

9. CHIPPED STONE ARTEFACTS

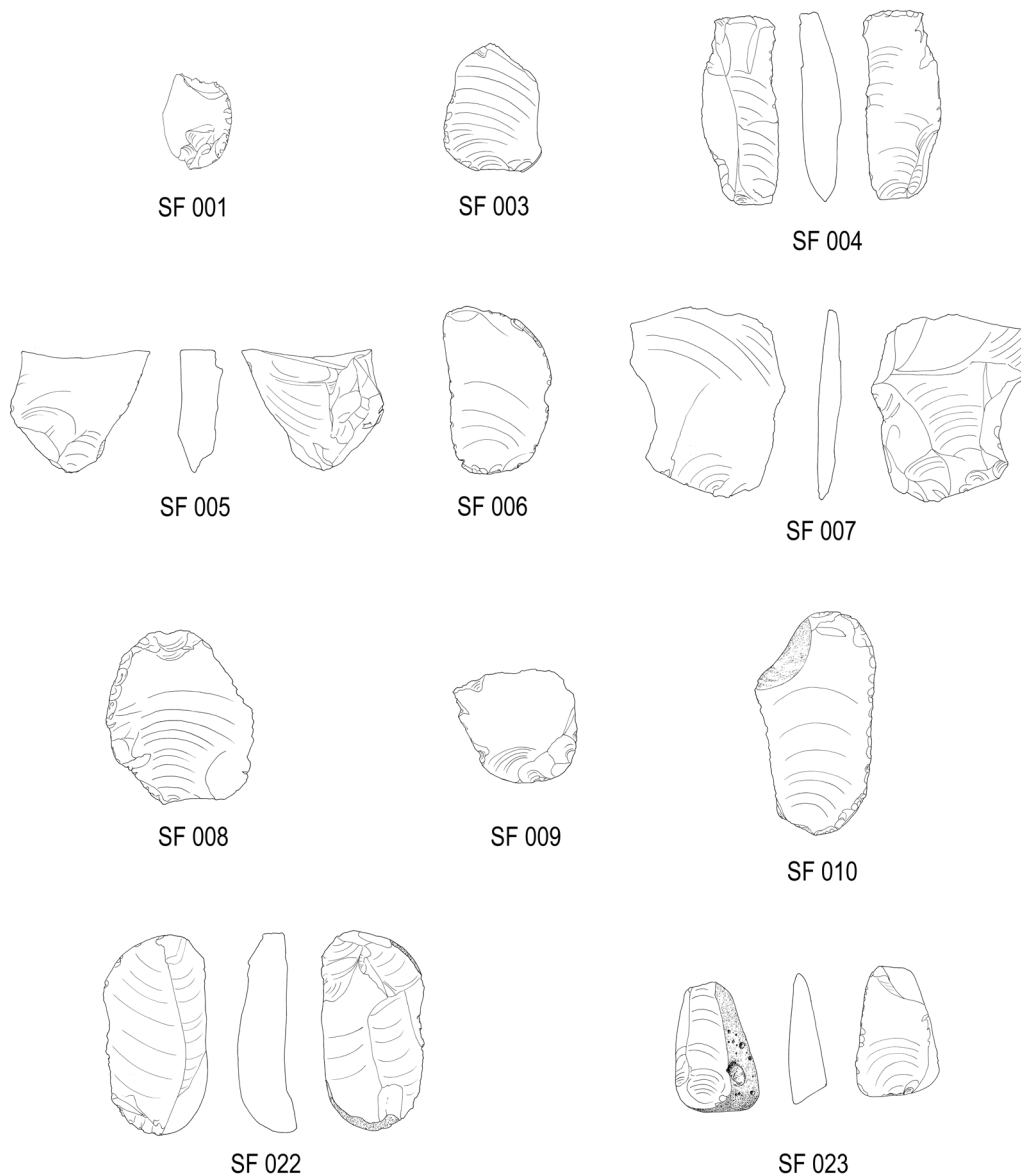
Torben Ballin

9.1 Description of the chipped stone assemblage

The lithic assemblage was retrieved from the intrusive ploughsoil within the cist, where the artefacts had been disturbed during its discovery. This report refers to the artefacts by their number in the catalogue (CAT no.). Eleven flint artefacts were recovered (Illus 18). Apart from one core (CAT 1), the assemblage

comprises debitage, the waste resulting from the manufacture of stone tools. The pieces comprise five primary flakes, four secondary flakes (including one blade), one tertiary flake and one bipolar core. The finds were characterised according to standard typologies (eg Ballin 1999; 2000).

The abraded character of the pieces' cortex suggests that nodules were procured from local beach deposits, such as the shores of the North Sea. It was not possible to conjoin any artefacts, and the different raw material colours (grey, light brown



Illus 18 Chipped flint artefacts. © Northlight Heritage

and dark brown), size differences and differential patterning (small-dotted and marbled) suggest that the finds represent a minimum of five or six nodules.

One piece (CAT 5) is a blade (50 × 22 × 10mm), whereas all other pieces of debitage are elongated flakes (average dimensions of intact specimens: 44 × 30 × 10mm; L/W ratio 1.5:1). At first glance, the objects appear larger than one would expect to find along the east coast of Scotland, and they are considerably larger than flakes from the contemporary assemblage from the Kingfisher Estate in Aberdeen (average dimensions: 29 × 23 × 9mm; Ballin 2009; 2012), although flint nodules from that site are considerably larger (average dimensions: 42 × 31 × 22mm). Based on this comparison, the Knappach Toll blanks were probably selected for their large size.

All pieces of debitage were detached by the application of bipolar technique, with 50% being primary flakes, 40% secondary flakes and 10% tertiary flakes. The fact that half of the flakes and blades are primary blanks suggests that nodules were brought to the locale intact, although common practice in prehistoric times would have been to decorticate them at the source to avoid having to carry unnecessary weight back to the camp or settlement. The fact that this did not happen at Knappach Toll may reflect the proximity of the raw material source, but it most probably also reflects the character of the industry, which appears to have focused on the splitting of pebbles for blanks, and where oval primary flakes may have been preferred for the production of certain tools such as scrapers (cf the Kingfisher Estate assemblage; Ballin 2009).

Only one core was retrieved (CAT 1). It is a large and relatively slender bipolar core (52 × 27 × 12mm); the remaining cortex at either terminal shows that the length of the surviving core (52mm) corresponds to the length of the original nodule.

Although no formal tools were found at Knappach Toll, four pieces have faint use-wear along one lateral edge, most probably from their use as knives. The grave goods of the deceased include

used (and still usable) informal (unmodified) tools, as well as unused tool blanks. The assemblage supports evidence from other, recently excavated assemblages of a technological shift in the region – from sophisticated platform techniques in the Neolithic to bipolar approaches in the Early Bronze Age period (Ballin forthcoming).

9.2 Lithics catalogue

Context 009:

► **CAT 1** Secondary bipolar core, grey flint (52 × 27 × 12mm). One lateral edge may have been used for cutting. SF022.

► **CAT 2** Secondary bipolar flake, grey flint (34 × 23 × 11mm). SF023.

Context 010:

► **CAT 4** Primary bipolar flake, grey flint (34 × 27 × 12mm). SF003.

► **CAT 5** Secondary bipolar blade, grey flint (50 × 22 × 10mm). The right lateral edge may have been used for cutting. SF004.

► **CAT 7** Primary bipolar flake, light brown flint (45 × 27 × 8mm). SF006.

► **CAT 8** Fragmented tertiary bipolar flake, grey flint (49 × 39 × 8mm). A small part of the distal end has broken off, as well as a segment of the right lateral side (frost-induced). The left lateral edge may have been used for cutting. SF007.

► **CAT 9** Primary bipolar flake, black and grey flint (50 × 38 × 12mm). SF008.

► **CAT 10** Primary bipolar flake, light brown flint (32 × 30 × 10mm). It is uncertain whether modification of the distal edge is expedient retouch, use-wear or natural damage. SF009.

► **CAT 11** Primary bipolar flake, grey flint (59 × 33 × 8mm). SF010.

Context 011:

► **CAT 3** Proximal-medial fragment of secondary bipolar flake, light brown flint (26 × 19 × 6mm). Sample 1.