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OBSIDIAN ARTEFACTS IN THE AUCKLAND MUSEUM

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In the Auckland Museum there are several unusual artefacts made of obsidian. All are from the Hauraki-Coromandel Peninsula-Bay of Plenty area. They include a pendant, a 'patu' form, and three adze forms. Two of the obsidian adzes have been ground on the bevel while the third, tanged example, has no ground or polished surfaces. Measurements are presented in Table 1.

The 'patu' (Fig. 1; museum number 6315), from the Hauraki Plains, has a flaked hand grip and an unmodified blade. The handle, or grip, has had bifacial trimming flakes removed to form a tang. The ridge scars have then been hammered, presumably for ease of handling. The end of the blade terminates at a blunt edge. One side, with no use wear, has a squared edge while the other side has a steep edge angle (the remnant of an old striking platform) and a concave edge. There is heavy unifacial use-wear along this edge with small flake removal such as might occur with the scraping of a soft material.

The pendant (Fig. 2a; 48846) is part of the Mizzen Collection from Great Mercury Island (Ahuahu) off the east coast of the Coromandel Peninsula. It is similar in form to the greenstone adze-shaped ear pendant (kuru papa) but has two notches on either side for suspension. This pendant has been ground on all surfaces. The irregularity of shape at the upper end suggests the suspension on one side may have been modified after the initial notching was damaged, and the reworked surface



FIGURE 1. Obsidian 'patu' (6315).

	length	width(a)	width(b)	depth	blade length
Pendant					
48846	93	46	50	8	48
'Patu'					
6315	326	63	131	12 (blade) 31 (handle)	
Adzes					
3193	67	24	42	16	42
26503	122	46	84	17	82
34363	184	49	73	30	80

TABLE 1. Measurements of obsidian artefacts in millimetres. Width (a) has been taken near the poll and width (b) above the bevel if one was present, or near the blade. The thickness was measured at the same place as width (b).

subsequently reground. The blade shows no evidence of use and two flake scars are probably recent. The obsidian is green in transmitted light.

The three adzes vary in size, shape and cross-section. The smallest (Fig. 2b; 3193.1), from Waihi, is flaked both front and back, and the bevel has been ground over two-thirds of its surface. A weathered cortex is present on the poll and on one side. Pecking, or battering of this surface has also occurred, possibly to facilitate handling. If the adze was hand held, then only two-thirds of the blade was usable and this corresponds with the ground area. However, use-wear damage in the form of small bifacial flake scars, is present along the entire length of the blade.

The second adze-like artefact (Fig. 2c; 25603), localised to Opotiki, has a similarity to the tanged flake or mataa. Bifacial trimming flakes along one side have steepened the edge angle and there are small bifacial flaking scars on the blade, probably caused through use. Pecking or hammering has occurred on the sides, blunting the ridges of the flake scars. Heavy use has occurred at the poll end where use-wear is unifacial (back). The artefact, of green obsidian, has been made on a flake and the positive bulb of percussion is present on the front. The striking platform has been removed by secondary flaking. There is no direct evidence of hafting but the removal of small flakes from all edges in the tanged area may have been caused by binding.

The third adze (Fig. 2d; 34363) is unprovenanced, but was presented by Hammond, a collector from the Hauraki-Coromandel

Peninsula region. Made from a flake, the adze has an unmodified front. A partly ground bevel is present on the back. The blade edge shows evidence of damage with unifacial flaking from the back. The surface of the back has been bruised and hammered as have the ridges of the flake scars on the sides. The obsidian is green in colour but has a silver lustre to it.

Yet another obsidian artefact, also from the Hauraki Plains, is described by Hammond (1962). This artefact, which is approximately 30 cm long, has a handle, and a blade on one side, and thus has the appearance of a meat-cleaver.

There is no direct evidence of hafting on any of these items. Among the adzes, 3193.1 has been hammered along one side possibly to facilitate holding it in the palm of the hand, and 26503 and 34363 were possibly hafted, both having minute chattering on all flake ridges in the vicinity of the tang, and the butt respectively. The 'patu' has most likely been hand-held rather than hafted. This object could not have functioned as a patu as one blow would have shattered the blade. Therefore it is either an unfinished ceremonial or ritual patu or designed for another more utilitarian purpose. I favour the latter.

With the exception of the pendant, the function of these objects is unknown. Obsidian mataa have been recorded from the Chatham Islands (Leach, 1973:104) and New Zealand (Jones, 1981:90), but are rare. Mataa in New Zealand are thought to be butchering knives or used in the flensing of sea mammals (Jones, 1981:100). Other uses for bifacially altered edges of mataa have been suggested, including the sawing of fibres, wood and possibly bone. However obsidian would be unsuitable for some of these tasks (particularly working wood and bone) because of the brittle nature of the material. For other activities such as skinning animals it seems unlikely a tool would be specially manufactured, and ground, when a flake would serve the same purpose. Similarly, for cutting flax or fibre a sharp edge is required, which on these artefacts, would necessitate constant re-sharpening if they were to remain effective.

The 'patu' may have been hand-held and used for scraping soft material. Similarly the smallest adze was probably hand-held and used in a scraping motion. In contrast, the largest adze, of a denser obsidian, was possibly hafted in the same way as a conventional adze. The mataa, with heavy bifacial use-wear, could have been used for scraping or sawing materials which were not too hard.

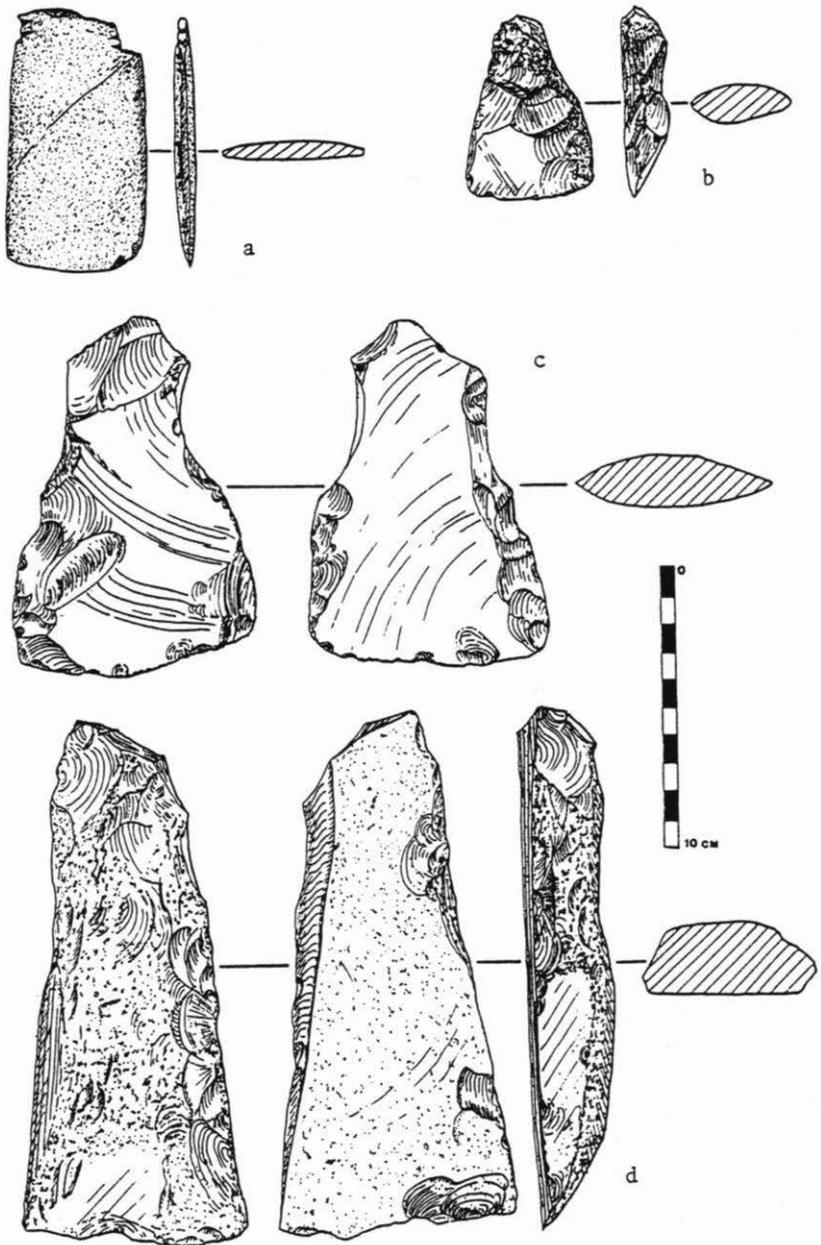


FIGURE 2. Obsidian artefacts: a. pendant (48846); b. adze (3193); c. adze (26503); d. adze (34363).

Acknowledgement

I would like to thank Joan Lawrence who drew Figure 2.

References

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