reflect very long occupation or continued re-use of favoured sites, but it is also possible that in this area certain obsolete traditions were retained long after they had been forgotten in other areas of the country.

The St Austell granite sites as a ritual group

The excavated sites are similar in the use made of local materials: granite moorstones, cut curves, soil and yellow kaolinised granite. There would have been nothing else available in the area except subsoil, to be obtained by ditch-digging or quarrying; its absence emphasises the lack of importance attached to ditches locally. The use of yellow kaolinised granite, perhaps brought from a single source such as a stream bed, is the main evidence for the sites all having been constructed within one continuous ritual tradition. This kaolinised granite may also have been carried over a mile from the edge of the granite for use in the Gwallon Downs barrow group (Fig. 1); the earth of the sites excavated there in the nineteenth century was described as 'of a yellowish colour, known to be the natural soil of a hill a mile distant from them' (Borlase, 1872, 185).

It is now apparent that the two or three hundred years traditionally assigned to Early Bronze Age metalwork and associated ritual sites is too short a period. Round barrow construction started well before 2000 BC in the Beaker period, probably even in South West England where Beaker finds are sparse and here it may well have continued long after the introduction of Middle Bronze Age metalwork. A number of barrows have produced pots which should be assigned to a late stage of the Trevisker sequence (illustrated in Patchett, 1944 and 1950). A small mound covering a cremation at Gwithian, Cornwall (Thomas, 1961) produced material for radiocarbon determination of 1120 ± 103 bc (NPL-21) and was loosely associated with Middle Bronze Age ornament horizon metalwork. A radiocarbon date of 882 ± 42 bc (BM-1148) has recently been obtained from a small barrow covering a cremation and sherds of a late Trevisker pot at Bratton Fleming in North Devon. If all of the thirty sites known to have existed on the granite were built by a single community, they need only have been constructed one to a generation or even less frequently. The lengthening of chronology for the Early Bronze Age implies a sparser distribution of sites and population than was formerly supposed.

Watch Hill and the Caerloggas sites may have been constructed around 1500 BC. Cocksbarrow rather earlier and Trenance Downs perhaps much later, towards or even after 1000 BC. These dates are guesses, made to emphasise the time span over which barrows must have been constructed.

Towards a re-assessment of Bronze Age ritual

Accepted interpretations of prehistoric burial practice in Europe were developed in the eighteenth and nineteenth centuries against a background of classical studies, reinforced by the evidence for special treatment of important personages and belief in an after-life revealed by early Egyptology. It is usually held that in Britain, as in northern Europe as a whole, barrows were built to provide decent burial and permanent memorials for special individuals and that all the connected ritual was intended to honour those dead who merited barrow burial and to ensure for them a successful after-life. As long as all major new developments in prehistoric European society were seen as the result of diffusion from the Mediterranean world, this interpretation of the function of the barrows could be accepted uncritically. It is now realised that European prehistoric communities might develop

distinct traditions of their own which were in no way pale reflections of the Near East, Greece or Egypt and it is necessary to re-assess our accepted views of ritual and burial practices.

Neolithic burial practices over a wide area of Europe provide consistent evidence for the deposition of the remains of many individuals in a single structure — the communal burial rite. This was initially regarded as a kind of multiple individual burial in the Neolithic precursor of the family vault. Recent work has shown that megalithic structures could be used over a long period and that total remains of any one individual are seldom found in them. Such structures may now be regarded as the repositories for human bones which were thus kept accessible for use in ceremonial. The emphasis switches from a burial rite to honour the dead themselves to a rite to ensure benefits or at least absence of evil consequences for the surviving community. The repositories were carefully sealed up at the end of their period of use; this sealing may be regarded as the equivalent of the construction of inaccessible earthen long barrows to cover over human remains which may have been long available for ritual usage. Accompanying artefacts which could be interpreted as grave goods are rare. There appears to be no evidence for 'decent' burial or of honours for dead individuals.

The introduction of the single grave burial rite under round barrows, apparently connected in this country with the users of Beaker pottery, implies a new and more personal cult concerned with 'decent' burial and proper provision for the after-life of a favoured few. Some barrows covering single graves of the Beaker period and some of the Early Bronze Age, particularly graves of Wessex type with a range of apparently personal grave goods, may relate to this more personal cult. But new religious ideas, like new fashions in artefacts, will influence separate areas differently and may be evidenced in the archaeological record, particularly in more isolated parts of the Highland Zone, in altered or unrecognisable forms. Barrows and related ritual sites need to be critically examined in regional groups. Wherever burials are partial, multiple or absent, grave goods infrequent and evidence for ceremonial activities strong, it should be considered that the Bronze Age single grave rite has been very much altered by earlier Neolithic traditions and effectively reflects the absorption of incoming groups by the indigenous communities.

Bronze Age ritual structures may be composed of either or both of two major elements, enclosure rings and mounds. It has long been recognised that the enclosure element derives from that of later Neolithic henges, reinforced by a circular enclosure element found beneath some Beaker barrows both here and on the continent. Recently the number of known Neolithic round barrows has been increased and the round barrow might also be seen as an indigenous tradition reinforced by practices common among Beaker immigrants. Enclosure rings may have been boundaries for sacred areas used for ceremonial or the temporary deposition of bodies as in mortuary enclosures. Mounds may either have been intended as noticeable markers or else as sealing or covering for ceremonial areas, comparable to the deliberate sealing or blocking of megalithic structures. The latter alternative would provide a more acceptable explanation for those barrows which do not have burials than the classical idea of cenotaph. The recognition on the St Austell granite sites that the yellow clay capings were not intended to be permanently visible but were covered with masking layers of soil questions the role of mounds as markers. The presence of masking soil emphasises the role of soil brought to a site and mounded up in covering and sealing off sacred areas.

Human burial appears to have formed a major part of the ceremonial on sites covered with mounds. The deposition of a burial appears usually to have immediately preceded mound construction as at Watch Hill and Cocksbarrow. Burial may have been of less importance on those sites left as open enclosures. It may be suggested that, wherever there are only partial human remains, few grave goods and evidence for much other ceremony, the inclusion of human bones in a structure was one part only of a complex ritual designed to benefit the surviving community, not the dead individual. This would show for an area that Bronze Age practices were heavily based on pre-existing Neolithic rites. The continuation of multiple burial traditions from the Later Neolithic to the Early Bronze Age has recently been demonstrated for Yorkshire (Petersen, 1972). Many multi-period structures are now known.

These may be regarded as the re-use of a structure as an alternative to the selection of a new site; these might involve a second enclosure ring or series of ceremonies sealed over by an addition to the mound, perhaps accompanied by a burial. It may be that the barrow groups within an area result from a sequence of continuous if intermittent ceremonial activity, the sites of one or more always being currently in use, rather than a series of separate structures built for special occasions. The removal of material from the Watch Hill site hints at some practice of this kind as it was most likely used to form part of the mound construction or masking over of another structure. This emphasises the value of studying barrows within an area group, as has been done for the first time comprehensively with the Brengig valley in North Wales (Lynch, 1974) rather than excavating widely scattered examples.

The identification of Early Bronze Age communities in Britain is very much dependent on the analysis of variations in ritual traditions, as barrows and related sites provide the only structural evidence in any quantity for the period. Artefact groups will also reflect regional differences but being portable and more dependent on specialist craftsmen may not reflect the differences between different communities as clearly as the mounds and enclosures which result from deep rooted local traditions.

The Bronze Age ritual tradition in South West England

Some aspects of its ritual tradition and groups of sites within it can now be identified. Enclosure sites of various types are of greater importance than has previously been recognised, particularly on the moorland areas of Dartmoor and Bodmin; a comprehensive survey is in progress. A preliminary list, of those already published, is given in the appendix. It is unclear how far Lynch's classification (1972) is applicable in this area, where varied geography and topography made possible a wide range of sites appropriate to both Highland and Lowland Zones. These sites are therefore all listed as 'ring cairns'.

Any form of ring cairn or enclosure may subsequently have been mounded over. Watch Hill, Trenance Downs and Cocksbarrow, illustrate a distinctive group of such sites occurring in the area which may be termed *enclosure barrows*. The cairn rings on these sites predate their covering mounds, by days, weeks or years, and they must therefore have been laid out for a specific purpose. They may either have defined areas for ceremonial use, not necessarily connected with burial, or they may have been mortuary enclosures in which the dead were laid out, as is suggested for the mortuary enclosures predating Neolithic barrows. Their function was presumably similar to that of post or stake circle enclosures. The combination of posts and stones in a composite ring at Cocksbarrow, and probably at Carvinack near Truro (Dudley, 1964) and Tregulland in east Cornwall (Ashbee, 1958) emphasises the interrelation of the two groups. Both post circles and cairn rings are widely distributed throughout Britain and should be included together as enclosure barrows. A list of excavated enclosure barrows is given in the appendix. A structural type which may be related is the barrow mound closely encircled by a low bank; these may represent enclosures infilled but not covered over by their mounds. None have been excavated in the South West; good examples occur on Farway Common in East Devon SY 152961 and among the Five Barrows on Exmoor SS 734358.

The mound tradition at its simplest is represented by Caerloggas III and possibly II, barrows without any enclosure element. Comparanda are difficult to establish from early records as these will note distinctive features but cannot usually be relied upon to establish simplicity. A barrow on Berry Down, Berrynarbor, North Devon was composed only of turves and produced no finds or burial (Worth, 1883, 108-110). A barrow on Broad Down in Farway parish, East Devon, 118 ft across consisted only of a turf mound covering a scatter of charcoal and two small charcoal filled pits (Worth, 1899, 94). These structures may well be connected to the large number of cairns, apparently simple structures, referred to in reports of the Devonshire Association Barrow Committee from 1879 which were found to cover only pits containing small quantities of charcoal. Two cairns near the Greyweathers Circles in Lydford parish on Dartmoor, both c. 16 ft across and c. 1 ft high, produced pits 4 ft and 3 ft long respectively; these contained only soil and charcoal and were examined for phosphates

with negative results (Worth, 1898, 112). A good parallel from outside the area, though smaller, is the simple stone revetted clay mound Brenig 47 (Lynch et al, 1974, 33) which alone of the numerous ritual structures excavated in the Brenig valley in Denbighshire did not produce evidence for burial or other ritual activity. The absence of evidence for burial or complex ceremonial suggests that mound construction itself may have been a feature of major importance in these cases.

Construction sites in the area were almost never first stripped of turf. Inhumation was not common, as far as can be determined in acid soil conditions. Cremations are normally token or partial. Mounds could be built without burials. Secondary burials do not occur, with the possible exception of Veryan Beacon, Cornwall (Borlase, 1872, 155), although several deposits of human bones may be placed in one structure or a deposit lie off centre; these factors have confused previous workers. This absence of secondary burials may reasonably be linked to the comparative lack of importance placed on human remains in ritual practices and particularly to the absence of any good evidence of a straight single grave rite in honour of a particular individual. Grave goods, except pottery containers, are not common. All this suggests that the single grave rite was absorbed into the area in a rather altered form and evolved as a distinct local tradition. This is consistent with the development of the Trevisker pottery sequence, the most regionally distinctive and exclusive of any of the Early Bronze Age pottery groups. The presence of occasional Wessex type barrows or artefacts points to links between this area and the South West. There is no reason to suppose that influences from Wessex had any great effect on the area after the involvement of the local Early Bronze Age traditions. For too long Wessex has been regarded as the centre of a mini-diffusionist pattern of influence in Britain and the significance of material and cultures in other areas have been interpreted in accordance with the quantity of Wessex structures or artefacts found. This has obscured the identification of distinctive regional groups in surrounding areas.

Appendix

RING CAIRNS IN DEVON AND CORNWALL

Cornwall, Davidstow, Davidstow Moor 80 ft in diameter, ditch with bank on either side enclosed an area covered by a single layer of turves, small central cairn of quartz (Andrew, 1946).

Cornwall, Newlyn East, Carland Described as the only hut circle within a barrow cemetery, bank 33 ft in diameter enclosing an area 27 ft across; probable ring cairn, unexcavated (Prior, 1898, 436).

Cornwall, Sancreed, Durval Downs Ring cairn 44 ft across, the interior strewn with small cairns (Borlase, 1872, 172).

Cornwall, Sancreed, Trannack Ring cairn 30 ft across surrounding a large natural slab; investigated without result (Borlase, 1872, 136).

Cornwall, Sancreed, Botrea Hill Three 'ring walls of earth and stone' in line, enclosing areas 60, 90 and 98 ft across respectively; slight mounds in their centres, one producing an urn (nov. lost) and 'ashes of burnt wood' (Borlase, 1872, 134).

Devon, Chagford, Metherel Ring cairn wall revetted on both faces with orthostats, enclosing an area 33 ft across scattered with loose rubble; excavation produced a central pit with charcoal covered by a large slab, five flints and four quartz crystals among the rubble (Worth, 1937, 147-50).

Devon, Farway, Farway Hill Two adjacent stone rings enclosing areas 11 m and 5.5 m across; the larger ring contained 38 pits with charcoal and three with probable cremations. A large number of other pits predated both rings (Pollard, 1971).

Devon, Lydford, Lowton Borough Ring cairn very similar to that at Metherel but unexcavated (Worth, 1937, 147).

Devon, Shaugh Prior, Langcombe, Deadman's Bottom Two rings internally revetted with orthostats, 12 ft 6 in and 15 ft 6 in internal diameter; interiors paved; charcoal and burning beneath paving (Worth, 1900, 52).

Devon, Sidbury, Burnt Common Stone ring enclosing an area 8 m across: central pit c. 1.4 m long, disturbed, produced sherds of a late southern tradition beaker (Pollard, 1967).

Devon, Sidbury, White Cross Stone ring enclosing an oval area 11 m by 13 m with small central cairn over pit 3 m long, containing flint flakes and a fossil sea urchin, an inhumation assumed to have decayed (Pollard, 1971).

EXCAVATED ENCLOSURE BARROWS IN DEVON AND CORNWALL

Cornwall, Davidstow, Davidstow Moor Site Stake circle 70 ft across surrounding deposit of 'organic material' and burnt areas, stakes sawn off, mound of clay and turf 3 ft high with post-ring around base and another around top, ritual use of mound top (Andrew, 1946).

Cornwall, Devoran, Carnon Downs Stake ring 18 ft across around central burnt area and off-centre cremation, mound of red clay, soil and peat (Dudley, 1968a).

Cornwall, Kenwyn, Carvinack Cairn ring with stake revetment 60 ft across surrounding central cairn over an inhumation burial and several smaller cairns and pits containing Food Vessel and probable Beaker material (Dudley, 1964).

Cornwall, Otterham, Smallhill Farm Two stake circles 13 ft and 80 ft across, subsequently withdrawn, surrounding a cairn over a central robbed burial, soil and turf mound 9 ft high (Dudley, 1961).

Cornwall, Padstow, Cataclews Bay Cairn rings 30 and c. 24 ft in diameter surrounding off-centre cist with cremation, mound 2 ft high of stones covered over with sandy soil (Andrew, 1946).

Cornwall, St Breock, Hustyn Two concentric cairn rings covered by soil mound c. 40 ft across and 4 ft high containing cremation in Trevisker Style I urn (Iago, 1882).

Cornwall, Treneglos, Tregulland Stake circles 14 and 24 ft across coinciding with edges of cairn ring, central deposit disturbed. Food Vessel sherds with cremation within ring, cremation with arrowheads in pit outside; covering mound 5 ft high composed of ditch material (Ashbee, 1958).

Cornwall, Truro, Gloweth Inner cairn ring 18 ft across, outer ring retained by stake circle, small central cairn and pit but no burial (Dudley, 1967).

Devon, Challacombe, Chapman Barrows, Challacombe 21 (Grinsell, 1970) Cairn ring c. 90 ft across, small central cairn over cremation in pit, turf and soil mound 9 ft high (Worth, 1905, 93).

Devon, Gittisham, Broad Down Cairn ring 50 ft across, cremation with charcoal in centre with heavy *in situ* burning, mound of soil and stones (Kirwan, 1870, 297).

Devon, Martinhoe, Martinhoe I (Grinsell, 1970) Cairn ring c. 25 ft across surrounding 'interment pits', probable turf mound 18 in high (Worth, 1907, 82).

Devon, Parracombe, Chapman Barrows, Parracombe 5 (Grinsell, 1970) Cairn ring, perhaps 60 ft across, surrounding a small cairn over a cremation in a cist, mound 7 ft high but material unrecorded (Worth, 1905, 27).

Devon, Widecombe, Hammeldon Barrow Cairn ring 40 ft across, central cairn, off-centre slabbed area covering cremation, dagger and amber pommel, turf mound (Spence Bate, 1872).

Devon, Widecombe, Single Barrow Cairn ring c. 50 ft across, small central cairn with no burial, cremation in body of 3 ft 6 in high mound (Spence Bate, 1873, 272).

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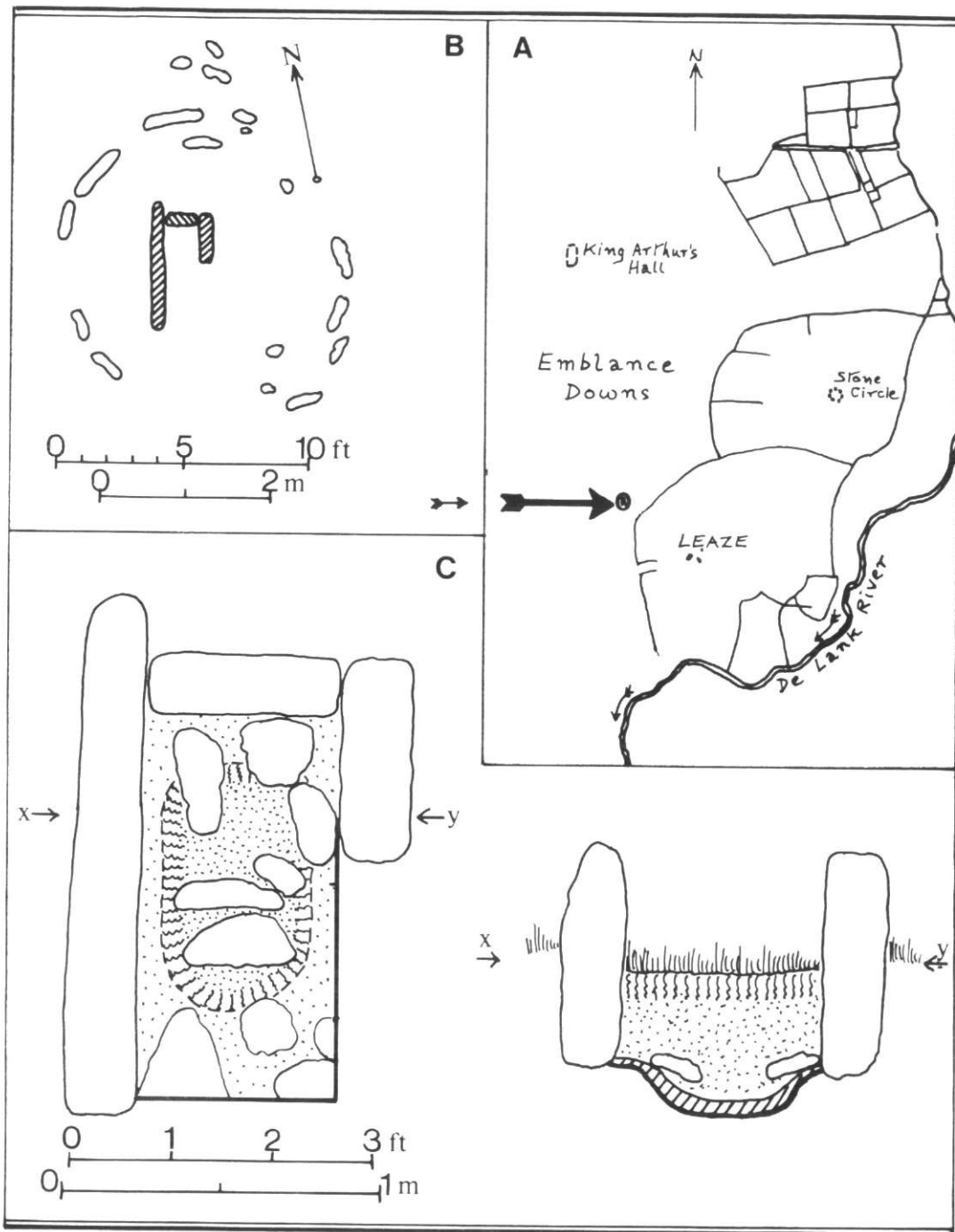


Fig. 36
 Cist at Emblance Downs, St Beward; (A) location sketch-map, (B) site plan (as at 1953),
 (C) plan and section of the cist as excavated (for details, see text)

Excavation of a Cist on Emblance Downs, St Breward

CHARLES THOMAS

The site described here was examined by the author in June, 1953, at the suggestion of our late Vice-President Miss Dorothy Dudley. At the time, her long campaign based on the farm at Garrow (Dudley & Minter, 1962-3) had begun, and friends staying there from time to time to assist in the work were invited to take part in a programme of wider fieldwork in the area. The cist, and its surrounding ring, were exposed to the constant attrition of grazing cattle; in view of the fact that the cist had already been exposed, and putatively robbed in antiquity, it was decided to examine it.

Notes and drawings relating to this episode were subsequently mislaid. They have recently come to light, and belated publication is clearly better than none at all.

The Site

Emblance Downs is one of a number of relatively level areas of rough moorland lying north of the main A30 road, about a mile NNW of the former Hawkstor clay pit, and is best known for the adjoining monument, 'King Arthur's Hall', an enigmatic structure of uncertain date. The excavated cist lies at NGR SX 13117700 (Fig. 36A), on the OS 6-in sheet SX 17 NW; on the Ordnance Survey's record maps, it appears as no. 12, 'Cairn and cist'. It lies roughly 300 m due NW of a farm called Leaze, in a confined area of some form of early field system, and just above the 800 ft contour line.

In 1953, the ground here was rough common with short turf and heather, much eroded by cattle. The only visible remains were: a small incomplete circle of granite slabs set upright on their longer sides, and in the centre of this circle, three slabs defining the outline of an incomplete rectangular cist, its longer axis being roughly N-S (Fig. 36B). The slab which would have formed the south end was missing, as was the southern of two slabs on the eastern side.

Excavation (Fig. 36C)

This was confined to the cist, and no attempt was made to examine the whole monument. Vegetation was cut back and the turf removed. Some four inches of recent humus underlay it. Below, the filling of the cist consisted of some nine inches of a dark peaty soil with granite fragments. In the lowest four inches or so of this filling were many granite stones, none longer than a foot, but mostly of that size.

Removal of this fill exposed a very dark and compact soil, greasy in texture, about an inch thick. This lay directly upon the bedrock, the usual 'rab' (coarse gravelly clay, rich in feldspar and quartz fragments, and undisturbed).

A shallow oval pit, hollowed out of the rab, about 2 ft 6 in by 1 ft 6 in, its longer axis on the longer axis of the cist was the only feature. Absolutely nothing was found in the filling of the cist, or the basal dark soil; in such damp, acidic conditions it is doubtful whether anything except stone artefacts would have survived.

Comments

Bearing in mind the disturbed condition of the monument, and the proximity of Leaze farm with its stone-walled hedges, it is at least possible that the circular setting of stones represents the last remnant of a kerbed cairn. Had such existed, and been robbed for

walling stones, the cover stone (if any) of the cist might have been revealed, and of course lifted. The subsequent (natural?) silting and filling of the cist then contains, a lower level, a few of the smaller and less desirable stones from the robbed cairn, lying around on the surface.

The small size of the cist, and the internal hollow, suggest a cremation rather than an inhumation; absence of any grave goods, and indeed the puny scale of the whole monument, seem to imply a peasant grave. We are presumably in the Middle or Late Bronze Age, possibly in the second millenium BC. Considerable, and important, traces of agricultural settlement of this period can be seen in the immediate area; they are hinted at, though not unfortunately further described, by Miss Dudley (1962-3, 278). But more or less complete 'ring cairns' or little stone mounds of this class are known elsewhere on Bodmin Moor, where in the absence of excavation it is not possible to decide whether they are clearance heaps or funerary. The Emblance Downs cist shows, at least, that funerary examples need be no more than a few metres in diameter, and can indeed be extremely humble constructions.

Institute of Cornish Studies

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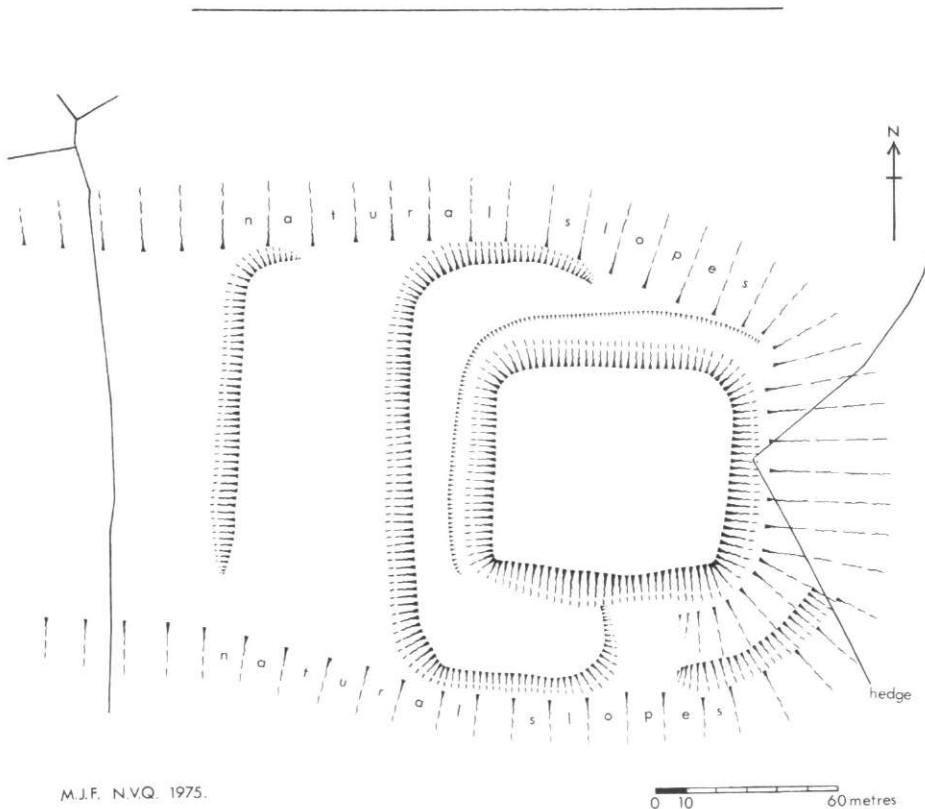


Fig. 37
The Restormel Earthwork

An Earthwork at Restormel

MARY M. IRWIN

On the top of the spur to the south of Restormel Castle are the remains of an earthwork (SX 10256106. *Tithe Apportionment 1841: GREEN PARK*). The site was rediscovered during the examination of aerial photographs which had been taken for English Clays Lovering Pochin & Co. Ltd in 1968 (ECLP Photographs 1968. Run 1, 4088). One of the series showed very clearly Restormel Castle and the earthwork on the spur beside it (Pl. XIII). The earthwork does not appear on the modern OS maps but it was marked on earlier ones. On the draftsman's sheet for the first OS map (drawn in 1805 to a scale of 3 in to the mile) it is shown in the form of a circle with the figure '6' inside it. By its side is inscribed 'UZELLA (of Ptolemy)' (OS Drawings. Portfolio 5, Sheet 9. Serial 321. BM).

The 300 foot contour marks the top of the spur, about 100 feet higher than Restormel Castle. The top of the spur is level, a rectangular area forming the inner enclosure of the earthwork, with the ground dropping away quickly on the east and more gently on the north and south. The plateau commands extensive views, southward down the valley of the river Fowey to beyond the town of Lostwithiel, eastward across the river valley and northward along the valley to the bend near Lanhydrock woods. Today, the river Fowey is tidal to about half a mile downstream from the earthwork; in earlier times, before the heavy silting caused by mine workings in the upper valley, the tides probably flowed much higher upstream.

From the indications on the aerial photographs and the surviving traces on the ground, the site appears to have consisted of three concentric and more or less rectangular enclosures, the largest 161.7m long, the innermost and smallest 77.1 m long by 64 m wide. On the ground (Fig. 37) the level rectangular area is still well defined with the slight hollow of a ditch to the north and west. Faint lines of banks can be seen at the north west corner and to the south west, south and south east. The centre of the south bank appears to turn in suggesting an entrance. The field is under pasture; the only find has been one extremely small fragment of red pottery with two small scraps of red glaze.

A bank is marked on the present 1:10560 and 1:2500 OS maps: this corresponds with a bank in the NE corner of the field but it appears to be unrelated to the earthwork.

The site should probably be placed in the wide-spaced rampart group of the south west hillforts. Normally these sites are roughly oval or circular. Two Devon sites are almost rectangular; Milber Down near Newton Abbot (Fox, Radford and Shorter, 1949-50) and Bury Barton near Lapford (Alcock, 1966, 106). Milber Down has been dated by excavation to the later pre-Roman Iron Age. None of the wide-spaced rampart hillforts has yet been shown to be constructed at a later date. Occupation may well have continued into the Romano-British period. There is a reference to finds near the site: Roman potsherds inscribed CAMILLO and MENILVAE are said to have been found near Restormel Castle (Soc. of Antiquaries, 1792). These can be assumed to be Samian Ware.

In a pile of stones by the field gate in the western hedge, half of the upper stone from a rotary quern was found. This quern is closely similar to a type found in a IV to VI century AD context in excavations by H. Miles at Trethurgy, St Austell; these may have a much wider date range.

Acknowledgements Thanks are due to ECLP for permission to examine the aerial photographs and for providing the plate which illustrates this note; to Mr Hutchings, the tenant farmer, and to the Duchy of Cornwall, the landowners, for the great interest they have

shown; to Mr P. Sheppard, Mrs H. Miles and Mr R. Mercer, all of whom visited the site; to Mr M.J. Fletcher and Mr N.V. Quinnell who drew the plan and to Lady (Aileen) Fox for advice.

Trezeres, Harleigh Road, Bodmin

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Soc. of Antiquaries, 1792. MS Minutes 7 June, quoted in *VCH*, 1924, Cornwall, Part 5, 36.

Review

ERNEST C. AXFORD **Bodmin Moor**. *David & Charles, Newton Abbot (1975). Pp. 188, pls. 24, figs. 10 (incl. 5 maps), ISBN 0 7153 6943 1, £4.95.*

Ernest Axford's full study of Bodmin Moor, precluded by his several shorter guides, proves to have been well worth the wait, and indeed the (presumably necessary) high price. This is a masterly and sympathetic exposition of Cornwall's only remaining area of moorland on any scale; the more so because of having been written on the basis of long familiarity, an intimate acquaintance with details, and a balanced approach to all the problems that beset the future prospects and management of this region in particular. Mr Axford's first five chapters take us from the ecological background (amplified by Carolyn Brewster's botanical contribution), through archaeology and history to the present day. He then discusses the villages on, or rather around, the Moor proper, and narrows his sights to a special chapter on the village and parish of St Neot, a large parish that offers a kind of north-south cross section of the southern half of Bodmin Moor, and one in which he has previously established himself as the local chronicler. A short, but trenchant, chapter on 'The Future of the Moor' shows him to be fully conversant with conflicting aspects of land use and their implications for the development of society and industry. There is a very short Gazetteer of principal antiquities (with 6-figure grid references — p.180), bibliography, and adequate index.

The plates are by Charles Woolf, Philip Duncan, and Mr Axford's son Roger, and give a correct impression of granite, age, lowering skies, and great vistas. (The top plate opposite p. 54, captioned 'Barrow on Emblance Downs', appears to be the encircled cist-grave excavated by this reviewer in 1953, and belatedly published in this issue — p.83).

Have we paid enough attention to Bodmin Moor? Almost certainly not; neither from the literary sense, nor (and here one can be positive) from the archaeologists' standpoint either. This is an appallingly finite area. Mr Axford's treatment of the last few centuries offers the contrast between the waning fortunes of agriculture, with abandonment of intakes (there are many more deserted, or about-to-be-deserted, small farms on the Moor than most people realise), and the waxing demands of china-clay extraction. A single pit and tip can, in five years, destroy more wildlife, antiquities, scenery, and natural content, than five centuries ofcrofting agriculture. A full 'Antiquities of Bodmin Moor', gazetteer and analysis, is needed, and needed swiftly. Fresh emphasis on this aspect, and on many others, is laid by Ernest Axford's fine study. We owe him our gratitude, and can best express this by buying his book, reading it carefully, and acting on its many implicit and clearly-put implications.

Charles Thomas

Institute of Cornish Studies

Recent Fieldwork in the Isles of Scilly

CHARLES THOMAS

INTRODUCTION

The recent publication of Paul Ashbee's *Ancient Scilly — From the First Farmers to the Early Christians* (1974) might be thought to render it difficult to find much new to add to the corpus of Scillonian archaeology. The writer has however been stimulated, rather than discouraged, by his old friend's near encyclopaedic treatment of Scilly's past, and many familiar monuments now appear in a fresh context, with new implications, spurring the fieldworker on to additional search. The sites described below were noticed, not in the course of any planned campaign, but as incidentals during a family holiday in summer 1975.

1. WHITE ISLAND, ST MARTIN'S

White Island (OS 25-in. Cornwall sheet LXXXII. 11) is a small, roughly crescentic tidal islet at the north-east extremity of St Martin's, to which it is joined by a shingle bar from low to half tide. It must until comparatively recently have formed part of St Martin's. In common with the parent island, most of its place names are purely English, save for a few on the south-east side bearing the element *Camper* (from a Middle Cornish, possibly Old Cornish, word meaning a tide race or 'roost'). The significance of the name 'White Island' is not clear. It is sometimes pronounced 'Whit' (as in Whitsuntide), but this may be in order to avoid confusion with another 'White Island' off Samson, rather than any survival from Middle English nomenclature. As far as I can discover, there are hardly any published descriptions of White Island which give details, except for an article by Geoffrey Grigson (1956).

The NW end of the islet rises to a rocky ridge at about 70 ft OD, a position exposed to wind and sea on the northern rim of the whole archipelago, and one crowned by a ruined entrance grave (marked *Kistvaen* on the OS sheets). This is some 20 ft in diameter, with remains of an internal passage (Daniel, 1950, 250; Ashbee, 1974, 301).

South of this ridge, the ground slopes to the sea-inlet that separates White Island from St Martin's, west of the shingle bar, an inlet called 'Porth Morran' (1689 Porth Moron, 1708 Porthmoren; from Middle Cornish *moren* 'girl, maiden', and *porth* 'landing place', which implies a now-vanished strip of beach or sand). The sea is eroding a low cliff of granitic gravel, but above it, and up to the ridge, is a small area of relatively clear ground, the Ordnance Survey sheets mark hereabouts six little mounds or cairns, described somewhat loosely as *Tumuli*. It is not easy to make them out in the low undergrowth, but one in particular was visible in July 1975, and was planned.

Method The details were triangulated with a 100 ft tape, used to measure the distance on a known bearing to the cliff edge; readings were taken with a prismatic compass to several fixed points to locate the site.

The plan (Fig. 38) It is difficult to justify the label 'Tumulus' in the case of this monument, and also presumably in the case of others. The small to medium granite boulders, firmly set in the ground, make up a rough circle some 10 ft across, and along the N side there is more than a suggestion of double walling. This may be the final remains of a hut, though it would be unusually small, if so, and only excavation might confirm this; or it is a carefully constructed (but eventually much robbed) clearance cairn.

Comment There are six such monuments within a strip some 200 yd long and 50 yd wide. The explanation that they are clearance mounds, albeit of a remote period, seems preferable to the idea of a dispersed 'village' of miniature huts. Nor does it seem in the least likely that these are funerary. Small cairns, singly, in groups, and in very extensive groups like those on the barren Shipman Head Down of Bryher — Ashbee (1974, 297) describes these, a little proleptically, as 'linear cairn cemeteries' — are features of Scilly's landscape. They should in some cases be associated with enclosures or field systems. Fig. 39, a sketch map of White Island, indicates the positions of two ruined but detectable boulder-wall alignments, of a kind that fall into this category. The western wall, across the waist of the islet, effectively splits the available grazing or potential arable, and was noticed by Grigson (1956): 'a piece of walling shows across the island . . . may be one of those ancient field divisions dating back to the Iron Age or the Bronze Age.' The other wall merely prevents stock from falling into the east-side chasms picturesquely known as 'Underland Girt' and 'Chad Girt', but is of the same character. Struck flint flakes can be noted sporadically in the upper level of the low cliff below the area with the six 'Tumuli', and if these are indeed clearance mounds, it will be seen that all lie in the same cleared

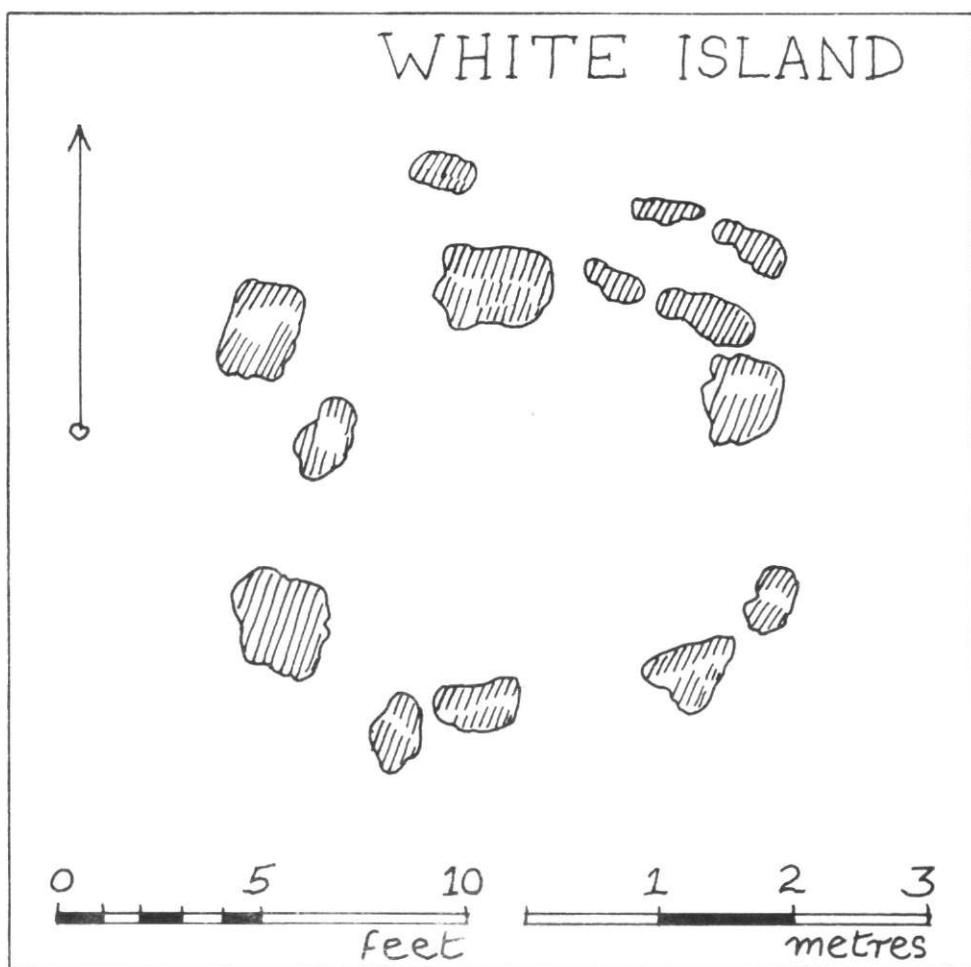


Fig. 38
Site at White Island, St Martin's: measured sketch plan

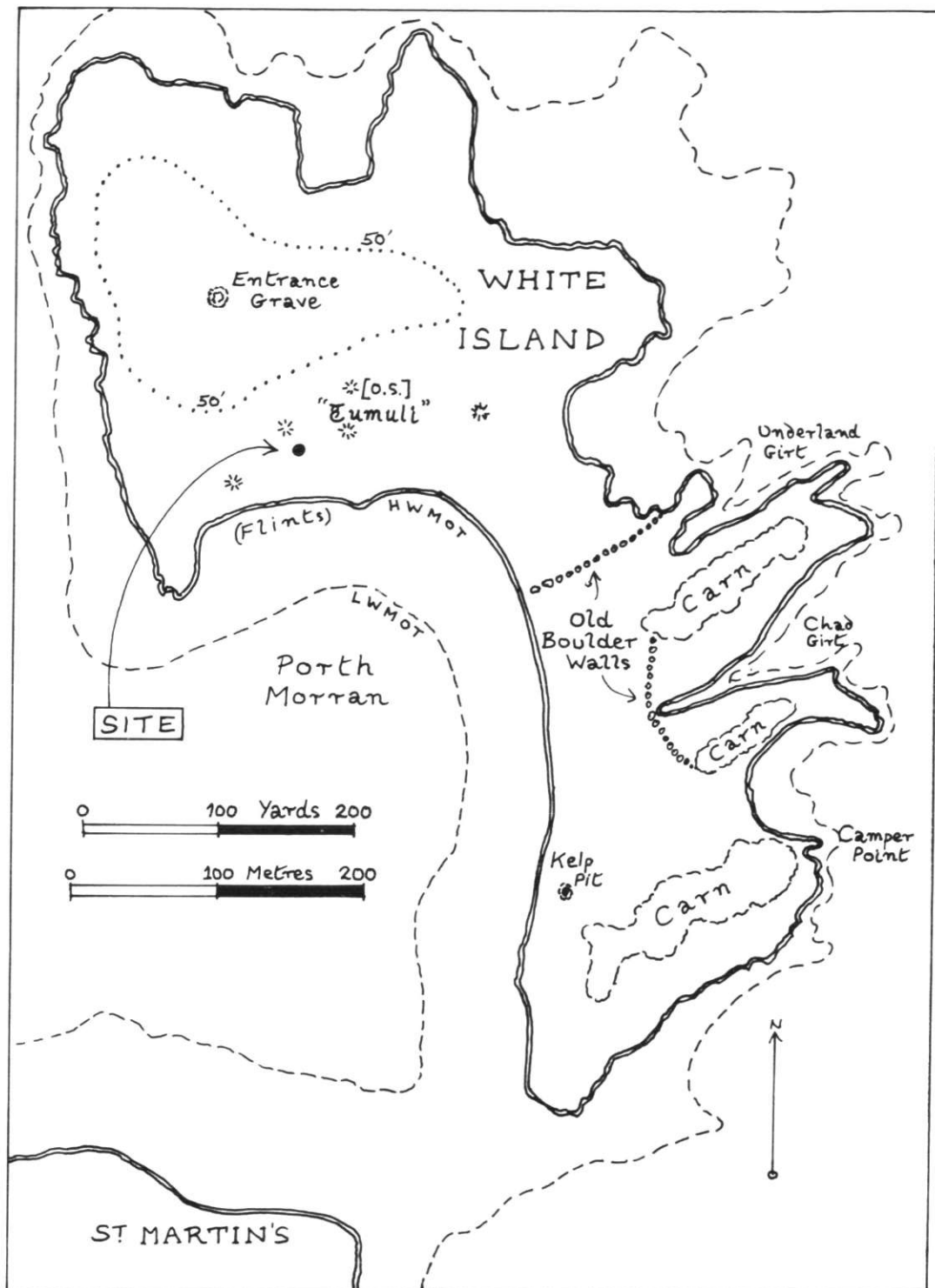


Fig. 39
 White Island, St Martin's; sketch map showing archaeological remains (see text)
 and position of 'Site' in Fig. 38.

area. Grigson (1956, 375) seems to imply that he found flint 'points and scrapers' from time to time. On balance, then, White Island may be added to the growing list of areas of Scilly which exhibit traces of primitive agricultural arrangements, putatively of the period of the megalithic entrance graves.

2. LITTLE PORTH, BAR POINT, ST MARY'S

The northern shore of St Mary's (see OS 6-in. Cornwall LXXXVII NE) is an area of considerable geomorphological interest, where the sharp cliffs found at Halangy and Pendrathen (to the west) and below Helveor Down (to the east) are cloaked by an extensive, rush-covered sand dune. This dune appears to be the landward remnant of a much larger deposit stretching NNW to the SE point of Tresco (where a corresponding dune area can be seen), and its general course can be made out on, for instance, the various Admiralty charts of Scilly. The now-submarine shallows in the centre of this former sand ridge are called 'Crow Bar', and the point of the landward termination on St Mary's, 'Bar Point'. Total marine submersion, with rapid erosion and displacement of the sand mass, is probably a very recent (post-medieval) feature, and an indication of a former high-water line, and perhaps a former dune face some quarter-mile to the west, is given by the name Pendrathen. As this is Cornish, it is likely to be pre-1600 and probably rather older; it means

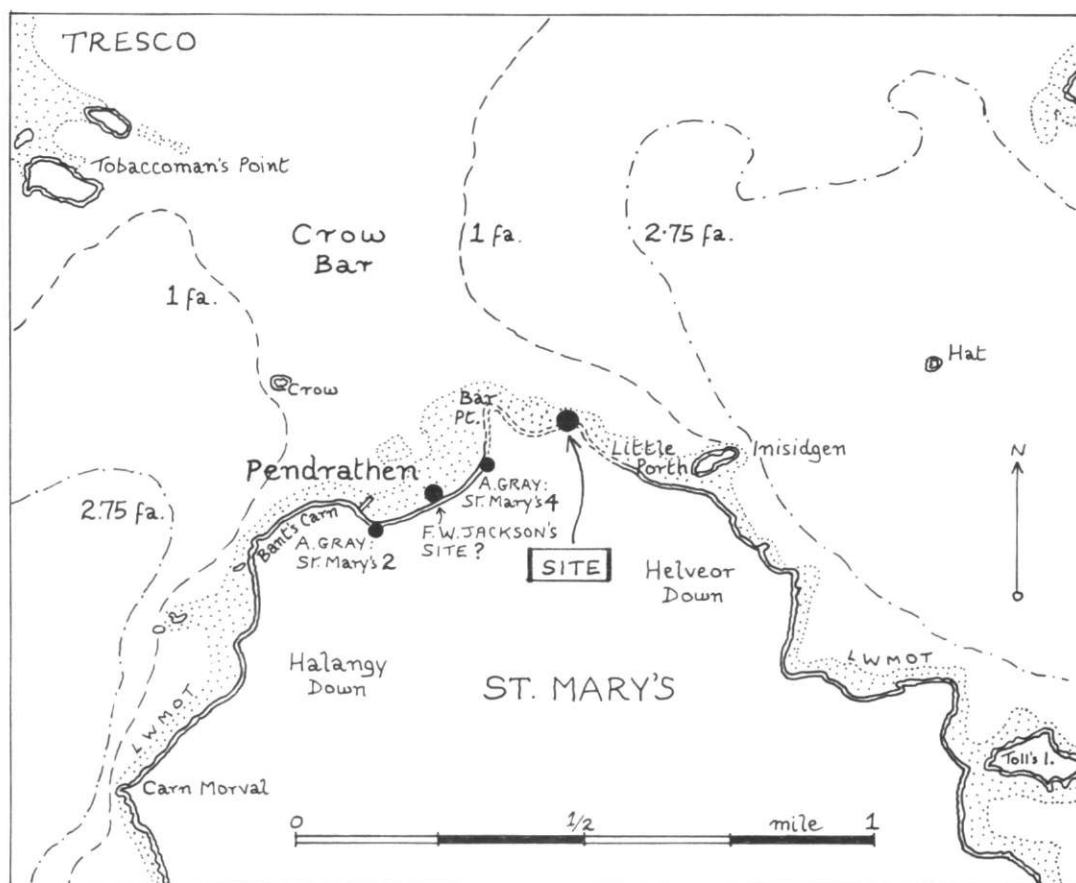


Fig. 40

Sketch plan of north end, St. Mary's; isobaths at 1 and 2.75 fathoms (approx. 2 and 5 metres). Position of site in Fig. 41 ('Site') is shown at Little Porth.

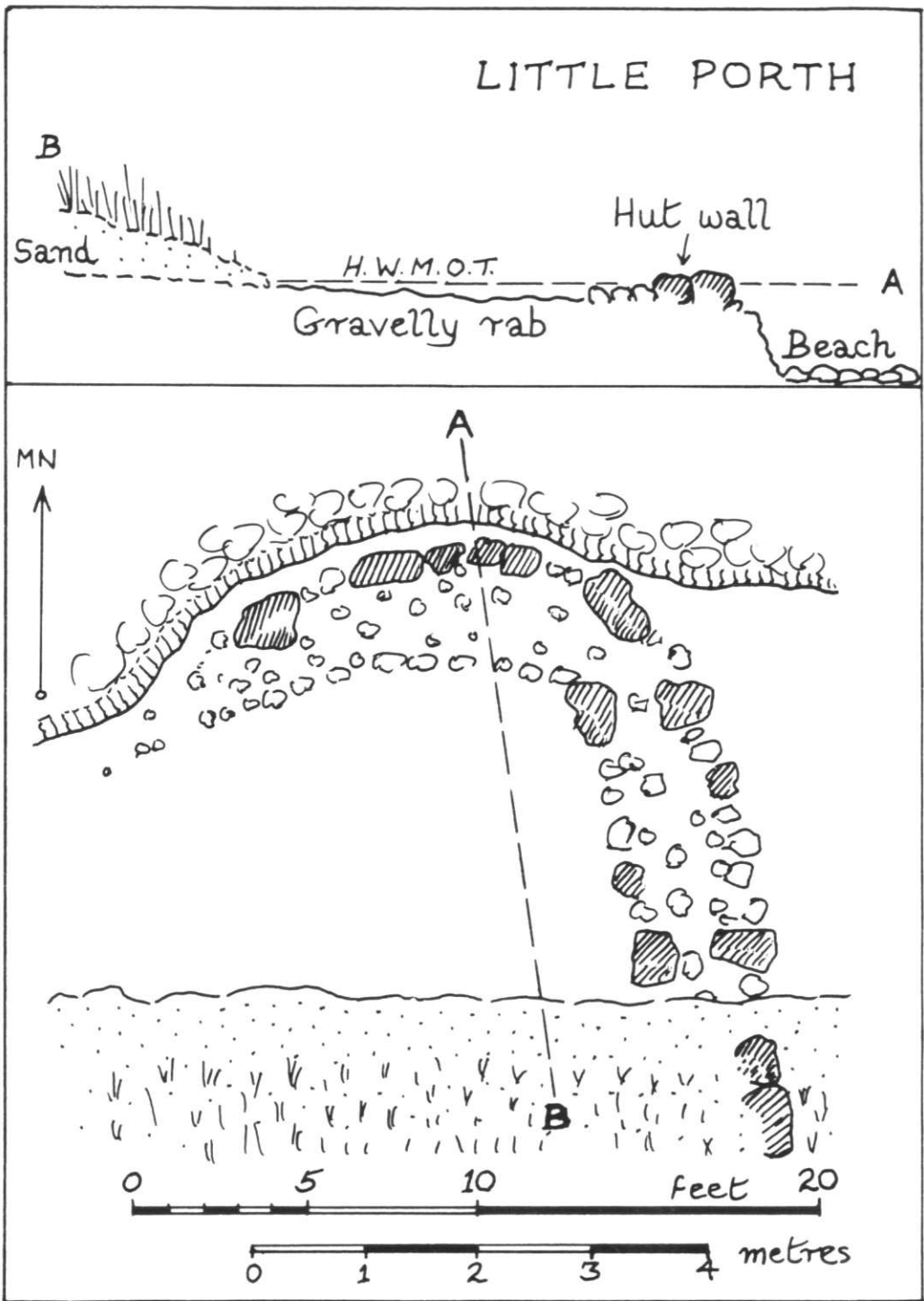


Fig. 41
Little Porth, St Mary's, remains of hut; measured sketch plan.

'the head, or end, of the sand bar'. There is a reference in 1652 to the *Barr of Pendrethen*. By 1796, the advancing sea from the west had cleared the blunt point below the old Bant's Carn battery, allowing boats to land on the west side of Pendrathen, at a little quay or slip (*cf.* 1796, *Penrithen quay* (Troutbeck)).

What is now happening is that further marine erosion is affecting a half-mile strip of shoreline, fronting the remnant dunes, and exposing as it does so the old land surface *below* the sand mass. Traces of some kind of hut, prehistoric-seeming but possibly early historic in date, were found just above the shore at Pendrathen in the 1930s by Mr Alec Gray (Gray, 1972, 26-28 and Fig. 8). Much more convincing hut sites seem to have occurred at Pendrathen, nearer the water line (Jackson, 1947 & 1948), including remains of huts visible at low water. Gray (1972, 37) describes, as 'St Mary's No. 4 Bar Point', various discoveries which appear to have been noticed in the low cliff, over a hundred-yard length on the 'south' (read 'south-west' or 'west') side of Bar Point itself. He found pottery 'similar to that at St Mary's No. 3' — generally this seems to be a coarse domestic range of (?) the 1st millennium BC.

During July 1975, I noted what at present may be the eastward limit of this dispersed settlement area, about three hundred yards east of Bar Point itself, and perhaps three eighths of a mile east of Pendrathen Quay. The site is shown in the sketch map, Fig. 40, and lies at SV 91801294.

Method A simple plan was made by triangulation with a 100 ft tape. The position of magnetic north was fixed with a prismatic compass.

The Site (Fig. 41) The shore at this point, which is on the north side of the feature marked as 'Little Porth', exhibits a belt of shingle and large stone. Inland, the sea is eroding a low (1 to 2 ft) shelf of the 'rab' or 'ram', the compact granitic gravelly subsoil. High water mark is some 10 to 15 ft inland of the edge of this shelf, and is now washing away the sloping front of a low, rush-covered dune. The area of the rab shelf so exposed has, set into it, various medium-sized granite boulders. Continuation of the line of these stones, inland, is indicated by protrusions through the sand, and more can be felt by probing. The plan indicates the remains of a small, roughly circular, double-walled structure, probably a living hut with an internal diameter of the order of 12 to 15 ft, externally perhaps 20 ft across. There were no finds.

Comment Presumably this, and the huts and hut foundations seen years ago by Jackson (1947 & 1948), are part and parcel of a dispersed settlement around this present shore of St Mary's. The Little Porth site shows how extensive this settlement could have been, and it is to be expected that more, and similar, remains will appear as the (rapid) erosion of the coast continues. The date remains uncertain. The huts look, if one may be subjective, 'late' prehistoric rather than 'early' prehistoric, but it must be remembered that Mr Gray's pottery, the 'urn' mentioned by Mr Jackson, and the base of the vessel from Pendrathen now reported by Mr Samuel (this issue of *Cornish Archaeol.* p.117), all belong to a very extensive category best described as 'pre-Iron Age', even if this does not necessarily imply an absolute date much before, say, 300 BC.

3. HEATHY HILL, BRYHER

This site, one of remarkable interest, was first discovered by Mr Peter Z. Mackenzie, the Duchy of Cornwall Warden and Honorary Warden for the Nature Conservancy. It falls within the area of a Site of Special Scientific Interest (*cf.* Mackenzie, 18-19, with map). I am grateful to Mr Mackenzie for bringing it to my attention, for inviting me to inspect and plan it, and for the services of his boatman Mr Cyril Nicholas, who also helped in the preliminary survey.

Bryher is now a separate island, but formerly constituted a sort of N-S ridge of high ground with the adjoining isle to the south, Samson. The prime characteristic of this former, larger, block would have been its hilly 'spine', and this may underlie the place name, if it derives from some form like *breyer* 'place of hills'. The flanks of the ridge are in places sheltered, and quite fertile. Though the sea has now carved an inlet, from the west, between Bryher and Samson, and has converted a rock-studded plain to the west of Bryher into the dangerous area of reefs and isolated peaks known as the Norrad or Northward Rocks, we may imagine Heathy Point — the present south-west extremity of Bryher — as being much less exposed, and a not unpleasant little place for settlement, in antiquity.

Heathy Point or 'Heathy Hill' (OS) is a little E-W promontory, rising to barely 50 ft OD, about 400 yd long. Its surface is indented, broken by small carns or outcrops of granite. The northern side, with a sea-cliff now some 6 ft high, faces the sheltered inlet of Great Porth. Abundant bracken covers this north side, where Mr Mackenzie has been able to establish a few young trees. There are traces of abandoned, but recent, little fields (bulb-plots?) on the south-east flank of Heathy Hill.

The remains in question were brought to notice following a heath fire, which not only burnt off the surface furze and bracken, but clearly spread to the dry, underlying humus, reducing the soil cover along much of the promontory to a thin and sparse layer that is only

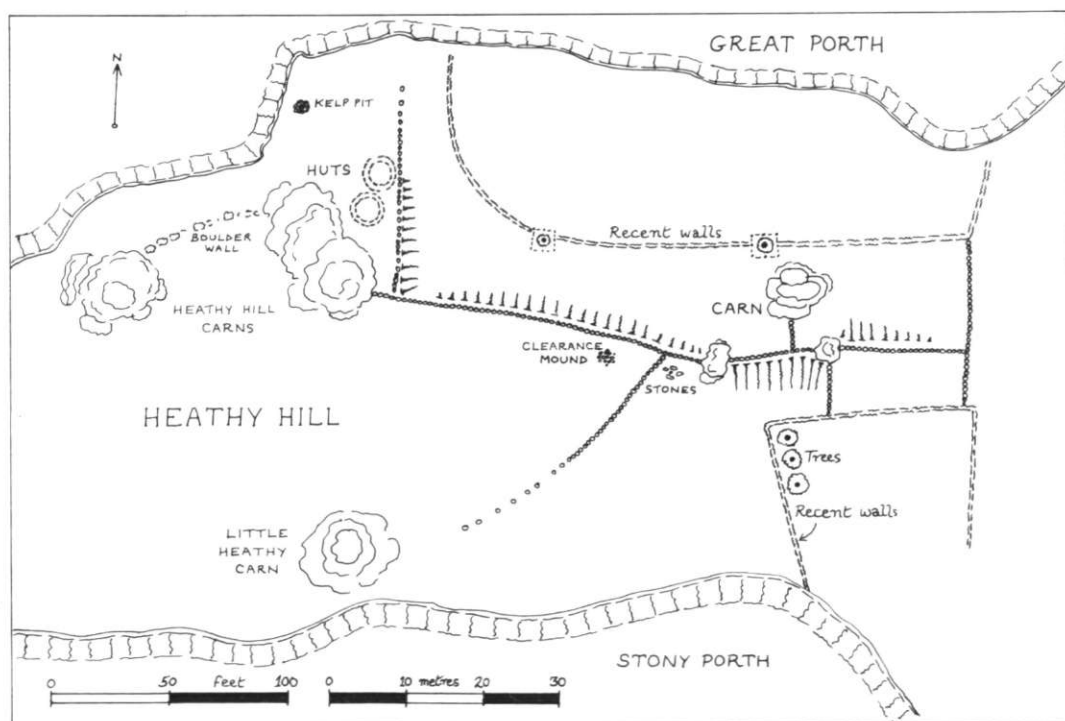


Fig. 42
Heathy Hill, Bryher; measured sketch plan showing field system and huts.

now being recolonized by vegetation. This denudation reveals a neatly-defined system of little fields or plots, separated by low stone banks; in some cases, lynchet formation has taken place. Struck flint flakes and chips, many recently calcined or crackled by the fire, abound. Careful search suggests that there may be the remains of at least two huts on the Great Porth side.

Method The dimensions of the field system were obtained by pacing, checked by a 100 ft tape. The angles of divergence between linear features were taken with a prismatic compass, and were also here and there triangulated with the tape, to be checked in drawing-out. Readings (and distances) were tied into several points that could be identified on the OS 6-in map (Cornwall LXXXVII NW).

The Site (Fig. 42) The main feature appears to be a roughly E-W spine wall, running for over 200 ft from a cross-wall on the E and ending at the base of the Heathy Hill carns on the W. At present, following the burning, what may be the top (or even the core) of this wall is visible, and without excavation one cannot say how deep it is. The fall-off on either side, accentuated by the remains of negative lynchet formation, is shown in Fig. 42 as a schematised hachure. Radiating walls — and only four can be traced, two on the N, two on the S — appear to define small fields or plots, the downhill edges of which are of course now lost by coastal erosion. It is worth noting that no traces of any walls can be seen either E or W of the system shown in Fig. 42. Just N of the Heathy Hill carns, and immediately outside the last field, are the remains of two circular stone-walled huts, with internal diameters of the order of 12 and 15 ft. Slightly to the W, between the two Heathy Hill carns, and overlooking the low cliff by the sea-inlet called Great Porth, are the remains of a boulder wall of larger and cruder construction. The only finds are flints, appearing in the detritus of the spine wall and on the burnt surfaces of the fields; and a clearance mound of small stones tends to confirm the use of the word 'field' in this instance. The evidence is, *in toto*, consistent with a prehistoric date; can one refine this chronological estimate?

Very little attention has been paid to field systems in Scilly (though such do occur, and can be detected, even under medieval or recent fields). At least we have an outstanding example of lynchetted and revetted plots, a classic parcel of 'Celtic' fields, in the complex at Halangy, St Mary's, now under investigation by Paul Ashbee (1974, esp. 176). But the Heathy Hill fields are smaller and slighter, and must surely be associated with the two huts, a homestead the present traces of which indicate something far less elaborate than the Halangy settlement (*cf.* Ashbee, 1974, Figs. 42, 43). Nor — even allowing for submergence and erosion over the centuries — can Heathy Hill have ever been other than 'marginal' land, barely sheltered from the western Atlantic. The hill to its E — Samson Hill — displays remains of three, possibly four, chambered barrows or cairns (Ashbee, 1974, 296); on the E side of Samson Hill, in the lee of prevailing winds and on the present beach, traces of an amorphous but widespread flint industry occur (Ashbee, 1974, 323). Can the Heathy Hill site be a little croft of the second millennium BC?

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Parochial Check-Lists of Antiquities

This instalment contains a further five parishes from different parts of the County. The following new abbreviations should be added to the consolidated lists given in *Cornish Archaeol.* 1 (1962), 107ff., *Cornish Archaeol.* 6 (1967), 82ff., and in each subsequent issue.

BCM	<i>Bible Christian Magazine</i> (Shebbear 1852-1888, London 1889-1907)
CEIP	Ivor Thomas, <i>Cornishmen and the Environment in the Isthmus of Penwith</i> (Royal Cornwall Polytechnic Society 1947)
Daniel	Glyn E. Daniel, <i>The Prehistoric Chamber Tombs in England and Wales</i> (University Press, Cambridge 1950)
Dew	R. Dew, <i>A History of the Parish and Church of Kilkhampton</i> (Wells, Gardner, Darton & Co., London 1926)
Hamlyn	Rev. F.C. Hamlyn, <i>A History of Morwenstow after the Reformation</i> (Wells, Gardner, Darton & Co., London 1930)
Hawker	R.S. Hawker, <i>Footprints of former men in far Cornwall</i> (Lane, London and New York 1903)
Keast	John Keast, <i>The Story of Fowey</i> (Townsend, Exeter 1950)
MCG	P.D. Martyn, <i>Morwenstow Church Guide</i> (Oke, Holsworthy 1961)
Pevsner	Nikolaus Pevsner, <i>The Buildings of England; Cornwall</i> (Penguin Books, Harmondsworth 1951)
RC 1851	Religious census, 1851 (in Public Record Office, London), microfilm in County Record Office, Truro
Shore	Comm. Hon. Henry N. Shore R.N., <i>Smugglers of Fowey</i> (first published as <i>Old Foye Days</i> 1907, Frank Graham reprint 1966)
Thomas PC	Prof. A.C. Thomas, <i>Phillack: An Illustrated History of the Celtic, Norman and Medieval Foundations</i> (British Publishing Co., Glos. 1961)
Vale	H.E.D. Vale, <i>The Harveys of Hayle</i> (Bradford Barton, Truro 1966)
WW	John Harvey ed., <i>William Worcestre: Itineraries</i> (Clarendon Press, Oxford, 1969)

HUNDRED OF STRATTON 1: PARISH OF MORWENSTOW (7926 acs.)

DAPHNE HARRIS and RICHARD HEARD

PLACE	GRID REF.	ANY	REFERENCES
		REMAINS EXTANT	
Barrows			
1 Shorstone Moor	26511719	Yes	OS 'Tumulus'
2 Shorstone Moor	26671715	Yes	OS 'Tumulus'; TA 620 Burrow Moor
3 Woolley	26251660	Yes	OS 'Long Barrow'; Daniel 242; CA 1 (1962) 8

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
4 Woolley	26191653	?	OS 'Tumulus'; CA 7 (1968) 80
5 Killarney	26271548	Yes	OS 'Tumulus'
6 Wrasford Moor	26381480	Yes	OS 'Tumulus'; on parish boundary as Kilkhampton Barrow 1
7 Bottaborough	25321443	Yes	OS 'Tumulus'
8 Bottaborough	25371442	?	
9 Bottaborough	25381428	?	OS 'Tumulus'; TA 970 Burrow Moor
10 Bottaborough	25291417	Yes	OS 'Tumulus'; TA 970 Burrow Moor; on parish boundary as Kilkhampton Barrow 5
11 Bottaborough	25271412	Yes	OS 'Tumulus'; TA 976 Burrow Park; on parish boundary as Kilkhampton Barrow 6
12 Bottaborough	25291423	Yes	
13 Shorstone Moor	26631715	Yes	TA 620 Burrow Moor
14 Shorstone Moor	26701714	Yes	TA 620 Burrow Moor

Menhir

1 Shorstone	26221745		TA 607 Longstone
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Crosses, ?Cross Sites

1 Morwenstow churchyard	20551528	Yes	OS 'Cross'; Baird 174; MCG 18
2 Tonacombe	20951450	Yes	Hend. VI 401; CCG 146; DCNQ XXVIII 241-2; MCG 18
3 Marsland	21601710		TA 10 Cross Park; TA 4 Cross Loss
4 James' Cross	21581514		Hend. Top V 92; Lake III 383; Hawker 3; TA 1397 Cross Meadow
5 Cross Town	20801509 or 20001500		Hend. Top V92 TA 1363 Cross Down
6 St. John's Cross	?		Lake III 383; Hawker 3; possibly at Cross Town?
7 Crimp	Ap.254155		TA 786-9 Cross Parks

Chapels, Chapel Sites

1 Chapel (Chaple Milton)	23021483	?	OS 'Chapel (Site of)'; Martyn; Hend. VI 409; Hend. Top V 92; Lake III 383
2 Milton	24401441		OS 'St Mary's Chapel (site of)'; CCG 146; Lake III 383; probably confused with no. 1
3 Morwenstow			St Morwenna's Chapel; Couch 163; Hawker 2
4 Woolley	25471670	?	TA 548 Chapel Plat; Hend. VI 408
5 Woodford	21851345	?	TA 1636 Chapel Plat
6 Lee	22851181		OS 'Sanctuary'; Hend. Top V 92

Wells

1 Morwenstow	20651529	Yes	OS 'St John's Well'; Lake III 383; Couch 96-7; CCG 146; X.E. 82; DCNQ XXI 346
2 Morwenstow	19791547		OS 'St Morwenna's Well'; Lake III 383; Couch 162; CCG 146; Hend. VI 400; Hawker 3
3 Tonacombe	20751431	Yes	Hend. VI 409
4 Stanbury	21021390	Yes	Hend. VI 409

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Medieval & Later			
1	Marsland	21701677	Yes OS 'remains of mansion'; Hend. VI 406 (plan)
2	Gooseham	22951646	Yes OS 'Barton'; Hend. Top V 92
3	Higher Lophorne	24271527	Yes Deserted farm; TA 700
4	Watergap	22191592	Deserted tenement; TA 198
5	Beccaton	22481578	Yes Deserted farm; Hend. Top V 92
6	Yeolmouth	20891602	Deserted farm; Hend. VI 404
7	James' Cross	21521527	Yes Deserted farm; OS; TA 1325
8	Rectory Farm	20551520	Yes Med. Arch. VI-VII (1962-3) 282
9	Rectory Farm	20701510	Longhouse; OS record card
10	Cross Town	20861503	? Almshouses, once Gild House; TA 1380 Poorhouse; Hend. VI 401; a stone window from here is now at Tonacombe; Hend. EA 401
11	Tonacombe	20921452	Yes Manor; OS 'Tonacombe'; Carew 118; Reg. 106; Lake III 383; Lysons 243; Hend. VI 401, 405 et seq (plan); Hend. Top V 93; Hamlyn 174, 184
12	Crosswater	21561473	? Deserted farm; TA 1406
13	Pipshill	21881494	? Deserted farm; TA 1412
14	East Dene	22841452	? Deserted tenement; TA 1266, 1268
15	Little Dene	22901449	? Deserted tenement; TA 1223
16	Milton	24381441	? OS 'Milton'; Hend. Top V 92; Hamlyn 192; TA 1024
17	Stanbury	20901391	Yes OS 'remains of manor house'; Reg. 106; Lake III 383; Lysons 243; Hamlyn 175; Hend. VI 407 (plan); Hend. Top V 93
18	Eastaway	21291368	? OS 'site of manor house'; Lake III 383; Lysons 243; Hamlyn 172
19	Woodford	22321297	Deserted farm; Lake III 383; Hamlyn 196
20	Undertown	22341296	Yes Deserted farm; TA 1764
21	Linhay Place	24391328	? Deserted tenement; TA 1093
22	Harscott	20561306	Yes Deserted farms; Hend. Top V 92; Hamlyn 170
23	Hollygrove	21071278	? Deserted farm; OS 1885; Hamlyn 191; TA 1464-5 Hill grove
24	Cleave	20591257	OS 'manor house (site of)'; Hamlyn 168
25	Lower Ovis	20871201	? Deserted farm; TA 1519
26	Lee Barton	22831220	? Lake III 383; Lysons 243; Hend. VI 408; Hend. Top V 92; Hamlyn 166; CRO DDX 273 80, 82
27	Lee	23081223	? Longhouses; OS record card
28	Port Lee	21901165	Deserted tenement; TA 1808
Mills			
1	Gooseham	23121715	Yes TA 400 Mills
2	Gooseham	23131714	Yes TA 400 Mills
3	Marsland Mill	21511749	Yes OS 'West Mill'; on parish boundary

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
4 Tonacombe	20751424	Yes	Windmill; Martyn; Hend. VI 400; Douch CW 56
5 Tonacombe	20611479	Yes	Hend. VI 400, 'a cornmill in the combe'
6 Ham Mill	22421321	Yes	
7 Lee Mill	21001171	Yes	OS 'Coombe Mill'; TA 1507 Leigh Mill

Industrial

1 Marsland	21551675		TA 13 Malthouse Meadow
2 Gooseham	23031629	?	Blacksmith's shop; TA 349
3 Woolley	25371667	Yes	Blacksmith's shop; TA 553
4 Cornakey	21051630		TA 96, 99 Malthouse Meadows; Lake III 383
5 Morwenstow	20581536		Vicarage malthouse; Hend. EA 402
6 Shop	22771480		TA 1263 Malthouse and yard
7 Shop	22831486	Yes	Blacksmith's shop; TA 1245-6
8 Tonacombe	20851453		Malthouse; Hend. VI 406
9 Cleave	20501245		TA 1481-2 Malthouse Meadows; Lake III 384
10 Woodford	21771337	?	Blacksmith's shop; TA 1609
11 Burridge	23151178		TA 1883 Brickfield Meadow

PROVENANCE	OBJECT	PRESENT LOCALITY	REFERENCES
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Miscellaneous Finds

1 Woolley Barrow	Amber	Woolley farm	CA 7 (1968) 80
2 Woolley Barrow	Roman bead	Woolley farm	CA 7 (1968) 80
3 West Youlstone	Flint axe	Truro	RIC Catalogue
4 West Youlstone	Palstave	Stratton school	CAS Newsletter 15 6 CA 13 (1974) 53

HUNDRED OF STRATTON 2: PARISH OF KILKHAMPTON (8077 acs.)

DAPHNE HARRIS and RICHARD HEARD

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
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Barrows

1 Wrasford Moor	26381480	Yes	OS 'Tumulus'; on parish boundary as Morwenstow no. 6
2 Wrasford Moor	26521465	?	
3 Wrasford Moor	26451465	Yes	
4 Wrasford Moor	26081447	Yes	OS 'Tumulus'
5 Bottaborough Moor	25291417	Yes	OS 'Tumulus'; TA 487 Barrow Park; on parish boundary as Morwenstow no. 10

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
6 Bottaborough Moor	25271412	Yes	OS 'Tumulus'; TA 486 Barrow Park; on parish boundary as Morwenstow no. 11
7 Bottaborough Moor	25411412	Yes	TA 487 Barrow Park
8 Bottaborough Moor	25351404	Yes	TA 487 Barrow Park
9 Taylor's Cross	26651253	Yes	OS 'Tumulus'
10 Taylor's Cross	26691254	Yes	OS 'Tumulus'
11 Taylor's Cross	26741256	Yes	OS 'Tumulus'
12 Holemoor	24561058	Yes	OS 'Tumulus'
13 Northcott Mouth	20230890	Yes	OS 'Tumulus'
Rounds			
1 Ruberchurch	22121143	Yes	OS 'Camp'; VCH 466; Hend. Top V 88; Hend. VI 213 (as Stow Wood)
2 Castles	24401155	?	Hend. VI 214 'earthworks' (east of motte and bailey)
3 Winswood Castle (Penstowe)	24861109	Yes	OS 'Camp'; Lysons ccxlvii; Hend. VI 212 (plan)
4 Kilkhampton	25261135	?	Hend. VI 212; CCG 96; but this is probably a stone dump: Dew 3,4
5 Abbery	26791117	Yes	OS 'earthworks'; Hend. Top V 88; Hend. VI 211 (plan); CCG 96; Dew 4; PWCFC I 55, II 49
6 Berry Down	23300913	Yes	OS 'earthwork'; VCH 466; Hend. VI 213
Round Field			
1 Forda	27801158		TA 1241 Rounda
Wells			
1 Bidney Well	25761188	?	OS 'Spr'; Dew 21; TA 587 Bidney Well Meadow
2 Lady Well	24721151		TA 683 Great Lady Well; Hend. VI 211; Dew 21, 106
3 Peter's Well	23410964	?	OS 'W'; TA 1527 Peter's Meadow; TA 1531 Great Peters Mead; Dew 21; Lane-Davies 50
Cross Sites			
1 Broxwater	27451339		TA 1131 Cross Park
2 Stibb	22661083		TA 137 Cross Park
3 East Road	26001120		TA 887 Cross Park
4 Forda	27871102		TA 2236-8 Cross Parks
5 Langford	27670965		TA 2081 Cross Parks
6 Lophthorne	26650980		TA 1951 Cross Park
Chapels			
1 Stowe	21121127	Yes	TA 58 Chapel Park; Hend. VI 213, 215a; CCG 98; CRO DDX 273 24 Chappell Orchard, 27 Chappell Park; (some door jamb stones from the chapel are at Higher Scadghill)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
2 Aldercombe	?		TA 926 Chapel Park; CCG 98; Hend. VI 210,213
Medieval & Later			
1 Castles	24311158	Yes	OS 'motte and bailey'; TA 338 Castles Hill; TA 675 Southern Castles; TA 676 Homer Castles; CRO DDX 273 21 (map); CCG 96; Hend. Top V 88; Hend. VI 214 (plan); CAS Newsletter 8,4
2 Stowe	21241135	Yes	OS 'Stowe Barton'; Carew 118; Hend. Top V 88; Hend. VI 215a; CRO DDX 273 (map)
3 Elmsworthy	25151329	Yes	OS 'remains of mansion'; Dew 82; Lysons 165; Lake II 381; Hend. Top V 88; Gilbert H.S.II 328
4 Vellake	25491268	?	Deserted farm; Hend. Top V 89; CRO DDX 273 63-65 (map); Dew 85
5 East Herdacott	25521236		Deserted farm
6 Down Park	26311208		Farm; CRO DDX 273 66-68 (map)
7 Whitecroft	25651191		Deserted farm
8 Aldercombe	27001175	Yes	OS 'remains of mansion'; Lysons 165; Lake II 381-2; Hend. Top V 88; Hend. VI 210 (drawing); Dew 80
9 Way Park	26181046	?	Farm
10 Ilcombe	24431148	?	Farm; CRO DDX 273 28-35 (map)
11 Youldon	24051040	?	Deserted farm; Hend. Top V 89; CRO DDX 273 19 (map)
12 Hole	24751023	Yes	Deserted farm; Hend. Top V 88; CRO DDX 273 36-39 (map)
13 Sanguins Tenement	24851008	?	Deserted farm
14 Horston	24280991	Yes	Deserted farm; Hend. Top V 88; CRO DDX 273 25
15 East Barnacott	24220950	?	Deserted farm; Hend. Top V 88; CRO DDX 273 24 (map)

A leper hospital supposed to have been situated at Langford (Hend. Top V 88; DCNQ 13 188; Dew 83; R.M. Clay, *Medieval Hospitals of England* (1966) 337) was attributed to this parish in error (see JRIC (NS) V 83).

Mills

1 Buses Mill (1)	28051339	Yes	TA 1102 Millers Marsh
2 Buses Mill (2)	28061315	Yes	As above
3 Aldercombe Mill	27701170	?	TA 913 Mill hill; TA 919 Mill Ball
4 Stowe Mill	22481155	Yes	OS 'Lee Mill'
5 Kilkhampton	25201138		Horse Mill; CRO DDX 273 (map)
6 New Mill	29501080	?	TA Tamar mill

Industrial

1 Kilkhampton	25381143	Yes	TA 815 Malthouse
2 Kilkhampton	25321143	Yes	Malthouse, Carteret Arms
3 Kilkhampton	25531115		Brickfield; local inf.
4 Tamar Lake	29501080- 29151150	Yes	Canal reservoir

PLACE	GRID REF.	ANY		REFERENCES
		REMAINS	EXTANT	
5 Dipper Lane	25121175	Yes		4 roadstone quarries (disused)
	25161193	Yes		
	25261200	Yes		
	25461206	?		
6 Thurdon	28621102	Yes		Blacksmith's
7 Kilkhampton	25251122			Blacksmith's
8 Kilkhampton	25221117			Blacksmith's
9 Stibb	22631075	Yes		Blacksmith's
10 Duckpool cliffs	20101150	Yes		Building stone quarries
11 Sandymouth	20151000	Yes		As above
12 Hessaford Wood	25160986	Yes		As above

PROVENANCE	OBJECT	PRESENT		REFERENCES
		LOCALITY		

Miscellaneous Finds

1 Stowe Chapel	Jamb stones	Higher Scadghill
2 Churchyard	Roman coin	Mrs W. Shaddick, Ivy Cottages
3 'Morwenna'	Medieval pottery	R.M. Heard, 4 The Square
4 Lower Scadghill	18th cent. knife	LHL

HUNDRED OF WEST

1: PARISH OF LANTEGLOS-BY-FOWEY (2870 acs.)

NORA ACKLAND

PLACE	GRID REF.	ANY		REFERENCES
		REMAINS	EXTANT	

Barrows

1 Lanteglos	Ap. 154515		TA 272 Barrow Park
2 Lanteglos	14215124		OS drawing dated 1805 B.M. (photocopy CRO FS 3/901/9/2); OS 1813; TA 235 Ball Park
3 Lanteglos	Ap. 142534		TA 60 Crock German

Standing Stones

Note: The first ten stones appear to form a group; of these the first five have been shifted in their present site. Local inf.

1 Lanteglos	13805128	Yes	Devil Stone. Used for resting coffins. Local inf. (Lying on grass verge)
2 & 3 "	"	Yes	(Lying on verge outside gate to field TA 296 Long Esse)
4 & 5 "	"	Yes	(Built into hedge inside gate)
6 "	13775110	Yes	(Standing)
7 "	13725098	Yes	(Standing)
8 "	13835104	Yes	(? base)
9 & 10 "	13805128	Yes	Formerly Ap. 138510 Local inf. (Lying on grass verge.)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
11 & 12 Polruan	Ap. 128509		Two standing stones, bulldozed for housing development, one 4-5 ft high, Local inf.
?Round			
1 Castle Farm	13575345	?	Essays 43; Castle 1599, CRO DDR 1929
Lan			
1 Lanlawren	16745332		1207 Landlowern, Gover
Crosses			
1 Churchyard	14465151	Yes	Lantern cross, Lake III 48; Langdon 426; Langdon/Hend; Baird; X.E.61; Hend. VI 262; DCNQ II 99, XXVII 99; OS; Pevsner 95
2 Churchyard	14475150	Yes	Latin cross, Hend. VI 262; Baird; DCNQ XXVII 99
3 Polruan	12755074	Yes	X.E.57; Baird; Hend. VI 259; Lake III 51; Langdon 426; Langdon/Hend; Pen HS I 350; DCNQ II 99, XXVII 99; 1771 Estate map of Polruan, from Boconnoc (private copy)
4 Polruan Harbour	12305013	Yes	Pontus, Paunche's or Punch's Cross, Early Tours 47 (Leland); Lake III 51; Hend. VI 260; DCNQ II 99, XXVII 100; (This wooden cross is renewed and painted white by the fishermen)
5 Cayremore	?17065229		Parish bounds, 1613 Terrier CRO P 116 'The east with Cayremore Crosse'; Hend. VI 263; Langdon/Hend.
6 Polvethan	?		As above, 'The north with Polvethan Crosse', Except Langdon/Hend.
7 Whitecross	13775277	? site of milestone	Witty Cross, OS drawing 1805 B.M. (photocopy CRO FS 3/901/9/2); White-a-cross, CRO DD HL 146; TA 120 Whitacross Green; Greenwood; DCNQ II 98, XXVII 98
8 Church S. Door	14465151	Yes	?Chi-Rho, VCH 412; Baird; Hencken 241; Hend. VI 26 'Consecration crosses'; Pevsner 94
Chapels			
1 Lanlawren	16875330	?	Blessed Virgin Mary, Borlase Par. Mem. 138; Lysons 185; H & D II 405; Hend. VI 260; TA 1013 St Stephen's Orchard
2 Bodinnick	13055222		St John the Baptist, Lysons 185; Lake III 51; Pen HS I 352; Borlase Par. Mem. 138; Hend. VI 260; H & D 405; TA 576 'Old Chapel site'; CRO DDF 308 'Chapel ruins' 1771 Estate map of Bodinnick, from Boconnoc.
3 Bodinnick	13335210	Yes	Hall Chapel, Lysons 185; Hend. VI 260; TA 557 Chapel & Yard; OS 25-in 1907

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
4 Pont	Ap.145521		St. Willow, Lysons 184; Lake III 51; H & D II 406; Tonkin PH 149; Early Tours 47 (Leland); CCG 109; Hend. VI 260; Pen HS I 352; TA 191, 192 Great & Little St Willow Hill
5 Polruan	Ap.124511		Holy Trinity, Lysons 184; Lake III 49; H & D II 404; Borlase Par.Mem. 138; Hend. VI 259, 266 (deed of 1442); Hend. MSS (18) 15; 'Near the castle' Local inf.
6 Polruan	12525080	Yes	St Saviours, Lysons 185; Lake III 49; H & D II 404; Norden, map of West; Hend. VI 259; Pen HS I 350; Essays 34; Early Tours 47 (Leland); CCG 110; 1771 Estate map of Polruan, from Boconnoc; Henry VIII chart of Fowey, B.M. (illustrated in Lysons); Borlase Par.Mem. 138; Calendar of Charter Rolls 1274, PCL.
Medieval & Later			
1 Bodinnick	13165225		'Pound' 1771 Estate map CRO DDF 308
2 Frogmore	Ap.158516		'Willow Garden & Pound' CRO DD HL 147; TA 849
3 Polruan	Ap.131507		TA 227 Pound Park
4 Bodinnick	13085217		'Pound House' 1771 Estate map CRO DDF 308
5 Bodinnick	13155221		1410 'Le Bake Howse de Bodenick' Hend. MSS (28) 20; 'formerly common oven' CRO DDF 308
6 Trethake	15605273		'On site of Barton' OS; 1086 Tredhac, Gover; H & D II 406; Lake III 50; Greenwood
7 Lamellyon	13965244		'On site of Manor House' OS 25-in 1907; 1278 Lammelyn, Gover; Greenwood; Norden, map of West; Lake III 45; H & D II 406; Pen HS I 352; Tonkin PH 149; CRO DD HL 25; Hend. MSS (23) 77, 78
8 Hall	13325219	? parts of farmhouse	'On site of Barton' OS 25-in 1907; Norden, map of West; Carew 206-7; Borlase Par. Mem. 138; Lysons 185; Lake III 45; Pen HS I 350; H & D II 404; Tonkin PH 148; Greenwood; Early Tours 47 (Leland)
9 Hall Walk	13055170 to 13055210	Yes	Carew 206; Pen HS I 351; Early Tours 191 (Pocock); Essays 41, 153; Keast 61
10 Churchtown	14535147	Yes	Farmhouse. Plaque in upper room dated 1659
11 Tremeer	16335300		Abandoned Farm. 1296 Tremur, Gover; Birthplace of Richard Grenville 1621. Coate 85; 1623 North Tremerre, CRO DD HL 31 (Present farm was South Tremeer); TA 974 Farmyards & buildings; Ploughed out. Local inf.

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
12 Higher Gragon	14805247		Abandoned Farm. CRO DD HL 148; TA 174 Townplace
13 Lower Triggabrowne	15455135		Abandoned Farm. 1298 Treggafrowen, Gover; OS drawing dated 1805 B.M. (photocopy CRO FS 3/901/9/2); CRO DDF 329
14 Parsonage Farm	15655177	Yes	Abandoned Farm. OS drawing dated 1805 B.M. OS 1813; CRO DD HL 149; TA 848 Parsonage & Tithe free land; (Fragment of wall)
15 Lantivet	16105143		Abandoned Farm. 1086 Namtiuut, Gover; OS drawing 1805 B.M. (CRO FS 3/901/9/2); CRO DD HL 147; TA 868 Lantivet above Town; Greenwood
16 Trereed	16305160	Yes	Abandoned Farm. 1310 Trereda, Hend. MSS (23) 78; CRO DD HL 147; OS drawing 1805 B.M.; OS 1813; TA 879 Farmhouse; Local inf.
17 Polruan	126510	Yes	Borough of Polruan. Lake III 50; CRO DDX 214/1, 214/2; O.C. IV 347; Essays 23; Hend. MSS (23) 78, 80
18 Polruan	12335109	Yes	Castle or Blockhouse, W.W.; Early Tours 43, 47 (Leland); Lysons 108, 183, (illus. chart Henry VIII); Lake III 51; Norden 39; OS drawing 1805 B.M. 'Tower'
19 Pencarrow Head	15085060	Yes (mound)	Watch Tower, ? OS drawing 1805 B.M.; Pen HS I 348 'mariners mark', Shore 28; OS Name Book 1908 'Old Watch Tower' walls standing 4ft high
20 E. of Pencarrow Head	15545086	Yes	Watch House, Shore 28; OS 2½-in 1965
21 Polruan	12405108	Yes	Old Watch House, CRO DDX 214/1; (Now a dwelling house)
22 Polruan	12685081	Yes	Almshouses, TA 456
23 Whitecross	13775277	Yes	Milestone; TA 120 Whitacross Green; (See Cross No. 7)
24 Bodinnick	12945218	Yes	Ferry, Early Tours 47 (Leland); Essays 165; Drawing by Schellinks, Austrian State Library, Vienna, Norden, map of West; Tonkin PH 149; CRO DDF 308, DDF 294 & 19; OS 25-in 1907
25 Polruan	12575105	Yes	'Ferry for foot passengers' Pen HS I 350; Essays 165; CRO DDF 295
26 Polruan	12345072		Battery, Kelly (1883) 996
27 Castle	Ap. 134533		'Culverhouse Park' Essays 214; TA 680 Culver Close
28 Trethake	Ap. 157527		TA 802 Culver Meadow
29 Churchtown	Ap. 145517		TA 244 Culver House
30 Tremeer	16385297	Yes	Pigeon loft above stone granary
31 Pencarrow Head	15005072 to 15095074	Yes	TA 289 Warren; (Narrow bank)
32 Trewarder	Ap. 164512		TA 870 Warren

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Mills			
1	Castle Ap. 132532		TA 676 Mill Park
2	Lanlawren 15965348		1649 'corn and grist mills', 1757 '2 grist & corn mills', CRO DD HL 26; TA 992 Mill Park ; Local inf. 'bulldozed out'
3	Lanlawren 16655319		As above. RIC Inq. P.M. 5.6. 1423 '1 Corn-mill in Lanlawren'
4	Trethake 15565305	Yes	'Kents Mill in Leylande' Hend. MSS (23) 75; Hend. Top V 136; H & D II 406; TA 789 Mills; RIC Inq. P.M. Vol 1 No. 21 (1309); (machinery in situ)
5	Lower Gragon 14605253	Yes	TA 166 Paper Mill; CRO DDF 23; DCNQ XXIII 97; (Old building, mill leat & bases of settling tanks. As Trevedda adjoins, this is thought to be the site of Trevyda tucking mill of 1331, Essays 207; Hend. Top V 136; TA 149 Rick Park adjoining)
6	Lombard 14425223	Yes	1298 Lombard Melle, Gover; also called 'Carne' & 'Lamellin'; TA 184 Grist mills; Lake III 46; Tonkin PH 149; CRO DD HL 23 Carne Mills; 'Lumberts Mill' OS 1813; OS 25-in 1907 (disused)
7	Pont 14455205	Yes	TA 541 Pont Mills; OS 1907 'Sawmill'; Todd/Laws
8	Trevarder 16605193		Local inf. farm mill, made by damming a spring
9	Polruan 13155070		TA 485 Windmill meadow, 486 Windmill acre; Douch CW 17; Essays 209
Fields			
(Willows were used to make lobster pots and panniers for pack horses. The following fields indicate a local industry)			
1	Lanlawren Ap. 171533		TA Willow Garden; CRO DD HL 147
2	Pont Ap. 144524		TA 183 Willows
3	Pont Ap. 144521		TA 185, 186 Withy Ayot Gardens
4	Churchtown 14575153		TA 242 Withy Garden
5	Esse 13655122		TA 497 Willow Garden
6	Frogmore Ap. 158516		TA 849 Willow Garden; CRO DD HL 147 Willow Garden & Pound
7	Tredudwell Ap. 157521		CRO DD HL 148 Willow Garden
Industrial			
1	Penpol 14605427	Yes	'Old Limekiln' OS 25-in 1907
2	Pont 14355243	Yes	AS above
3	Pont 14325184	Yes	As above. Also TA 194a 'Limekiln'; Todd/Laws
4	Pont 14355243	Yes	'Smithy' OS 25-in 1907; CRO DD HL 146
5	Polruan 12625100		'Smithy' OS 25-in 1907
6	Trevarder 16675178	Yes	Wh. Howell, Copper Mine, Mines XIV 42-4; TA 895 Mine waste; CRO DD HL 146
7	Lawhippett 14715380	Yes	Round House, OS 25-in 1907

PLACE	GRID REF.	ANY		REFERENCES
		REMAINS	EXTANT	
8	Lombard	13625335	Yes	As above
9	Yeate	13375266	Yes	As above
10	Lamellyon	13945245	Yes	As above
11	Triggabrowne	15225139	Yes	As above
12	Lamellyon	Ap. 139524		Malthouse meadow TA 607
13	Polruan	Ap. 129507		Malthouse Close TA 319
14	Lanlawren	16745332	Yes	1757 'The old Malt House' CRO DD HL 26; Local inf. 'Hop House'; (Date stone 1601, firmly in situ)
15	Lanlawren	Ap. 166532		Hop Garden TA 1009; CRO DD HL 147
16	Tremeer	Ap. 165529		Hop Garden Orchard CRO DD HL 146
17	Penpol	14655434	Yes	'Under Quay' OS 25-in 1907
18	Penpol	14435421	Yes	'Old Quay' As above
19	Mixtow	12915295	Yes	'Quay' As above
20	Bodinnick	13005285	Yes	As above
21	Bodinnick	12885238	Yes	'New Quay Cellars' OS 25-in 1907; CRO DDF 308, Boconnoc Estate map
22	Bodinnick	12955216	Yes	'Quay' OS 25-in 1907
23	Pont	14305192	Yes	Quay, Local inf. & old photos
24	Pont	14255187	Yes	As above
25	Polruan	12605107	Yes	1660 'Town Key' CRO DDX 214/1; OS 25-in
26	Bodinnick	12955216	Yes	Shipwrights yards, TA 574; Lake III 51; Local inf. Old photo; (Converted into dwelling house)
27	Polruan	12685110	Yes	Shipwrights Yard, TA 412; OS 25-in 1907; Todd/Laws
28	Polruan	12625104	Yes	Shipwrights Yard, TA 404; Lake III 57; Kelly (1883) 996; Keast 107, 112; CRO DDR 2001 'Shadrah Ennys of Polruan, Shipwright, 1682'; Local inf.
29	Polruan	12805118	Yes	Sardine Factory, OS 25-in 1907; Kelly (1883) 996
30	Mixtow	12915297		Lime kiln (drawing), CRO DDF 327
31	Pont	14285193	Yes	Malt House, OS 1882

PROVENANCE	OBJECT	PRESENT		REFERENCES
		LOCALITY		
Miscellaneous Finds				
1	Polruan Hill	Axehead	K. Larsen, St Blazey	Axes V 268, No. 1267; Inf. Mr K. Larsen; Drawing, by P. Sheppard, with N. Ackland
2	Lombard Farm	Stone Axe	See ref.	Inf. Mr P. Ferris, Kays Park, Lanteglos. (axe given to finder's brother)
3	Polruan	Neolithic Axe		Hencken 301. (No record in Ply. Mus., ? destroyed in war)
	Lanlawren	L.B.A. Urn		N.C. 145 (illus.); CBAP 1
	Pont Pill area	Flints		Local inf. Found by Mr Leo Walmsley
	St Saviour's Chapel	Window tracery	Vicinity	Local inf.

PROVENANCE	OBJECT	PRESENT LOCALITY	REFERENCES
7 Polruan	Bulla or leaden seal Urban VI		Lake III 51
8 Bodinnick	Tin ingot	RIC Truro	JRIC VII 182, XV 345; CA 5 (1966) 32
9 Pont	Mill-stone	Smithy 14355243	
10	Mill-stone	Churchyard	Hend. VI 262; (base of lantern cross)
11 Castle Farm	16 Straddle stones	On garden wall	
12 Pont Quay	1894 notice of charges	In situ	(Re-erected by National Trust)

HUNDRED OF POWDER 14: PARISH OF LADOCK (5691 acs.)

JEREMY MILLN

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Barrows			
1 Hendra	85785378	Yes	'Jenkin's Barrow', Gover 468; Thomas 43 (100 ft diam.); Thomas Survey; OS 1813 & 6-in 1963 'Tumulus'; Air photo; (Very damaged)
2 Hendra	85895366	Yes	Thomas 43 (70 ft diam.); OS 1813 & 6-in 1963 'Tumuli'; Air photo; Thomas Survey
3 Hendra	85865366	Yes	As above
4 Hendra	85855363	Yes	Thomas 43 (65 ft diam.); otherwise as 2
5 Hendra	85855360	Yes	Thomas 43 (40 ft diam.); otherwise as 2
6 Hendra	85865358	Yes	Thomas 43 (50 ft diam.); otherwise as 2
7 Hendra	85875351	Yes	Thomas 43 (30 ft diam.); Air photo; (Ploughing threat)
8 Hendra	85765352	Yes	Thomas 43 (65 ft diam.); otherwise as 2; (Nearly ploughed out)
9 Hendra	85755367	?	Thomas 43 (55 ft diam.); Air photo; (Frequently ploughed)
10 Hendra	86215309	?	TA 598 Spark Warrow; Air photo?
11 Trendeal	89555338	Yes	TA 148 Barrow Downs; Thomas 43 (60 ft diam.); Thomas Survey; OS 1813 & 6-in 1963 'Tumuli'; Air photo; Hend. HP/L; (Ploughed over often)
12 Trendeal	89585336	Yes	As 11
13 Trendeal	89595329	Yes?	TA 148 Barrow Downs; Thomas 43 (40 ft diam.); Thomas Survey; (Nearly ploughed out)
14 Nansough	Ap. 881503		TA 735 Little Berry; Hend. HP/L
15 Nansough	Ap. 882501		TA 739 Great Bury; Hend. HP/L
16 Trobus	Ap. 886501		TA 798-9 Park Warrow
17 Forgue	Ap. 889500		TA 788 Barrow Close; Hend. HP/L
18 Hewas	Ap. 917537		TA 1458 Burrow Close; Hend. HP/L (May instead be assoc. with indust. 7)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
19 Besowsa	91055463	Yes	TA 1056 Barrow Close; Hend.HP/L; Local inf; 'mounds much denuded by cultivation'
20 Besowsa	91065464	Yes	As above
21 Besowsa	91085464	Yes	As above
22 Cregan Gate	91295233	Yes?	'Basky Barrow' Hend. HP/L; Air photo
Cist			
1 Trendeal	891527		TA 1304 Barrel Hill; JRIC VIII 211 'excavated 1884'; Hend.HP/L
Hillfort?			
1 Trendeal		?	1256 Dindel, Gover 470; Essays 117 '13th cent. Tyndele & Dyndel'; Hend. HP/L; (Possibly only refers to Round 3)
Rounds			
1 Tregear	86305034	Yes	TA 487 Round Downs; VCH 466; Gover 469; Thomas 43; Thomas Survey, 'ditch 320 ft diam.'; Hend.HP/L; Essays 120; OS 1813 & 6-in 1963; Air photo
2 Tregear	86245032	Yes	Thomas 43; Thomas Survey 'semi-elliptic entrenchement'; Air photo; (Annexe to or partially underlies Round 1)
3 Trendeal	89185215	Yes	TA 400 Round Close; Hend.HP/L
4 Gear	91165088		1308 Caer, Hend.Top.III 134; Hend.HP/L; TA 692 Little Gear; VCH 466
5 Hewas	Ap. 911533?		1305 Haevos, Hend.Top.III 134; Gover 468 'possible interpretation: entrenched enclosure'; (Curved field banks present)
6 Penhale	88505103	Yes	TA 63 Round; Hend.HP/L; Pickering; (Field hedge overlies part original bank)
7 Kestle	88225001	Yes	1327 Karsewele (castle), Hend.Top III 134; Gover 468; Air photo; (Seems to be a sub-rectangular enc.)
8 Kestle	88224992		TA 1560 Kestle; (Probably refers to Round 7)
9 Trethurffe	89635055	Yes	TA 628 Castle Park; Hend.HP/L; Hend. Top III 115; Local inf.
10 Trethurffe	90785081		TA 679 Gear Horse Park; Hend.HP/L; Air photo; OS 1813 (depicts since vanished farm) 'Tregear'
11 Scarcewater	91825499	?	TA 1155 Cars Close; (Substantial ditch running ap. E-W exposed in side of ECC drain)
12 Westow	90775460	Yes	TA 1022-4 Carreas
13 Hay	86555095		TA 33 Gear Meadow; Hend.HP/L 1343 Hae 'enclosure'
14 Trelasick	87525261		TA 189 Castle Moor; Hend.HP/L
Round Fields			
1 New Mills	89805204		TA 1469 Round
2 New Mills	89755200		TA 1117-8 Round Park
3 Besowsa	90805431		TA 1039 Round Close

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
4 Forgue	88454990		TA 802 Round Downs; (Poss. refers to Round 7)
Fields			
1 Trobus	88635069 to 88855065	Yes	Air photo; Local inf: 'Celtic fields'; (Much ploughed ridges of small rect. encs. S of Round 6)
Lans			
1 Landrine	86715293 or 86815254?		1327 Landryn, Gover 468; Hend.HP/L
2 Nansough	87715072	?	1283 Lancogh, Hend.HP/L; Hend.Top III 134
Chapels			
1 Trethurffe	899507		Licence 1400; JRIC (NS) III 278
2 Nansough	877507?		Licence 1414; JRIC (NS) III 278
3 Fentonladock	89825172		TA 1089 Old Chapel; JRIC (NS) III 277; Lake II 386; Hend.HP/L; H & D II 377; Lysons (ii) 168; Pen HS I 314;Hend.Top III 133; OS 6-in 1963 'Chapel, site of'; Local inf: 'largely destroyed by Ladock mill leat'
4 Hewas?	?		1390 St Mary Tregamadene, JRIC XV 30; TA 345, 360 & 1366 Church Close, 346 & 362-4 Ch. Cl. Moor; Lake II 387
5 Boswiddle	Ap. 869515		TA 82 Chapel Close; Hend.HP/L; JRIC (NS) III 279
6 Hillcoose	Ap. 889507		TA 414-5 Churchyard;Hend.HP/L; Local inf: 'chapel for Bissick'; (Font, misc. 16, found in TA 416 High Ground Field: suggests 'lan' site?)
Holy Wells			
1 Fentonladock	89825173	Yes	JRIC (NS) III 277; OC VII 323; Gover 470; Hend.Top III 133; Hend.HP/L 'cell is extant'
2 Ladock	?89595121		Hend.HP/L; Local inf. of 1924 'on the glebe'
Crosses, Cross Sites			
1 Trewince	?		White Cross, JRIC (NS) III 279; Baird 'in Trewens'
2 Nansough	88005070		TA 730-1 Cross Park; Hend.HP/L; JRIC (NS) III 279
3 Bissick	89175086		TA 866 Cross Meadow;Hend.HP/L; JRIC (NS) III 279; (Poss. assoc. with ?Cross base, misc.4)
4 Ladock	89485099	Yes	Wheel Cross, OC VII 323
5 Hewas	91575300		TA 1382 Cross Park; Hend.HP/L;JRIC (NS) III 279
6 Trendeal	89645226		TA 113 Cross Close; Hend.HP/L;JRIC (NS) III 279
7 Boswiddle	?869516		Local inf: 'moved from hedge years ago'

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Medieval and Later			
1	Trethurffe	89965079	Manor House, Camden Map; Early Tours 33 (Leland); Gascoyne; VCH (Domesday); Lake II 383; JRIC (NS) III 278; Carew 139; H & D II 377; Pen HS I 313; Hend.HP/L; Kelly (1939) 171; Gilbert HS II 828 'destroyed & rebuilt c. 1700: old stonework on premissis' (See Misc. 2 & 3)
2	Nansough	?87725073	Yes? Manor House, Lake II 382, 385; JRIC (NS) III 278; Lysons I 167; Gilbert PH II 353
3	Ladock	?	Manor House, Lake II 384; Gilbert HS II 828; H & D II 377; Local inf. 'some doubt'
4	Ladock	Ap. 892510	Church Mason's House, Hend.HP/L; Local inf. (incorporated 18th cent. doorway from church chancel, demolished c. 1925)
5	Ladock	89545100	Parsonage, JRIC (NS) III 277; Pen HS I 313; Local inf. (Destroyed by fire 1734)
6	Ladock	?89295092	Yes Alehouse, c. 1600, Douch CI 139, 210; Local inf.
7	Ladock	89335091	Yes Skittle-alley, TA 951
8	Ladock	89525098	Yes Schoolroom 1867, Lake II 384
9	Bissick	89265097	TA 'Schoolhouse'; Local inf.
10	Bissick	89205098	Manor House, Gascoyne; Lake II 382, 385; H & D II 376; Lysons II 167; OC VII 323; CRO DDJ 1434 (1740); Gilbert PH II 353
11	Bissick	89265093	Yes Bridge 1359, Hend.HP/L
12	Old Hendra	86255292	Farmhouse, TA 573 Hendra Close
13	Lower Landrine	86785254	Farmhouse, TA 1405 Lower Landrine; Gover 468; OS 1813; CRO DD EN 16 (refers to a Landrine Manor 1647)
14	Higher Trellassick	87455312	Yes? Farmhouse, TA 200-8, Above Town etc.
15	Boswiddle	Ap. 869514	Culver House, TA 98 Quilver House Meadow; Hend.HP/L
Mills			
1	Ladock	89345090	Yes TA 950 Mill; Gilbert HS II 827; Pen HS I 313 (Two water-wheels); OS 6-in 1963
2	Bissick	89215099	Rollers Mill, Tonkin PH 1715; CRO TLP 380; Local inf. ? part of wool cloth factory
3	Nansough	87665034	Yes TA 825a The Mill; CRO TLP 557; Tonkin PH 1715; OS 1813; RCG 22.2 1873
4	Trethurffe	89905080	Yes CRO DDJ 159 (1751); Local inf.
5	Forgue	89065015	Yes TA 777 Mill; CRO DDJ 830 (1879); OS 6-in 1963
6	New Mills	90115230	Yes TA 1161 The Mill; OS 6-in 1963
7	Tredeal	89125252	Yes CRO TLP 355 (c. 1850)
8	Trewince	91015033	Yes Horse Gear. Circular building
9	Trellassick	87605256	Yes Tonkin PH; Hend.HP/L (some doubt)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Industrial			
1 Bissick	89215099	Yes	Worsted & weaving factory (1803), CRO TLP 371-2, 384; WB 2.10.1829; TA 1480 Factory
2 Bissick	89225090	Yes	TA 923 Workshop; CRO TLP 423; Local inf. (now the smithy)
3 Cregan Gate	91465255	Yes?	TA 1571 Iron Mine (Ladock); Martyn; Mines VIII 15; OS 6-in 1962 'Old shaft'
4 Cregan Gate	91395258	Yes	'Old Gravel Pit' OS 6-in 1962
5 Halezy	91625129	Yes	Brick Kiln, Local inf.; OS 6-in 1962 'Works' (Dis.)
6 Ladock	89345108	Yes	OS 'Aqueduct'
7 Hewas	91715373	Yes?	Wh.Alice, Mines VIII 16
8 Boswiddle	Ap.869514		Water threshing machine, CRO TLP 391 (1857)
9 Trethurffe	90085092	Yes	TA 638 Warren; Local inf. Manor Quarry (mounds & hollows)
10 Hendra	85455356 to 85395333	Yes	Quarry, OS 6-in 1963; Air photo; Local inf: 'mounds and hollows'

PROVENANCE	OBJECT	PRESENT LOCALITY	REFERENCES
Miscellaneous Finds			
1 Nankilly	Bronze axe	Truro	RIC Catalogue; Local inf: 'ploughed up 1940'
2 Trethurffe	Shaped stone	90065083	Local inf. Reused as gatepost
3 Trethurffe	Lintels (2)	89915071	(See Med. & Later No.1)
4 Bissick	?Ingot mould or Cross base	Owner	Mr L.S. Stephens, Pentru, Bissick
5 Ladock A 39 Roadside	Child's sarcophagus	Bissick P.O.	Local inf; CG 20.3.1975; (Moved from 1 mile away. Now used as water trough)
6 Ladock	Inscribed stone	Ladock Mill	Local inf. Built onto side of south wheel pit
7 Ladock	Elvan bowl	Owner	Mr L.S. Stephens, Pentru, Bissick
8 Ladock	Cupped stone	Owner	As above
9 Ladock	Sundial	Church	Local inf.
10 Ladock	Stocks	Church	
11 Ladock	Inscribed stone	Ch.yard wall	Local inf. 'Church warden's stone' insc. 1633 R.G.
12 Ladock	Gold	Truro	RIC Catalogue; Lake II 387
13 Ladock	Inscribed slate	Church	(Found 1864) JRIC IX Kelly (1931) 171
14 Grampound Road	Greenstone axe	Truro	RIC Catalogue; (?from Probus)
15 Trenderal Downs	Flint	Owner	Mr L.S. Stephens, Pentru, Bissick

PROVENANCE	OBJECT	PRESENT LOCALITY	REFERENCES
16 Hillcoose	Font	Ch.porch	Local inf. 'Moved from farmhouse garden c. 1930' (See Chapel 6)
17 Fentonladock Chapel	Mullions (4)	F.Ladock Farmhouse	Local inf. 'Found 1950's when removing old mill leat' (See Chapel 3)
18 Fentonladock Holywell	Carved head	Ch.porch	JRIC IX 107; Hend.HP/L

HUNDRED OF PENWITH (EAST DIVISION)

6: PARISH OF ST EARTH (3050 acs.)

CEDRIC APPLEBY

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Barrows			
1 Trewinnard	Ap546340		Destroyed March 1750, Borlase Par. Mem. 14; N.C.173
Fogou			
1 Trewinnard	54813395		TA 2011 Park Foge
Rounds			
1 Keskeyes	Ap.578340		1301 Kaerskis, Hend. Top I 68
2 Bosence	57563250	Yes	Borlase Par.Mem. 14; Borlase Ant 316-21; JRIC X 237, 248; VCH 471; Hend.II 151; TA 1089 The Rounds; OS (1908) Earthwork; VCHR 8 Fig. 8
3 Kerrowe	Ap.579341		TA 662 Lower Kerrowe
4 Gear	57703444?	Yes?	Hend.I 154
5 Tregenhorne	Ap.567345		TA 556 Roskadinnick
6 Carnsew	55633715	Yes	VCH 468; OS (1906) Earthwork
7 Carnabeggas	55773478	Yes	Carhangives, Early Tours 20 (Leland); Lysons II 94; RRIC 29 (1847) Plate XIII; Hend.I 147; OS (1906) Earthwork
8 Trenhayle	55923577	Yes?	Hend.II 151 Park Castle
9 Trewinnard	Ap.541342		TA 1969 Park Gear; Hend.II 151
10 Castle Mennack	54073497	Yes?	TA 1910 Castle Mennack; RRIC 29 (1847) 37; VCH 468; Hend.II 151
Lan			
1 St Erth	Ap.549350		1233 Lannutheno, JRIC (NS) II 152; CEIP 57 (suggests the site was on St Erth hill)
Inscribed Stones			
1 Carnsew	55653717	Yes	Lake IV 71; Misc.14,45; Thomas PC 8
Crosses & Cross Sites			
1 St Erth (Churchtown)	55073511	Yes	Langdon 151 (St Erth No.1)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
2 St Erth (Churchyard)	54993502	Yes	Langdon 191 (St Erth No. 2)
3 St Erth (Churchyard)	54993505	Yes	Langdon 133, Removed from Battery Mill, Ap.547346
4 St Erth (Churchyard)	54983502	Yes	Cross shaft, Langdon 402
5 St Erth (Churchyard)	54983502	Yes	Tapered stone incised with cross by S wall of church
6 Tregenhorne	Ap.565345	Lost	Langdon 219; JRIC (NS) II 158; Hend. II 144 (Sketch); Last seen and photographed in 1955, Baird 104
7 Treven	57163419	Removed	Langdon 335, now at St Michael's Mount
8 Tredrea	Ap.546351	Removed	Langdon 277, now at Trelassick in Feock; TA 1935 Park an Grouse
9 Gurlyn	Ap.566328		TA 1134 Park an Grouse
10 Treloweth	Ap.537350		TA 1845 Rose an Grouse
Chapels			
1 Bosworgy	57423309?		JRIC (NS) II 155, Possibly in the old house
2 Gurlyn	Ap.569324		JRIC (NS) II 155
3 Treven	57163419?		JRIC (NS) II 157; (Recess in hedge may be site)
4 Porthcollum	55843364	Yes	Lake II 365; Blight SB III 42; JRIC (NS) II 155; OS (1906) Chapel; (Remains of building, by tradition a chapel)
5 Trelassick	55583595		JRIC (NS) II 157
6 Chenhalls	55213546		OS (1906) Site of Chapel; JRIC (NS) II 157, 'No authority for this reference'
7 Trevesa	54793365	Yes?	JRIC (NS) II 156; Hend. I 44, II 152
8 Trewinnard	Ap.543345		JRIC (NS) II 156; TA 1959 Lower Centuary
9 Trewinnard	54673400		JRIC (NS) II 156, Meadow adjoining the house called the 'Graveyard'; Blight SB I III
10 Treloweth	54373541		JRIC (NS) II 156
Medieval & Later			
1 Trewinnard	Ap.545342		TA 1988 Lower Park Pound; JRIC (NS) III 179
2 Trannack	Ap.571332		TA 1206 Lower Non Pound
3 St Erth (Churchtown)	54933506		Dovecote, Hend. Top I 71
4 St Erth (Churchtown)	Ap.549350		Tithe Barn, Gilbert PH I 355
5 St Erth (Churchtown)	Ap.555352		1678 Dyehouse in Lanuthno, Hend. Top I 71
6 St Erth	Ap.555352		Open Field, 1630 Gweal Ergh, Hend. Top I 70; TA 497 St Erth Field
7 Bosworgy	57423309	Yes	Medieval mansion, JRIC (NS) II 155
8 Trevesa	54793365	Yes?	Medieval mansion, Hend. I 149; (? Remains in farm buildings & yard)

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
9 Treloweth	Ap.544354	Destroyed	Ancient House, JRIC (NS) II 156
10 Trelissick	55583595		Medieval House, replaced on same site in 16th cent. Hend. II 152
11 Trewinnard	54673400		Cemetery? Meadow adjoining the house called 'The Graveyard' JRIC (NS) II 156
12 Bosworgy	57423309		Cemetery? As above
13 Porthcollum	55843364		Cemetery? Pen HS I 162; Lake II 365
14 St Erth	54903507		Ferry c. 1340, Early Tours 20 (Leland)
15 Bosence	?	?	1660 'Tynpytts' Hend. Top I 71
16 Hayle Causeway	55133660		TA 93 Turnpike House
17 St Erth	54903507	Yes	Bridge, Early Tours 20 (Leland); CBS 101-3
18 Relubbus	56613195	Yes	Bridge, CBS 101
19 Start	Ap.549362		Bridge? 'Pednpons Lode' JRIC XXII 444
20 Polgrean	53663451	Yes	Abandoned road, Martyn (Shown running into Ludgvan to join present A. 30)
21 Tredrea	54113510	Yes	Icehouse. Inf. Prof. Charles Thomas; (Now blocked up)
22 Tredrea	54353478		Slate tablet. To Charles Davies Giddy (1811-1813)
23 Kerrowe	Ap.579341		Abandoned settlement, 1316 Kaerou, Hend. Top I 68; TA 662 Lower Kerrowe, 667 Windstock Kerrowe
24 Retule	Ap.573329		Abandoned 'village', plan of Godolphin Manor 1774, Mines XI 11
25 Higher Leah	Ap.567354		Abandoned settlement, Local inf.
26 Porthcollum	Ap.558337		Tradition concerning a considerable settlement. Lake II 365

Mills

1 Bosence	?57823208		TA 1085 Mill Field
2 Bosworgy	?57313324		Watermill shown in Lanhydrock Atlas; TA 869 Mill Moor
3 Gurlyn	?56633286		Hend. Top I 20; TA 1190 Mill & Waste
4 Trannack Mill	55963316	Yes	Hend. Top I 20; TA 1241 Mill & Plot
5 Mellanear	?		Hend. Top I 20
6 Tremelling	Ap.549343		1327 Tremelyn, Gover 595; TA 1490 Park Melling
7 Trewinnard	54813404		Hend. Top I 20; TA 2001 Grist Mill; OS 1906 'Corn Mill'
8 Treloweth	?		Hend. Top I 20
9 Foundry	55813692	Yes?	Grist Mill, Vale 293

Vernacular Architecture

1 Carnabeggas	55843480	Yes	Lanuthno Cottage, Pevsner 152; Hend. I 147
2 Rockclose Terrace	55123512	Yes	Pevsner 152
3 Trebartha Place	55203508	Yes	As above
4 Treloweth	54373541	Yes	Chesher 105

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES
Abandoned Methodist Churches etc.			
1 Bosence	58123261	Yes	'All Saints'. Anglican
2 Kirthen Wood	58023308		Wesleyan. 1825 plan poss Rev. T. Shaw, St Columb; TA 999 Chapel; OS 1906
3 St Erth Praze	57333510	Yes	Weslyan, RC 1851; (Now a bungalow)
4 Porthcollum	?56103417		Bible Christian, BCM (1851) 240
5 Trelissick	55853639		TA 183 Chapel
6 St Erth	55073511		Bible Christian, RC 1851; (Site covered by Post Office)
7 St Erth	55023507		Primitive Methodist, TA 1607 House, Garden and Chapel
Industrial			
1 Mellanear	55873675	Yes	Smelting House, OS 1906; Barton Tin 71
2 Trelissick	55913718		TA 11 Smelting House; Barton Tin 49
3 Foundry	?		Smelting House, Barton Tin 48; Vale 109
4 Treloweth	53723538	Yes	Smelting House, Early reverberatory furnace? Johnstone Papers 498/5 CRO; Barton Tin 24
5 Battery Mill	54773460	Yes	Copper Rolling Mill which later became a small ironworks. Early Tours 261 (Maton); H & D II 431-2
6 Tremelling	54923431	Yes	Stamps, OS 1906; Local inf. Worked by waterwheel
7 Tremelling	54893429	Yes	Furnace
8 Hayle	558371	Yes	Foundry, including Mill Pool, Hammer Mill, Boring Mill, Fitting Shop, Pattern Shop, Gas Works, Steam Hammers, Saw Mills etc. Vale 293
9 Hayle	55623730		Lime Kilns. Vale 293
10 Hayle	55703721	Yes	Coppersmith's Shop. Inf. T.R. Harris
11 St Erth	55503503	Yes	Sandpit. Source of moulding sand for iron foundries. Kelly (1873) 744
12 St Erth	55553505 to 55303505	Yes	Abandoned railway. Local inf.
13 Keskeys	58403402	Yes	Wh. Mably. Mines XI 12
14 Bosworgy	57683345	Yes	Wh. Nut or Lewis Mine. Mines XI 11-12
15 Bodraverran	Ap.575356		Mine. Mines V 7
16 Bosworgy	57423338	Yes	Wh. Wagstaff. Mines XI 13
17 Treven	57403409	Yes	Gilmar Mine. As above
18 Gurlyn	57323288	Yes	Wh. Tule or Gurlyn Mine. Mines XI 11
19 Treven	57303425	Yes	Treven Mines. Mine XI 14
20 Treven	57163411	Yes	TA 586 Ball Field; Hend.EA II 158; (Mine)
21 Trannack	57023320	Yes	Wh. Trannack. Mines XI 11
22 Leah	Ap.568360		Leah Copper Work 1750, Mines V 7
23 Tregenhorne	Ap.567345		North Wh. Gilbert. Mines XI 8
24 Gurlyn	56593289	Yes	Wh. Fox or Gurlyn Mine. Mines XI 9
25 Chynoweth	56563382	Yes	West Wh. Tremayne or Chynoweth Mine. Mines XI 8

PLACE	GRID REF.	ANY REMAINS EXTANT	REFERENCES	
26	Chynoweth	56393373?	?	TA 1355 Wh. Jewell Field; (May be alternative name for Chynoweth Mine)
27	Trenedros	55973444	Yes?	East Wh. Penwith. Mines XI 8
28	Trenedros	55743421	Yes	Wh. Squire. Mines XI 7
29	Mellanear	55163582	Yes	Wh. Trelissick. Mines XI 6
30	Trewinnard	54813412	Yes	Wh. Elizabeth. Mines XI 7
31	Treloweth	54113544	Yes	OS 1906 'Old Shafts'; Mines XI 5

PROVENANCE	OBJECT	PRESENT LOCALITY	REFERENCES	
Miscellaneous Finds				
1	St Erth	EBA Axe	Penzance	PWCFC I No. 2 p. 87
2	St Erth	Part of EBA Axe	Penzance	Hencken 296
3	St Erth	LBA Axe	Penzance	A.Cwll II 27; Hencken 296; PWCFC I No. 2 p. 87;
4	St Erth	LBA Axe	Penzance	Hencken 88; Otherwise as above
5	Round 2	Roman, Tin jug, saucer, stone weights (2)	Ashmolean Mus.Oxford	VCH 471; Hencken 198-9; SWE 154, 244; VCHR 8 Fig. 8
6	Round 2	Roman Coin		Hend.I 144, 151
7	Carnsew	Copper jug containing Roman coins	Truro (41 coins)	A.Cwll I 1, II 26; VCHR 35; TRGSC III (1828) 136; RRIC XIV (1831) 7, XXV (1843) 19; JRIC V (1875) 201; Lake IV 71; 12 RCPS (1844) 69
8	Round 8	Flint flake		Hend.II 151
9	Barrow 1	Fragment of B.A. Urn		As Barrow 1, also CBAP; Arch.J. CI (1946) 20
10	Bosworgy	Muller for tin stamping	57423312 in wall	
11	Porthcollum, Med. 13	Lead Coffins		As Med. 13

Excavation News 1974

The other excavations undertaken during 1974 were included in the previous volume, *Cornish Archaeology*, 13 (1974).

LAUNCESTON CASTLE

This season's work was divided between a study of the defences adjacent to the North Gatehouse on the one hand and the continuing examination of a large area in the south west quarter of the bailey on the other.

The building of the late-13th century North Gatehouse involved a cutting back of the bailey rampart in order to insert substantial foundations. The construction trench was then backfilled and the rampart continued up to the east wall of the gatehouse.

Examination of the rampart on this side of the bailey showed three main phases of construction, the initial stone and clay rampart with two subsequent heightenings. It was possible to detect the former presence

of timbers, either for some form of timber box construction filled with earth to make a fighting platform, or, in its earliest form the base for a palisade along the crest of the bank. The character of the rampart at this point suggests that this was the site of the original entrance into the castle, but no trace of an earlier structure was found. Against the back of the original rampart, however, were traces of a building defined by stone revetment against the bank and stake and timber post holes. Within the building was a hearth.

Within the south west quarter of the bailey the remains of 14th century and later yard walls were removed to expose completely a 13th century hall. This was a substantial building just over 60 feet long by 18 feet wide. It was well preserved with its walls standing up to 4 feet high. The walls were plastered internally and the outer face towards the bailey was also rendered. The

principal roof trusses were built into the walls dividing the single-storey building into six bays.

The purpose of the building is far from clear though from the absence of service arrangements it does not appear to have been residential. The main doorway was near the centre of the long side away from the rampart and giving on to an open yard. At the low end of the hall was a doorway, screened off from the rest of the building, giving access to a passage leading to garde-robes.

The hall had a comparatively short life. It was demolished and a good deal of kitchen refuse and demolition material tipped into the remains and the site levelled up to be built over in the 14th century.

A.D. Saunders

*Inspectorate of Ancient Monuments
Department of the Environment*

Short Notes

A COARSE STORAGE VESSEL IN A CLAY-LINED PIT, PENDRATHEN, ST MARY'S, ISLES OF SCILLY

During Easter, 1974, the lower portion of a coarse storage vessel was found exposed in the cliff backing the shingle beach at

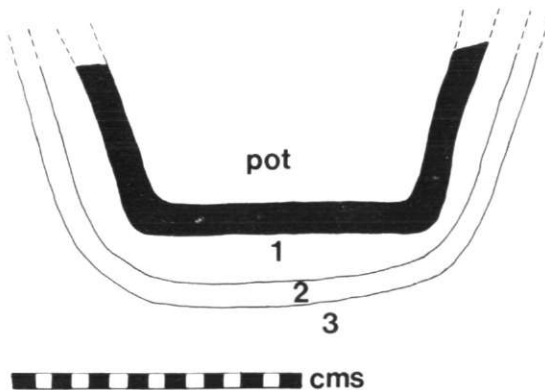


Fig. 43

Section of vessel found in pit at Pendrathen Head, St Mary's, Isles of Scilly.

Pendrathen, a shallow bay on the north coast of St Mary's, Isles of Scilly. The find-spot (SV 91451273) is among the already-recorded remains of some prehistoric village (*Cornish Archaeol.*, 11, 1972, 26-27 — Mr Alec Gray's 'St Mary's No. 2' site). The vessel was in a pit dug into the natural rab, ram, or decomposed granitic gravel, lined with light yellow clay mixed with weathered clay, and with a filling of light grey clay and weathered granite fragments between the lining of the pit and the actual pot (Fig. 43). The fabric of the vessel, which is a hand-made coil pot, is orange-brown externally, grey-brown internally, and heavily tempered with granite gritting. Inside the vessel was a granite and earth wash. The remaining base is flat, the sides flaring out slightly. A similar vessel, also in a clay-lined pit, was found by Mr Alec Gray at Halangy Porth, St Mary's, in 1936 (*Cornish Archaeol.*, 11, 1972, 34, Fig. 11).

John R. Samuels

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A COLLECTION OF MESOLITHIC FLINTS FROM CROOKLETS NEAR BUDE

Over a period of twelve months from September 1974, Paul Selby found worked flints along a 40 metre stretch of the coastal cliffs at Crooklets (SS 202074). The cliffs at this point are developed in shale and reach approximately 23 metres OD. The flints were eroding out of the cliff section at the base of the modern soil, some 40-45 cm beneath the surface.

The collection comprises eighty-two pieces which may be classified as follows:

Flakes and blades	78
Microliths	2
Microburins	2

All are in a sharp condition; and the great majority, including the microliths and microburins (Fig. 44), are patinated cream or white. The unpatinated and partially patinated flints are light- to mid-grey in

colour, mottled, with occasional cherty inclusions. Eight are clearly fire-damaged. Cortex is present on most of the flakes and suggests that beach pebbles were the source of raw material. A number of the flakes and blades are broken, but none of the complete examples is longer than 45 mm. The microliths are small scalene triangles with retouch on all three sides.

Although it may not represent a single industry, the entire collection would be consistent with a late Mesolithic date. Typologically, the material is comparable to the industries from Westward Ho! (Rogers, E.H., 1946, 'The raised beach, submerged forest and kitchen midden of Westward Ho! and the submerged stone row of Yelland', *Proc. Devon Archaeol. Ex. Soc.* III, 109-35) and other late Mesolithic sites along the coast of Devon and Cornwall.

Clive Bonsall
British Museum

Paul Selby
Bude, Cornwall

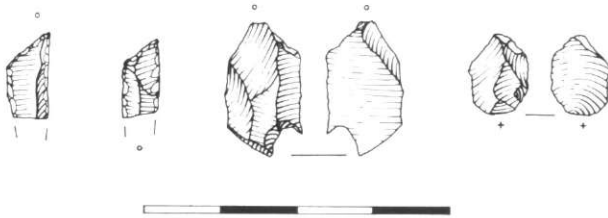


Fig. 44
Microliths and microburins
from Crooklets, near Bude,
full size, scale in centimetres.

BOOBY'S POINT WORKING SITE: A REVISED CHRONOLOGY

In *Cornish Archaeology* 12 (1973, 14), I described an assemblage from Booby's Point (SW 85777524) as being presumably Neolithic in point of time. Although economy and typology were obviously rooted in the Mesolithic, I believed the site to be more recent.

In correspondence, Mrs Susann Palmer expressed serious doubts about the validity of this belief. She has since pronounced upon a limited assemblage of the figured pieces, broadly confirming my tool-types, with the notable exception of petit-tranchet derivatives, the best of which (Fig. 9:3) she thinks is fortuitous.

Moreover, she has suggested that the minute removals on some of the pieces (e.g., Fig. 8:27, 9:5) which I had considered might preclude a true Mesolithic industry,

do not in fact result from direct pressure, but are 'probably incursive indirect percussive removals'.

Mrs Palmer has agreed also that nos. 14 and 15 (Fig. 9), for example, are true arrowheads for hafting, but she considers it wiser at present to regard no. 5 (Fig. 9) as 'a delicately retouched waste flake'. No. 29 (Fig. 8), my unclassifiable, she has called 'an obliquely blunted flake', perhaps achieved by rubbing against a piece of bone.

Mrs. Palmer prefers to think of this assemblage as true Mesolithic. I gladly defer to her experience, and acknowledge her interest with thanks. The absence of true microliths should nevertheless be noted, as should the variation in the professional typological opinion which I received.

Paul F. Whitehead

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A NEW FONT IN THE 'BODMIN' SERIES

In the north wall of the chancel of the parish church of St Stythian's, or Stithian (1268, *sancte Stethyiane*), forming the base of an arched recess, is a piscina, the bowl of which has at some time been filled and levelled. Carved boldly and beautifully on its outer face are two animals facing each other. This sculpture, which appears to represent two lions, so obviously part of the repertoire of 'Norman' or Romanesque ornament, was also noticed by the late Charles Henderson.

On 21 August 1856, the Cornish antiquary J.T. Blight made a trip to Stithians from Penzance. In the vicarage grounds, he sketched a mutilated Norman font (Fig. 45a), which had probably been discarded, and replaced, during a previous (1783) rebuild of the church (Blight, n.d.). It is immediately apparent that both the piscina (Fig. 45b) and the font seen by Blight are one and the same, an object now reshaped

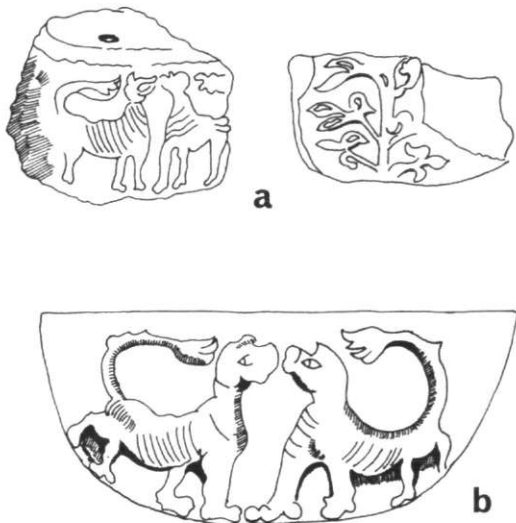


Fig 45

(a) 'Fragment of Font, . . .' sketch by J.T. Blight.

(b) piscina, Stithians, 2 ft 7 in wide, 1 ft 2 in high.

A SMUGGLER'S CACHE, TRESCO, ISLES OF SCILLY

'In the garden of the rebuilt cottage nearest to us is a smugglers' hiding place and the stone which concealed the secret entrance.

and placed in its present position a few years after the fortunate occurrence of Blight's visit. Joseph Polsue (1873, 181) affords us a clue as to when this happened. In his references to this church, he states: 'The chancel was tastefully restored in 1862; in one of its walls is a piscina, the basin of which displays grotesquely sculptured animals.'

Blight's sketch shows, not only the present visible face with the two lions, but also on the reverse some foliage, perhaps representing the Tree of Life motif which so often appears on fonts of this period. The combination of these relief motifs suggests that the original font should be ascribed to the so-called 'Bodmin' series, dated by Sedding (1909) to about 1150-1180. A characteristic of this type is a central shaft or pillar supporting the bowl, with additional smaller shafts, positioned under projecting heads spaced equally around the bowl. The slight visible projection now on the left side of the two lions perhaps represents a surviving portion of such a shaft-head.

That a font of this particular group should be situated at Stithians is a surprise, there being no other known example west of Kea, near Truro (from the now-ruinous church at Old Kea, removed to the present Kea Church). The Kea font also depicts a 'Tree of Life', with a single lion-like creature. There must of course remain the bare possibility that the font was transferred to Stithians from some more easterly parish by a former incumbent.

Michael Tangye

Redruth

References

- Blight, J.T., *Miscellaneous Album of Sketches, etc.* (MS penes Penzance Library, Morrab Gardens), fol. 5.
 Polsue, J., 1873. Ed., *Lake's Parochial History of Cornwall, IV.*
 Sedding, E.H., 1909, *Norman Architecture in Cornwall.*

The curious may even crawl inside. It is the only example left to us today' (Gibson, 1925, 67).

The writer of this note recently rediscovered this smuggler's cache, generally assumed to have been long since destroyed.

It is situated in a garden on the south side of a cottage still known as 'Smuggler's', which lies to the south of the Block House. The subterranean structure, secure beneath a bank of earth, remains in an excellent state of preservation. Its construction is identical to that of a mainland Cornish 'hull' (Tangye, 1973), except for the granite slabs covering the chamber. Fig. 46 shows the site plan and Fig. 47 a cross section. A chamber, approximately 6 ft long, 2ft 2 in high, and 2 ft 7 in wide, has been cut in the underlying rab, or 'ram' as it is called in Scilly. Leading down to this chamber is a narrow inclined passage 4 ft 10 in long, flanked with courses of granite. This is wide enough to allow an average-sized man to gain access by lying, face upwards, and wriggling downwards feet foremost. The whole structure has been roofed with slabs of granite, and one small length of iron.

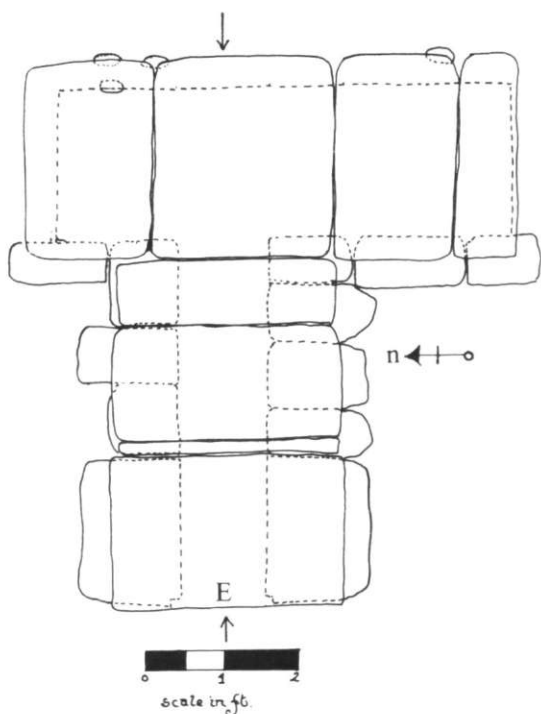


Fig. 46
Smuggler's cache, Tresco, Scilly;
ground-plan showing covering granite
slabs and entrance ('E').

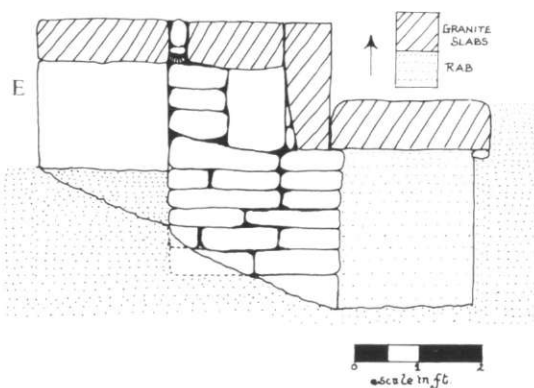


Fig. 47
Smuggler's cache, Tresco, Scilly; profile
along cross-section (entrance 'E' on left).

The uprights at the entrance (marked 'E' in Fig. 46) have been grooved or rebated to 'receive a thin slab of granite, correspondingly rebated, as a door. This door slab was located by the writer in the garden, though with the rebated edge along one side broken off at some time past, and has now been replaced against the entrance to the structure.

This feature now seems to be unique in Scilly. It must represent the personal cache of some Islands smuggler, being just large enough to conceal (for example) a small quantity of liquor and tobacco. Tresco, because of its position so near the old anchorage of St Helen's Pool, was ideally situated for the smuggling trade. The brothers Gibson also mention that 'nearly every cottage, barn and pigsty had its secret'. One example quoted (Gibson, 1925, 68) was a 'Smuggler's Well', a disguised hollow in the corner of an upper room which, like a shaft, went straight down to the underground hiding place nearly as large as the house itself.

Michael Tangye

Redruth

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- Tangye, M., 1973. 'Hulls in Cornwall: a survey and discussion', *Cornish Archaeol.*, 12, 31-52
Gibson, A.G. & H.J., 1925. *The Isles of Scilly*.

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