## A Flint Industry from Southwest New Britain, Territoryof New Guinea

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HILE doing ethnographic field work in the interior of southwest New Britain in 1962–64, Ann Chowning (Barnard College) and Jane C. Goodale (Bryn Mawr College) found the remains of a flint industry previously unreported from that part of Melanesia, and unrecognized by the present inhabitants of the area, members of the Sengseng and Kaulong linguistic groups. About 300 fairly complete implements were collected. These await full analysis and description; this is intended only as a preliminary report. With the exception of one or two found by villagers digging in their gardens, all of the artifacts are 'surface' finds; that is, they were found either in stream beds or on hillside paths. The area has an annual rainfall of about 250 in. and is covered with rain forest. Even if the artifacts were lying on the surface, it is unlikely that they would be visible except in cleared areas, but it seems likely that they had actually eroded out.

The material is often heavily patinated, the color of the patina varying with the spot in which the artifacts were found; most notable, all those from stream beds are red. But the basic material, invariably some form of chert, seems originally to have been white, or banded white and grey in the large majority of cases. Since the sites which yield artifacts are invariably strewn with large boulders and numerous flakes of the same material, it seems almost certain that the artifacts were manufactured of local material. Nothing in the geology of the area contradicts such an assumption. The material is often so thick that the sites resemble workshops—except perhaps for the abundance of unbroken implements—but the concentrations may well result from washing.

The known sites are all found in a narrow strip in the interior of the island, between the Andru River on the east and the Palik (Ason) River on the west (Fig. 1). The heaviest concentration is about 20 mi. from the coast, north and a little east of Cape Bali, in the foothills of the Whiteman Range, which here reach a maximum altitude of about 1500 ft. Beyond this point, the mountains are uninhabited and were not explored. The sites extend to within about 10 mi. of the coast, but near the sea, the flint deposits disappear entirely, and no artifacts have yet been found. The sites occupy a rough triangle, the apex to the south, measuring about

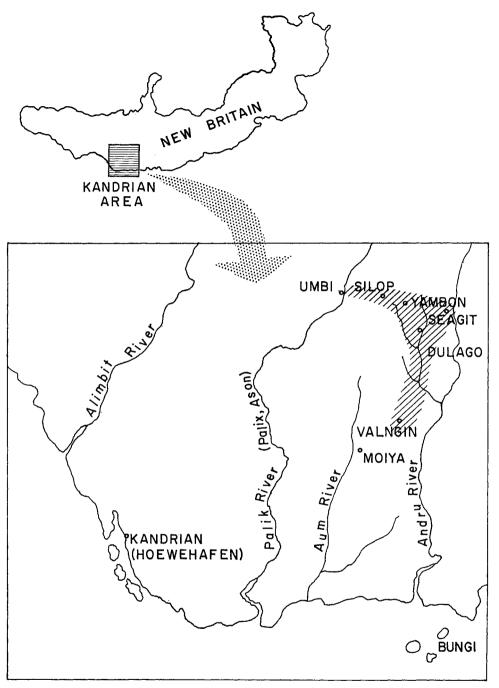


Fig. 1. Cross-hatching shows known site areas. The heaviest concentration of sites is at Silop. The sites are located along trails.

10 air mi. north-south and 10 mi. east-west. The corresponding area east of the Andru was not explored, partly because villages there have recently been abandoned, but also because fairly extensive travel west of the Palik has turned up no artifacts beyond the vicinity of Umbi, a village actually on the banks of the river. If additional sites exist, they may be found to the north and east of those identified so far.

The artifacts themselves vary greatly in shape, but with very few exceptions may be classified as scrapers or chopping tools. A couple of implements might have functioned as borers, but only one looks as if it might have been a projectile point (or small knife). For simple cutting, of course, the unmodified flakes which are so abundant are perfectly adequate, and some larger retouched flakes may also have served that function. Bifaces and unifaces are about equally common. Most artifacts are flaked all over, and a fair number show fine retouch along the working edge. The general level of workmanship is so high that this seems unlikely to have been just a short-lived local development inspired by a fortuitous abundance of good material.

Two (or three) shapes seem to be especially common. One is an end-scraper, with a smoothly rounded and often finely chipped nose, which tapers to a squared-off butt (something like the artifact in Bulmer 1964: Fig. 2e, but with the butt considerably narrower than the nose). Most of these are flake tools, but some are bifaces. Some of the presumed chopping tools have a similar outline, but tend to be rather more tear-shaped than the scrapers. Another common shape is what Bulmer (1964: cf. Fig. 3g) calls a waisted blade; implements of this shape also seem to be scrapers. What is really noteworthy about the collection, however, is the wide variety of shapes shown by these elaborate tools, which suggests that they were made to serve a variety of specialized functions.

The reasons for thinking that the artifacts are not associated with the culture of the present inhabitants of the area are as follows. First, although the people have a legend accounting for the abundance of chert at the richest site, they did not, before our coming, recognize the artifacts as man-made. In the past they used flint flakes to carve shields and spears, but picked any piece that was both sharp and comparatively heavy. Second, they make nothing which would demand the number and variety of tools which we found, nor do their neighbors. Material culture is virtually uniform in southwest New Britain, though richer on the coast than in the interior, where it is exceptionally poor and crude by general Melanesian standards. Whereas the range of artifacts suggests an elaborate wood-working industry, the only wooden artifacts made by the present people are drums, shields, and simple spears. Third, and perhaps less important, considering the nature of the terrain and problems of erosion, the deposits of flint are not noticeably associated with known village sites, which are normally located on hilltops for defensive purposes. It may be more significant that the heaviest deposits are at the very limits of the area inhabited by the present groups or known to have been inhabited by their ancestors.

As regards the possible age of the artifacts, assuming that they antedate the present culture, little can be said. The Sengseng and Kaulong, as far as they themselves know, have always lived in the interior, and both their religion and legends are firmly localized. The artifacts themselves, as noted, are often heavily patinated, but on the whole they seem relatively little worn, even in the case of those from stream beds, though this is extremely stony country. As a final note, it is of course impossible under the circumstances to be sure that all the flints are contemporaneous with each other. We did not note significant differences in the nature of artifacts from different sites.

No organic material was found on the sites, as is to be expected, nor was obsidian found

associated with the flint. (Recent village sites tend to be strewn with shells and obsidian, both imported.) The only materials that may have some relation to the flints are some polished stone artifacts which resemble the flints only in being of unknown origin and in being found within Sengseng-Kaulong territory. First, the local people insisted over our scepticism that they found all their polished stone axes lying on the ground, and only sharpened and hafted them themselves. In contrast to the flints, the axes are typical of those generally used in southwest New Britain, and also are certainly of foreign material. Either the same people made the flints and imported the axes, or we have evidence either of two cultures or two stages of a single culture, apparently discontinuous with the present one. Like their neighbors, the present people also use as valuables the so-called 'mokmok stone,' pierced polished stone discs, which according to myth derive from an area considerably to the southeast of ours. There are occasionally found in our area, however, false 'Mokmok'—called 'the mokmok of the spirits' which vary in material, shape, or finish from the valuables, and include unpierced discs, pierced balls, etc. Artifacts like these may be widespread, and we certainly do not have enough evidence to equate their distribution with that of the flints. They are mentioned only as additional articles of unknown manufacture found in the vicinity.

As regards comparative material, there are certainly resemblances to some of Bulmer's Yuku artifacts, but ours tend to be more fully flaked and now shows signs of grinding. Possibly of great interest are the elaborate flint reported from various parts of the Solomons, where the natural material seems to be abundant (Guppy 1887: 77-80; Ivens 1927: 272-73; Ivens 1930, 1931). Although in the islands studied by Ivens, flint-working continued until very recently, Guppy's people professed to be completely ignorant of the origin or function of the implements he found, which included scrapers and other forms. The only ones illustrated for the Solomons, as far as I know, are examples of the 'tranchet-type' flint axe (Harrison 1931). If the tranchet occurs at all in our collection, it is not common, but obviously it will be necessary to examine more material from the Solomons to know whether any of the industries are really similar to ours.\*

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