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Dress pins, bosses and pegged playing pieces: changing identities of some Early Medieval glass artefacts

Mark A. Hall[a], James Graham-Campbell[b] and David Petts [c]

aPerth Museum and Art Gallery, Perth, UK; bInstitute of Archaeology, University College London, London, UK; cArchaeology, Durham University, Durham, UK

ABSTRACT
This paper discusses, without fixing, the meaning and identity of two glass bosses from Northern British archaeological contexts of the late first millennium AD, both power-centres in a socio-cultural network encompassing Pictland and Northumbria. The emphasis is on fluidity and hybridity of meaning and interpretation, by drawing out their biographical implications as a means of elucidating the inter-linked social and functional complexity of the object–human interaction, about which these artefacts are strikingly informative.

Introduction

This paper was prompted by the discovery of a decorated glass boss at Lindisfarne, Northumberland (Table 1; Figures 1, 3a-b), during the 2019 season of the DigVentures/Durham University Lindisfarne Project, being conducted by one of the authors (DP). Another author (MH), already familiar with a second such boss from Dundurn, Perthshire (Table 1; Figures 1, 2), which he had previously suggested to be a gaming piece (Hall 2007, 51), then posited that the Lindisfarne boss was also a gaming piece. Later, the third author (JG-C) broadened the debate, noting the existence of parallels forming part of dress/hair pins that could suggest that the Lindisfarne piece (and, by analogy, that from Dundurn) were pinheads. Both identifications and interpretations – gaming piece and pinhead – are explored here, along with broader, contextual issues, before a resolution is offered that plausibly unites the two strands through an understanding of human psychology and behaviour that imparts agency and biography to – and through – material culture.[1]

Description

Table 1 provides the summary catalogue data for the two glass bosses which are very similar in size, shape and design. Such objects are comparatively rare survivals in the archaeological record and this, together with their cross-referencing similarities and

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Table 1. Summary data of the glass bosses from Lindisfarne, Northumberland, and Dundurn, Perthshire.

	Registration No.	Metrics Diameter × height in mm	Colours	Site Code and Small Find No.	Context and Date	References
LINDISFARNE	Pending	16 x 12 mm Primary basal hole diameter: c. 3 mm Second hole diameter: 2 mm	White trailing on blue ground, with 5 white knobs	LDF 19 131	2008 – c. 700–1000	Hall (2021); Petts et al. (in prep).
DUNDURN	Hunterian Museum: GLAHM138 398	15 x 15 mm Basal hole diameter: 3 mm	White swirls in blue ground, with 5 swirling, white-in-blue knobs	DN 001	103 – c. 700–1000	L. Alcock (1980); (2003), fig. 131.4; L. Alcock, Alcock, and Driscoll (1989), illus. 14.26; Hall (2007); (2021).
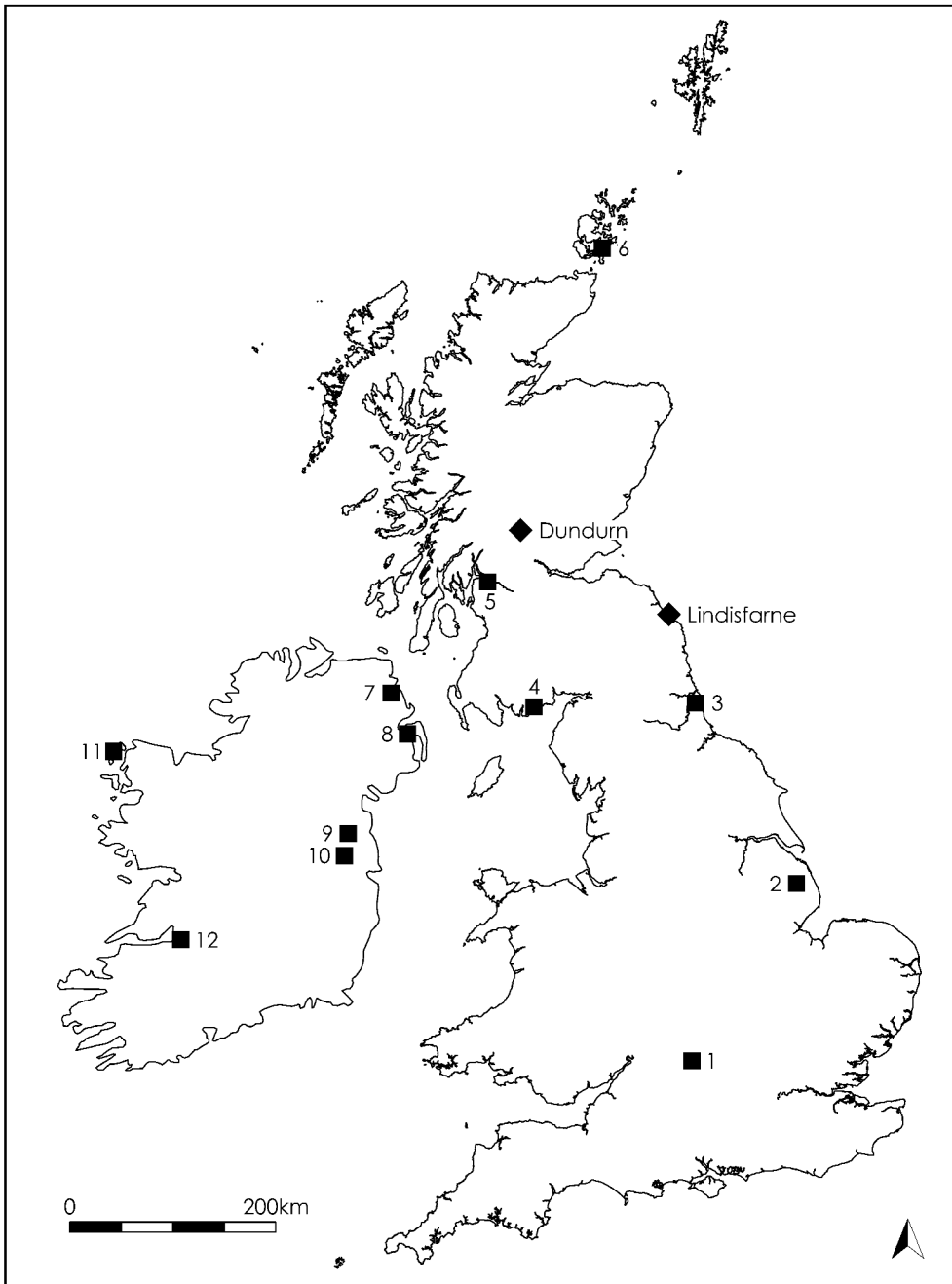
Figure 1. Map showing locations of principal sites mentioned (1) Shakenoak, (2) Little Carlton, (3) Monkwearmouth, (4) Mote of Mark, (5) Dumbarton, (6) Broch of Ayre, (7) Deer Park farms, (8) Movilla, (9) Newgrange, (10) Dunshaughlin (Lagore) Crannog, (11) Inishglora and (12) Drummillar © University of Durham.

Figure 2. Dundurn glass boss. Photography Mark A. Hall and courtesy of Hunterian Museum, University of Glasgow.

Figure 3. (a) Lindisfarne glass boss. (b) © Durham University.

distant, network-linked, geographic locations, has suggested the potential value of XRF analysis. Such is being carried out by Durham University and DigVentures, with the support of Glasgow University's Hunterian Museum, and will be reported on in the forthcoming Lindisfarne excavation report.

Dundurn (Figure 2)

The conical, domed boss from Dundurn, Strathearn, Perthshire, is composed of semi-translucent, dark blue glass, with a flat, plain base, centrally pierced by a hole 3 mm in diameter. The lower section of the boss is inset with five, irregularly spaced circles of glass, each containing four swirls of white glass, set within a darker, blue ground. These appear to be sliced from rods and pushed into the semi-molten body of the boss until flush with the outer surface. Crowning the dome are five rounded knobs or bobbles, again with swirls of white within a dark blue ground. One of these is placed centrally at the apex of the dome, with the other four placed around it, seemingly defining a 'rim'.

Lindisfarne (Figure 3a-b)

The conical, domed boss from Lindisfarne Priory, Holy Island, Northumberland, is composed of semi-translucent dark blue glass, trailed with a concentrically patterned series of quadrilateral swirls, starting at the apex and moving out and down the body of the boss, hanging somewhat like drapes. The dome is surmounted by a small, opaque, white knob or bobble, with four further bobbles evenly spaced around the apex, again effectively defining a 'rim'. The base is plain and flat. A probable central basal hole is obscured by or filled with a plug of iron, although it is not clear whether this results from the snapping, or breaking off, of an iron pin and the subsequent rusting of the remaining iron fragment (or perhaps the breaking of the tip of the shaping rod on which the boss was worked). Off-centre to this is a smaller secondary drilled (?) hole, possibly replacing the original central one.

Excavation context

Dundurn

Dundurn is a prominent knoll of rock at the neck of Strathearn, close to the outflow from Loch Earn. It is capped by a hill-fort, with a presumed royal citadel, that was occupied between the seventh to tenth centuries AD (based on radio-carbon dates given in L. Alcock, Alcock, and Driscoll 1989, 198–206). The fort is known from the historical record – the *Annals of Ulster* record a siege there in 683 (Anderson 1922, 682) – and was early recognized on the ground and surveyed in detail in the late nineteenth century, when it was interpreted as the Pictish capital of Fortrenn (Christison 1898). Royal links with the site seem to be confirmed by the reported death there of King Giric, a late Pictish or early Alban king, in *c.* 890 (Brown 2004; Woolf 2007, 119–121). In the context of Alcock's excavations in the mid-1970s, the analysis of the site moved away from

a solely Pictish hegemony, arguing for a more nuanced understanding of the place as a frontier power centre, probably changing hands between Picts, Gaels (of Dal Riata) and Britons (of Strathclyde), finishing its excavated occupation history as a power centre of the fledgling kingdom of Alba.

The glass boss was recovered from a trench – Cutting DN100/400 – initially excavated in 1976. It was found in Feature 103 of 'Rooty Roots', 'turf roots overlying a dense concentration of split boulders and large stones in the SW corner of the trench' (L. Alcock, Alcock, and Driscoll 1989, microfiche 2: B14). This trench was cut to explore the upper terrace, behind the west-facing rampart, just below the summit. This was part of the last phase of the excavated sequence, preceded by rampart construction and strengthening and, behind it, a sequence of floors and midden deposits, probably relating to a series of poorly understood structures. Finds from these earlier phases include at least one stone gaming piece and a plano-convex glass disc described as a 'glass inlay' but which the report's micro-fiche catalogue entry accepts could also be a gaming piece (L. Alcock, Alcock, and Driscoll 1989, microfiche 2: G10, cat. no. 32). Whatever buildings were in this area, their use as play-spaces should occasion no surprise. However, the spatial use of the gaming-piece/pinhead boss is harder to determine – was it a casual loss linked to the use of the rampart, or the area abutting it as a sheltered spot to play a board game.[2]

The small scale of the excavations at Dundurn leaves much still to be defined there, and the finds recovered were limited in quantity; however, the glass boss, along with a silver belt-dangler and an elaborate leather shoe, the site layout and the indications of royal (?) inauguration (including the stone feature at the summit, 'St Fillan's seat'), all indicate a site of high status. Its cultural network would surely have encompassed Iona, Dunkeld, St Andrews and Lindisfarne.

Lindisfarne

The Holy Island of Lindisfarne was the site of a major Anglo-Saxon monastery founded in 635 by King Oswald and Aidan, a monk of Iona (Petts 2017). Until the Synod of Whitby (664) it was closely associated with Iona; after this point it followed the Roman-Frankish tradition, although some connections with the Irish and Scottish churches were maintained (Stancliffe 2017). The monastery was closely associated with Cuthbert, who became Prior and Bishop, and it developed into a major centre for pilgrimage to his relics after his death in 687. The royal patronage enjoyed by the monastery ensured that it became one of the wealthiest ecclesiastical establishments in Northumbria, acquiring substantial land-holdings in Northumberland, southern Scotland and County Durham. It was subject to some of the earliest Viking raids in Britain at the end of the eighth century; the tempo of such raids increased over the ninth century, with a significant reduction in the monastic presence taking place in the mid-ninth century, although it is increasingly clear that there was some continuity on the site (cf. Iona). Until recent years there has been relatively little archaeological investigation on the early monastic site, other than some excavation within the enclosure of the later Priory; however, since 2016 there has been a series of excavations on the site by DigVentures/

Durham University, with the main focus of exploration being a trench (Trench 2) located in a field to the east of the Priory. This has revealed a sequence of eighth/ninth-century inhumations, associated with some fragments of Early Medieval sculpture. An area of possible industrial activity or metalworking of a probable similar date is also emerging.

The glass boss (SF131) was found in 2019 in a layer of subsoil (Context 2002) immediately overlying an area of burials. It is not clear whether it was redeposited from underlying layers or if it had moved from elsewhere on site. There is evidence for Medieval ridge and furrow within the field, which has clearly resulted in disturbance to the underlying stratigraphy and which may also have moved objects laterally within the general area. All the evidence from Trench 2, including a series of C14 dates, distinctive sculptural fragments, coins and other small items, points to the area having been used extensively in the eighth to ninth centuries AD.

Function and identity

Here we review the two most likely identifications of the glass bosses from Dundurn and Lindisfarne, as (i) pinheads (for dress/hair pins) or (ii) pegged gaming pieces, both within an Insular and a wider European context, with (iii) some consideration of their origins, before (iv) offering a biographical nuanced resolution to these possibilities.

Dress/Hair pins

There are few complete, so-called glass-headed pins spanning the first millennium AD from British and Irish contexts. The earliest is dated to the late first/early second century, from the Roman villa at Shakenoak Farm, near Wilcote, Oxfordshire. It is described as a 'bronze wire pin with oblate spherical head of dark glass … The top of the pin is fixed in the underside of the glass head and does not pierce through it' (Harden 1977, cat. no. 152, figs 45, 69). Its overall length is 70 mm, with the shaft slightly bent. From the same levels, scattered through the villa rooms, came seven, dark glass, hemispherical gaming pieces (Harden 1977, 106, cat. nos. 143–148, figs 45, 62–65) to which we shall return in the gaming-piece discussion below.

The Shakenoak pin was cited in the discussion of a later glass-headed pin from Movilla Abbey, Co. Down (Henderson, cited in Ivens et al. 1984, 101–102), which is unusual in having an iron pin, as opposed to the more common bronze. It was found in a gully and attributed an Early Christian period date:

> The pin shank is broken and decorated at the head by a globule of glass which is attached to the expanded pin head by a collar or applied cable which forms a ridge around the base of the globule. The matrix of the pin head appears to be composed of a mixture of opaque green and translucent pale-yellow glass. Opaque yellow trails of glass pass across the surface of the globule and render some of the translucent areas opaque. On the surface of the head there are three 'eyes' consisting of circular, colourless glass areas with a single thin trail of opaque yellow glass defining their outer edges. Another trail of decoration is produced by ten annular, colourless areas containing streaks of yellow glass, three of which contain interlocking curves of decoration, one with three and two with two sets of curves. The remaining translucent circular areas are decorated in no discernibly regular way, with yellow trails from the rest of the

heads passing across their surface. These areas containing interlocked curves at least would probably have been cut from a rod to form thin discs. (102)

The style of decoration is paralleled on some gaming pieces (see below), a type of first- to second-century AD armlet (Kilbride-Jones 1938, 366–395; Stevenson 1954, fig. 1.12), and an Early Christian period glass bead in Cambridge University Museum. The perceived uniqueness of the Movilla iron pin ceased with the discovery of a glass-headed iron pin at the rath excavated at Deer Park Farms, Co. Antrim (Lynn and McDowell 2011, 339, cat. no. 1754); in this instance, its

> glass head appears to have been formed from the fusion of two beads. The lower element is of blue glass with a single white cable loosely spiralling around it. The upper element is of blue glass which forms a cone, sloping down from the end of the pin and fused to the first element.

A broadly eighth- to ninth-century date can be inferred for this pin (as for Movilla, Dundurn and Lindisfarne).

The other Irish parallels all have copper-alloy/bronze pins, most notably the example found at Drummillar Rocks, Dromore, Co. Limerick (Figure 4) (Armstrong 1922, 80, fig. 2, no. 8; Mannion 2015, 32, 96, fig. 80). Its head comprises a half-bead of blue glass, 'from which rise knobs ornamented with white threads, the base of the head being bordered with diagonal blue bands on a white ground' (Armstrong 1922, 80). This

(a)   (b)

Figure 4. Pin head from Drummillar Rocks, Co. Limerick, © National Museum of Ireland.

fascinating object seems clearly to be a dress pin, not least because of its impressive length, at nearly 16 cm. The re-use of pegged gaming pieces as weapons to blind opponents (see Forsyth and Hall 2021, 37) would clearly have favoured longer pieces, but no certain archaeological examples of pegged pieces of such a length have yet been identified. However, the form and decoration of the glass head, with its general domed shape, blue and white colouring and knobs or bobbles, are strikingly similar to the Dundurn and Lindisfarne bosses. Taking a cultural biography approach (see below) we can infer that such domed, basally pierced, glass pieces could serve either solely or alternately as gaming pieces and pinhead elements (and, in certain politically contested and emotionally charged situations, as weapons). More broadly, we can infer the use of a complementary set of material culture, with glass elements shared across board games and dress-fittings/accessories. This complementarity is alluded to in Mannion's observation that the style of decoration of the Drummillar pinhead is similar to that of some of her Class 5 beads and that such pins 'provide evidence of an interesting marriage between two highly skilled pyrotechnical arts and also a glimpse of the collaboration of two distinctive methods of Early Medieval Irish body ornament' (Mannion 2015, 96).

Armstrong cites three further examples: a pin from Dunshaughlin (Lagore) Crannog, Co. Meath, with a blue glass bead attached to the ring (Armstrong 1922, 75, pl. XII, fig. 1, no. 4; Hencken 1950, 72, fig. 14, A; Mannion 2015, 32, 96, fig. 79); a small copper pin from Inishglora, Co. Mayo, with a head composed of an opaque blue glass bead; and an unprovenanced bronze pin with a small, translucent blue glass bead attached to the ring (Armstrong 1922, 80). An unprovenanced Irish pin has a small circular head with 'its setting filled by a half-bead of blue glass', suggesting to Armstrong that similar pins with empty settings, such as a fine example from Clonmacnoise, Co. Offaly, 'were filled in the same manner' (Armstrong 1922, 81–82, fig. 2, nos. 2–3). Before leaving the matter of pins we should note the unique pin from Ballinderry Crannog No. 2, a bronze form with a domed head, decorated with an inverted T-pattern on one face and on the opposite face a drop-shaped setting of blue glass, below it a semi-circle of red enamel (Hencken 1942, fig. 18, no. 386). To this small group can be added a complete pin seen on display by one of the authors (JG-C) in the Pitt Rivers Museum, Oxford, labelled as coming from Ireland (Pitt Rivers Coll. 121–1639). We shall return to the significance of these pieces in the concluding discussion.

A final piece of Irish evidence to be taken into account is a set of 26 glass spheres from Newgrange, Co. Meath, which are composed of predominantly dark blue (occasionally light blue) glass, with an inlaid design of white (in one case yellow) swirls or spirals (Carson and O'Kelly 1977, 46–49, pl. VIII, B). Although initially described as pinheads, the surviving indications of shanks do not appear to be strong enough to have supported the glass spheres in use, and it is more likely that they formed elements of composite necklaces or pendant earrings, with no apparent suitability for use as gaming pieces. Two substantial iron shanks were at a later point inserted into two of the spheres, which is puzzling. They were spread across the site, at a depth echoing the spread of Roman coins (of first- to fourth-century date, but mainly third–fourth century), and may similarly have been votive offerings during the same phase. Similar, single examples are known from the Rath of the Synods, Tara, dating to the first three centuries AD, from Maghera, Iniskeel, Co. Donegal (undated), and from

a passage-grave at Loughcrew, Co. Meath, re-utilized as a workshop in the Early Christian period.

A clearer re-use of a Roman glass bangle takes us back to eighth/ninth-century Early Medieval Scotland and the British kingdom of Strathclyde and its erstwhile principal seat of Dumbarton Rock, or Alt Clut, and also opens up a further area of potential fluid overlap with another class of object, that of Viking lead scale-weights, but first their gaming identification needs to be assessed. Limited excavation of Alt Clut in 1975 recovered two objects that were initially identified as possible gaming pieces. One is a flat-based lead cylinder with a fragment of Roman glass bangle set into its upper surface, and the second is a plain lead cylinder (L. Alcock and Alcock 1990, illus. 14.28), an effective pawn to the 'kingly' example. At the time of excavation, the fragment of bangle excited more interest than the composite object itself (L. C. Alcock 1975, 20; L. Alcock and Alcock 1990, illus. 14.27; on the bangle, see; Stevenson 1976, 53). As a composite object it supports well an identification as a gaming piece, most readily perhaps as a king piece for a *tafl*-type game, such as *hnefatafl* or the British equivalent *gwyddbwyll* (Hall and Forsyth 2011), one with perhaps extra symbolic resonance if we accept it as an heirloom or consciously curated Roman object, a phenomenon postulated for Dumbarton's clutch of Roman ceramics (L. Alcock and Alcock 1990, 115–116). It is not untypical to distinguish the king piece in *tafl* games from the ordinary pawns, and mixing media is a key (but not an exclusive) option to achieve that. The set of bone *hnefatafl* pieces from the Viking boat burial at Scar, Sanday, Orkney, has the king piece distinguished by an iron pin inserted at the apex (Owen and Dalland 1999, 127); a similar set from Dorestad, Netherlands, has the king piece distinguished by an iron 'crown', set with glass (Hall 2021, 38–39). The Portable Antiquities Scheme has recorded two further lead composite pieces, from Thirston, Northumberland (DUR-8BB722) and from Malton, Ryedale, North Yorkshire (DUR-8BCD07). They have lead cylindrical bodies with glass fragments set in their upper surfaces.

Such composite pieces are thus far a missing element from the sometimes large numbers of lead gaming pieces recovered from Viking camps, particularly those of the 'Great Army' in England, for example at Torksey, Lincolnshire; see also examples from Füsing, Schleswig, north Germany and Wapse, Zutphen, Netherlands (D. M. Hadley and Richards 2016, 54, fig. 26; Dobat 2017; D. Hadley et al. 2020; D. M. Hadley and Richards 2021, 106–108, 122–125, 140–144, figs). There is no indication that any of these pieces were pierced for either pegs or pins (and certainly a function as weights would not require pegs or pins), but this is not a great technological challenge, and such a pegged piece might appeal as a less costly way of imitating more glamorous dress or hair pins.

The lead pieces from Dumbarton have more conventionally been identified as Viking lead scale-weights, integral to the silver economy, and many of the pieces from Torksey, Füsing and Wapse would, on first impression, be similarly regarded: indeed, some have. The sheer quantity of such pieces recovered by metal-detecting at Torksey was key in driving Dawn Hadley and Julian Richards to seek other possible explanations and, in a personal exchange with an author of this paper (MH), he confirmed the possible use of some as gaming pieces. In particular, a more elaborate, 'pronged' piece could be

compared with gaming pieces made of other materials, notably a bone piece from the emporium at Truso, Poland (Stempin 2012, illus. 56; Jagodziński 2010).

The most recent review of lead weights by Gareth Williams (2020), in the context of a possible Viking camp identified near York (at Aldwark) covers the use of mixed-media (i.e. iron and copper-alloy) examples, the decoration of weights with other pieces of metalwork (including elements of coins, book mounts, brooches and reliquaries) and the problem of lead weights seemingly indicating the use of multiple weight standards – or even 'a complete lack of precise standards' (Williams 2020, 21). Of the diverse range of lead weights, Williams also writes that 'with so many variations in shape and size, it is not absolutely certain that all of the lead objects classified as weights are in fact weights rather than, for example, gaming pieces', adding that:

> It is also possible that many items have been wrongly identified as weights, and that they have some other function entirely, or that the measurement of weight formed only part of their function. There are three possibilities. The first is that some of the plain pieces may be gaming pieces rather than weights. A board game like *hnefatafl* has mostly pieces of one type, with a single king piece differentiated, thus clusters of lead pieces of more or less uniform size, shape and weight could represent gaming pieces, with different forms corresponding to different sets. (Williams 2020, 30)

Williams (2020, 30–31) identified the two other potential uses of these lead pieces as reckoning counters and a form of 'commodity money'.

Gaming pieces

Before broadening the discussion out, there is a key piece from Scotland needing to be taken into account because it is very similar to the Dundurn and Lindisfarne bosses, although not identical. It was excavated from the Mote of Mark, Dumfries and Galloway, by Alexander Curle in the early twentieth century and published by him as a spherical bone pinhead ornamented with bronze bosses and a triangular bronze plate (1914, 162, fig. 23). A subsequent reappraisal by Lloyd Laing and David Longley compared it with the Dundurn boss and identified it as made of pale green glass, rather than bone, with small, applied bosses (Laing and Longley 2006, 101–102, 120–121, fig. 46, no. 1232). In discussing a jet pinhead from the site (listed below as a probable gaming piece), they add that the bosses on the glass piece are made of copper alloy (104, fig. 49, no. 1230), a clear point of difference from Dundurn and Lindisfarne. Five rounded pebbles from the site are also identified as probable playing pieces (93–96). The Mote of Mark is another Early Medieval power centre, dating to the sixth/seventh century, so slightly earlier than Dundurn and Lindisfarne, but culturally similar.

Alcock's earliest publication of the Dundurn boss argues against a pinhead identification and accepts the possibility of it being a gaming piece, citing in support the wooden peg-hole board from Ballinderry, but in the end he favoured its interpretation as a decorative rivet head or boss for a piece of precious metalwork, positing that it was the type of boss skeuomorphed in Insular stone sculpture (L. Alcock 1980, 344; Hencken 1936, 135, 175–190). In his subsequent discussions the gaming possibility is left out (L. Alcock 2003; L. Alcock, Alcock, and Driscoll 1989). Here we return to it as

key to the understanding of these two pieces from Dundurn and Lindisfarne and, by extension, the other glass pinheads.

The decorative style of the Dundurn and Lindisfarne bosses is shared with some of the glass pinheads discussed above and also with a range of glass gaming pieces. The earliest examples currently known from British and Irish contexts are the set from the first-century AD elite burial at Welwyn Garden City (Harden, cited in Stead et al. 1967; Henderson, cited in Ivens et al. 1984, 102 and note 7). This set comprises 24 coloured glass domes, inset with glass eyes, which do not appear to have been intended to form the heads of either pegs or pins but rather to move on their flat bases across their gaming board. They are unique in an Insular context, with their closest parallels (as observed by Harden) remaining several much older examples from a series of Etruscan burials (Schädler 2019, esp. figs 1 and 2). Other examples from northern Italy, of dark blue glass with spiral decoration, have recently been cited as key to understanding similar pieces from burials in north-east France and in Corsica, spanning the late first millennium BC to the early first millennium AD (Manniez 2019; Diliberto and Lejars 2013, esp. 443–445 and fig. 8, map), and taken to suggest contact and exchange from Etruria westwards, which adds weight to the idea that this was the route along which the Welwyn Garden pieces moved. A possible vector for such transmission was suggested to be Celtic mercenaries, also invoked for the earlier appearance of such Etruscan glass gaming pieces in Iberia; Graells discusses several of these swirling vitreous paste counters from warrior burials in Badajoz and Murcia (Graells and Fabregat 2014, 132–137, fig. 37). The Etruscan, Iberian, Gallic and British examples combined suggest a wide currency in time and geography for such playing pieces. In broad terms, they have Insular parallels in a bead from Mochrum, Wigtownshire (Radford 1951, 62, no. 1, fig. 8.3; Stevenson 1955a, 211, fig. 1.5), and a fragmentary bead from Traprain Law (Cree 1924, 269, figs 15.32 and 17.6), to which we shall return shortly. Both would be perfectly suitable for use as gaming pieces. Perhaps closer, but not identical, are six Roman/Romano-British glass balls/marbles from Iron Age sites in Scotland, spanning the first to fourth centuries AD (summarized by Henshall, cited in Taylor 1982, 231–232, fig. 13; J. Curle 1932, 296). Four are from settlement sites – one each from Buston Crannog (Munro 1882, 242), Traprain Law (A. O. Curle 1915, 179, fig. 30), Hurley Hawkin (Henshall, cited in Taylor 1982) and Birnie (Hunter 2009) – with another two forming part of an unusual cache of apparently 'wonder-working' stones and amulets hidden in a prehistoric cairn at Monquhitter, Aberdeenshire (J. Anderson 1902, 678–679; Stevenson 1967). All are solid glass marbles with spirals and eyes of different coloured glass. The Birnie example is differenced by a small perforation or socket, possibly for a peg-shaft (see discussion below), although Fraser Hunter (pers. comm.) suggests it could be where a glass-making rod was removed. Both Hunter and Henshall echo Curle in positing a gaming-piece function, with Henshall adding the suggestion that they could be used with a dimple board or sand as a playing surface. Dimpled boards for *latrunculi* (the Roman game 'ludus latrunculorum' or the Game of Twelve Lines) are not currently known in the archaeological record but *mancala* boards (a wide group of games prevalent in Africa and SE Asia, relying on two rows of depressions and the movement of counters) are, though not so far in northern Europe. There is no inherent reason why they could not have spread from Africa and the eastern Mediterranean via Roman military units. The finds from the Roman fort at

Mumrills on the Antonine Wall include an indeterminate fragment of what may be a glass ball or a bead (Macdonald and Curle 1929, 549). These balls are solid and have some robustness, unlike the fragile globes with applied trails recorded from Charvet, France (Froehner 1879, 102–103).

Different in style but of comparable date are the seven, hemispherical, plain glass counters from Shakenoak Farm and the glass-headed pin from the same site discussed above. The head of the pin is slightly smaller than, but otherwise identical to, the gaming pieces and within the size range found in groups of such glass gaming pieces. Was it then a gaming piece adapted to serve as a pin-head? Or was it placed on a 'peg' so that it might be used securely on the ground – or on a holed board?

The question of pin vs. pegged gaming piece has arisen before in relation to so-called pins made of skeletal materials and of jet and jet-like materials, the standard classification of which is by Robert Stevenson (1955b). Excavations at the hillfort of Clatchard Craig, Fife, led to the re-evaluation of such pins by Joanna Close-Brooks from new finds there that included a hollow bone knob, perforated underneath and found with a short bone shank or 'pin', broken at one end (13 mm long), which fits the hole in the knob. It is worth quoting her in full:

> The identification as pinheads depends on a round knob from the Broch of Ayre, Orkney, with an iron pin some 54 mm long below the head [Graeme (1914, 38, no. 4) suggests that this is an awl-like tool; Hedges (1987, 76–77]. The writer believes that many of these knobs, particularly those flattened below, are actually pegged playing pieces used with perforated boards or just stuck in the ground. The discovery of some 11 examples at Ballinderry Crannog No. 2, five apparently found together, may support this view. The same arguments apply to the larger jet or shale 'pinheads', usually with flattened bases, from various sites including Traprain Law (at least 14 knobs), Mote of Mark (A. O. Curle 1914, 161–2), Birsay (C. L. Curle 1982, 66–7) and Hill of Crichie (13 knobs; Ralston and Inglis 1984, 57–8). (Close-Brooks et al. 1986, 166, fig. 28.114)

Hall (2007, 13) followed this line of reasoning and gave additional examples, including the Broch of Burrian and Brough of Birsay, Orkney, and that from Dundurn. It is worth noting that the Ballinderry and Lagore Crannogs also produced a range of dice, gaming pieces (often perforated to receive a peg) and boards. Two peg-hole boards (one fragmentary) were found at Ballinderry No. 1 (Hencken 1933, 1936, 175–190, pl. xxv; 149) and a third, partial board at Lagore (Hencken 1950, 168, fig. 86, W111). Confirmation of the use of pegged pieces is of course given by the discovery of peg-hole boards, with Ballinderry the best known. As seen today, this is a restoration, for when excavated the board was in two pieces, split down the middle longitudinally, possibly a deliberate act of breakage. It may not be too fanciful to imagine that such a deliberate act was a violent one: contemporary references to pegged gaming pieces in Irish texts refer to their deployment as improvised weapons during gaming disputes, including their use, point-first, to stab an opponent in the eye (Forsyth and Hall 2021, 31; Hall and Forsyth 2024). The handles of the board would have provided a suitable grip for using the board as an offensive or defensive weapon. In addition to the more fragmentary boards from Ballinderry and Lagore, there is a fragmentary peg-hole whalebone board from the Brough of Birsay, Orkney, along with a range of pegged pieces made of bone and antler, spanning the Pictish and Norse periods (C. L. Curle 1982, illus. 50.274, cat. no. 27, illus. 18.259–262, and cat. no. 271, illus. 50.275).

Hencken postulated that the Ballinderry board was of Viking origin, made in the Isle of Man; more recent studies have emphasized its carving in Ireland, either Dublin or Limerick (Graham-Campbell 1980, 23–24, cat. no. 92; Graham-Campbell 2021, 75, fig. 80; Purcell and Sheehan 2013, 39; Wallace and Floinn 2002, 231, pl. 622). Its 'viking-ness' is largely determined by the deployment of Borre-style ring-chain ornament to decorate the edge of the board, but the decoration also deploys an insular key-pattern and this, and its presence at Ballinderry, encourages us to view it with a less deter-minedly ethnic labelling. Such gaming boards and their pieces were highly prized as items of royal gift giving (Caldwell, Hall, and Wilkinson 2009, 176–178; Dillon 1962). Just as in Scotland they marked the permeable boundary between Picts and Scots (Ritchie 1987), so in Ireland they are equally permeable between Irish and Norse. Several antler pegs of the type discussed above were also excavated in Dublin, along with a range of other pieces and boards (the unpegged variety) and what are referred to (but not illustrated) as 'possible gaming pieces' (Wallace 2016, 404–406, fig. 11.24–28). An elaborate wooden figure from Fishamble Street, Dublin, seems most plausibly identified as a pegged gaming piece (Lang 1988, 50 (DW2), fig. 9, pl. II; Wallace 2016, 157–158, 73d) and, from the same excavation, a wooden object described as a 'rod with disc' – the disc being a carved, decorated head attached to a broken shaft (19.6 cm in length) – would have worked perfectly well as a pegged gaming piece (Lang 1988, 50 (DW3), fig. 8).

From Northumbria and Lindsey, a number of related plano-convex pieces, broadly dated to the eighth century, also need to be taken into account. From the monastery at Monkwearmouth, Northumberland, come a complete 'domed mount' and fragments of several others (Cramp 2006, 261–263, col. fig. 31.4.8) that could have been gaming pieces, although the complete example in particular favours identification as a decorative mount for such as a book-cover, chalice or shrine. This piece has 'white and opaque yellow/greenish feather-patterned trails … marvered into a dark blue domed shape with the pattern radiating from the centre' (262). Metal-detecting at Little Carlton, East Lindsey, has recovered two glass pieces, part of a rich assemblage suggestive of a monastery or trading centre, seemingly terminated by Viking raiding in the ninth century (Daubney 2015, 332–333, fig. 6.34). They are described as 'domed bi-chrome glass mounts' and both are significant for this discussion; one, a conical piece, will be returned to below, whilst the other is focussed on here. This is a slightly domed, plano-convex piece, somewhat similar to the complete example just described from Monkwearmouth. Its design is technically and visually elaborate:

> The body is made of dark purple/black coloured glass and is decorated on the domed surface with seven lines of twisted coloured glass radiating from the centre. … Four different styles of strand are visible. The first is turquoise and is decorated with white twisted strands. The second is pale yellow/brown and is decorated with bright yellow twisted strands. There are three of these, two of which are set at a right angle to the central one. The third is translucent and is decorated with pink/light brown twisted strands. There are two of these, roughly opposing one another. The final strand is pale yellow/brown and is decorated with thick bright yellow strands. There is only one of these. (Portable Antiquities Scheme database: LIN-252D32)

Both the PAS description and the account given by Daubney cite Monkwearmouth as a parallel and suggest a mount function, pointing to the lost River Witham hanging-

bowl and the Ormside silver bowl as examples of objects that probably used similar mounts. We shall address their more fluid interpretation in the discussion below.

From the late first millennium AD, there are also several glass pieces from north-west Europe to be taken into account that have recently been brought into focus by MH through reconsideration of the board-gaming material from excavations in Dorestad, Netherlands (Hall 2021). There, the bosses from Dundurn and, provisionally, Lindisfarne are both cited as parallels for a domed, conical, glass gaming piece from Dorestad, where excavation recovered a set of conical, bone pieces, each holed to receive a peg (Van Es and Verwers 1980, 240, pl. 23, figs 161–162; Willemsen 2010, fig. 2). The Dorestad piece is made of dark blue glass, feather-trailed with yellow and turquoise, the apex coated in creamy, off-white; its flat base has a central perforation. A different colour scheme is adopted for a recent discovery from Groß Strömkendorf (probably the Slavic/Carolingian emporium of Reric) on the German Baltic coast, comprising a conical, dark green body overlain with red, yellow and white feather trailing (Wollschläger 2016, 255, illus. 200.2). Further eastwards on the south Baltic coast, from Old Wolin, Poland, comes a fragmentary piece, published as hemispherical (Kokora 2019, 215–216, fig. 68.4), but more likely the top section of another conical piece, with a single trail of (decayed?) white glass spiralling around a blue core, making it comparable to several pieces from Birka, Sweden, in graves 523, 644 and 710 (Arbman 1943a). These emporia were part of a shared exchange and cultural network extending to Scandinavia (Jöns 2015), where similar, imported glass pieces are found, notably from the elite ship burial at Avaldsnes, Norway, comprising 16 variously sized, conical pieces, 11 of pale blue glass, one of dark blue with a brown top and a yellow tip and four of yellow with a brown top, all with flat bases centrally perforated (Bill 2019, 317, fig. 5.6). Of slightly different form, spherical rather than conical, but still with a flat base, are the spiral-themed pieces, in blues, purples and turquoises, from Birka and Valsgärde, Sweden (Arbman 1943a, 158, 222, 245, 269–270; Arbman 1943b, pl. 147, 1 and 2, pl. 148, 1 and 2; Lindquist 1984, 215; Graham-Campbell and Kidd 1980, cat. no. 71, pl. 37; Graham-Campbell 1980, pl. 37).

Unknown to MH, when writing his Dorestad contribution, was the conical piece referred to above from Little Carlton, described in the Portable Antiquities Scheme database as

> a conical bi-chrome glass stud slightly taller than it is wide (16.5–17.5 × 18 mm), the glass is opaque grey to off-white and deep blue, semi-opaque and worked in a feathered pattern and wrapped around a fired clay core, visible at the base. (PAS ref. LIN-C31CD7)

The PAS description raises the possibility of it having been a gaming piece but favours a decorative stud on a piece of precious metalwork. It should be noted that the clay core is not pierced, nor would it have been amenable to piercing post-firing, suggesting that if it were a gaming piece it would not have been a pegged example.

Origins: glass-working in Northern Britain and Ireland

The fine workmanship of the Dundurn and Lindisfarne glass bosses indicates that they are the products of highly skilled bead-makers and, as such, they are unlikely to have been made in Northern Britain where there is no evidence for bead production of such

sophistication in the Early Medieval period. Indeed, Leslie Alcock's review of 'Equipment, workplaces and craftsmen', during the sixth to ninth centuries, references only two sites with evidence for glass-working in Scotland: the small fort of Castlehill, Dalry, Ayrshire, with a couple of rods of blue and white glass; and the early monastic site on Iona, with a set of three moulds for glass settings (Alcock 2003, 333 and see now the discussion at 324–328 in Campbell et al. 2019). However, there were two phases of occupation at Castlehill and Heather Christie concludes that the glass, which includes ten beads, 'predominantly dates to the first period of occupation', during the first to second centuries AD (Christie 2019, 92). On the other hand, Iona has since produced a glass reticella rod which 'proves glass-working on the site, as these rods represent a stage in the manufacture of decorative objects' (Campbell et al. 2019, 325). A further seven moulds for glass settings have been excavated at Portmahomack, on Tarbat Ness, Easter Ross, from an eighth-century monastic workshop producing metal and glass studs for 'highly specialised items' of ecclesiastical metalwork (Carver, Garner-Lahire, and Spall 2016, 217–221, illus. 5.7.9). Ewan Campbell has, however, speculated that the only two beads recovered at Portmahomack, both of 'bubbly blue glass', might have been 'manufactured on site, given the droplet of similar glass' found there among the glass-working debris which is 'so far the most extensive in Scotland for the entire medieval period' (Campbell 2016). At present, the only other site with evidence for Early Medieval glass-working in Scotland is Whithorn, in Galloway, but this is related to the manufacture of glass vessels, suggesting the presence there of continental glass-workers (Campbell 1997, 314). There is no evidence for bead-making and, indeed, there are only a few glass beads from the site (the Whithorn publication lacks a report on the glass beads (Hill 1997, 292), but they appear to be monochrome from the find-lists).

When glass beads are recovered during excavations at Early Medieval sites in Scotland, they are usually found in small numbers and have received little attention until recently. As noted by Alice Blackwell (2012, 14), 'some of the most distinctive beads seem to have been imported from continental Europe or Anglo-Saxon England'. However, the wearing of beads in Anglo-Saxon England had fallen from fashion by the eighth century, and Ireland will have become the main source for the import of decorated beads into Scotland, before the establishment of the Scandinavian connection in the Viking period. Heather Christie has identified a number of bead styles from Iron Age Scotland indicative of native manufacture ('marbled, triskele and whirl'; Christie 2019, 85–88, figs 7–9) and further study of the Early Medieval glass beads has similar potential for establishing local production, although she suggests that bead manufacture was 'likely done by certain skilled and perhaps itinerant workers rather than established workshops' (92). Christie emphasizes the need for more detailed work, especially since it has recently been demonstrated that various beads which have generally been regarded as Early Medieval in date were in fact manufactured during the seventeenth to nineteenth centuries, to the extent that 'a Post Medieval/Early Modern origin should be actively ruled out, even for beads which appear to come from earlier archaeological sites or contexts, before other identifications are considered' (Blackwell and Kirk 2015, 371–372).

In the case of Ireland, however, 'glass beads are … a common find from Early Medieval settlements' (O'Sullivan et al. 2013, 231). This much richer material – in both

quantity and diversity – has been sampled by Mags Mannion, who identified 18 'Classes' of glass beads, both decorated (14) and undecorated (4), which are to be considered as of Early Medieval Irish manufacture (Mannion 2015, 20–30). In particular, the spiral bosses on the Drummillar pinhead boss (as above) are likened by her to those on an unstratified 'Class 5' bead from Lagore Crannog, Co. Meath, the residence of the kings of the Southern Brega (25, 116, cat. no. 5.3; Hencken 1950, 141, fig. 66, no. 125), with Mannion concluding that, 'in general a chronological date range beginning in the late-sixth to seventh century up to the tenth century could be set for Class 5 beads, with the possibility of some later survivals' (2015, 25).

A recent survey of the archaeological evidence for Early Medieval Ireland contains a short section on glass-working, together with a list of the relevant sites, both ecclesiastical and secular, demonstrating that the same range of glass-working skills – for the production of beads, bangles and settings – was present on both monastic and high-status secular sites (O'Sullivan et al. 2013, 231, 405–406, table 6.4; for further site information, see; Seaver, Harney, and O'Sullivan 2015; for Early Medieval glass/bead-working in Ireland, see also Henderson 2000, and for glass bangles, see; Carroll 2001). In consequence, it may be concluded that the Dundurn and Lindisfarne glass bosses are of Irish manufacture, whether ecclesiastical or secular in origin.

With that in mind, it is worth drawing attention to one final parallel from Scotland for the decoration of the bosses under consideration. Excavations in the 1950s at the long-lived (fourth- to fourteenth-century) dun site at Ugadale, Kintyre, recovered a blue glass bead with marvered spirals on pronounced bosses (Figure 5). On publication (Fairhurst 1955, 19, pl. vi), it was suggested to date to the eighth century, with two parallels being cited from Ireland: from Loughbardan Hill, Lough Swilly, Co. Donegal, and that referenced above from Lagore (cf. Mannion 2015, 25, which describes it as part of her Class 5 type of late-sixth /seventh century to the tenth century). Other examples from Scotland and the rest of Britain were classified by Guido as her Oldbury Class 6 (Guido 1978, 53–57, 112–117). However, Guido's chronological distinctions remain vague, though by inference, she does not rule out a date in the second half of the first millennium AD, and it can be tempting to see a fashion, perhaps in Northern Britain and Ireland, for matching sets of beads and gaming pieces.

Biographical trajectories

If we broaden out our framework of understanding to consider the theoretical underpinnings for the understanding of human and object relations, it can be seen that a growing body of theoretical literature in the field of social and cognitive archaeology (including DeMarrais, Gosden, and Renfrew 2004; Elliott and Chia 2013; Knappett 2005; Malafouris 2013) has demonstrated the inadequacy of explanations reliant on the binary, Cartesian dualism of people and things. More insightful is the set of ideas developing (in large part in the wake of Gell 1999) around the concept that both humans and objects have agency, with objects often being perceived to have their own personhood, frequently imbued with supernatural effectiveness. This leads to changing human perceptions around the use and meaning of the materiality they create.
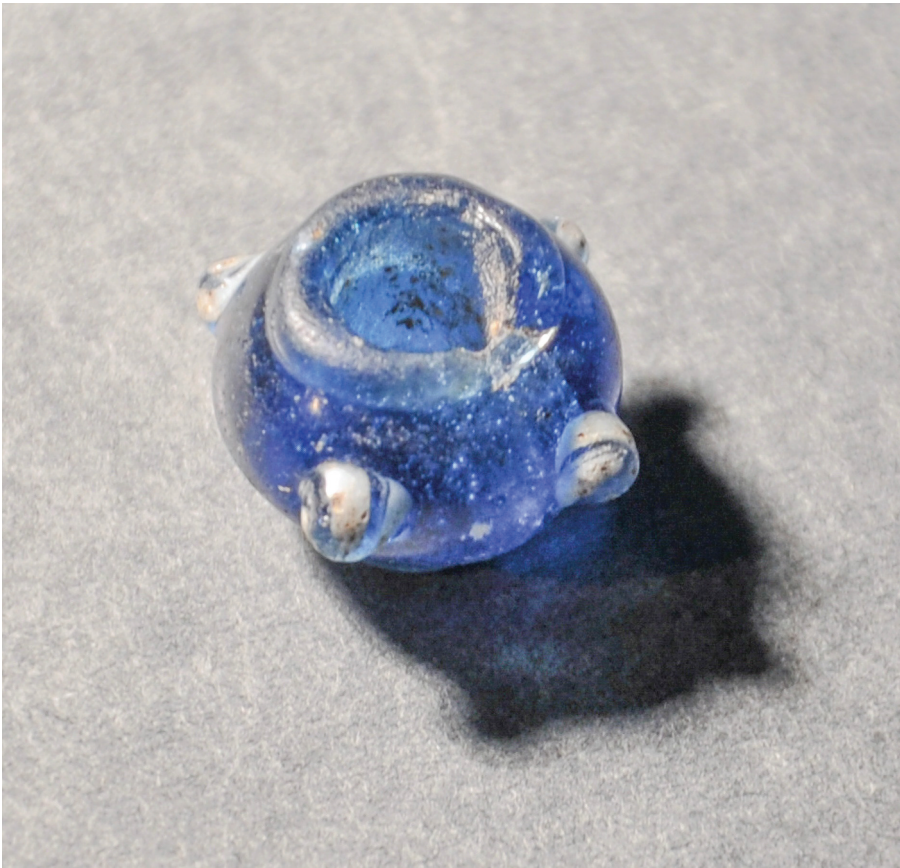
Figure 5. Blue glass bead from Ugadale, Kintyre © Campbell Town Museum Service and courtesy of Kilmartin Museum.

The preceding discussion and analysis have proposed that it is possible for such glass pieces as those from Dundurn and Lindisfarne to be interpreted as both pegged gaming pieces and elaborate pinheads. These interpretations need not be in conflict, especially if we accept that material culture can be understood not simply through a focus on original purpose but through a more nuanced biographical approach. It is rooted in a close-grained, cross-chronological, social understanding of human–material relations that is material culture (Appadurai 1986; Gosden and Marshall 1999; Meskell 2004). Material or cultural biography seeks to chart the changes in meaning and use of material culture, changes in meaning which were frequently about transitioning the power of an object, as perceived in an individual's mental construction of the world, into another kind of object, often invoking supernatural agency as instrumental in that transition (examples drawn from medieval material culture include Hall 2012, 2015). Of course, re-use was sometimes a matter of economic expediency, but that is not the focus of discussion here.

In understanding the social, biographical forces at work around the meanings of the objects under discussion, it is helpful here to set the context with a more general look at the trajectories or life-lines of medieval objects in three, interlinked, inclusive, key areas:

the everyday, fluid changes in use, often multiplying rather than reducing the identity or meaning of an object; the personal and cross-generational memory work served by the creation of heirlooms; and the invoking of supernatural aid through magical practices that recognized the glamour of objects. Underpinning all of these was the perception of the physical nature of objects, especially as a link into the supernatural.

Perhaps the most fluid, even temporary, object transformation is when a pegged gaming piece was improvised as a weapon (afterwards transforming back to a gaming piece, the episode added to its 'memory banks'), but more broadly speaking medieval gaming pieces were transformable into a variety of other objects. From the castle of Blois, Loir-et-Cher, France, come nine bone, hexagonally lobed gaming discs (for tables or merels) of ninth- to tenth-century date, one of which was converted to a brooch, and from the castle of Chateau-Thierry, Aisne, France, there is a fourteenth-century chess bishop, of elephant ivory, converted to a whistle in a way that allowed for its continued use as a chess piece (Grandet and Goret 2012, 86–87, 100–101). Some later medieval gaming discs from Trondheim, Norway, and from several French castles, appear to have become, or had prior use as, spindle whorls (Grandet and Goret 2012, 97, no. 1, 84–135; McLees 1990, 190–191). Of course, their central piercing would also make them suitable for use as pendant amulets. The Dromore pin in its surviving form was clearly used as a pin (see above), but at what point did it achieve this final form? Was the addition of the glass capping a later modification (after the loss of a ring)? Or was a ring deliberately removed (as part of the same modification)? Nothing about this artefact inherently objects to its use as both pin and gaming piece, except for its size, as discussed above.

Heirlooms, as increasingly understood as an aspect of memory (re-fashioning, say as a dress pin), imply the non-magical, secular use of powerful objects that served to memorialize individuals or family events and networks, forming part of a spectrum of memorial traditions (Carruthers 1990; Gilchrist 2013; Van Houtts 1999, 2001). It is well known, since at least Late Antiquity and through the medieval centuries, that human concern with identity was frequently focussed on issues of change, hybridity and metamorphosis (Bynum 2005; in a gaming context see Hall 2019). Some of this concern was expressed through how and why material artefacts were re-fashioned and given new meanings, part of the performance of re-fashioning the self so as to re-fashion or re-create the world (Goodman 1978; Turner 1982).

Many of the examples cited in our discussion of pins and gaming pegs started out as glass beads, another facet in the biographical trajectory of these objects and their fluid capacity for metamorphosis whilst retaining social value. The technology developed for bead making is also at the root of these changed objects. It has long been recognized that glass beads are readily amenable to such transformations: Cree's account of the 1923 excavation at Traprain Law includes a large glass bead with trailed, spiral decoration which was broken in antiquity, prompting the comment that 'the ends have been ground down and polished to a fine surface which would indicate that the object must have been considerably prized, even after it was broken, and it might be suggested it was worn as a pendant' (Cree 1924, 269). This suggests that such a piece could well have become an heirloom and may have been perceived to possess supernatural agency.

Glass beads themselves appear to have been perceived as having amuletic qualities, for example, offering soldiers protection in battle and deflecting the effects of the 'Evil Eye', with so-called eye beads made for that specific purpose (Guido 1978, 293; for

a summary, see Mannion 2015, 93; Puttock 2002, 92–95). The perception of the supernatural was widespread and contact with it could be mediated by a range of objects, their efficacy often determined by their material properties, helping to create a supernatural network of enchantment. Thus jet, ivory, amber and rock crystal all had appealing, practical properties, including smoothness and hardness, that informed their suitability as amuletic devices affording magical and religious protection. To this group we can certainly add glass, thanks to its '… mesmeric effect in its ability to diffract and refract light, presenting not just a surface but also dimensional depths of shade and light. The colours hold true and the surface itself is almost miraculously smooth' (Mannion 2015, 90). The materials listed all share a facility to be polished, but glass has the distinction of a range of, humanly created, colours, which, along with hardness, permits it also to imitate a range of other supernaturally efficacious materials such as gemstones. Under the terms of sympathetic magic, the mere imitation of gemstones by glass was sufficient to generate the same pathway to the supernatural. All the properties of this non-exclusive list of materials also evoked emotional responses, helping to create a glamour that fuelled their perceived magical efficacy (see, e.g. Hamilakis 2013, for an examination of sensory significance in material pasts). When used to create gaming pieces these material-magical qualities were supplemented by the personal nature of gaming pieces (or indeed, pins) and a linkage between games and divination that informed the perception of individual pieces as being suitable as amulets (for those links see, amongst others, Bornet and Burger 2012; David 1962; Renfrew, Morley, and Boyd 2018).

A number of contemporary psychological studies, which interrogate this overlap between superstitious behaviour and play dynamics in the context of (modern) sport, have collectively demonstrated that the performance benefits of superstitions (often dismissed as the creations of irrational minds) are rooted in rational, psychological mechanisms (e.g. Damisch, Stoberack, and Mussweiler 2010; Day and Maltby 2003; Dömötör, Ruíz-Barquín, and Szabo 2016; Malinowski 1954, Jahorda 1969; Wiseman and Watt 2004). Their placebo effect yields an increased sense of control and mental assurance in unpredictable contest situations; good-luck related superstitions, whether a saying or a charm/amulet, improve subsequent sports performance (including in golf, motor dexterity, memory and anagram games). Such practices boost confidence and a sense of control, thus in a player's head if A leads to B, a desired outcome (such as a winning a game) then in future you do A and win. Invoking a memory of past victories can recreate the experience of that victory and allow the imagination to perceive it as happening now. Such behaviour has deeper roots. The human brain is thus able to perceive agency in the inanimate (labelled 'the intentional stance') part of its ability to infer structures and patterns and to theorize intuitively (sometimes labelled as a 'supersense'). Behavioural psychologists root these developments in evolutionary behaviour driving the need to be successful at finding food and not being eaten by other animals (Bloom 2011, 135, 236; Hood 2009, 172). Several examples of gaming pieces, pierced and worn as pendants, are known, including the brooch conversion from Blois castle, cited above (Hall 2016, 203–205). Objects perceived efficacious in such roles make ideal candidates for transfer as heirlooms.

The supernatural sensibility also informs a further aspect of the fluidity of glass objects that were sometimes gaming pieces. The parallels from Monkwearmouth

and Little Carlton have been interpreted as decorative studs for precious metal-work, although there is nothing about these pieces that inherently prevents them from being gaming pieces, pegged or otherwise. The biographical fluidity of gaming pieces encompasses re-use as ecclesiastical mounts. This is most clearly seen with the re-use of abstract rock-crystal and gemstone chess pieces in church settings. By the time this happens they are almost certainly elements of church treasuries, acquired as noble gifts or bequests. Examples include two sets of agate and calcedony chess pieces reused on the early eleventh-century ambo of Henry II at Aachen Cathedral (Kluge-Pinsker 1991, 34–35), the rock-crystal pieces used as mounts on the titular reliquary in the church of San Millán de la Cogolla, Rioja, Spain, from the later eleventh century (35), and the rock-crystal and onyx examples on the shrine of St Maurice, in St Maurice d'Augaune, Switzerland (Schädler 2009). It is neither intrinsically improbable nor a great stretch of the imagination to see the pieces from Monkwearmouth and Little Carlton, for example, being used as gaming pieces before conversion to ecclesiastical, symbolic decoration, particularly at a time of increasing Christianization. Equally, the violence of the Viking period could readily have seen such pieces prized off ecclesiastical metalwork and used or reused as gaming pieces.

Concluding observations

This paper has explored two rare items of glasswork from Northern Britain, dating to the final quarter of the first millennium AD. In particular, we have sought to test them against two, superficially contrasting interpretations: hair/dress-pin and cap/head of a pegged gaming piece, with the latter seeming the most likely and the former not implausible. On the surface, the two interpretations are functionally distinct, but they share a rootedness in human expression, and the wider groupings to which they can be attached remind us that they share a glass technology devised for the manufacture of beads, with some glass beads being the source for transformation into pegged gaming pieces and pinheads. Their transformation into gaming pieces could also facilitate a more short-term transformation into a weapon deployed in violent dispute around the playing of a game (perhaps due to high gambling stakes, perhaps to counteract cheating, perhaps to try and forestall losing). The changing lives of such objects was part of the performance of social values, including towards a supernatural audience and the transition to heirlooms within a generational, family context. It seems clear that whatever function(s) they fulfilled (and they were not exclusive), they possessed a range of sensory and material properties – colour, texture, sharpness and weight included – that were appropriate and transferable to either usage.

Notes

1. As this paper was finalized, we learnt of some probable fragments of glass gaming pieces from recent, unpublished, excavations on the Heugh, Lindisfarne, and from previous excavations on the Brough of Birsay, Orkney, not published but in store at NMS, Edinburgh. In addition, a second fragment of gaming piece from the DU/DV Lindisfarne

excavations was recovered during the 2024 field season. This is very similar to the piece discussed in this paper, but more fragmented. These will form elements of a future note on this subject.

2. The wide literature on the silver economy includes Graham-Campbell and Williams (2007); Graham-Campbell, Sindbæk, and Williams (2011); Kilger (2007); Kruse (1988); Pedersen (2007); and Williams (2004). For the broader complexity of value economies in which money sat, see Kershaw et al. (2018).

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ORCID

David Petts   http://orcid.org/0000-0002-5446-0243

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