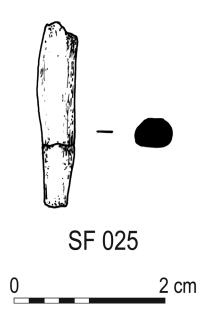
Dawn McLaren (with scientific analysis by Susanna Kirk)

► SF025 (Illus 17): Two heavily corroded, joining fragments of a small double-ended copper awl, sub-square in section, tapering gently at both ends. The tips of both ends have been lost and the overall length cannot be extrapolated. Non-destructive XRF and SEM-EDX surface analysis (by Susanna Kirk, NMS) shows that the fragments are copper with silver-rich inclusions. Remaining L: 11.5mm; central expansion: W: 2mm Th: 2mm; remaining ends W: 1.4mm Th: 1.2mm. Mass 0.1g. Sample 1, Context 011 (basal deposit in cist).

The copper awl fragments were recovered during processing of a bulk sample taken of the basal deposit in the north-west corner of the cist. Although its exact original position is uncertain, the soil sample was taken from the area 5–20cm to the north of the surviving skeletal remains, the same part of the cist in which the Beaker sherds and struck lithics were found.

Although uncommon and easy to overlook during excavation due to their small size, several examples of copper and bronze awls are known from Early and Middle Bronze Age graves in Scotland (summarised in Sheridan 1999). Two main forms of awl have been recognised (Thomas 1968; Henshall & McInnes 1968; Sheridan 1999): a double-ended form with central expansion which is seen as an earlier, long-lived type, and a later type with flattened tang and no central swelling. Despite the fragmentary, corroded condition of the Knappach Toll awl, it appears to be of the double-ended variety.

Very few Bronze Age awls have been analysed scientifically, but at least one other copper (as opposed to bronze) example is known from Scotland, at Doon's Law, Berwickshire (Sheridan 1999). Here,



Illus 17 The copper alloy awl. © Northlight Heritage

the awl accompanied the crouched inhumation burial of a young adult female, associated with a complete Northern British/Northern Rhine Beaker and a group of flints (Clarke & Hamilton 1999). Other examples from Beaker-associated burials are known from Kirkcaldy, Fife (Childe 1944: 11, pl viii) and Springwood, Kelso (Henshall & McInnes 1968), although awls are also found in association with Food Vessels, urns, accessory vessels and burials with no ceramic associations (Sheridan 1999: 197).

Bronze and copper awls in Scotland, as elsewhere in Britain, are typically found with female burials, but this is not exclusively so (Sheridan 1999: 198). The sex of the associated individual here could not be determined. The function of these tools is not clear, but their use for tattooing, piercing leather and decorating jet or jet-like material has been suggested (Hunter 2000: 147; Hunter & Woodward 2015).