



NEW ZEALAND  
ARCHAEOLOGICAL  
ASSOCIATION

**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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### The PROCESS of MANUFACTURE:

The PRIMARY stage in the manufacture of the hook is the preparation of the BLANK or tab of material to the approximate outline of the hook, or part of the hook, it is desired to make (fig.4a,b). This may be done by flaking, sawing or 'cutting', grinding, etc.

The SECONDARY stage, in ONE PIECE hooks only, is the removal of the central part of the BLANK by drilling (fig.4g), drilling around a CORE (fig.4c), chipping (fig.4d) grinding (fig.4e) or by sawing in from the upper edge (fig.4f).

The FINAL stage is the shaping and polishing of the almost complete hook or hook part (fig.4h).

### The MATERIALS of MANUFACTURE:

Hooks or hook parts may be made from BONE of human, bird (especially moa), dog, seal, whale, etc. origin; from TEETH of dog, seal, etc; from SHELL, especially paua and Cookia sulcata; from WOOD; from STONE, including greenstone; and from METAL.

### DRAWING a FISHHOOK:

By far the simplest and most universal method of drawing the hook is to lay it on a sheet of paper and trace around it with a pencil. This can be done satisfactorily with all but the very largest hooks.

## A GUIDE TO THE DESCRIPTION OF FLAKE TOOLS

P. GATHERCOLE

### INTRODUCTION

Flake tools and their method of manufacture have been inadequately studied in New Zealand, and the Artifact Record Form could become a valuable means of providing an initial record of well provenanced examples. They can vary greatly in detail, and it is difficult to draw up a list of descriptive terms to cover every possible feature which a specimen might possess. In this guide, which is provisional only, the emphasis has been placed on those features which are generally present on artifacts of this class.

It is based on the critical discussions held at the extended A.G.M., and on further discussion by members of an Adult Education class subsequently organised in Dunedin.

### RAW MATERIAL

Though not exclusively used, siliceous rocks are particularly suitable for the manufacture of flake tools, as they are hard, and yet can be fractured along a plane of segmentation whose position can usually be controlled by the knapper. 'Quartzite' chalcedony, obsidian, flint and 'jasperoid' rocks are among those exploited in New

Zealand. In much of the overseas literature, descriptions are based on flint artifacts partly because their fractures are very suitable for illustration. Other siliceous rocks do not always show fracture details so clearly, and this may lead to difficulties in description.

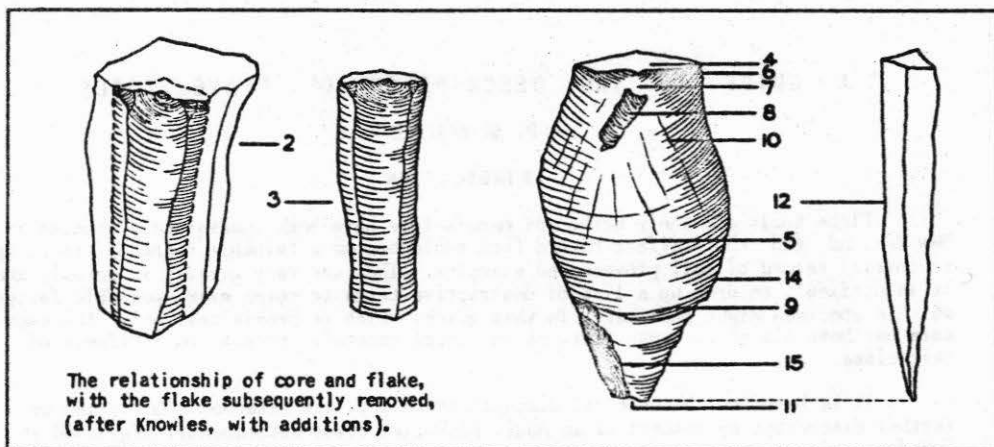
### TECHNOLOGY

Knapped stone artifacts are described on the basis of their method of manufacture, as known from ethnological evidence, demonstrated by modern experiment, or inferred from either. To cover the complete process from the initial dressing of the raw material to the making of elaborate flakes, we must deal with three main artifact groups: the nodule, the core and the flake.

### DESCRIPTION

(for Nos 2 - 12, 14 - 15 below, see illustrations)

1. The **NODULE**: the block, from which artifacts are made. This sometimes has a tough outer **CORTEX**;
2. The **CORE**: shaped by the removal of flakes from the nodule, either for the production of suitable flakes, or for the manufacture of a core tool;
3. The **FLAKE**: produced by an oblique blow with a hammer near the margin of a nodule or core, on a conveniently projecting surface, which may be deliberately prepared for this purpose, and is called the **STRIKING PLATFORM**.



The flake itself consists of (starting at the bulbar end):-

4. Part of the **STRIKING PLATFORM**:
5. The **BULBAR FACE**: formed by the fracture process, on which are:-
6. The **CONE OF PERCUSSION**: a small conical swelling just below

the point of percussion on the striking platform, (sometimes difficult to recognise);

7. The POSITIVE BULB OF PERCUSSION: a marked or diffuse swelling just below the cone of percussion;
8. The BULBAR SCAR: a small shallow depression on the positive bulb of percussion;
9. RIPPLE MARKS: concentric rings or waves, each having its centre at the point of percussion, (not always visible, and best seen when the flake is held obliquely to the light);
10. FISSURES: Striations which radiate out from the point of percussion, (sometimes visible);
11. The NON-BULBAR END: (this sometimes terminates in a HINGE-FRACTURE, due to the misdirection of the angle of the percussion blow, which causes the fracturing force to 'double back' and take a short cut to the outside of the flake).
12. The OUTER FACE: the face opposite to the bulbar face, with flake scars (see below - No.16) acquired when the flake was part of the core.

An unmodified flake is often known as

13. A PRIMARY FLAKE: a flake which lacks evidence of secondary working (see below - No.15) either on or towards the bulbar or non-bulbar ends, or on the
14. LATERAL MARGINS or edges.

A flake may be modified by further knapping. This is known as:-

15. SECONDARY WORKING: the removal of small flakes from the lateral margins, the striking platform or the ends of the flake. (Extensive secondary working involving the removal of the positive bulb etc. can make description difficult, especially if the ripple marks are not clearly visible.)

The nodule and core also show evidence of knapping. This consists of:-

16. The FLAKE SCAR: this corresponds to the bulbar face on the flake, with the features reproduced in reverse, including
17. The NEGATIVE BULB OF PERCUSSION: a depression on the flake scar which corresponds to the positive bulb of percussion on the flake.

Nodules are often irregular in shape. Cores (unless many flakes have been removed) have marked striking platforms, sometimes at both ends, and are conical or cylindrical in shape. If a core is used as a tool it may have evidence of secondary working.

#### TYPOLOGY

Knapped stone artifacts are often classified as 'scrapers', 'blades', 'knives', 'points' etc., or are said to have 'use-marks' on their margins. It is beyond the scope of this guide to suggest any typological classifications, although these will no doubt be developed from an extensive study of the descriptive characteristics of a large number of artifacts made from different raw materials.

#### DRAWING

In this guide, the convention has been adopted of describing artifacts with the striking platform at the top, although the use of 'top', 'bottom', 'back', 'front' as descriptive terms is not recommended. It is suggested that artifacts be drawn in this conventional way.

The drawing should be kept as simple as possible. The outline can be done by laying the artifact on the paper and drawing round the margins, the number of views shown depending on its characteristics. If the bulbar face lacks secondary working, it, or all except for the area of the positive bulb of percussion, can be omitted. The outer face, the surface of the striking platform and one of more lateral views may have to be shown, especially if there is any secondary working. The number of cross-sections figured depends on the shape of the outer face and the position and extent of secondary working.

#### CONVENTIONS EMPLOYED IN DRAWING

Such features as the positive bulb of percussion, flake scars and ripple marks can be represented diagrammatically be concentric arcs which follow the curves visible on the surface of the artifact. It is not necessary to attempt to reproduce each ripple mark etc. exactly. When fractures are not clearly visible, it is better to state this by the side of the drawing rather than insert them by guesswork. Intelligent accentuation in the representation of surface features on one side of the longitudinal axis can often give body to the drawing.

Stippling is useful to represent the cortex, and is sometimes used to denote flake scars etc. on coarse-grained rocks. 'Artistic' shading should be avoided.

### A NOTE ON THE DESCRIPTION OF ORNAMENTS

P. GATHERCOLE

#### INTRODUCTION

Ornaments are so varied in their shape and other features that they cannot be discussed in the same homogeneous way as the remainder of the artifacts considered in this symposium. Strictly speaking, they are non-utilitarian, although an every-day object can be used as an ornament where appropriate. This means that their definition is sometimes tentative. For all these reasons, no attempt has been made here to suggest a comprehensive set of terms for use in describing the features of the various