

Excavations at Dundee High Technology Park, Tayside

Annemarie Gibson* and Nicholas Tavener*

ABSTRACT

From aerial photographs a cropmarked complex was initially interpreted as a cist cemetery. Excavation, however, revealed that this was incorrect, instead exposing the postholes of three timber structures, a small section of a circular stone enclosure, dumb-bell-shaped cooking pits and a possible pit alignment.

INTRODUCTION

In 1983, an area of land west of the city of Dundee and immediately north of Invergowrie (NGR NO 207 309) was designated as the site of Dundee High Technology Park. The Scottish Central Excavation Unit (Historic Buildings & Monuments Directorate) investigated several archaeological features which fell within areas of the proposed park set aside for landscaping and tree plantation.

The features were visible as cropmarks observed on aerial photographs taken by the RCAMS in 1983 (AN/6634–39: illus 1). They were thought to indicate the presence, among other things, of a large cist cemetery, especially since other cists had been found in the immediate vicinity (*Discovery Excav Scot 1974*, 8). However, excavation showed this interpretation to be erroneous. Without exception, the putative long cists proved to be elongated cooking pits or conglomerations of smaller pits and postholes. The results of this archaeological exercise serve to emphasize the dangers of interpreting anomalous or amorphous cropmarked sites without the support of at least some degree of excavation.

Five clusters (A, B, E, G and F) of concentrated archaeological activity were identified from the aerial photographs within the area designated for plantation (see illus 2) and it was agreed with the developers that these areas would not be planted. The sampling exercise included partial investigation of these clusters but concentrated on the rest of the area scheduled for plantation. Three trenches were opened (illus 2) using a machine to strip the topsoil. The excavation which followed was severely hampered by adverse weather conditions and not all the features revealed were excavated completely. Many of the features which were excavated were severely plough-damaged, surviving to depths of less than 0.30 m. The investigated features fall into six categories:

- 1 – a post-ring,
- 2 – a four-post arrangement,
- 3 – a house scoop with internal post-ring,
- 4 – three pits of a pit alignment,
- 5 – two dumb-bell-shaped pits,
- 6 – a circular stone enclosure.

* Central Excavation Unit, Historic Buildings & Monuments (SDD), 20 Brandon St, Edinburgh



ILLUS 1 Aerial photograph of Invergowrie cropmark complex (AN/6636). Published by kind permission of Royal Commission on the Ancient and Historical Monuments of Scotland. *Crown copyright reserved*

THE EXCAVATION

DESCRIPTION OF FEATURES

Post-ring

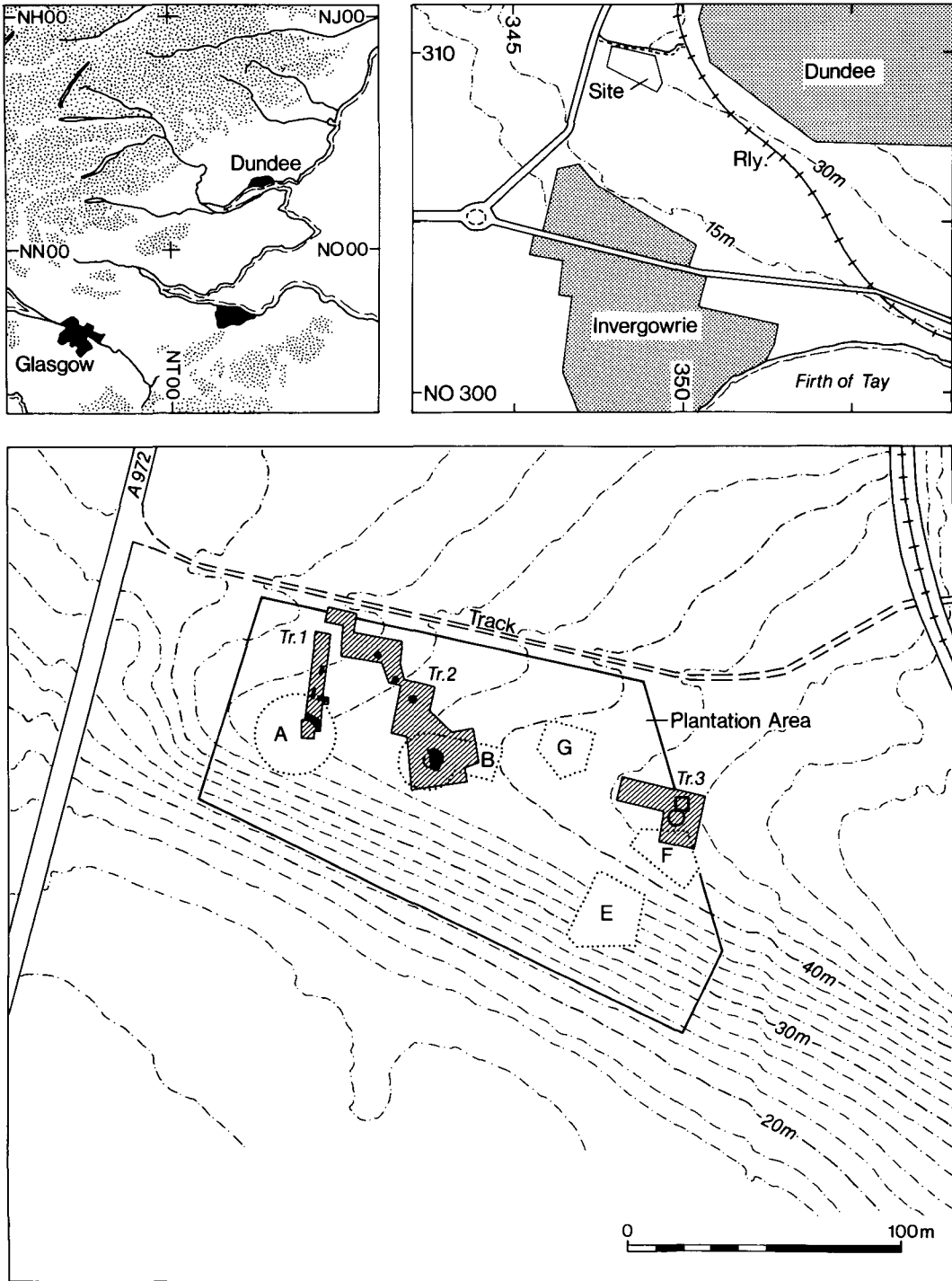
The post-ring in trench 3 (illus 3) (c 6 m in diameter) comprised 11 spaced postholes of similar size (0.25 to 0.4 m diameter and 0.08 to 0.4 m depth) with similar fills. They probably once held the roof supports of a timber roundhouse. A few contained packing stones but the size and shape of the timbers set within them were generally unclear. Other features lying within and immediately around the post-ring included shallow scoops (possibly the base of pits) and postholes. While these probably pertained to the timber roundhouse, no stratigraphic relationships survived and no other structural groups could be identified.

Four-post structure

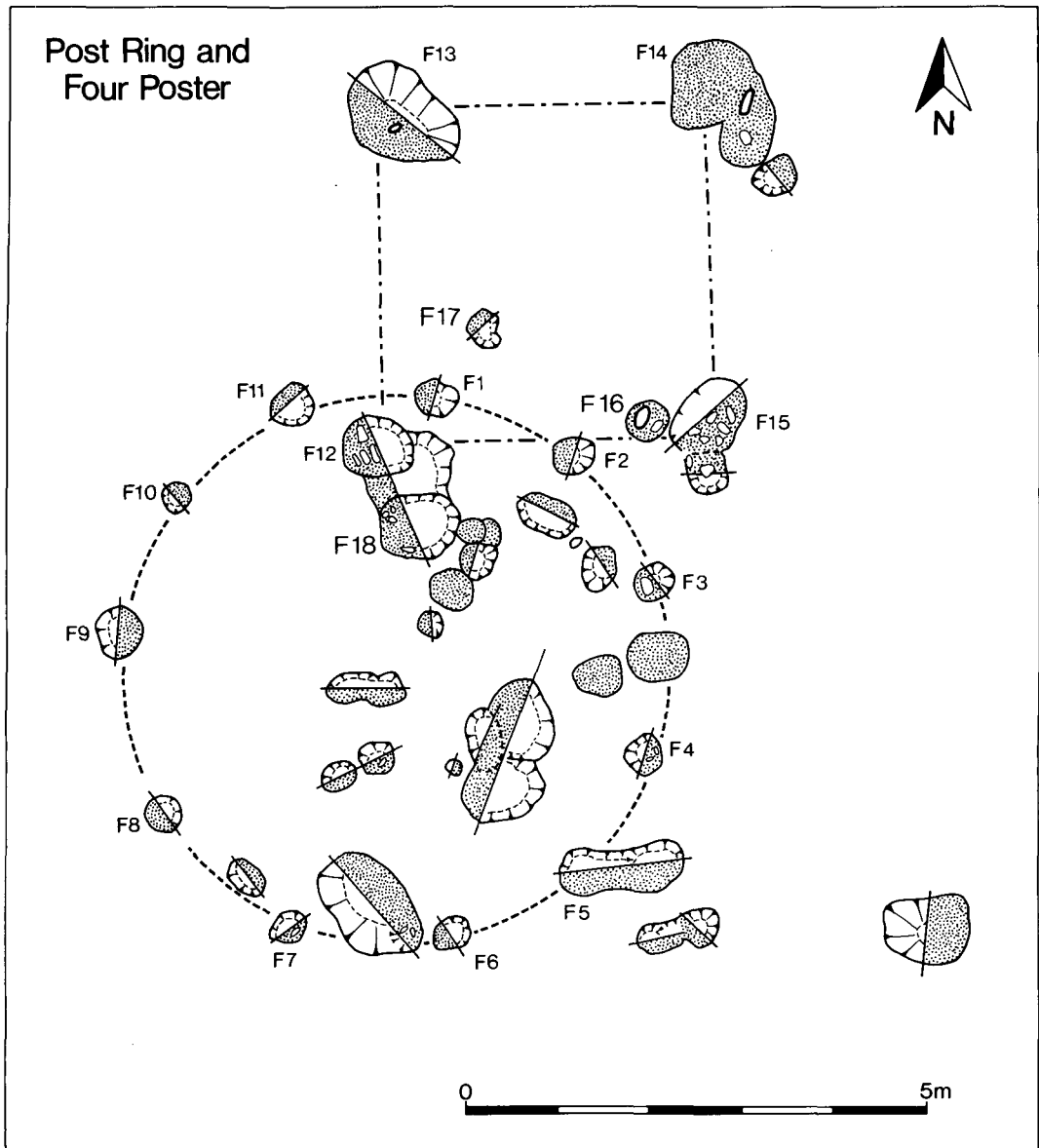
The four-post structure, also in trench 3 (illus 3), comprised four large postholes in a square setting (c 3.6×3.6 m) in total area. The postholes showed evidence for refurbishment at some point of the posts they contained. The setting overlapped the post-ring and the features are unlikely to be contemporary.

House scoop

The remains of a severely truncated house structure were exposed in trench 2. Six postholes probably formed part of an internal ring of features which would have contained roof supports for a building c 6 m in diameter. A perforated sandstone disc (Catalogue no 1) was found on the surface of the scoop. A feature, kidney-shaped in outline, encircled the post-ring. It is likely to represent the perimeter scoop of the house structure, but was not excavated.



ILLUS 2 Dundee High Technology Park, location map and trenches



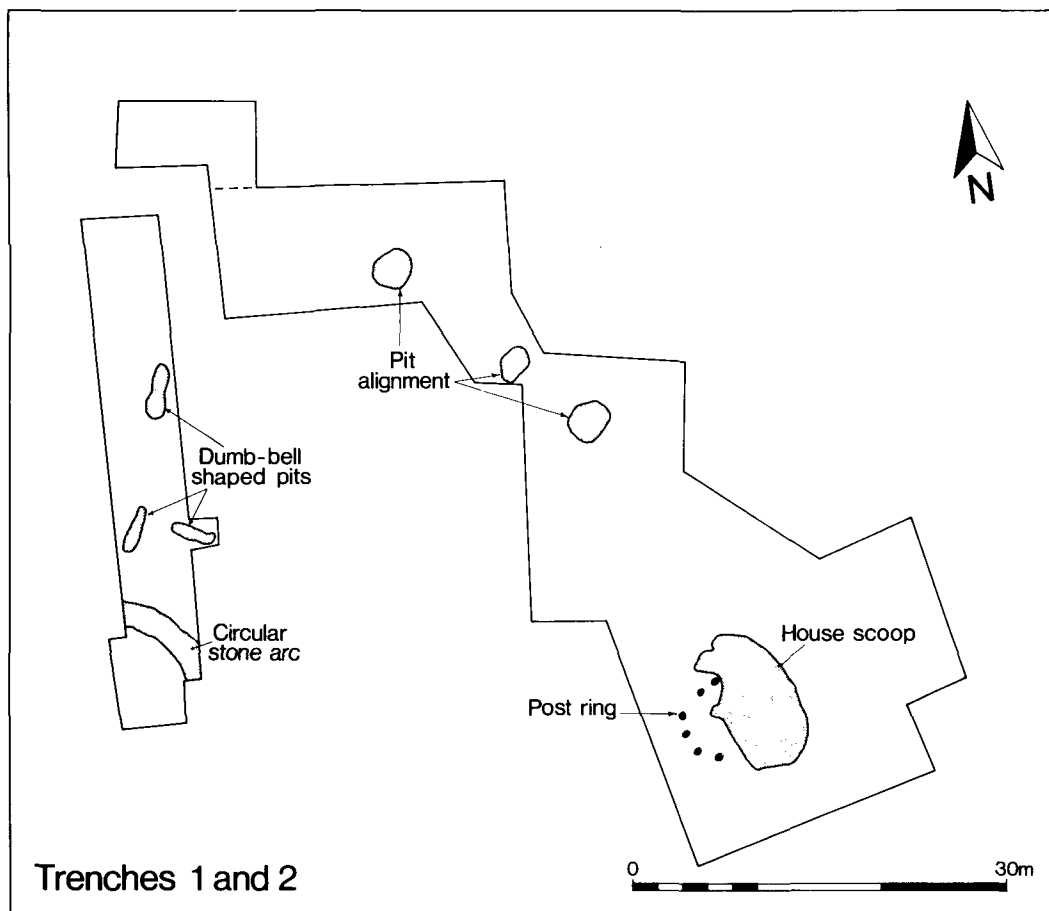
ILLUS 3 Trench 3 showing post-ring and four-poster

Pit alignment

Three pits of a pit alignment were uncovered in trench 2. One pit was sectioned and had a stepped profile filled with horizontal bands of sand.

Pits

Three dumb-bell-shaped pits were uncovered in trench 1 (illus 4), two of which were excavated. The axial profiles showed the pit sides to be rounded at one end and sloped at the other. The lower



ILLUS 4 Trenches 1 and 2

fills were of thin layers of charcoal and sandy loam and the gravel subsoil around the pits showed signs of scorching.

Enclosure

The aerial photographs revealed a circular enclosure (illus 4) (c 23 m in diameter) on the crest of the ridge which runs through the landscaped area. A 7 m-long sector of the ring was exposed in trench 1. It comprised a band (1.5–2 m wide) of angular stones which appeared to be sitting in an underlying ditch. The stones rose to a height of 0.15 m above the existing subsoil and did not display the plough damage seen on other parts of the site. An area (7 by 5 m) investigated within the stone ring proved to be featureless and no further investigation was carried out.

FINDS CATALOGUE

Valerie J McLellan

Stone

1 Half of a micaceous sandstone disc with a central, countersunk perforation. The edge has

- been artificially rounded and one surface is worn smooth. Diameter of perforation: c 10 mm; diameter: 85 mm; thickness: 11 mm; weight: 59.6 g. *Trench 2, house-scoop.*
- 2 A chunk of unworked agate, 22×16×11 mm; Red (2.5YR 4/6). *Trench 1, topsoil.*
- 4 Flint flake, 15×14×3 mm; Brownish-yellow (10YR 6/6). *Trench 3, topsoil.*
- 5 Flint flake with the remains of cortex along one edge, 15×13×2 mm; Very dark grey (5YR 3/1). *Trench 3, F18.*

Pottery

- 3A Four conjoining sherds from a large, decorated, coil-built, coarse vessel. There are two parallel applied cordons, 13 mm apart from crest to crest, and the remains of a single cordon meeting the other two at an angle of c 90 degrees. Their orientation on the sherds suggests they formed part of a triangle or lozenge. The decoration is suggestive of a Bronze-Age encrusted urn although too little of the pot survives for clear identification. The fabric is hard and tempered with angular grits with an average size of 6 mm. The core is very dark grey (7.5YR 6/2) and the interior dark grey (5YR 4/1). Thickness: 15 mm; weight: 79.1 g. *Trench 3, B horizon.*
- 3B A small, well-fired sherd, possibly representing a basal angle. It is tempered with small angular grits with an average size of 3 mm. The overall colour is reddish-brown (5YR 4/4). Thickness: 9 mm; weight: 9.3 g. *Trench 3, B horizon.*

DISCUSSION

Cropmarked complexes of the type exposed on the site of Dundee High Technology Park are now known to be a relatively common feature of north Fife and Angus (Macinnes 1982; Pollock 1985). Excavations at Douglasmuir and Ironshill (Kendrick 1982) have demonstrated that artefacts are rarely found on such sites and that chronological interpretations depend on the availability of suitable material for radiocarbon assay and on structural analogies. Unfortunately, neither of the post-ring houses at Dundee High Technology Park survived sufficiently to show diagnostic traits which would allow direct comparison with dated structures elsewhere. All that can be said is that research by Macinnes (1982) has shown that open sites are the prevailing settlement type in this area through most of prehistory.

The four-post structure is of a type which occurs throughout Britain in the first millennium BC and examples in Tayside are known from Douglasmuir (Kendrick 1982) and Ironshill. Elsewhere, these settings have been interpreted as foundations of grain stores (Cunliffe 1978, 218; Bersu 1940; Gent 1983)

The dumb-bell-shaped pits were clearly constructed in this form for a specific purpose. Similar features at Bannockburn, Stirling (Tavener, pers comm) and at Monktonhall, East Lothian (Hanson, pers comm) have been interpreted as cooking pits or field ovens. The Dundee High Technology Park examples displayed *in situ* scorching and either interpretation can be applied.

Pit alignments in Scotland have attracted considerable interest recently (Barber 1985) and are known to encompass varying types of monuments probably pertaining to widely different periods. The Dundee High Technology Park example seems to belong to the class of pitted boundaries which are concentrated in the Lothians and Fife (Halliday 1982). It is thought that these did not contain posts but served as quarries for adjacent banks. Halliday (1982) has suggested that lines of pits would have acted as a more effective deterrent to cattle than would a shallow ditch. Only one pitted boundary in Scotland has been radiocarbon dated as yet (Barber 1985), but this, together with

evidence of possible settlement association, may indicate a date in the middle Iron Age. Too little is known of the nature of the ring enclosure for any useful parallels to be drawn.

LOCATION OF ARCHIVE

The archive will be deposited with the National Monuments Record, Edinburgh.

REFERENCES

- Barber, J 1985 'The pit alignment at Eskbank Nurseries', *Proc Prehist Soc*, 51 (1985), 149–66.
 Bersu, G 1940 'Excavations at Little Woodbury, Wiltshire', *Proc Prehist Soc*, 6 (1940), 30–111.
 Cunliffe, B 1978 *Iron Age Communities in Britain*. London.
 Gent, H 1983 'Centralized storage in later prehistoric Britain', *Proc Prehist Soc*, 49 (1983), 243–67.
 Halliday, S P 1982 'Late prehistoric farming in south east Scotland', in Harding 1982, 75–91.
 Harding, D (ed) 1982 *Later Prehistoric settlement in south east Scotland*. Edinburgh. (=Univ Edinburgh, Dept Archaeol, Occas Pap, 8.)
 Kendrick, Jill 1982 'Excavations at Douglasmuir 1979–80', in Harding 1982, 136–40.
 Macinnes, Lesley 1982 'Pattern and purpose: the settlement evidence', in Harding 1982, 57–74.
 Pollock, D 1985 'The Lunan Valley Project: medieval rural settlement in Angus', *Proc Soc Antiq Scot*, 115 (1985), 357–400.

*This paper is published with the aid of a grant from the
 Historic Buildings and Monuments Directorate (SDD)*