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Excavations at Sueno's Stone, Forres, Moray

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ABSTRACT

Archaeological investigations of the immediate environs of Sueno's Stone were occasioned by Historic Scotland's decision, after extensive consultation, to construct a protective glass pavilion around the stone. The archaeological fieldwork had to be integrated with the programme of site preparation and construction work, which resulted in a protracted and occasionally disjointed examination of the monument and its immediate environs. This work re-exposed the lowermost panel of carving on the eastern face of Sueno's Stone and the massive socketed block that forms the socle for the monument. Two adjacent oval settings of subsoil features were identified, one centred on the socle and the second positioned immediately to the south. Contexts within two post-holes in the first group provided radiocarbon dates from the late first millennium AD. *These dates must be used with considerable caution because no direct, physical relationships between the dated features and the stone could be identified in excavation. There is, however, circumstantial evidence that gives weight to the claim that these dated features should be linked to the emplacement of the stone in its present location. The excavation results have cast doubt upon the long-standing tradition that the present location of the stone dates from the early 18th century and they offer no support to earlier interpretations of the function of the stone as a burial marker.*

The programme of excavation was financed by Historic Scotland and undertaken by the then Archaeological Operations and Conservation unit of Historic Scotland. Most of the post-excavation work has been undertaken under the auspices of AOC (Scotland) Ltd and funded by Historic Scotland.

INTRODUCTION

Excavation was initiated in August 1990, when the first stage of the preparatory building work began. Further work ensued as a watching brief in August 1991, when small-scale additions were made to the initial preparatory works. Fieldwork continued in September 1991 with the removal of the enclosing wrought-iron fence and foundations and the cutting of four deep perpendicular trenches to receive horizontal concrete foundation beams. The final season was undertaken in November 1991 after the glass pavilion had been erected and prior to the final landscaping of the site. The new pavilion was inaugurated by Sir Hector Munro on behalf of Historic Scotland on 13 October 1991.

The full site plan (illus 4) was assembled from the disparate fragments of each season's work only at the stage of post-excavation analysis.

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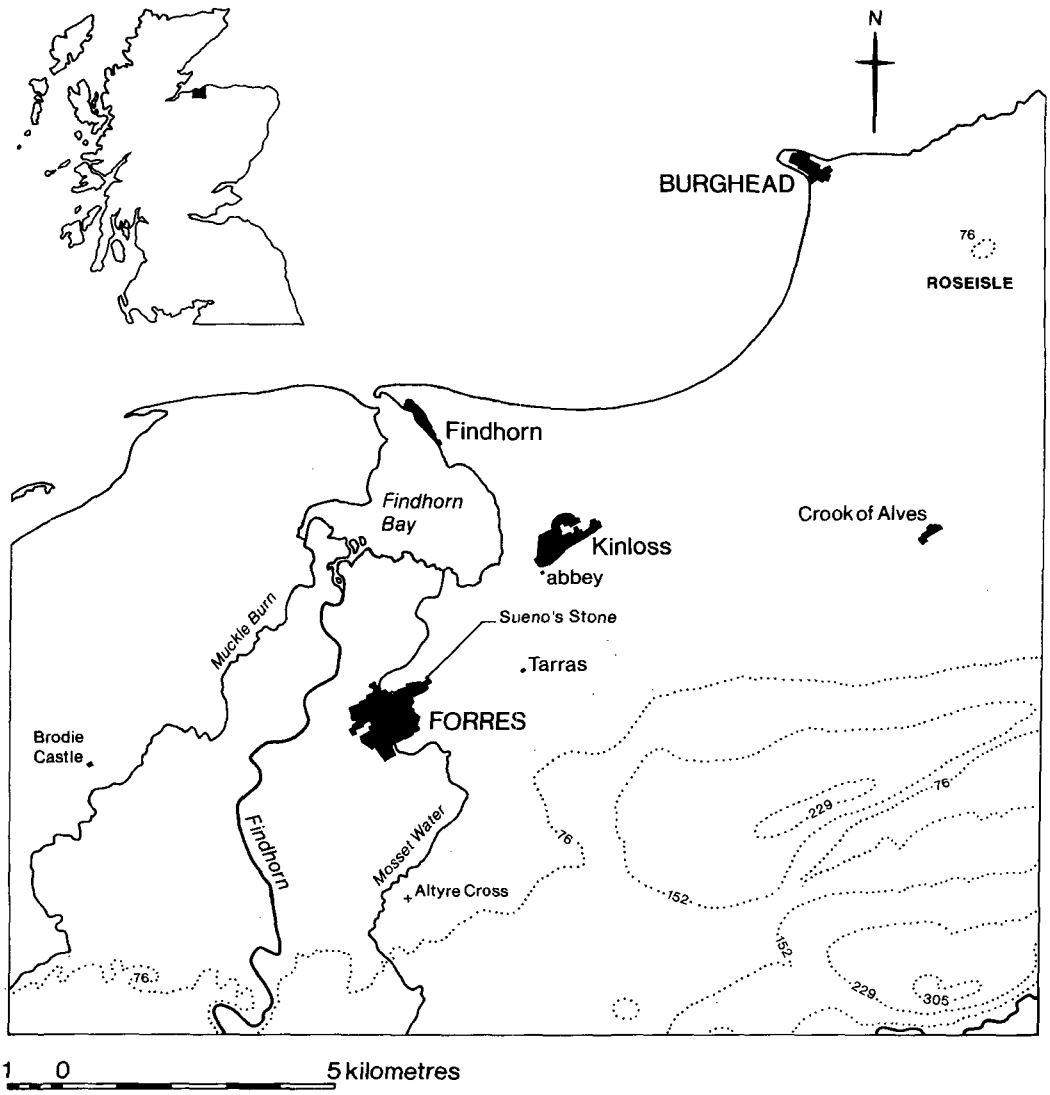
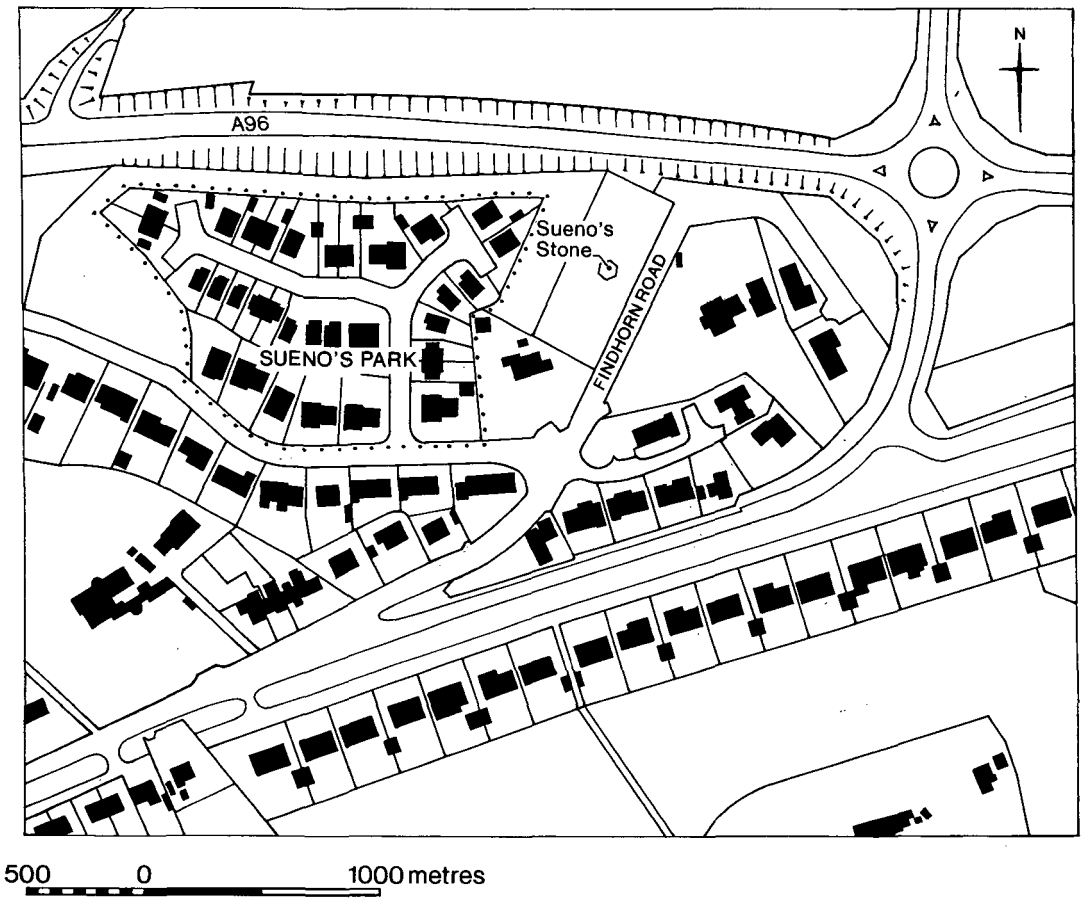


ILLUS 1 Forres, Moray: location. *(Based on the Ordnance Survey map © Crown Copyright)*

LOCATION (ILLUS 1 & 2)

Sueno's Stone is located on a level terrace of fluvio-glacial gravels and sands on the north-eastern perimeter of Forres (NGR NJ 046595). This terrace, delineated by the 15 m contour, overlooks the once marshy floodplains of the rivers Mosset and Findhorn which flow northwards into Findhorn Bay. Appreciation of this location is now much impaired by the deep cleft of the A96 trunk route that passes to the north of Forres and by the rampart screen that separates the diminished field containing Sueno's Stone from the recently built Sueno's Park, a modern housing estate. Prior to the recent works, the stone was enclosed within a hexagonal wrought-iron fence. For at least the



ILLUS 2 Sueno's Stone, Forres: location . *(Based on the Ordnance Survey map © Crown Copyright)*

last 200 years the stone has been buttressed above ground-level by a stepped masonry collar. This collar was last remodelled early this century and it is this arrangement that has been retained within the new pavilion.

HISTORICAL BACKGROUND TO THE MONUMENT

Two popular traditions, concerning the date of erection and the function of the stone, have become part of any standard work on the monument. One tradition sees the stone as undoubtedly ancient but the emplacement in its present position is dated to only the last 200–300 years. This tradition is primarily supported by evidence to show that the stone was discovered during the course of late 17th-century agricultural improvements (Douglas 1934, 396; Simpson & Stevenson 1982, 11). In some way counter to this view is the second tradition which quotes the numerous discoveries of skeletons and artefacts from the vicinity. Eight skeletons with cloth and jewellery were found in either 1812 (Watson & Watson 1868, 269) or 1813 (Douglas 1934, 309). Further skeletons were

found in 1823 (NMR NJ 05 NW 9), followed by ancient weapons in 1823 or 1827 (NMR NJ NW 7), a Roman coin in 1843 (NMR NJ 05 NW9) and stone coffins in 1864 (ONB 1870 12). These finds were seen (eg by Watson & Watson 1868, 269) as complementary evidence to support earlier interpretations of the stone as a battle memorial or statement of conquest (eg Cordiner 1788). The actual locations for these finds are vague and as Douglas (1934, 312) places the 1823 and 1864 finds over 100 m away, to the west of the stone, it seems likely that the second tradition lacks any firm basis of evidence.

The monument was omitted in descriptions of parish boundaries either in pre- or post-Reformation records (at least up to the time of the 1833 Reform Act) and this absence is interpreted as evidence for a late transportation to the present site (Southwick 1981, 19). Southwick also cites the absence of the stone from both Aubrey's 17th-century and Lhwyd's 18th-century gazetteers of ancient monuments as evidence that the stone was not on its present site at these times.

Medieval references to a pillar or obelisk in Forres (Douglas 1934, 312) are imprecise and several candidate monuments can be listed (eg the town cross and the Callifer Stone on the town boundary). There is, however, no account that records the movement or erection of the stone in the recent past. The Statistical Account of 1795 records that Lady Ann Campbell, who died in 1734 aged 76, was responsible for the placing of the first set of steps (1795, 346). A second, contemporary account by Shaw (1775) claims that: '... the corn land round Sueno's Stone being always ploughed up, it was like to fall, but Lady Ann Campbell, late Countess of Moray, caused it to be set upright and supported by several steps of free stone'.

Although Shaw's text did not appear in print until close to the end of his life, the manuscript was written in the 1740s. The events he describes may have occurred somewhat earlier as an almost identical account places them in the early 1700s (Gordon 1726, 158). Shaw had lived in the region and it is probable that his account refers to events he had witnessed during the Countess's lifetime. It seems unlikely that he could have commented on the Countess's repair works without mentioning the stone's erection if this had occurred, as is implied, in the decade or so that preceded his birth.

Lady Campbell's repair work may have been designed to counter problems caused by too much tillage and an unstable topsoil. If so, then the problem persisted. All the early illustrations of the setting of Sueno's Stone show it tilting to the west (eg Daniell 1819; and an unsigned watercolour of 1826). Although some licence is evident it seems probable that the tilt was genuine and that the stone was inherently unstable. The repeated discoveries of artefacts in the area attest to considerable disturbance of the soil and continued ploughing as the most likely cause of this instability. Further repairs may be inferred by a later reference to work undertaken on behalf of Lady Margaret Stewart (Watson & Watson 1868, 270). Margaret Stewart was the daughter of the 10th Earl of Moray, and, although no description of these works has been identified in the estate archives (the Earl of Moray, pers comm), they were probably undertaken in the second half of the 19th century.

Although not entirely refuting Southwick's claim, it is here suggested that the popular tradition confuses the 18th- and 19th-century repair works, necessitated by subsidence caused by erosion of the soil around the base, with a fictional discovery of the stone. Just such a 'memory' has entered the local popular traditions, with the conflation of accounts of the excavations in 1926 (see below), the erection of the police station and the movement of one or all of the 'Witches Stanes' to create the unfounded history of the stone being shifted and rotated in the inter-war years (pers comm, local informant).

A further cause for doubt concerning this alleged late emplacement of the stone derives from

ILLUS 3 Detail of Pont's *Mapp of Murray*. The monoliths are shown immediately to the north of Forres. Note also the sketch of Kinloss (Killos). (*Crown Copyright. Reproduced by permission of the Trustees of the National Library of Scotland*)

the state of the stone itself. All the descriptive texts and illustrations of the stone record the uniform loss of sculptured detail on the upper portion of the stone (eg Gordon 1726, 158). This and the absence of any plough scars on the stone (the radiating notches on the lowest panel of the cross-carved face are most probably axe or sickle sharpening marks) seem to be inconsistent with the stone's supposed long, recumbent sojourn below ground level.

Only one document of any authority records the location of the stone prior to the 17th century (illus 3). On the manuscript of Timothy Pont's *Mapp of Murray* (c 1590) two stones have been depicted lying north of Forres (Pont Adv.MS.70.2.9 *Mapp of Murray* manuscript 8). It might be suggested that these marks may merely reflect a confusion by the illustrator, mistaking a survey account of either side of the stone for two separate monuments. This view is not consistent with the general quality of this particular manuscript, in which the features have been carefully inserted

and it would be surprising had the second stone been merely an error of the cartographer (J Stone, pers comm). When the map was engraved by Blaeu for printing, from a draft prepared by Robert Gordon (c 1640), the two stones were again represented and again must have been deliberate insertions. The same features reappear on Roy's map of Moray (1750) and on Ainslie's 1800 edition of his government-commissioned series. On Ainslie's map, the location of Sueno's Stone is inscribed 'two curiously carved pillars'. Ainslie is regarded as the foremost cartographer of his generation and both his and his predecessor Pont's hitherto unnoticed references to the monument's missing twin must arouse considerable curiosity.

The basic veracity of Pont is not an issue and his manuscript must offer considerable weight to the hypothesis that Sueno's Stone existed in this approximate location prior to the 16th century.

PREVIOUS WORK

While still privately owned by the Earls of Moray, public concern for the monument's preservation was frequently expressed. In 1811, the lack of protection from the 'wasting influence of the weather' was deplored and seen as cause enough to propose the erection of a 'small ornamental building' or the application of a coat of paint (Leslie 1811, 524). In 1842, the *Forres Gazette* records the proposal to raise the pedestal around the base of the stone though it is unclear why this action was proposed. On 6 October 1857, the *Forres Gazette* advocated the erection of a wooden fence around the stone as a precaution against further damage. A 'high rustic paling' was recorded in 1868 (Watson & Watson 1868, 271). This stockade allowed the estate to recover some income from the investment as Watson and Watson record that a charge of sixpence was made for admission (*ibid*, 26). A photograph published in 1870 records the state of this fence (Washington Wilson 1870). In November 1883, the *Forres Gazette* reported the need for better protection and presentation and advocated the erection of iron railings. A photograph, dated 1890, shows the fence in position (NMR DOE 72/1 MO 592). In the minutes of a council meeting in December 1910, it is reported that the Earl offered to pay for a bronze plaque bearing an inscription written by Dr Joseph Anderson.

In 1923 the stone was taken into Guardianship and, the following year, J S Richardson (Ministry of Works) advocated archaeological excavation to provide better foundations and to 'exhibit the stone in its original proportion' (SRO SC23419/2A).

In 1926 the excavation was undertaken, possibly by a Mr Bain, on behalf of the Inspectorate of Ancient Monuments. Unfortunately the only records of this work to have survived are some photographs in the National Monuments Record of Scotland, a local tradition which asserts that the stone was moved or rotated and evidence quoted by Douglas in his general description of the stone (1934, 307). This excavation established that the upright stone was not counter-balanced by a deeply buried footing, but set into a large base stone weighing about 10 tons (Douglas 1934, 307). In the following year, the local press castigated the

> ... official antiquarians, who specialise in ruins. They appear to have resented the fact that the stone was still proudly standing ... and that there was every evidence on every hand of the community's regard for the relic. The official came with the intention of 'restoring' a ruin, and as government servants they were quite sincere in their determination to turn something upside down, once they realised that Sweno's (*sic*) Stone was quite intact. Believing that what was below the ground might prove to be more interesting than the inscriptions above, they employed tradesmen from Elgin to dig deep and well. The base was in part removed and the tablet thrown across the fence. That was about a year ago. If those slipshod and careless antiquarians had designed a ruin they could not have gone about their business more purposefully ... (*Forres, Elgin and Nairn Gazette*, 3 Aug 1927).

This criticism seems to have stimulated a swift response and before the end of the year the damage had been repaired (Woods 1992).

In seeking possible causes for the observed archaeological features the most appealing correlation would be with the devices used when the stone was first erected. It is probable that the work undertaken by the Countess of Moray, Lady Ann Campbell, could well have required scaffolding and heavy, fixed, lifting gear. The evidence for further repair work is ambiguous but similar constructions may have been necessary at regular intervals over the next 200 years. A scaffold was built for Stuart in 1832 when he drew the field sketches for his illustrations (Stuart 1856). A photograph of 1840 (Douglas 1934, 408) shows a scaffold erected around the Callifer Stone (Forres) to provide a platform for local dignitaries. Whilst no record exists for a similar structure at Sueno's Stone, such use of ancient monuments in civic festivities was not unusual. A final candidate for some of the features observed in excavations in 1990–1 may be the construction of a scaffold in the 1920s, when an Elgin firm was employed to take a 1:1 scale plaster cast of the stone on behalf of the National Museum of Antiquities of Scotland.

In the course of a preliminary investigation of the monument, as part of the initial information-gathering stage of the design of the architectural brief, the state of preservation of the geological structure of the stone was addressed. The resulting paper (Knight & Maxwell, nd) is the only extant source of information on the depth of the socket in the base stone.

In 1978, the Inspectorate of Ancient Monuments commissioned a resistivity and magnetometer survey of the area immediately around the monument. No archaeological features were recognized (Nebelsick & Munro 1978).

In 1989 an archaeological assessment programme was undertaken by Glasgow University Archaeological Research Department (then APG) in the area to the west of the monument, in advance of the construction of Sueno's Park (illus 2). This programme did not detect any significant archaeological sediments (Terry 1989), nor is there any record of finds being made during the ensuing construction of the estate (I A G Shepherd, pers comm). These results will be used in support of the general conclusions drawn from the current work. In 1990, a further geophysical survey was commissioned to re-examine the much larger area under consideration for landscaping around the monument. Using much greater technical sophistication than the 1978 survey, this survey detected resistivity anomalies (Gater & Gaffney 1990), but the subsequent excavation did not identify the cause.

AIMS AND METHODS

The 1990–1 excavation was prompted by the decision to enclose Sueno's Stone within a protective glass pavilion. The design of this structure was chosen by means of an architectural competition organized by the Royal Incorporation of Architects in Scotland and funded by Historic Scotland. The purpose of the pavilion was to protect the monument from further environmental degradation which was perceived to have had a considerable effect on the stone since it came into State care in 1923.

The excavation was intended to recover a record of the archaeological sediments which were to be disturbed or destroyed by the erection of the pavilion and by its associated landscaping. A primary objective was to obtain evidence for the date of erection of the stone at this location. It was also recognized that other archaeological sediments might be present and could merit investigation regardless of their relationship to the monument.

The location and shape of the main excavated trenches (Areas 1, 2 & 3) reflect the extent of engineering work that penetrated the topsoil. The schedule of excavation was governed by the

progress of the construction work and the location and extent of the excavation trenches were similarly dictated by each stage of construction work. Within Area 1, excavation was severely constrained by considerations of safety (to the monument and to the staff) and open area excavation was not possible. Instead, excavation progressed through successive seasons in a sequence of interlocking trenches. The depth of archaeological excavation in all trenches was constrained by the need not to exceed the maximum working depth of the construction engineers. As a result of these constraints, three small areas remain unexcavated and five subsoil features were incompletely excavated.

Area 1 (illus 5) includes the pavilion, its external pavement and the site of a stone screen wall. This wall supports a recessed bench and a display board.

Area 2 was located to examine the area affected by the construction of a gently graded access path.

Area 3 represents a similar area which was initially planned to be a pathway. In the final outcome no path was constructed.

Beyond the main area, seven soil test pits (Areas 4–10) were dug to examine the nature of the soil profile away from the monument and to give some indication of the frequency of archaeological deposits and features.

ARCHAEOLOGICAL RESULTS

In all the excavated areas (illus 4) a freely draining topsoil directly overlay the coarse gravels and sands of the terrace. In only one area (Area 5), where the topsoil had accumulated to a depth of over 2 m, was there any indication of a developed soil profile. Within the topsoil, fragments of modern pottery and glass were found. In addition, earthworms were common in every area. Apart from the ground enclosed by the hexagonal wrought-iron fence, it was clear that the whole area around the monument had been turbated and probably landscaped. It was hoped that the raised ground surface within the fence might indicate less disturbance. Subsequent excavations confirmed this interpretation, but even here no well-preserved stratigraphy was encountered above the surface of the subsoil.

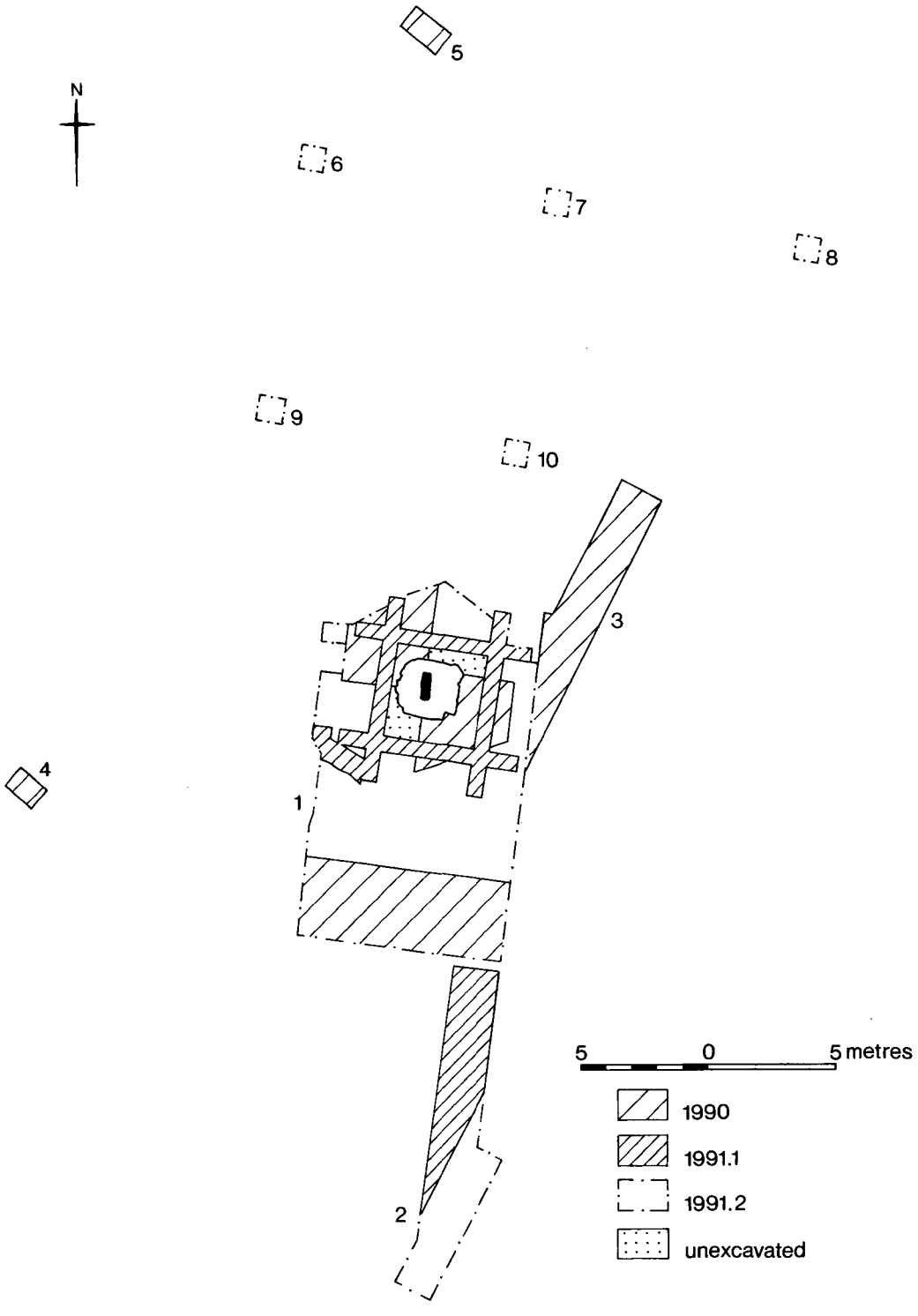
Within the first season of excavation permission was granted to retrace a line of investigation last undertaken in 1926 (see below) when the collar of steps had been removed from the upper surface of the base stone, revealing the lowest panel of carvings on the eastern face. Unfortunately, in 1990, because of their concern for the safety of the monument, the site engineers were obliged to halt this work before the lowest of the carved panels could be exposed. The main thrust of subsequent work was directed towards the investigation of the large number of subsurface features in the vicinity of the monument.

FIELDWORK INTERPRETATIONS

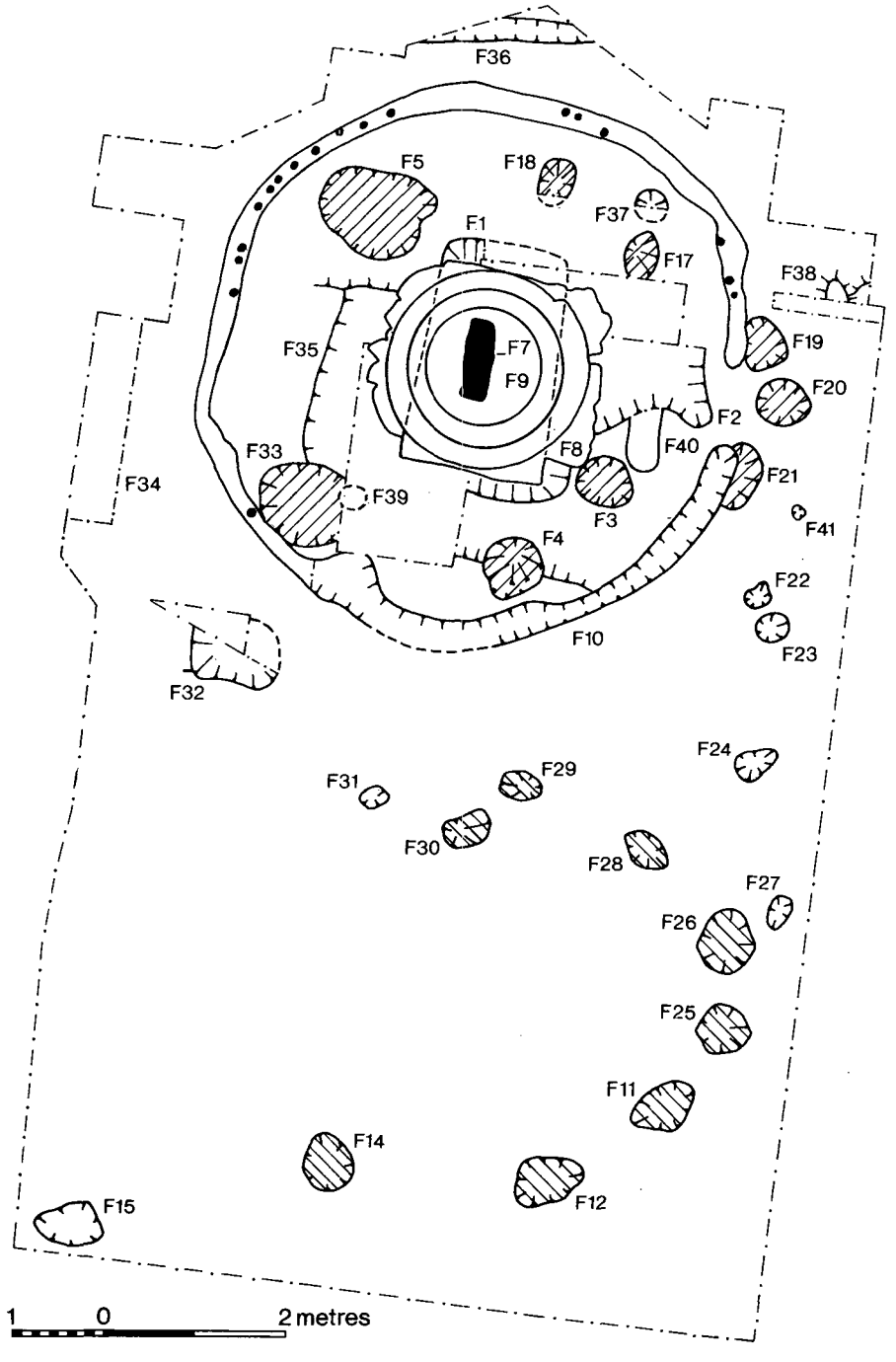
A total of 43 archaeological features was recognized in the three seasons of fieldwork (illus 5). In all cases, these were revealed as slightly more humic soils within the upper surface of the coarse gravels and sands of the substrate. These features can be categorized by form and by location into five spatial groups; a more detailed description of each feature is available in the site archive.

Group 1 features include all those which were clearly the products of relatively recent activities.

Group 2 represents a group of mostly deep post-holes located in a broadly spaced penannular pattern around the monument.



ILLUS 4 Excavation areas and excavation seasons



ILLUS 5 Excavated features Area 1: plan

Group 3 represents a similar pattern of features located to the south of the monument. In general, these appear markedly more weathered and truncated than Group 2 features.
Group 4 contains a small number of features that do not fit into the previous three categories.
Group 5 contains the monument, its basal stone and the shallow cut containing the base.

With the exception of the occasional superimposition of Group 1 features over Group 2 features, there were no significant stratigraphic links between features within and between groups. The justification for these groupings of features is thus based entirely on the interpretation of the horizontal pattern (illus 4) and is, in the main, a matter of conjecture.

Within the area enclosed by the metal fence the land surface was less degraded than the exterior, with the stone foundations of the fence forming, in effect, a lynchet. On the interior, a shallow turf (c 0.01 m in depth) overlay an horizon of very loose sandy gravel which in turn overlay hard and, in places, heavily iron-panned gravel. Externally, a deeper topsoil lay immediately upon the hardened gravel surface, indicating the greater depth to which mechanical disturbance had prevailed outwith the fence.

Group 1 features (2, 8, 10, 34, 35, 37, 39, 40)

In all cases where stratigraphic relationships were observable, features within Group 1 were late. In the field, there was little evidence to support interpretation, with the exception of Feature 10, but in subsequent archival research it has proved possible to correlate almost all features with known structures or activities dating to the last 150 years.

The oldest identified feature, Feature 10, contained the weathered stumps of a stockade erected around the stone (illustrated in a photograph of c 1870, Washington Wilson nd, No 1131). The erection of this stockade was proposed in 1857 (*Forres Gazette* 1857) and a charge for access of sixpence was later being levied in the 1860s (Watson & Watson 1868, 26).

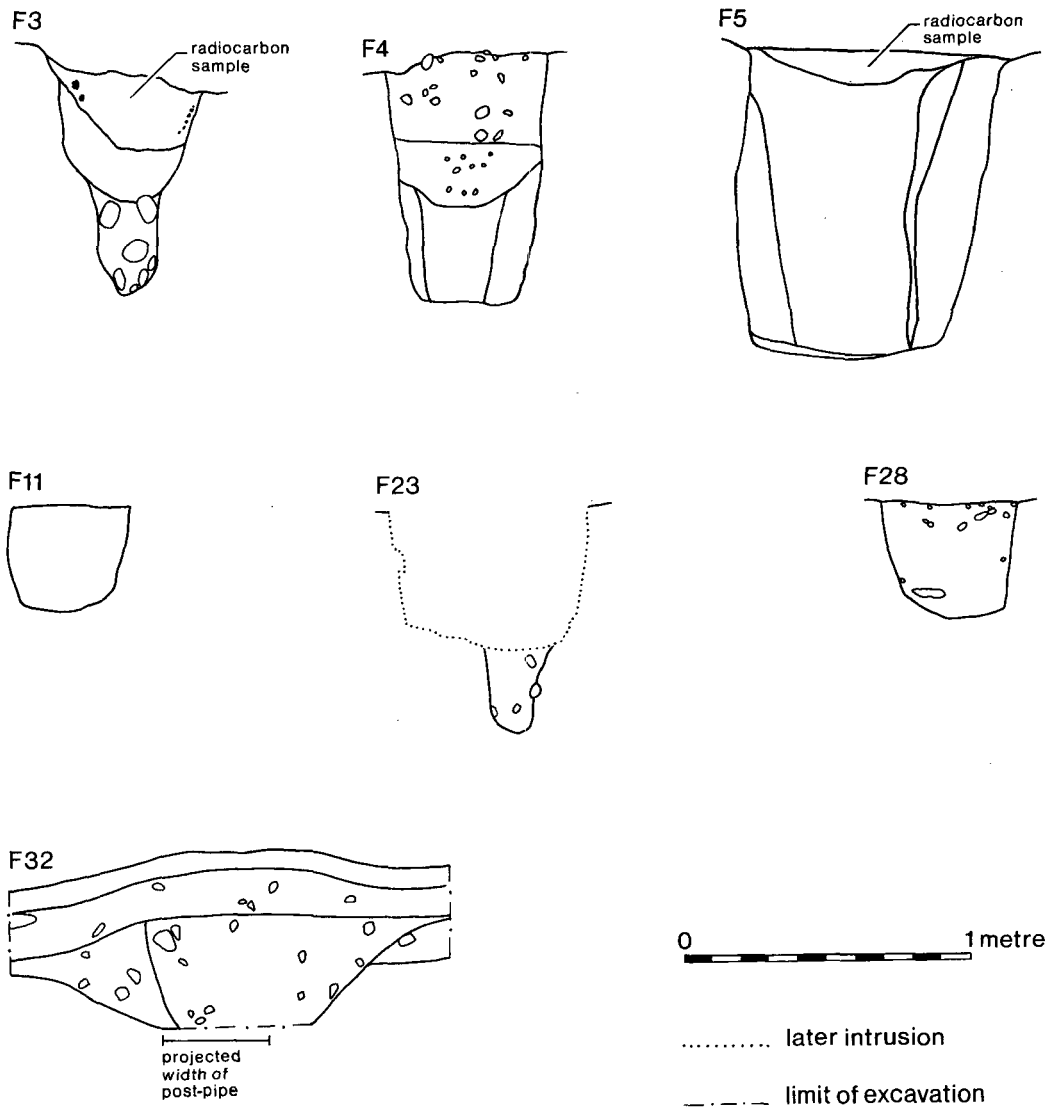
In 1910, Forres Council proposed the erection of an information plaque inscribed with a short description of the stone by Dr Joseph Anderson. This plaque was temporarily uprooted in 1926, but was reinstated a year later. It is present in a photograph printed in 1934, in which the plaque is seen to be mounted on a large stone slab. At some time after 1934, the stone and the plaque were removed. The stone slab was rediscovered during the excavations in 1990. The plaque was not in place and its present location is unknown. The slab lay over the outline of Feature 40 and it is probable that this feature was the socket for the slab. It is highly likely that Feature 2 was cut in the course of the excavation of 1926, when the old 19th-century stone collar was replaced (Woods 1993, 9).

The final feature from this group – Feature 35, a broad scoop – could not be linked to a precise event, but probably resulted from some earlier investigation of the base stone.

Group 2 features (3, 4, 5, 17, 18, 19, 20, 21, 33)

The second feature group consists entirely of post-holes (Table 1). Dimensions of the post-pipes were preserved in section in five examples (Table 2), but in most cases the upper fills were disturbed and it is probable that the post had been removed (illus 6). In one instance, Feature 33, a post-pipe was seen in plan, but operational constraints precluded its full excavation and recording. The size of the posts, especially those on the western side, suggest the use of large to massive timbers (0.4 m in Feature 5).

Although there is no stratigraphic evidence to warrant integrating these features into a single structural entity, their arrangement can be interpreted as, at least, a representation of a concentration of



ILLUS 6 Excavated features Area 1: sections

activity around the present site of the stone. Speculating from the field evidence, it is not unreasonable to interpret these features as the remains of a scaffold or a derrick used to raise the stone to the vertical.

Group 3 features (11, 12, 14, 15, 25, 26, 27, 28, 29, 30, 31)

This group, like Group 2, consists entirely of pits, but these are generally shallower and are less well defined, with more graded profiles than Group 2 features. Like Group 2 they are arranged in a penannular pattern, although, clearly, no upright stone remains to give such an hypothetical

TABLE 1
Post-hole dimensions in metres

Feature	Diam	Depth	
3	0.20	0.85	
4	0.55	0.85	
5	0.90	1.04	
11	0.55	0.35	
12	0.55	0.35	
14	0.55	0.20	
15	0.60	0.15	
17	0.35	0.15	
18	0.30	0.09	
19	0.65		not excavated
20	0.40	0.62	
21	0.50	0.16	
22	0.30	0.10	
23	0.25	0.08	limit of excavation
24	0.30	0.10	
25	0.45	0.22	
26	0.50	0.30	
27	0.28	0.14	
28	0.48	0.42	
29	0.30	0.15	
30	0.40	0.16	
31	0.20	0.18	
32	0.70	0.40	
33	1.00	0.60	limit of excavation
37	0.45	0.44	
42	0.15	0.10	

TABLE 2
Post-pipe dimensions in metres

Features with clear post-pipes

Context	post-pipe diam	depth of truncation	
3	0.26	0.55	
4	0.24	0.48	
5	0.40	0.10	
20	0.12	0.25	
23	0.15	0.50	
32	0.34	-	seen in plan only
33	0.20	-	seen in plan only

structure credence. It is probable that they are the weathered vestiges of once deeper post-holes. If this interpretation is correct and the pattern is not merely a product of the trench location, then it is tempting to propose a similar function to that of Group 2.

Group 4 features (22, 23, 24, 32, 36, 38, 41, 42)

Within the excavated area there were several features, including two post-holes (Features 23 & 32), which did not accord with the perceived patterning of Groups 2 and 3. It is recognized that this nonconformity may result from variations in the relative state of preservation and/or the extent of the excavated areas, and that of the Group 4 features cast some doubt upon the perceived cohesion of Groups 2 and 3. A single fragment of post-medieval pottery was recorded from Feature 36.

Group 5 features (1, 7, 9)

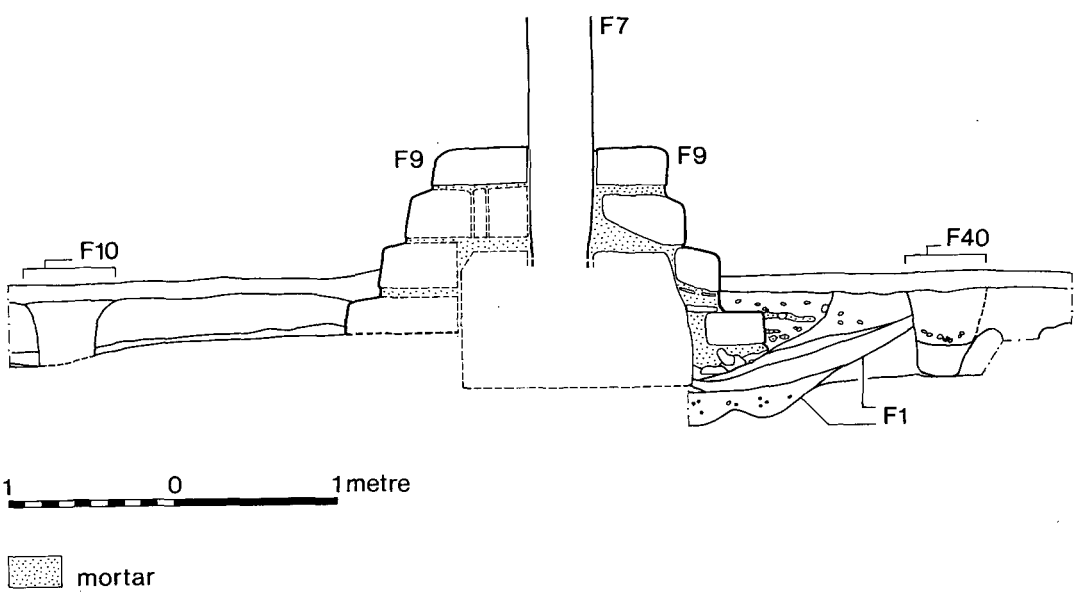
With the removal of the upper two courses of the stone collar on the eastern side of the monument, the large, rectangular, base stone was revealed. Sueno's Stone itself is socketed into this block; the socket is not placed symmetrically, being located slightly to the west of the centre.

Unfortunately, concerns for the safety of the excavation personnel and for the stone itself prevented the further removal of the masonry. Consequently, it was only possible to examine the base stone on its eastern side. This exercise was more limited than that of 1926 and it was not possible to remove the thick layer of lime mortar that obscured much of the lowest figurative panel and the edges of the socket. For this reason much of the cross-sectional detail of the collar, socle and socket (illus 7) is conjectural.

The socle stone was set into a shallow pit (Feature 1), seen partially in both plan view and section at various times in the course of the convoluted excavation process. A steep-sided profile on the north, south and west sides is suggested by this evidence. Access would have been from the east where the side wall of the pit formed a gentle gradient. This corresponds to the layout of the post-holes in Group 2 and particularly to the location, on the western side, of the more massive posts within the putative derrick structure.

No dating evidence was retrieved from this limited excavation. Nor was the sequence of erection apparent: either the socle block was first levelled and then the upright shaft inserted, or the two elements were preassembled and then raised. Neither operation would have been easily accomplished and considerable technical problems, such as the need to control the rotation of the base stone in its pit at ground level, would have been encountered.

Examination of the photographs from the ill-recorded excavations of 1926 (illus 8) shows how the lowest panel of fighting or parading figures has been carved on to the slightly concave



ILLUS 7 Section through the socle and the supporting masonry. The broken line indicates a conjectured continuation of the visible edges to stones and features. The section has been collated from several partial profiles recorded at various times in the three seasons of field-work.

ILLUS 8 Sueno's Stone excavated in 1926. (*Crown Copyright: RCAHMS*)

surface of the stone. The stone at this point has been cut with a distinct waist before expanding into the bevelled upper surface of the tenon. Unfortunately, in 1990 it was not possible to examine this area in sufficient detail to allow any opinion on the possible sequence of carving, but from the 1926 photograph it appears that the stone was already waisted before the figures were cut.

In the 1926 photograph, the profile of the uppermost stone from the collar can be seen running through the second panel at shoulder height picked out by a line of residual mortar. The surface of the stone beneath this mortar line is clearly less weathered than that above. This photograph suggests that much of the surface damage, at least at this level on the stone, has occurred between the early 1700s and 1926. This may imply that the stone has suffered two forms of damage: abrasion from wind-born particles may have had greater effect close to the ground surface, whilst higher up the stone there were more signs of influence from chemical agents.

Areas 4–10: test pits

The test pits (fiche Table 4) did not reveal any intact archaeological sediments and demonstrated, especially in the area beyond the confines of the fence, that tillage has extensively remodelled the land surface. The deep profile in Area 5 (1.6 m of topsoil) demonstrated the degree to which a

more ancient topography is now masked. No dating material was retrieved from these sample pits and it has not been possible to assess the rate nor the date of the onset of this weathering. It is thus impossible to estimate the state of the landscape into which Sueno's Stone was originally set, although it is likely that the local topography would have been more pronounced.

Fieldwork summary

From the field evidence alone it has been demonstrated that there was a concentration of archaeological features around the site of the monument, but it was not apparent whether this concentration reflects areas of differential erosion or repeated activity around the site of the monument. The penannular arrangement of excavated features (Group 2) around the monument has been interpreted, merely on the basis of proximity and pattern, as being linked to either the original erection or carving, or to some subsequent phase of repair. The almost identical penannular arrangement of very degraded features to the south of the stone (Group 3) can be interpreted, if similarity of form can be equated to like function, either as evidence of a second setting of the monument, or as evidence of a second monument, or as the basis for refuting the interpretation of the relationship between Group 2 features and the stone. This latter argument would rest its case on the mere coincident location of various types or dates of archaeological site.

Post-excavation analysis

No post-excavation analysis or research was undertaken until after the final season of excavation, because the necessarily disjointed programme of fieldwork had militated against a clear site interpretation. This has led to some delays in the post-excavation programme, with the final radiocarbon dating being completed only by October 1993.

The objective of the post-excavation work was to test the fieldwork hypotheses and to enhance the fieldwork results with dating evidence. The initial phase of post-excavation work concentrated on the processing of samples. Sub-sampling and wet-sieving of bulk samples from all sediments produced materials for radiocarbon dating, soils analysis, geological appraisal, artefactual and macroplant analysis.

Dating

Two sources of chronology have been pursued. Samples of charcoal from secure contexts were sought to supply radiocarbon dates for the erection of the monument and for the various activities located around it. The local historical archive was investigated to provide some resolution to the various local traditions concerning the history and use of the monument. This historical record was also examined to resolve various gaps in the history of the monument since it was taken into State care in 1923.

Analysis of the distribution of charcoal suggested that it was present throughout the soil profile, but was concentrated in the deeper deposits (see Charcoal Report in microfiche). Examination of the size range showed that, generally, charcoal occurred as small fragments with large angular fragments being the exception. The small-fraction material was mostly within the average size range for 'pea-grit' and was located probably as a result of worm action.

Of the five contexts containing large angular fragments of charcoal, only two were secure enough for radiocarbon dating (Table 3). These are both from post-holes within Group 2, the penannular setting of posts around the monument. Context 30, from Feature 5, represents the latest

TABLE 3
List of radiocarbon dates obtained from Sueno's Stone

Lab. Code	Context	Date BP	Calibrated Date Range 1 sigma	2 sigma
GU-3440	0300	1000±50	AD 990–1035	AD 960–1160
GU-3443	0046	1270±50	AD 673–786	AD 660–880

secure fill of the post-pipe. The sample contained the charcoal of a single species (*Ulmus* sp., elm) which could have been derived from the original post, although there was no supporting evidence for such a conclusion. Feature 3, Context 46, was also the uppermost secure context within the post-pipe. Neither context occupied an unequivocal position in the site stratigraphy and the interpretation of the resultant dates cannot be precise. At best, both may be claimed to represent *terminus ante quem* dates for the infilling of their respective post-sockets.

It is very unlikely statistically that these two dates represent the same event, and given the relatively small diameter of the charcoal roundwood dated from Context 46 (0.1 m) – the earlier sample – this disparity cannot easily be explained as an effect caused by the use, within the same structure, of timber of widely disparate ages. Instead, the dates can only used be as prima facie evidence for at least two distinct events within the area. These dates must also cast doubt on the archaeological integrity of the perceived grouping of features (Group 2) in that it suggests that these features result from more than one episode of activity.

Soil analysis

Soil samples from 41 contexts were subjected to the standard suite of analyses (soil acidity (pH), loss on ignition (LOI), phosphate and calcium carbonate content). The tests were designed to establish the character of the archaeological and natural sediments and to identify patterns of results which may reflect depositional processes. A corollary to this was also the identification of the effects of any post-depositional processes.

The results (see Routine Soil Analysis in microfiche) have demonstrated that there was a pattern of significant values for both soil phosphate and acidity in features around the monument. These figures can be interpreted only crudely, but it is legitimate to interpret them as evidence for a concentration of activity focused on the monument. It must be stressed that this observation lacks any temporal dimension and clearly has no possible relationship to the original use of the stone itself.

Geological appraisal

At the time of writing there was no precise information on the geological nature of the monument stone or its base stone, despite some claims that the stone can be provenanced to a particular quarry in Moray (Douglas 1934, 306). Permission was sought from Historic Scotland to undertake a close geological inspection of the stone but, as this would have necessitated the examination of freshly exposed faces of the stones, Historic Scotland was understandably reluctant to agree. On the lowest exposed panel of figures (but in fact the second panel, as the lowest is obscured by the uppermost step of the pediment), there are two infilled drilled holes. There is no record of the purpose of these holes and no knowledge of the location of the cores extracted from them. These holes represent the only means of non-destructive invasive

examination of the inner geological fabric of the monument, but Historic Scotland have again been understandably reluctant to allow this form of research. Until some non-destructive technique is devised, the provenance of the stone, set against the highly variable local sandstone geology, cannot be established.

Artefacts

Hand sorting of the sieved bulk samples produced a range of possible artefacts, none of which derived from sealed contexts as all are within the size limits for 'pea-grit' and may have been moved by worm action. Four certain artefacts were recovered in the course of excavation: two sherds and two flints. None of these derives from secure contexts and therefore no analysis was undertaken. The fragment of putative Roman pottery from one of the test pits (Area 6) merely adds to the corpus of Roman artefacts from this area.

Coarse fraction sorting results

When the stone was put up (or re-erected) and if it had been carved (or recarved) *in situ*, it might be expected that stone fragments would have been produced. Some of this debris would be expected to survive as part of the coarse fraction of contemporary deposits. In order to test this hypothesis, the coarse fraction material of the relevant soil samples was examined.

As part of the standard treatment of bulk samples, the non-floating coarse fraction is recovered from wet-sieving and retained as a sub-sample or 'retent'. These retents were examined for all chips, flakes or carved fragments which could be reasonably conceived as 'mason's debris'. A total of 35 contexts provided samples for examination. These were selected as the most likely deposits to have received masonry debris during the carving process. Five specimen samples were selected from the latest contexts (ie topsoil) to offer a control on the identification. The separated material was then examined for pieces of sandstone that appeared to be flaked, cut or chipped. The criteria for identification as 'mason's debris' were that no naturally polished surface survived; that any abrasion had to be consistent with directed, methodical percussion; and that geological analysis of any putative debris unequivocally correlated the material with the geology of Sueno's Stone or of its plinth.

If debris was found and a physical link made between the deposits and the monument, it was recognized that the interpretation of that link would remain problematical. It is by no means clear that the carving occurred at one time nor that the stone has been erected only once. Indeed the roll-moulding on the vertical edges of the stone appears to be damaged at several levels, possibly a consequence of different phases of engineering works.

The inspection of the retent material produced no credible specimens and no link was demonstrated, by this means, between archaeological deposits and the stone.

Macroplant analysis

In addition to wood charcoal a small assemblage of carbonized macroplant material was recovered from the sieving programme (see Macroplant report in microfiche). No significance can be placed on these finds as they are from within the zone of worm sorting and are within the size range for worm-transported materials.

DISCUSSION

The archaeological investigation of Sueno's Stone sought to resolve the debate on the date of the erection and the carving of the monument in its present location and to recover evidence pertaining to its function. In addition, the project also sought to record all other forms of archaeological evidence that were likely to be lost as a result of the construction of the glass pavilion. The project has established, in conjunction with previous excavations and geophysical surveys, that archaeological features and sediments survive only close to the present location of the monument. Although there is both physical and historical evidence of ploughing in the area, and circumstantial evidence for the degrading of the subsoil surface (based on the shallow depths from features in Group 3), there appears to be a genuine lack of archaeological features away from the monument. It would therefore appear that activity has been focused upon this location for a very considerable period of time.

Some of the excavated features can be directly correlated to historically known activities, but the majority of features cannot and are presumed, generally, to predate the reliable historical record. Amongst these putative early features, two distinct but similar patterns were recognized. The first pattern (Group 2 features) has been interpreted as an arrangement of large post-sockets. Because of the very substantial nature of some of the post-sockets from Group 2, and their layout around Sueno's Stone, it was speculated that these sockets are the remains of a large structure – perhaps a derrick – used in either the erection, carving, ritual or repair of Sueno's Stone. This interpretation has obvious implications for the interpretation of the second group of post-hole-like features (Group 3) to the south of the stone. There was no direct stratigraphic link between the excavated features and the monument and the radiocarbon dates imply that the apparently simple pattern of features in Group 2 in fact masks a possibly complex chronology of structural elements or other unknown events. The methods employed to recover datable charcoal infer that the resultant dates are a random and chronologically true sample of the sediment forming processes. The two dates thus imply that a later first millennium AD date can be inferred for the activities represented by the Group 2 features. Unfortunately, it is quite impossible to extend this crude dating to cover the Group 3 contexts.

Amongst the non-floating sub-samples from the wet-sieving programme, 'masons' debris' was sought to establish whether the stone was carved *in situ* or transported in a finished state. From the outset, it was recognized that this exercise had a low probability of success: absence of evidence need not be evidence of absence. Thus the eventual absence of any recognizable carved fragments from sealed contexts did not disprove manufacture *in situ*. One explanation for the lack of any recognizable debris could be that the stone was carved by drilling and fine chiselling, neither operation being likely to produce distinguishable fragments.

The depiction of two stones on Timothy Pont's map (c 1590) is not absolute proof that Sueno's Stone existed at this time, nor at precisely its present location. But Pont must be regarded as a reliable recorder as his maps formed the basis for cartography in this area for the next two centuries. It is certainly tempting to link his depiction of two stones with the two settings of post-holes. This speculation must be balanced against the absence of any mention of Sueno's Stone from either Aubrey's 16th-century or Lhwyd's 17th-century gazetteers (Southwick 1981, 19). Earlier references, listed by Douglas (1934), to a pillar or obelisk at Forres seem to date this monument to at least the 11th century, but none of these texts is without problems of interpretation which are outwith the scope of this paper. Although the cartographic evidence is not indisputable,

Southwick's refutation of Sueno's Stone's place in the landscape earlier than the 17th century must be discounted.

The carvings on Sueno's Stone have hitherto inspired two related lines of enquiry. The first has examined iconography and style to gain an insight into the date of carving (eg Henderson 1983) while the second approach has sought to interpret the symbolic (Jackson 1983; 1993) and historical meaning (Sellar 1993). The two lines coincide in a concern to identify the author or instigator of the carvings, leading into general questions about its social and political context (Shepherd 1993, 85). Although there is general agreement that the monument must date to between the ninth and 11th centuries, greater precision has not been achieved and is probably not possible. Stevenson likened the 'monotonous' interlacing and dense panels of figures to Irish crosses of the 10th century (1954, 128). The two side panels depict wiry vine scrolls inhabited by men (as in the Book of Kells) which Henderson suggests may indicate a date somewhat earlier than the 10th century, but she also suggests that a later date could still be possible if the stone represents a re-emergence of this style (Henderson 1983, 258). Jackson dates the 98 figures depicted variously in battle, parade and decapitation scenes, to the ninth century and suggests that the personage whose authority caused the stone to be erected, and who is depicted amongst the more static scenes, is identified as Kenneth MacAlpin (1984, 173). The stone is seen by Jackson (1993, 94) as an evocation of MacAlpin's military and legal authority over northern Pictland, married to a moral authority ordained by both traditions of Christianity (Iona and Rome). Even if the precise details of the historical context are not obtainable, the iconography, with its celebration of rule ordained by military might and clerical authority, offers a political context which is matched by the wider archaeological context within Moray. Recent research offers a landscape that is well populated by late prehistoric and early historic sites which contain the trappings of secular (eg Burghead) and religious (eg Kinnedar) centres of political power (Shepherd 1993).

The excavation in preparation for the glass pavilion demonstrated that the present location contains no evidence of burial. This, and the lack of detectable features in the wider vicinity, must now put to rest all claims for the stone as a sepulchral marker. The 1990–1 archaeological and engineering projects have also served as a reminder of the sheer size of Sueno's Stone and its massive base stone. Although the inability of present-day technology to move the stone without significant risk does not entirely rule out the possibility of a successful earlier transportation, the latter seems improbable. It seems more reasonable to presume that the stone stands where it has always stood. Perhaps a more appropriate reaction to the monument is simply to recognize the mastery of the carving and the stone erector's craftsmanship, both of which must reflect the authority, whether political, military or ecclesiastical, of the personage who caused the monument to be set up.

With the erection of the pavilion, researchers can no longer expect to find crucial information under the ground (although the unseen and untouchable deposits under the base stone should not be forgotten). Instead, future analysis and research must rely on the nature and content of the carvings for further information. It is noteworthy that all of the principal previous writers have treated the carved faces in isolation from each other, and it might prove profitable to examine the iconography and craftsmanship of the monument as a whole. Given the disparity between the two radiocarbon dates, it is reasonable to suggest that activities at this location took place over a period of several hundred years in the later first millennium AD. If this insight is transferred to the stone it also seems worth considering whether the carvings bear similarities of design or execution or whether the erection of the monument and the process of carving are elements in a longer sequence of symbolic activity on this site.

CONCLUSION

At the outset, it was recognized that this excavation would result in the final removal of what was, seemingly, the only hitherto untouched strand of evidence about the stone, its origins and its functions. It is argued that its present location is set amongst archaeological features which date either to the period AD 600 to AD 1000 or to the period of c 1850 to 1950. It is also proposed, but with considerably more apprehension, that this location was in some way special and that the concentration of features is not merely an effect of survival. With similar caution, the second, eroded, setting of features is seen as a duplicate of the arrangement of substantial post-holes set around the base of the monument and taking inspiration from Pont's map, it is speculated that two stones may once have existed.

None of these interpretations is irrefutable, but the erection of the glass pavilion marks the closing of the archaeological avenues of enquiry. Further research must return to the nature and content of the stone itself.

It will remain a matter of considerable public debate (cf Woods 1992) whether the new glass pavilion has been the correct solution for the curatorial problems of the stone. It has been a privilege to work at Sueno's Stone and to witness the construction of the pavilion. In the course of this project it was particularly obvious that the monument draws visitors from far afield and with a very diverse suite of interests. With the new pavilion in place, the stone is given a new and very dramatic setting and continues to attract visitors (even in winter). It is probable that the monument will continue to be seen in Forres as a very considerable asset, and by Historic Scotland as a very important test-bed for its ideas on conserving and presenting field monuments.

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