# A pit containing an undecorated Beaker and associated artefacts from Beechwood Park, Raigmore, Inverness

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#### ABSTRACT

In April 2004, an archaeological evaluation took place prior to development at Beechwood Park, adjacent to Raigmore Hospital, Inverness. A pit was found to contain both an undecorated Beaker and a plano-convex knife at the base, with later slag from iron smithing dispersed in the fill. These associations are discussed and placed in their local and national context.

#### **BACKGROUND**

Although no previous archaeological work had been conducted on the current site, the landscape on the southern and eastern periphery of Inverness (illus 1) has undergone significant recent development, with roads, domestic housing, industrial development and associated service infrastructure all attracting archaeological work. This has led to the discovery of varied archaeological remains (Carter & Russell-White 1993; Wordsworth 1999; Cressey & Sheridan 2003; Strachan & Cressey 2003; Suddaby forthcoming a; forthcoming b).

Bronze Age remains, selectively shown in illus 1, are well represented in the area with the original location of Raigmore Cairn (Simpson 1996) lying only 1km to the north and the Seafield ring-ditch (Cressey & Sheridan 2003) being 1.5km to the north-east. Several cists, some with Beakers and associated goods, occur around Culduthel (eg NH64SE 36) to the southwest. Non-funerary remains include a burnt mound at Beechwood Farm (Strachan & Cressey 2003), 0.75km to the north-east, and both pits

and a palisade trench were recorded during the construction of the Southern Distributor Road (Suddaby forthcoming a).

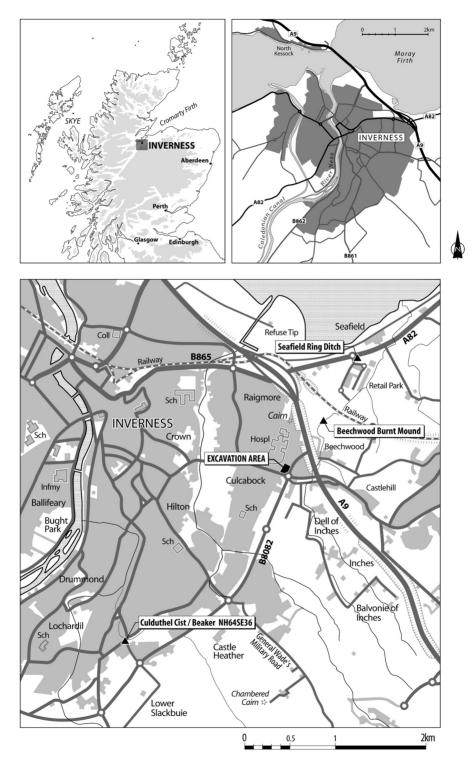
A trial trenching evaluation, amounting to a 10% sample (919sq m) of the development's area, was carried out in April 2004 (Suddaby 2004). In addition to the pit detailed in this report, this work also revealed machine-dug test-pits and linear ditches running parallel to the Old Perth Road, a former military road. A subsequent watching brief (Kirby 2004) led to the recording of a possible oven, seven pits and a post-hole (features numbered on illus 2). These features, some clearly modern, are detailed in the archive reports (ibid; Suddaby 2004).

#### THE SITE

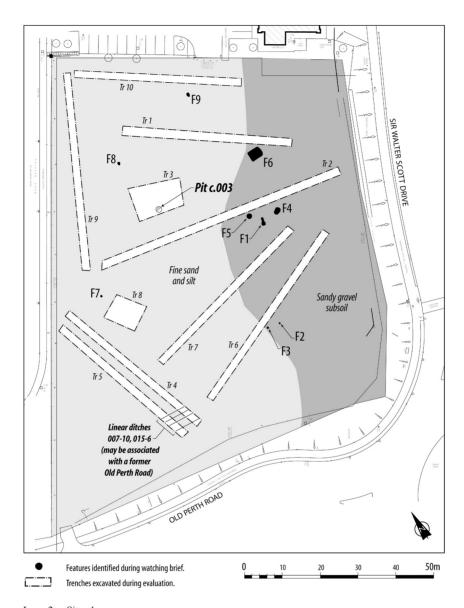
The development site at Beechwood Park (illus 2) lies on level ground at the corner of Sir Walter Scott Drive and Old Perth Road, 50m to the south-east of Raigmore Hospital on the eastern outskirts of Inverness (NGR: NH 687 446) at

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ILLUS 1 Site location map

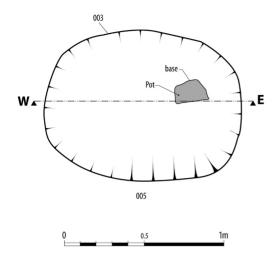


ILLUS 2 Site plan

 $\it c$  35m OD. The whole area is subject to ongoing retail and commercial development.

Both Beechwood and Raigmore lie on the northern extent of what may be a late glacial terrace at the base of a steeper scarp rising to the south-east from the floodplain, and to the east of the River Ness. This terrace, now extensively developed, is the location of many of the archaeological remains discovered in recent years.

A light yellow-brown buried soil (context 002) containing occasional charcoal flecks was found beneath the topsoil (context 001). It is interpreted as an old ploughsoil and was 0.35m



Illus 3 Pit 003 plan

deep. Sandy gravel subsoil was found on the east of the site, with a more laminated and silty natural sand and gravel occurring to the west.

The only significant find was a sub-rectangular unlined pit (context 003; illus 2–4), aligned east/west with a length of 1.25m, a width of 0.9m and a depth of 0.3m. This contained a single fill (context 004), a homogeneous creamy-brown silty sand with occasional small gravel and very occasional charcoal flecks. There was little colour contrast between the fill of the pit

and the overlying buried soil. There was no evidence for any overlying cairn or of any covering slabs.

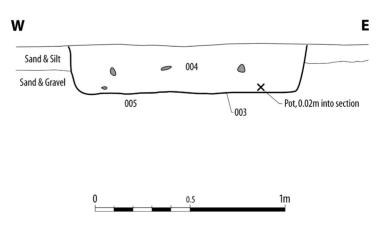
A crushed pottery vessel (illus 5. Sheridan & Hammersmith infra) found lying at the base of the pit and was subsequently identified as an undecorated Beaker This rested on its side in the centre of the eastern end of the feature, with its mouth facing south. It contained a creamy yellow-brown silty sand, similar to that present in the pit. Several small pottery sherds recovered from above the pot itself appear to represent post-depositional disturbance through root or animal action within the pit. A small plano-convex knife (illus 6, Ballin infra) was also recovered from the base of the pit and both appear to represent primary deposits. No bones were recovered and there was no staining to indicate the past presence of a body. There was also no evidence in the section for the presence of a coffin; no packing stones lay in the base or at the sides and Fill 004 continued without interruption up to the edge of the feature. Iron slag was recovered from the surface of this pit and within its fill.

#### THE BEAKER

# Alison Sheridan & Hattie Hammersmith

An undecorated, fairly small Beaker (illus 5), which would have been intact when deposited and which is now c 90% complete, was recovered from the fill of Pit 003 along with a flint plano-convex knife. The vessel was found at the base of the pit, lying on its side; it had been crushed flat. The pot was reconstructed using HMG Paraloid B72.

The vessel has a slightly angular S-shaped profile with a very gentle carination at around a third of



ILLUS 4 Pit 003 section

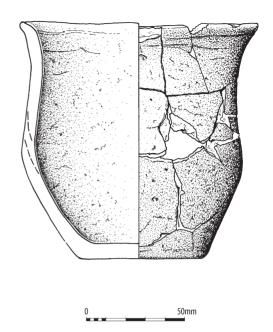
its height. The neck flares slightly to a simple, part-rounded rim; the diameter at the carination is marginally smaller than the rim diameter; and the base is flat inside and out.

The vessel measures 120mm in height, with a rim diameter of 115–19mm, maximum carination diameter of 112mm, base diameter of 61–3mm, and wall thickness of 7–8mm. Its reconstructed weight is 367g, with additional sherds and fragments, weighing 35g, which could not be securely refitted to the rest of the body.

The exterior and interior are a pinkish-buff, slightly mottled on the exterior, and the core is a light to medium grey. The fabric is hard, fine and almost free of inclusions; minute specks of mica, which sparkle on the surface, had probably been present naturally in the clay. The surfaces are fairly smooth and mostly matte; part of the interior of the neck has a low sheen. Minor pitting of the surface is due partly to the burning-out of accidentally-included organic matter in some cases, partly to the loss of stone inclusions in some others and partly to postmanufacture abrasion. One such pit, on the outside of the neck, superficially resembles a grain impression but may well have been caused by post-manufacture damage.

The pot appears to have been made from four sections of clay, comprising the base and lower belly (to the carination), the upper belly, the neck and the rim. The base and lower belly were pinched out from a lump of clay to form a bowl, then a coil was added to form the upper belly. The junction between this coil and the bowl can be seen where the surface has spalled away. On the interior the edge of the coil was smoothed downwards (producing a diagonal spalling plane running around the inside of the carination), and on the exterior, the lower belly edge was smoothed upwards, to effect the join between the two. The neck was formed using another, slightly wider coil and a thickening of the wall just below the rim, along with the breakage angle of a couple of sherds from the rim. indicate that a further coil was added to form the rim and to bring the vessel to the desired height.

Shallow faceting is visible on the exterior and interior of the neck, suggesting the use of a spatula to shape the pot when the clay had partly dried. One or more spatulae also seem to have been used to scrape the surfaces, principally to smooth over coil joints. This can be seen at the carination, where a low ridge runs part of the way round the vessel, and on the upper and lower belly, where a broad spatula may have been used. It is unlikely that this scraping would



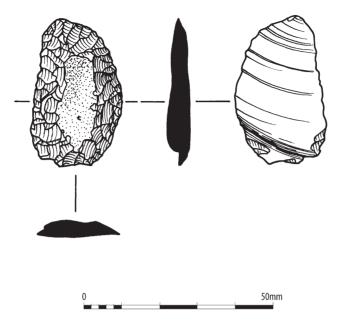
Illus 5 The Beaker

have been undertaken primarily to thin the walls. This technique of vessel shaping, using a spatula, is known from some Continental Beakers; in some of these cases it had indeed been used to thin the walls where initial construction using thicker walls was necessary in order to support the vessel's height (van der Leeuw 1974, 104-7 and see below). Some of the pitting observed on the pot's exterior may be due to the accidental pulling-out of tiny stone inclusions as the surface was scraped. The virtually inclusion-free nature of the fabric is also a feature seen on some Continental Beakers, and van der Leeuw has argued (ibid, 106) this will have aided the scraping process: with a heavily-gritted pot, the stone inclusions could have led to excessive scratching and pitting of the surface. As regards firing, the surface and core colour suggest that the vessel had been fired rapidly in oxidizing conditions, the greyness of the core indicating incomplete combustion of organic material present naturally in the clay (Gibson 2002, 45, 47).

# THE PLANO-CONVEX KNIFE

# Torben Bjorke Ballin

A small plano-convex flint-knife (illus 6) was recovered from the base of Pit 003. The implement



ILLUS 6 The plano-convex knife

is relatively small  $(38 \times 23 \times 7 \text{mm})$  and is based on a primary or secondary flake. It is not possible to define the percussion technique applied to detach the piece, as the proximal end has been modified. It has been retouched dorsally along the entire circumference, and all edges are covered by acute invasive retouch. Only a narrow corticated band in the centre of the dorsal face is not retouched. In cross-section, the piece is plano-convex, and it has an obtuse proximal tip and a rounded distal end. The lateral cutting-edge is almost straight and the opposed 'back' is distinctly curved.

The flint tool is clearly a diminutive plano-convex knife. As pointed out by Clark (1932, 158), the term plano-convex knife 'accurately describes the section of the implement', which was usually produced on an elongated flake or blade, and 'the point is normally obtuse, if not rounded'. It is easy to understand why the term 'slug-knife' was adopted by earlier generations of archaeologists, but this term should be avoided as not all plano-convex knives are small and slug-shaped (cf Clark 1932, plate XXXII).

The Beechwood Park knife is relatively small (greatest dimension 38mm), but occasionally smaller specimens are recovered, such as the piece from

Kiltry Knock (greatest dimension 32mm; Shepherd & Cowie 1977). Occupying the other end of the scale, an example from Stenton, Haddington measured 70mm, with two other finds from the Borders (High Cocklaw, Berwick: 65mm; Denholm, Roxburgh: 62mm) being only slightly shorter (Finlayson 1997), although it may be noted that none of these exceed the width of 23mm attained by the Beechwood Park knife. The thickness of the Beechwood Park knife (7mm) is near the upper end of the scale range (5–8mm).

#### DISCUSSION

Scottish plano-convex knives have been discussed on several occasions (eg Finlayson 1997; Ballin forthcoming), and most of them clearly date to the Early Bronze Age period. Slender blade-based pieces, occasionally with polished edges, date to the transitional phase between the Early and Late Neolithic periods (Manby 1974, figs 34, 36 & 37), but plano-convex knives are most common in Early Bronze Age contexts and, in particular, in association with Food Vessels (Clark 1932, 159–60; Simpson 1968; Longworth 1981, 27).

There can be little doubt that the present piece was manufactured during the Early Bronze Age period, but the question of its deposition is more difficult to

answer. The association with a Beaker would usually indicate either an Early Bronze Age burial or ritual deposit. Based on use-wear analysis of the Sketewan knife and similar Scottish pieces, Finlayson (1997) concludes that most, if not all, grave-found planoconvex knives were deposited in an unused state, and therefore probably manufactured specifically for deposition in burials. Microscopic use-wear analysis of the knife from Beechwood Park was not carried out.

#### THE SLAG

# Dawn McLaren & Andrew Heald

Three fragments (132g) of possible metalworking debris were visually examined, allowing them to be categorized on criteria of morphology, density, colour and vesicularity. The slag has been described using common terminology (eg McDonnell 1994; Spearman 1997; Starley 2000). Despite the limited size and range of the assemblage, where discernible the collection appears to be associated with iron smithing, with the three pieces identified as fragments of hearth bottom, remains from smithing and 'unclassified vitrified material' (Crew & Rehren 2002, 84). A full catalogue of the material is included in the site archive.

All of the slag was recovered from one context, the fill (context 004) of Pit 003, one fragment from the surface and the other two approximately halfway down in the fill. The presumption must be that the slag was intrusive and unconnected to the other finds in the pit. The fill is assumed to have been disturbed through root or animal action. The small quantity of material, and the absence of both diagnostic micro-slags, such as slagspheres and hammerscale, and structural elements (eg hearth lining) does not suggest this assemblage represents the remains of in situ metalworking.

## DISCUSSION

# Ian Suddaby & Alison Sheridan

At Beechwood Park, the sole significant pit feature contained primary artefacts of types that are normally associated with graves dating to the Copper or Early Bronze Age. The secondary artefacts within it post-date this putative burial by up to two millennia.

Assuming a funerary function for the pit, the extent of the work at Beechwood Park allows certainty that this is an isolated feature and is therefore unusual (Ralston 1996). Here, the absence of any traces of a stone component, either in the form of a cairn or of a marker stone, is paralleled at Newmill (Watkins & Shepherd 1980). The Beechwood Park feature does, however, conform to the recognized preference for burials in freely drained sand and gravel deposits.

The association of an undecorated Beaker with a plano-convex knife in an unenclosed subrectangular east/west aligned pit is unusual, but is strongly suggestive of a grave. There were, however, no traces of human bone, and there was no recognized staining, either from a body on the gravelly floor of the pit, or from an organic coffin within the fill. The size of the pit would allow sufficient room for a crouched burial.

That the Beechwood Park vessel is undecorated is unusual in terms of Beaker pottery, not just in Scotland but across the UK. Clarke's (1970) Corpus lists only 11 undecorated Beakers in Scotland, and only another 17 undecorated examples in England and Wales. Notwithstanding this rarity, it should be noted that two are known from north-east Scotland: one (found after Clarke's *Corpus* was published) from Boghead, Fochabers, Moray, some 75km to the east of Beechwood Park (Burl 1984); the other from Slap, Turriff, Aberdeenshire (Ledingham 1874), around 135km to the east. The former was found in a pit, thought not to be funerary in nature but located close to a preexisting Early Neolithic funerary monument; it accompanied sherds of an All Over Cord (AOC) Beaker (Burl 1984, illus 11.45) and of a probable All Over Ornamented Beaker (ibid, illus 11.46). The Slap Beaker was found in a cist, accompanying a crouched inhumation. The Boghead vessel, with a sharper carination than the Beechwood Park example, is 250mm tall; the Beaker from Slap, with a more sinuous profile and a protruding foot, is 150mm tall, closer in height to the Beechwood Park example.

In shape, the Beechwood Park vessel is comparable with vessels of Clarke's AOC, European Bell Beaker (E) and Wessex/Middle Rhine (W/MR) types; according to Lanting & van der Waals (1972) and Shepherd (1986), it would fall within their Steps 1-2; according to Case (2001), it is a 'Group D' vessel; and according to Needham (forthcoming), it would count as either a Low-Carinated Beaker, or as a Low-Bellied S-profile Beaker. Whichever scheme one chooses to use, it is clear that this kind of Beaker is likely to be early in the currency of Beaker pottery use in Britain; its shape is readily paralleled in the Middle and Lower Rhine (Needham forthcoming). Confirmation of the early date of AOC pottery in Scotland, between c 2450 and 2050 BC, has been provided by recent and reliable AMS radiocarbon dates from Sorisdale, Coll, Dornoch Nursery Cist, Highland and Eweford, East Lothian (Sheridan in press). Unfortunately, the similarly earlylooking date for the Boghead material (SRR-687, 3867 ± 70 BP) has had to have its standard deviation increased to  $\pm 110$  to allow for the fact that the date was determined before the mid-1980s (see Patrick Ashmore's radiocarbon date list on www.historic-scotland.gov.uk), but even so, the adjusted 2-sigma calibrated range places this pottery within the second half of the third millennium BC, and the Continental parallels (especially for the putative All Over Ornamented Beaker), indicate a date closer to 2500 BC than to 2000 BC (Drenth & Hogestijn 2001).

Further, an early date for the Beechwood Park vessel would be consistent with the fact that its specific mode of manufacture closely echoes Continental Beaker manufacturing practice. This Continental ceramic tradition contrasts strikingly with indigenous Scottish (and indeed British) Late Neolithic ceramic manufacturing practice: quite apart from any differences in form, the use of scraping as a means to shape a vessel is, for example, unprecedented in Britain. That Beaker pottery in general represents an alien novelty that reached Britain and Ireland from the Continent has long been recognized (eg

Clarke 1970), but whether this novel ceramic tradition was introduced by immigrant potters, or learned through cross-Channel/North Sea contacts (or indeed both), has long been a matter for debate (eg Brodie 2001). The discovery of the 'Amesbury Archer' in Wiltshire, a genuine immigrant probably hailing from central Europe (Fitzpatrick 2002), has recently rekindled debate about the extent to which the appearance of the Beaker 'package' of novel practices and traditions relates to an influx of people from the Continent, however small the number of immigrants may have been, and whatever was the agency responsible for their presence.

Within Scotland, the possibility that there may have been a few immigrants from the Continent has already been raised by the discovery of a Dutch-style, All Over Ornamented/Step 1 Beaker, in a Dutch-style grave at Newmill, Perth & Kinross (Watkins & Shepherd 1980). There, the Beaker (along with a fabricator and knife of flint) was found in an east/west orientated grave pit, surrounded by a ring ditch; the presumably unburnt corpse had been buried in a wooden coffin, and all traces of the body had disappeared by the time the grave was excavated. A few other east/west orientated, non-cist Beaker graves are also known, including the aforementioned, recently re-dated pit burial at Sorisdale on Coll (Ritchie & Crawford 1978; Sheridan in press), and a pit grave dug into an Early Neolithic nonmegalithic long barrow on Biggar Common, South Lanarkshire (Johnston 1997). The fact that the Beechwood Park Beaker had been found in an east/west orientated pit some 1.25m long, along with a flint knife, strongly suggests that this, too, may have been a grave for an unburnt

Unfortunately, the absence of skeletal traces makes it impossible to prove whether this had been the case, and whether the putative 'inhabitant' had been indigenous, foreign, or a second- or third-generation descendant of an immigrant. That this may indeed have been the grave of an immigrant, arriving shortly after 2500 BC, is a distinct possibility. As for the

Sorisdale grave, the associated human remains are currently undergoing isotopic analysis as part of a major research project, the Beaker People Project, co-ordinated by Mike Parker Pearson, so it should soon be possible to tell whether that particular individual had been indigenous or not, and hence whether the hypothesis that there may have been some small-scale, Beaker-associated immigration into Scotland can be confirmed from human remains.

## CONCLUSIONS

In the Early Bronze Age, possibly around 2400 cal BC, an undecorated Beaker and plano-convex knife were placed within a pit at Beechwood Park, and may have been intended to accompany a burial. The use of a spatula tool to shape the pot is seen as indicative of Continental European techniques and a similar tool was utilized at Newmill in the decoration, although not, it seems, in forming the pot itself. The east/west alignment seen at Beechwood Park and Newmill is suggestive of Dutch influence.

Undecorated Beakers are not numerous in Scotland and the Beechwood Park example is an important addition to this small assemblage. There appear to be no striking aspects to their distribution, which reflects patterns of agriculture, commercial development, and therefore archaeological investigation. It may be amongst the earliest of Beaker forms, although the height of the undecorated Beaker from Boghead (Burl 1984) highlights the local variability that hampers firm conclusions. Decorated Beakers have been claimed to be primary in the sequence and Burl (ibid, 62) suggests that undecorated vessels may not have had a funerary function, and so may not be comparable to those that are decorated.

Noted associations of Beakers or Food Vessels with extensively retouched flint tools, whether or not conforming to the strict plano-convex classification (cf Newmill) are reinforced at this site, which further confirms the importance of the Inverness area at this time.

#### NOTE ADDED IN PRESS

A radiocarbon date has recently been obtained for the human bone associated with the Slap Beaker:  $3803 \pm 32$  BP (OxA-V-2172-31, 2290-2150 cal BC at 1-sigma, 2400-2130 cal BC at 2-sigma; Sheridan et al, in press). This confirm the currency of plain Beakers during the second half of the third millennium, while not diminishing the likelihood that the Beechwood Park Beaker dates to within the third quarter of that millennium.

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The full project archive will be deposited with the National Monuments Record of Scotland and the Highland Council Sites and Monuments Record. Finds disposal will be allocated through Treasure Trove procedures.

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