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# **BIRDS OF A FEATHER**

## edited by Atholl Anderson

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#### AXE HEADS AND ZOOMORPHS IN THE SOLOMON ISLANDS

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#### Introduction

In 1967 Ron Scarlett visited Papua New Guinea to assist us with archaeological surveys and excavations on Buka and Sohano Islands in the Province of the Northern Solomons. During that season, but after his departure, we recorded a stone axe blade of unusual form which resembled one previously reported from Toiminapu on Bougainville Island (Casey, 1939). These blades, together with four others of similar style also found in the Solomon Islands' chain, form a distinctive and singular group among Oceanic percussion tools. In his original report on the Toiminapu specimen Casey compared certain decorative elements of that blade with bird forms, and in particular with birdshaped stone objects from the islands to the west of Bougainville. This interpretation appears to have been accepted without question in subsequent literature (e.g. Riesenfeld, 1950; 1955; Pretty, 1965; Golson, 1972a: 968) especially following the report of a stone bird figure on Bougainville Island (Neich, 1971). It seems fitting to provide the first published account of the additional specimens in a volume dedicated to a man among whose many interests birds, and the correct interpretation of their remains, have played an important role.

This paper is a descriptive review of these stone blades, with a brief consideration of the identity of the zoomorphic elements. None of the six specimens was found in an archaeological excavation; hence, little can be said of their age or cultural associations. This must cast doubt on the significance, and perhaps relevance, of previous comparisons with material originating from beyond the immediate area of the northern Solomons. However, evidence from archaeological sources is cited to give an estimate of their possible age, while their rarity and distribution pattern provide grounds for limited speculation on their possible cultural significance. For convenience, each blade is identified by its attributed locality of discovery, except that in the Auckland Institute and Museum, which is provenanced only as originating from the 'Solomon Islands'; this specimen will be called the 'Auckland blade'.

#### 1. The Toiminapu blade

The original of this blade was held in the Rabaul Museum, the contents of which were lost or destroyed during the second World War. Fortunately, a copy had been made by E. W. P. Chinnery for the National Museum of Victoria in Melbourne and a description was published by Casey (1939: 144-5).



This axe blade was found in or before 1938, for the cast held by the National Museum of Victoria (reg. no. X43604) was registered in December 1938. The discovery was made by W. A. L. Clarke, of Toiminapu Estate on western Bougainville (Swadling and Phillips, no date: 7) (fig. 15.1). According to Casey (1939: 144), the findspot was within the plantation area, but is not further identified in detail. It was made from a dark grey volcanic rock, apparently hammer-dressed and ground to form.

The blade has two side lugs and a laterally-expanded poll, with decorative elements on the lugs, poll and the area between the lugs on both main surfaces (fig. 15.2). The cutting-edge is medial in section and strongly rounded in plan; the cross-section just below the lugs is lenticular. The poll has two grooves on each face, with the areas bordering the grooves serrated to form bosses. There are four relief bosses on each face between the lugs. Below one lug there are two very faint grooves.

The lugs have small, upward extensions which terminate in blunt points with a groove lightly worked to form what looks like a mouth. Each lug carries two bosses, one on each side and set in line with those across the main surfaces. These bosses appear to have been encircled by shallow grooves, perhaps made by grinding with a hollow cylinder. The overall effect is that of an animal head.

#### 2. The Malasang blade

This blade, now in the Papua New Guinea National Museum and Art Gallery, Port Moresby, was sold to us by a man from Malasang village, on the east coast of Buka Island in 1967 (fig. 15.1).

The findspot (site DCO) lies within the Kessa area of Malasang, about 5 metres east of the coastal road. This area is on top of a limestone plateau formed by an elevated coral reef formation capped by a stiff red clay. The blade was said to have been found on the ground surface among weeds and grass growing round the base of coconut palms. Examination of the area revealed a few plain sherds and decorated sherds in the Mararing style, dated approximately A.D. 1200-1800 (Specht, 1969) though it is impossible to determine whether they were associated with the blade. A road ditch, 3 metres from the alleged findspot, revealed no occupation deposit, and it is therefore doubtful whether the sherds and blade were ever buried below ground surface here.

The blade is made from a light grey rock similar to that used in recent times to manufacture stone pestles; a tuffaceous sandstone found in central and western Buka (Specht, 1974a). It was fashioned by hammer-dressing and grinding. The tool has suffered considerable damage, and its complete form cannot be reconstructed (fig. 15.3).

The blade has two side lugs and a laterally-expanded poll. The cuttingedge is flared and, though damaged, clearly strongly rounded. The edge itself appears to have been medial, and the cross-section just below the lugs is lenticular. In profile the poll is formed by three ridges, each serrated



Fig. 15.2 Toiminapu blade (length 140 mm)



Fig. 15.3 Malasang blade (length 186 mm)

to form bosses. Between the lugs on each face is a row of four prominent bosses, and between these and the poll are two pairs of bosses placed vertically.

The lugs have a flattened oval cross-section. Both are badly damaged, and their original forms are uncertain. One terminates in five bosses, and has a vertical extension seemingly curving inwards. At the base of this extension are two further bosses.

#### 3. The Hutjena blade

This blade is held by the Hutjena High School on the east coast of Buka Island (fig. 15.1). It was found in 1968, subsequent to our visit to Buka, and we have been unable to inspect it in person. Photographs were supplied by the then Headmaster of the school, Mr. N. Murray. Although found on Buka, the exact provenance of this specimen is unknown. It is apparently of a light grey rock similar to the Malasang blade, and made by the same technique.

This blade is extensively damaged, but sufficient remains to indicate that it must have been similar to the Malasang blade (fig. 15.4). The cuttingedge seems to have been medial in section, and markedly rounded and flaring in plan. The cross-section below the lugs appears to be lenticular. The poll, heavily damaged, is laterally expanded, though it is not clear whether it carried grooves and bosses. Of one lug only the base remains, but the other is better preserved. There are four bosses across the surface between the lugs.

The surviving lug appears to have a more rounded cross-section than those on the Malasang specimen, but with a similar upward vertical extension. There is a boss on each surface at the base of the extension, which appears to terminate in a grooved point. There are no bosses on the surfaces between the lugs and the poll.

#### 4. The Choiseul blade

This hafted blade, from Nuatambu, Choiseul, was brought to our attention by Mr. D. Newton, Metropolitan Museum of Art in New York, and photos were supplied by the Solomon Islands Information Services, through the Solomon Islands Museum; for these details of the blade we thank Ms. A. Craven, Curator (Training) and Mr. D. Miller of the Solomon Islands Museum in Honiara.

This tool was bought by the Solomon Islands Museum in 1971 (reg. no. 71.45.1 and 2) from a man named Karaso, who was then working for the mining company Conzine—Riotinto of Australia. It was originally owned by Golomolo of Choiseul, and is said to have been made by his grandfather. It is possible this means his grandfather made the haft, which is straight with a U-shaped fork to receive the blade. The blade is bound in with cane over the upper side only, and sits in a bed of gum. It was made by hammer-dressing and grinding.



Fig. 15.4 Hutjena blade (length extant 170 mm)



Fig. 15.5 Choiseul blade (length extant 190 mm)

With the exception of what appears to be minor damage on one lug, this specimen is complete (fig, 15.5). It appears to have a medial cutting-edge, strongly rounded to a blunt point in plan. The cross-section appears to be lenticular. The poll is low, rounded and asymmetrical, without bosses or grooves. On each face between the lugs are two bosses, with a further two bosses on the lugs themselves. The upward extensions of the lugs are short and grooved, and terminate in a stepped fashion.

Information supplied to the museum at the time of purchase states that this kind of hafted tool ( $\underline{\text{maza}}$ ) was used in war; the lugs represent dog-hands which were said to smell out the enemy.

#### 5. The Auckland blade

This specimen is held by the Auckland Institute and Museum, and I am grateful to Ms. J. Davidson, latterly Archaeologist at the museum, for photographs and information. The blade was donated in 1961 by Mr. G. V. Binet (reg. no. 36295), whose father, Rev. Binet, was a Methodist missionary in the Solomon Islands. Its place or origin is listed only as 'Solomon Islands'.

This specimen, too, is badly damaged, but clearly belongs to the same style as those described above (fig. 15.6). The cutting-edge appears to have been flaring, and probably medial and the cross-section is lenticular. The poll has lateral extensions, of which only part of one survives. There are two bosses on each face of the poll. The line of the base of the lugs is carried across both surfaces, forming a low but visible ridge. Two bosses are placed on each face just above the ridge, and between them another, more faintly defined, ridge runs vertically to the poll. The lugs have upward extensions curving inwards, and carry a boss on each face.

#### 6. The Simbo blade

This was reported to us by Mr. D. Miller, Archaeologist at the Solomon Islands Museum, in 1978. We are grateful to Mr. Miller for providing information, including a sketch of the blade, and for permission to discuss it here.

The blade was found on an old fortress site (SI-SN-Z-39) at the southern end of Nusasimbo, the smaller of the two islands which constitute Simbo. It is made from a coarse grey rock. There is damage on each margin of the cutting-edge and on one lug. The cutting-edge is medial and strongly flaring in plan. The poll is expanded, with rounded form, and has four bosses on each face. Between the lugs there is a pair of bosses, and a single boss on each face of the lugs. The lugs themselves extend upwards, apparently terminating in a blunt point.

With only two complete specimens, and one of those hafted, it is impossible to list the full range of dimensions of these blades. The following table, however, shows that the first reported example, the Toiminapu blade, is in fact the smallest; measurements for the Simbo blade are taken from a sketch supplied by D. Miller, and are approximate only. (Dimensions in parentheses indicate minimum values; all dimensions in millimetres).



Fig. 15.6 Auckland blade (length 190 mm)

	Toiminapu	Malasang	Hutjena	Choiseul	Auckland	Simbo
length	140	186	(170)	(190)	190	200
cutting-edge width	93	150	(125)	(120)	147	(120)
width across lugs	93	(106)	(85)	(95)	105	120

#### Discussion

Although the six blades form a distinctive set in terms of decoration, lug form, and poll embellishment, they are closely related to a major series of stone blades from the Solomon Islands which is characterised by butt differentiation consisting of lugs, notches and/or shallow waisting, either singly or in combination (Rolston, 1945; Specht, 1969; Gerard, 1973; Swadling and Phillips, n.d.; Neich, 1971). One group within this series has double lugs, one on each margin, with or without shallow marginal notches or waisting. Such blades usually have a pointed to bluntly pointed poll with a cutting-edge which is medial in profile and markedly flaring and rounded in plan. Some blades in this group have an expanded, or thickened, but undecorated poll (Gerard, 1973: fig.1 and plate 1A). The general morphological similarity between this group and the six decorated blades suggests that the latter are a sub-group distinguished by their decorative elements and the elaboration of their lugs and polls (cf. Swadling and Phillips, no date: 14-5). Examination of the extensive collections of stone blades from the Solomon Islands made by Voyce, Waterhouse and others, and now housed in the Auckland Institute and Museum, the Otago Museum, and The Australian Museum, indicates that the distribution of the undecorated doublelugged blades matches that of the four decorated blades for which provenances are recorded: the northern Solomon Islands especially Buka and Bougainville Tslands.

In her study of hafted stone percussion implements in Melanesia, Crosby (1973, vol. I: 83) was unable to locate any hafted specimens of double-lugged blades from the northern Solomons in the museums covered by her study. It would appear, therefore, that the hafted Choiseul blade may be unique. It is hafted as an axe. Even though the hafting could be a late event in the blade's history, two morphological considerations favour the extension of this kind of hafting to all double-lugged blades:

- (1) the cutting-edges are medial in profile;
- (2) the cutting-edges are flared and rounded in plan.

Hafted examples of true adzes in Melanesia usually lack these characteristics. Blades with flaring cutting-edges are generally hafted as axes; e.g., the socalled 'Mt. Hagen axes' of the central highlands of New Guinea.

If we accept that the double-lugged blades from the northern Solomon Islands were hafted as axes, what kind of haft was used? The Choiseul blade has a solid wooden handle with a deep U-shaped notch at one end into which the blade is set and secured with cane binding and gum (fig. 15.5), similar to the hafting method for a steinhammer from Nissan Island to the north of Buka (Krause, 1906: 123, fig. 87). Parkinson, however, mentions only the use of rattan cane bound around the axe blades of the Buka—north Bougainville areas (Parkinson, 1907: 499 and 501, fig. 81; cf. 1898 : 25). Parkinson also draws comparison between this method and that used on the Bali-Vitu Islands, north of New Britain, and on New Britain itself from the Willaumez Peninsula to South Cape on the south coast (Parkinson, 1907: 239). In the New Britain area this method of hafting seems restricted to axe blades which have marginal notches or low, indistinct lugs. At this stage it is impossible to suggest which method of hafting was employed for all of the double-lugged blades of the northern Solomons, though the solid wooden haft of Nissan and the Choiseul blade are so similar that this technique may once have been widespread in the region.

In his original description of the Toiminapu blade, Casey (1939: 144-5) interpreted the lugs as representing bird heads. Subsequent authors appear to have taken his statement at face value (e.g. Riesenfeld, 1955; Golson, 1968: 7; Golson, 1972a: 968, 1972b: 588), and on occasion have cited it in comparisons with undoubted aviforms (Pretty, 1964; Neich, 1971). We suggest, however, that Casey's identification is suspect. Given that the working of fine detail in stone may be extremely difficult, particularly when dealing with small lugs on these blades, we cannot isolate one attribute of the Toiminapu lugs which can be assigned without qualification to a bird and to no other animal form. A similar comment can be made about the Choiseul blade, the lugs of which have been identified by people from Choiseul as representing dogs; as Ms. Craven of the Solomon Islands Museum has pointed out to us, there is nothing specifically dog-like about these lugs.

Stone zoomorphs identified as birds have been reported from many parts of the northern Melanesian area, especially from New Guinea (e.g. Höltker, 1951; Schmitz, 1956, Schmitz, 1966; Mc Carthy, 1949; Bulmer and Bulmer, 1962; Neich, 1971). Some of these identifications cannot be challenged, for many have wings which betray their avian origins. Newton (1967: fig. 97) suggests that some of these figures may have been used as stoppers for sacred flutes, such as are used in various parts of the East Sepik Province of Papua New Guinea. Most authors, however, identify the majority of these figures as fragments of stone peselt handles, bearing in mind their close similarity with two complete bird-handled pestles from the Aikora River (Barton, 1908) and Wonia (Pretty, 1965) in Papua New Guinea. Casey (1939 : 143-5) was well aware of the stone figures, and compared them with the lugs of the Toiminapu blade.

Among the undoubted bird-forms, the eyes may be depicted in a variety of ways; as circular or lozenge-shaped raised bosses, as circular hollows, or as circular grooves ground-out by a hollow cylinder. The latter technique is that used for the Toiminapu blade and the Bougainville figurine. In many cases the eyes are not delineated at all. McCarthy (1949 : 159 and plate X, fig. 14) has identified one stone animal head with bosses as eyes to represent an echidna or a possum. If this is so, then eye form cannot be used to identify bird figures. Neither can mouth form be so used. On the Toiminapu and Choiseul blades and the Bougainville figurine, the mouth is indicated by a shallow groove; but on many other figures, including definite bird figures, the mouth is not indicated. The identification of most figures as birds is based on overall body form, including wings where present. On the blades described here, only the head portion of the animal is present, so that the identification is based on a part of the body which is in itself undiagnostic of birds. The only attribute apparently shared by all of the decorated blades and the definite bird figures is the manufacturing technique: hammer dressing and grinding. This technique is found on a wide range of stone objects throughout Melanesia, and currently does not appear to be characteristic of a particular group of objects or time period. It is a technique suited to certain kinds of rocks and as such cannot be used to define any kind of cultural grouping, though some authors have sought to do so (Pretty, 1964).

If, however, we allow the possibility that the lugs do indeed represent bird heads, which bird is thus depicted? A brief review of bird forms used in recent ethnographic art from the Solomon Islands suggests that the birds mainly represented are the hornbill and frigate bird. None of the attributes of the lugs specifically resembles these birds. It may be objected that to attempt such a fine identification is unreasonable, but attempts elsewhere in the New Guinea region appear to have been successful (e.g. Pretty, 1964; White et al., 1970).<sup>2</sup> There are many other bird-like forms incorporated into stone objects, particularly from the New Guinea mainland, for which precise identifications have not been possible.

The only indications regarding possible age relate to the Malasang and Choiseul specimens. In each case the evidence implies a late prehistoric date. However, it is difficult to accept at face value the statement that the Choiseul blade was made by the owner's grandfather. Although we do not know when his grandfather died, he is unlikely to have been born much earlier than 1830-1850, a time-depth well within the period of contact with Europeans. Had such blades been used in the mid-19th century, it is surprising that they were not mentioned by European observers. It is possible that the wooden shaft was added by the owner's grandfather to an older stone blade. Although the Malasang blade was found on the ground surface with sherds of the Mararing Style of pottery (AD1200-1800), there is no indication that they were deposited at the same time.

More useful comparisons can be made with dated archaeological materials excavated further south in the Solomon Islands themselves and in the neighbouring New Hebrides group. Most of this information became available after the comparisons between the Toiminapu blade and the bird figures of the New Guinea mainland were published. In the New Hebrides, Garanger (1971; 1972) has defined an early prehistoric pottery style which he has termed the 'Manga' asi style', after the Manga'asi site on Efate Island. At this site he found 93 pottery handles in Horizons II and III between 100 and 150 cm below ground surface (1971:56). These handles terminate in zoomorphic heads which taper to what appear to be mouths (Garanger, 1971 : 56, fig. 2; 1972 : fig. 134). Radiocarbon-14 dates for Horizon III indicate a first millenium B.C. date (samples GX-0963 and GX-0964, uncalibrated). There are no dates for Horizon II, but a date for Horizon I suggests that Horizon II accumulated before about 650 years ago. Garanger has compared the pottery zoomorphs with figures modelled in clay on the rims of Atzera pottery from the Markham Valley of Papua New Guinea, some of which are identified as heads of flying foxes (Holzknecht, 1957).

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He also noted (1971: 65) that 'some motifs are reminiscent of the 'birds' eyes" of the stone pestles and mortars of the Highlands' of New Guinea. These Manga' asi zoomorphs display no attributes which can be associated exclusively with birds, though some terminate in curved, beak-like forms (Garanger, 1971: 56, fig. 2, centre bottom; 1972: fig. 134, nos. 9, 17). One handle, however, is virtually identical to the lugs of the Choiseul blade (Garanger, 1972: fig. 134, no. 19).

A three-dimensional zoomorphic head in pottery has been found at the BS-SZ-8 Lapita pottery site on Nend& Island (Santa Cruz) in the south-east Solomon Islands, dated to the late second millenium B.C. (Green, 1974: fig. 3; 1976: 264). The eyes and mouth appear to be incised, and the mouth has a bluntly pointed end. This zoomorph resembles the handles from Manga'asi, though there are major differences between the two associated potteries. In general form, but not treatment of the eyes, the Nendo' specimen can be compared with the lugs of the Toiminapu and Choiseul blades.

The lugs on the Toiminapu and Choiseul blades can thus be compared with zoomorphs on pottery handles from two dated archaeological sites. If these comparisons are accepted, a revised age estimate for the blades can be offered. An upper limit of about 2500 to 3500 years ago is indicated by radiocarbon dates for the Nendö site and for Horizon III at Manga'asi; in the absence of dates for Horizon II at Manga'asi, a lower limit cannot be set, but can reasonably be expected to be greater than 650 years ago.

The zoomorphic handle from the Nendö site is the only one yet known from a Lapita pottery context. On the other hand, such zoomorphs appear quite common at Manga'asi itself. There is a similarity between the relief bosses of of the Manga'asi pottery and the bosses of the five decorated stone blades. Prehistoric pottery related to or comparable with the Manga'asi pottery has been reported from southern Bougainville (Golson, 1972b: 564-6, 574) and from Buka Island (Specht, 1969), a distribution which also overlaps with the known range of the decorated blades. It is tempting to see in these stylistic similarities and overlapping distribution an historical link between the decorated blades and the Manga'asi and related potteries. However, double-lugged stone blades seem absent from Manga'asi sites, and from surface collections in the New Hebrides in general.

At present only six decorated stone blades with double lugs are known from island Melanesia, and these all from the Solomon Islands. They form but a minute proportion of the thousands of stone blades from that island group held in museums. This extreme rarity cannot be attributed solely to inadequate sample size, since the Voyce, Waterhouse and O'Reilly collections alone total over 4,000 blades. The close similarity between the decorated blades from Buka to Simbo argues against idiosyncratic production by a single stone-worker or group of stone-workers, unless the blades were distributed from a central source through an exchange network. The extensive movements of goods, and people, within the northern Solomon Islands is well documented (see summaries in Specht, 1974; Blackwood, 1935; and Terrell and Irwin, 1972 : 340), but acceptance of this explanation for the distribution of the decorated blades would present a problem. These blades are probably a sub-group of a much larger series of butt-differentiated blades known from the northern Solomon Islands, of which the decorated blades form only a small percentage. It is most economical to explain the distribution of this larger series in terms of many different production centres within what might be regarded as a prehistoric 'areal culture' (cf. Schwartz, 1963). In the absence of petrological identifications of probable places of origin for the decorated blades, they may have been produced at one or several points within this postulated prehistoric areal culture. Their rarity further suggests that their production may have been rigidly controlled. What their function was, we may never know, but it is tempting to see them used in a context in which animals, possibly birds, played some role.

#### NOTES

- 1. This field work was carried out by J. Specht, with the assistance of S. Specht, as part of a doctoral programme at the Australian National University, Canberra, and was wholly funded by that institution.
- 2. The zoomorphic stone head described by Pretty in his 1964 paper is poorly documented as to its place of origin. It was part of a collection of artefacts from New Guinea and the Solomon Islands received by the Queen Victoria Museum and Art Gallery, Launceston, Tasmania in 1963. Pretty (1964 : 184) argues for a possible New Guinea origin, a view with which we would agree.
- 3. Riesenfeld (1950; 1955) has introduced 'Bronze age' inspirations or prototypes into the discussion of the Toiminapu blade. Golson (1972b: 582) rightly points out that such inspiration 'can no longer be assumed but must be argued within the limits of inference that a growing body of archaeological data is beginning to establish'. We see no value in pursuing putative 'bronze age' influences in Pacific Islands art, but note the imaginative attempt by Mead to identify 'a sub-stratum that is traceable to very remote origins in Asia' (Mead, 1972: 740).

#### AC KNOW LEDGE MENTS

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