

AUSTRALIAN THROWING-STICKS, THROWING-CLUBS, AND BOOMERANGS¹

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THE weapons of the Australian aborigines, as is well known, are characterized by simplicity, both in form and in the manner of their propulsion. Aside from the use of the spearthrower, which is wide-spread but not continental in distribution, all weapons are either thrown by hand or held in the hand for striking. The bow and arrow, the sling, and the throwing-cord, present in nearby Melanesia, are lacking.² Aside from the most important weapons, spears, the uses and varieties of which have been considered elsewhere (*II*), there are a number of other weapons such as throwing-sticks, throwing-clubs, and boomerangs, and their larger counterparts, the heavy striking clubs. In this paper these weapons of secondary import will be considered.

THROWING-STICKS

The most simple form of throwing-stick is shown in Figure 1a. This specimen is from Tasmania where these weapons were typical, but there are others like it from eastern Australia. It is no more than a slightly curved, pointed, peeled stick, two to two and a half feet long and a little more than an inch in diameter. In most cases, it is of the same diameter throughout its length but occasionally it tapers slightly. Generally there are a few scratches to ensure a grip. Many Australian throwing-sticks, principally those in Western Australia, differ only in that they have fine longitudinal flutings (fig. 1b). Throwing-sticks are present throughout most of Western Australia and the western portions of South Australia and Central Australia (fig. 2). In eastern South Australia, Victoria,³ and New South Wales sporadic appearances also occur.

Throwing-sticks with stump ends. A modified variety of throwing-stick which is somewhat shorter and characterized by stump ends is also found

¹ This paper represents one of the results of a study conducted in the Australian museums with the aid of a fellowship grant by the Social Science Research Council of New York. The Museums visited and the abbreviations for them used in the references include the Australian Museum, Sydney (AM), the National Museum of Victoria, Melbourne (NMV), the South Australian Museum, Adelaide (SAM), the Western Australian Museum, Perth (WAM), the Queensland Museum, Brisbane (QM), the Tasmanian Museum (TM), and the Museum of the University of Pennsylvania (UP).

² The bow and arrow have reached Cape York but the extent of their use is not known. See *41*, Vol. 4, p. 173. [Numerals in italics refer to the works cited at the end of this article.]

³ In addition to a few appearances of the typical throwing-stick, a similar weapon with more tapering points, almost a throwing-club, was fairly common in Victoria (*48*, Vol. 1, p. 302).

in the western Kimberley region. It may be related historically to the blunt throwing-stick used at Melville Island (fig. 1c), but there is no evidence at present to confirm such a theory.

Kandri. In the Coopers Creek district of South Australia, and extending into the Diamantina region of Queensland, a large and heavy curved weapon, known as a kandri, is used. In shape it is similar to the ordinary

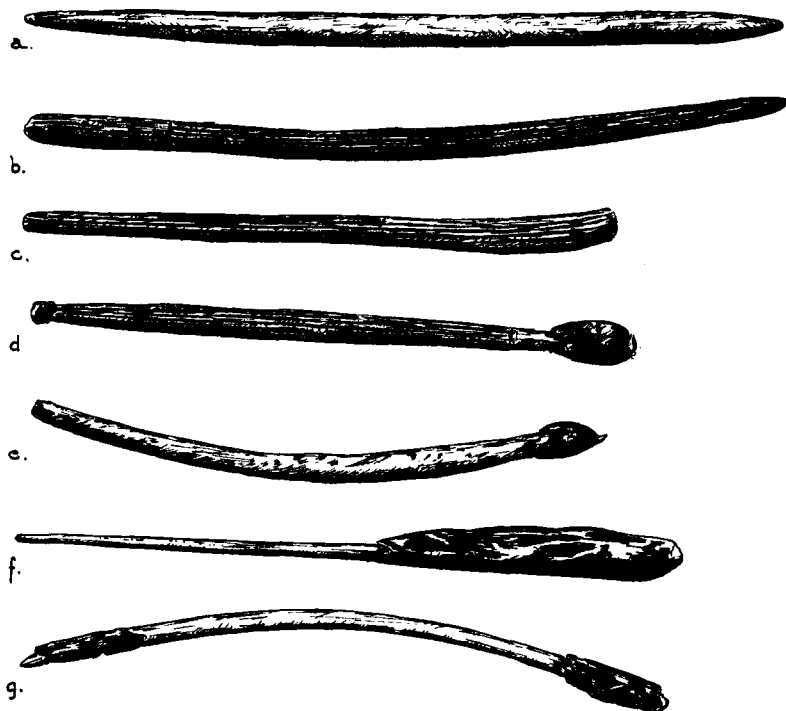


FIG. 1. Throwing-sticks and adzes. a, Tasmania; b, Western Australia; c, Melville Island; d, Western Australia (typical); e, Wardaman tribe, North Australia; f, g, eastern Queensland (after Roth).

throwing-stick, although the curve is more pronounced. Since the length is often as much as three feet six inches, this weapon may serve in part as a club. It is generally fluted.

We thus find that both main areas for throwing-sticks, Western Australia and Tasmania, are peripheral to, and are separated by several sporadic appearances in, a region where throwing-clubs were in general use in historic times. On the basis of such a distribution, it is suggested

that all the appearances of throwing-sticks are historically related and that their use in the southeastern parts of Australia has been supplanted by the employment of other weapons.

We have no evidence to show whether the throwing-stick was developed in Australia, presumably by the Tasmanians, or brought in by migration or diffusion from the outside. Throwing-sticks are so simple in form that they may have been developed independently in Australia. On the other hand, their simplicity suggests that they may have been in use for great periods of time and may have been a possession of the early invaders of the continent.

GUM HANDLES AND THROWING-STICK ADZES

The developments associated with throwing-sticks in Australia, subsequent to the time Tasmanian culture presumably became isolated, seem to have been not numerous, although interesting and important. We have already mentioned the presence of fine flutings on a large number of the Australian specimens, particularly those from Western Australia. Of greater interest are the application of a gum handle and the development of the combined adze-throwing-stick with single and double blades.

The distribution of the gum handle (fig. 1d) is almost as widespread on the continent as that of throwing-sticks. It is a common feature on some specimens in most regions in Western Australia, and along the southern coast, west of Port Lincoln. Gum handles seem to be lacking, however, on both throwing-sticks and throwing-clubs in most of eastern Australia.

Throwing-stick-adzes. In most of Western Australia, apparently throughout Central Australia, southern North Australia, and along the western coast of South Australia throwing-sticks are equipped with a stone adze blade inserted in the gum handle (figs. 1d, 2). We do not know whether the Australian adze developed originally in association with the throwing-stick or with the spearthrower, for a large proportion of the latter in the same regions are similarly equipped. Whatever may have been the history of development, the combination throwing-stick-adze and spearthrower-adze are now important and useful weapon-tools in a large part of Australia and can be regarded as good examples of the economies practiced by the Australians who in several instances have combined the principles of two, three, or four tools or weapons in one object.

From the technological point of view the use of the plain gum handle presumably preceded the development of the adze. However we do not know whether the principle of hafting stones in gum handles is indigenous to the continent or derived from New Guinea. Wherever the point of origin

may be, the Australians have discovered several kinds of resinous gums for this purpose.

Proper adzes. A specialized type of adze (figs. 1e, 2) is found in a more restricted distribution than the adze-throwing-stick, from which, it seems likely, it has been developed. The main point of difference is in the handle, which is shorter, often somewhat stouter, and usually more curved than the throwing-stick. This proper adze, if we may call it such, for obviously it was designed as such a tool, also serves as a throwing-stick for striking or throwing when occasion demands.

The double adze. The double adze is more complex than either of the above types in that it has a blade attached at each extremity (figs. 1g, 2). In many specimens, the two stones are of different forms; one being a point for incising or perforating, the other a broad scraper for cutting, scraping, chopping, or for other like uses. Double adzes appear with both throwing-sticks and the shorter, more curved adze handles.

THROWING-CLUBS

Throwing-clubs are functionally closely related to throwing-sticks but differ in form in that they have knobs, bulges, or other protuberances carved in the solid.⁴ They appear to be lacking in Tasmania,⁵ and in most of the western and central regions of Australia (see map, fig. 2). Their use is concentrated in the east from South Australia to Cape York. Other appearances are found in northwestern North Australia, Melville and Bathurst Islands, and possibly also in northeastern Western Australia.⁶ There seems to be no uniformity among these northern appearances, or between them as a group and those found in the east. Individually, however, there are some weapons in North Australia which in a general way can be classified

⁴ In most regions these weapons are secondary but among some tribes, such as the Wailpi in northeastern South Australia, they are preferred to others (25, p. 48).

⁵ All early and original reports indicate that the Tasmanians were equipped with only throwing-sticks having equal diameter throughout or slightly tapering from one end to the other. Bonwick (5, pp. 42-43 [1870]), without mentioning his authorities speaks of them as being "knobbed at each end," and as often having a "mushroom top." Roth (42, p. 71), citing Lyne, describes a specimen thirty inches long, about one and three-quarters inches thick at the heavy end, and one and a quarter inches at the handle end, and adds "The heavy end was sometimes knobbed." These statements are obviously ambiguous and may indicate only slight variations from the ordinary form. It is also possible that Australian aborigines, brought in by the colonists, may have been responsible for the introduction of some throwing-clubs, as they were for shields, barbed spears, and other Australian traits. Noetling (39, p. 64 *et seq.*), who seems to have made the most critical study, makes no mention of other than the typical forms as defined in this paper.

⁶ A short, tapering, heavy stick from Mulla Bulla, 1920 (UP),

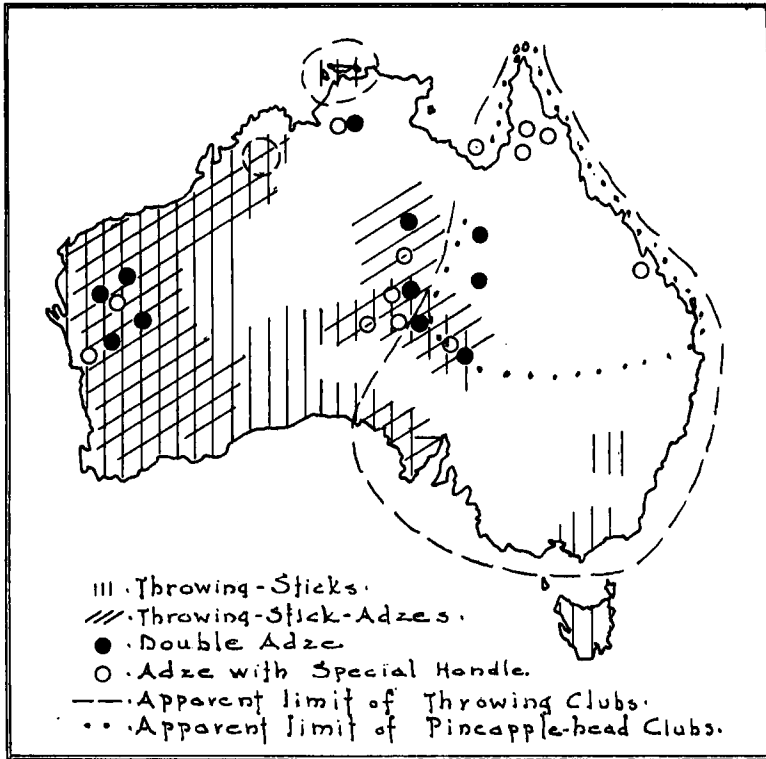


FIG. 2. Distribution of throwing-sticks and throwing-clubs in Australia.

Throwing-sticks. Western Australia—Apparently almost everywhere. South Australia—Common Eyre Peninsula and westward, Coopers Creek (SAM); Everard Range westward (27, Pl. 14); Wonkonguru (28, pp. 20, 69); Flinders Range (25, p. 48). North Australia—Melville Island (SAM). Victoria—Kurnai (NMV). New South Wales—48, Vol. 1, p. 379 (NMV). Tasmania—TM; 39; 40, Pl. 13.

Smaller with blunt ends. Western Australia—Broome, Dampierland, Derby, Fitzroy, King Leopold Range (WAM); Roebuck Bay, Cygnet Bay (SAM); Wororra tribe (35, pp. 23-24, 30). North Australia—Melville Island.

With gum handle. Western Australia—Kimberley, Roebourne, Northampton, Greenough, Laverton, Murchison, Kanowna, Kookynie, Eucla (WAM). South Australia—Fowlers Bay, west coast (SAM).

Throwing-stick-adzes. Western Australia—Isdell Range, Laverton, Mt. Magnet, Kookynie, western Kimberley, Bunbury, Esperance, Geraldton hinterland, Hammersley Range, Lyons River (WAM); Gascoyne (SAM); Roebourne (NMV); Mt. Hahn (UP); Sherlock (10, Pl. 5); Murchison (9, p. 346; 26, p. 8; 27, p. 272). South Australia—Fowlers Bay, Tempe Downs (SAM); Mt. Remarkable, Dieri (55, pp. 65, 74); Everard Range, Warrina (27, pp. 272, 280); [Legend continued on next page.]

with certain examples in the east. A historical relationship must not be implied necessarily as the result of our classification, for what appear to be historical similarities actually may represent what are only accidental resemblances. Generally speaking throwing-clubs seem to be present in those areas where throwing-sticks are lacking, and lacking in those regions where throwing-sticks are present.

A classification of throwing-clubs into types is a most difficult matter as a result of the many and great differences in their shapes and features. It is possible to place the majority into two general groups but it must be realized that each of these is characterized by great variation. In addition, there are many specimens in the museum collections which do not fit into any major grouping. Wood lends itself very readily to the development of variants and the use of this commodity may be responsible in part for the occasional manufacture of weapons with unusual shapes and features.

Throwing-clubs with body flares. The most common class of throwing-club is shown in Figure 3. These specimens differ from throwing-sticks in that each is characterized by a diameter which increases gradually from the handle end and more or less abruptly from the head to form a flare or bulge in the forepart of the body of the weapon. Both extremities are generally pointed. This type, with numerous variations, is widely distributed from eastern South Australia to Torres Straits.

Specimens, differing in details, but coming under the same general classification are also found on Melville and Bathurst Islands.

A sub-type having a bifurcated head is reported from the Mackay district, Queensland, and is present in a somewhat different form on Melville Island (fig. 3g, h).⁷

[FIG. 2—cont'd].

Port Lincoln (62, p. 216). Central Australia—Common (50, p. 28); Macdonnell Range and west and southwest (SAM; 52, p. 640). Queensland—Birdsville (QM); Rockhampton (44, Vol. 7, Pl. 14). Victoria—Lacking (48, p. 379).

Specialized adze handle. Western Australia—Gascoyne (SAM); Geraldton (UP). South Australia—Everard Range, Coopers Creek (SAM). Central and North Australia—Macdonnell Range (SAM); Katherine River—Victoria River (UP); Charlotte Waters (55, p. 91). Queensland—Rockhampton, Palmer River, hinterland of Princess Charlotte Bay, eastern and gulf coasts, Wellesley Island, Endeavour, Bloomfield and Mitchell Rs. (all with iron blade) (44, Vol. 7, pp. 20–21).

Double adzes. Western Australia—Geraldton hinterland (WAM); Gascoyne, Nannine, Lyons River (SAM). South Australia—Coopers Creek, Frew River (SAM). Central and North Australia—Macdonnell Range, Barrow Creek, Tennant Creek, Katherine River (SAM); common in Central Australia (52, p. 640). Queensland—Glenormiston (QM); Pitta Pitta, Mitakoodi, Boullia, Lake Nash (43, p. 101); western Queensland (44, Vol. 7, 20–21).

⁷ 48, Vol. 1, p. 302: 40 Pl. 17

Throwing-clubs with bulbous heads. Another general class of throwing-club is that with a symmetrical bulbous head carved in the solid. In most cases, the shaft or body of the weapon, like that of a throwing-stick, is more or less of the same diameter throughout its length, and is set off rather distinctly from the head part. As the illustrations in Figure 4 demonstrate, the heads vary greatly in size as well as in shape. Some are spherical,

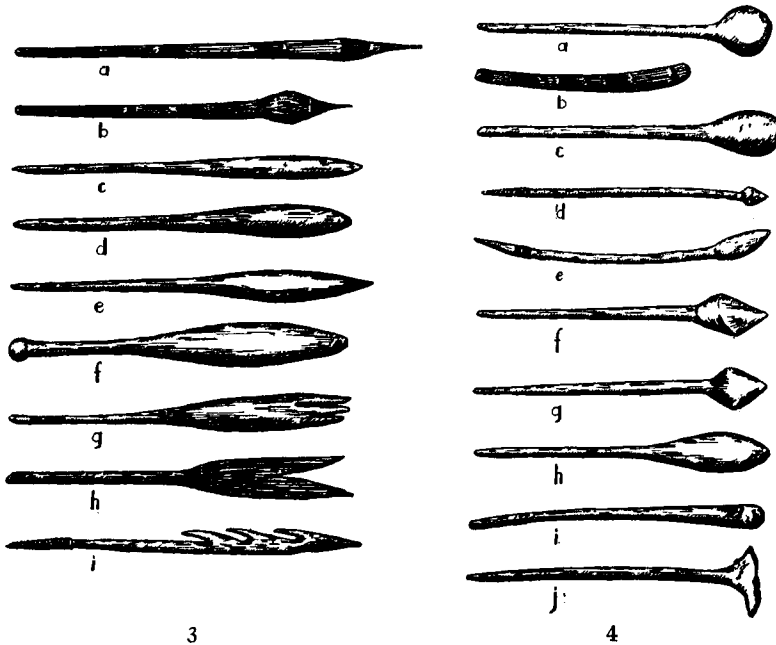


FIG. 3. A few varieties of throwing-clubs with body flares. a, b, h, Melville Island (UP); c, d, southeastern Australia (SAM); e, north Queensland (after Roth); f, west coast of South Australia (SAM); g, Rockhampton (after Roth); lower Murray River (SAM).

FIG. 4. A few varieties of throwing-clubs with bulbous heads. a, j, Rockampton (after Roth); b, Melville Island (UP); c, west coast of South Australia (SAM); d, e, f, h, common in South Australia, Victoria, and Murray River region; g, upper Fitzroy River (after Roth); i, j, common in southern South Australia (SAM); Hergott Springs, Central Australia (NMV); Rockhampton, Brisbane (44, Vol. 13, pp. 208, 209).

some conical, some nondescript. Others show combined forms which include many varied arrangements of proportions. This class of throwing-club is commonly distributed from the central coast of Queensland to Victoria and southern South Australia. Cruder examples, in which the head is not so sharply set off from the body of the weapon, or in which the head is composed of more or less unrefined roots, are found in a number of

regions which, for the most part, appear to be peripheral to the other appearances (fig. 4j).

Marpungy. Marpungy is the name given to a type of weapon widely distributed in southeastern Australia.⁸ The larger specimens are clubs, the smaller ones, throwing-clubs. They seem to be lacking in northern Queensland and the Cape York Peninsula.

Pineapple-head throwing-clubs. A highly specialized type of weapon is the so-called pineapple-head throwing-club (fig. 8f). This type, apparently restricted to the area extending from northeastern South Australia to the Cape York Peninsula (see map, fig. 2) is made entirely of wood, although, it is interesting to note, nails have been used occasionally in recent times to give, or to extend, the studded appearance.⁹

Lil-lil. The lil-lil is a very flat curved missile weapon with a boomerang-like body and a wide flat head which projects on the concave side (fig. 8g).¹⁰ It could be classified as either a variant boomerang or a variant throwing-club. It appears to be restricted in distribution to New South Wales and the adjacent parts of Victoria and Queensland.

The lack of throwing-clubs in Tasmania and most of Western Australia and their concentration in eastern and northeastern Australia introduces an interesting problem in origins. Except for the appearances in North Australia¹¹ and the unsatisfactory indications for the adjacent northeastern

⁸ Attention should be called to the Kul-luk, in Victoria, a somewhat similar but less curved weapon (see 48, Vol. 1, p. 308). In slightly varying forms, the marpungy is often met with under such names as burrong, langeel, leonile, and bendi, according to district (see also 16, p. 317 *et seq.*). Mannum, Robe, Murray R., Paroo R., Point McLeay, Adelaide Plains (SAM); Paroo, Clarence, Richmond and Bellinger Rs., north coast New South Wales (AM); Mackay (NMV); Rockhampton, upper Fitzroy R., Brisbane, Yaamba, Broad Sound (large) (44, Vol. 13, p. 209); lower McLeay R., Lake Albert, Milmeldura, Encounter Bay, lower Coorong, Port Macquarie, Tweed and Nambucra Rs. (18); Coomoolooloo (36, p. 334). See also 48, Vol. 1, p. 302.

⁹ Warrego, Charlesville, Roma, Thargomindah (nails) (SAM); Rockhampton (AM); Herbert R. (36, p. 73); Cape York Pen., e. coast of Queensland, Herbert Vale, Brisbane, but lacking at Gladstone and Keppel Island (44, Vol. 13, p. 209). Burdekin R., Rockingham Bay, Mackay, Coopers Creek (48, Vol. 1, pp. 300-302). Stone forms common in New Guinea at Kumusi R., Mambare, Mt. Potter, Mt. Bridge, Banu R., Fly R., Musa R., Mt. Nesbitt, Mt. Scratchley.

¹⁰ For specific description, see 18. Size varies up to two feet in length and up to five inches in width of head. Thickness generally is not more than one-half inch. Many have incised designs. Murrumbidgee, n. and w. Riverina, Swan Hill, Macquarie R., Cape Western, Coolabah, Oberley Holding, Bogan R., Lachlan-Darling Rs., Echuca, Yandilla, western New South Wales (AM); Gippsland, Kulkyn, Angeldool, Port Macquarie, Swan Hill, Barwon, Murray, upper Clarence, Balonne Rs. (18).

¹¹ The derivation of the throwing-clubs in northern Australia, apparently isolated from

part of Western Australia, we find the general distribution of throwing-clubs concentrated in one major continuous distribution which stretches from Cape York to the Great Australian Bight.

From the technological point of view there can be no objection to believing that throwing-clubs may have developed from throwing-sticks. Certainly it is possible in any large museum collection to find scores of examples which appear to be transitional from the throwing-stick to the various kinds of throwing-club. At the same time we must not overlook the fact that there is a continuity in the distribution of throwing-clubs as far as Torres Straits, the point of introduction of many alien traits, and this suggests that throwing-clubs as a class may not be indigenous to Australia but derived from a foreign source.

In respect to specific types of throwing-clubs, however, we cannot be at all certain as to the points of origin of most of them. Some types may have diffused into the continent, others may have been invented as a result of foreign influence, whereas still others may have been derived from throwing-sticks prior to the intrusion of foreign influences. At the present time, it is impossible to determine what the actual circumstances of origin may have been, and all these possibilities must be retained until further evidence, perhaps to be furnished by archaeology, may be forthcoming.

The only throwing-club types the derivations of which seem fairly certain are the lil-lil and the pineapple-head form. The former by virtue of its specialized form and restricted distribution appears to have developed in southeastern Australia. The pineapple-head probably has a foreign origin. It seems permissible to infer that either the wooden form represents the application in Australia of the features of the New Guinean stone-headed form to a different material, or that the idea of an older and now extinct wooden form in New Guinea diffused across Torres Straits before the stone variety developed.¹²

Of the other Australian throwing-clubs, none shows more than general resemblance with New Guinean and Melanesian weapons, with the possible exception of the marpungy, and all are distributed in regions sufficiently far from Cape York as not to suggest immediately a foreign deriva-

the extensive distribution in the eastern parts of the continent, cannot be indicated at the present time. The throwing-clubs just south of Darwin, six to twelve inches long, are unique (3, p. 170). However, there seem to be many similarities between certain specimens from Melville Island which cannot be ascribed readily to convergence on comparison with those in the east.

¹² See 24. The manufacture of a few stone heads in Torres Straits has been reported, although most were imported (41, Vol. 4, pp. 190-92).

tion, unless we are to assume that they have been replaced in northern Queensland and the Cape York Peninsula by later arrivals such as the pineapple-head type.

It appears, therefore, that until we have more data we can say that the evidence suggests that Australian throwing-clubs, as a class only, may owe their origin to New Guinea but that there is no specific evidence to indicate that the places of origin of definite types, with the notable exception of the wooden pineapple-head form, lie outside the Australian area in which they are now found. Whether Australian throwing-clubs as a class are or are not historically related to Australian throwing-sticks, it seems likely that in many areas the two have influenced each other to produce new varieties in form.

Handles carved in the solid. In contrast to the pointed or rounded ends of throwing-sticks or their knob handles of gum, many throwing-clubs of Victoria, New South Wales, eastern South Australia, and southern Queensland are equipped with handles carved in the solid. Apparently these do not appear in northern Queensland and may represent an indigenous Australian development. Some are round, some elongated, and others appear as a tapering series of rings (figs. 4f, i; 5e).

CLUBS

Ordinary clubs—round, peeled, stout sticks with or without incised or painted designs—are lacking in Tasmania but apparently are quite widespread, and possibly almost universal in Australia. Relatively few localities, however, are represented in the museum collections and, as a result, we cannot be specific regarding distribution.

The simplest and most common type of club in North Australia, Central Australia, and central and northern Western Australia varies in length from three and a half to four feet, is round in cross-section, plain or longitudinally fluted, of equal diameter throughout or slightly tapering toward the roundly pointed ends (fig. 5a).¹³ A few scratches for a grip are often

¹³ These clubs are reported for all the central tribes, but are made particularly by the Kaitish and Warramunga, and traded to the Arunta, Loritja, etc. (51, pp. 602–604). See also 49, pp. 366–68, for the Tjingilli and for northern Australia, where they are said to be common. This statement may apply only to the western districts, for Tindale (57, p. 99) reports clubs lacking for Groote Island. A similar condition may be true for the adjacent mainland. The Nungubuyu are said to secure clubs from the Mara to the south. Whether they are bartered to other tribes of Arnhem Land we are not told, but most of these tribes apply variations of Nungubuyu terms to them. Only throwing-clubs are listed for Bathurst Island (2, pp. 300–301). No mention of heavy clubs for Melville Island has been found in the literature consulted. See 26, p. 11, for Kimberley. WAM—Wiluna, Broome, Roebourne, Dampierland and Isdell Ra. (10, Pl. 2), Mallina tribe.

found at the handle end. In northern Queensland longer clubs are used. Many have sharpened ends, apparently for digging.¹⁴

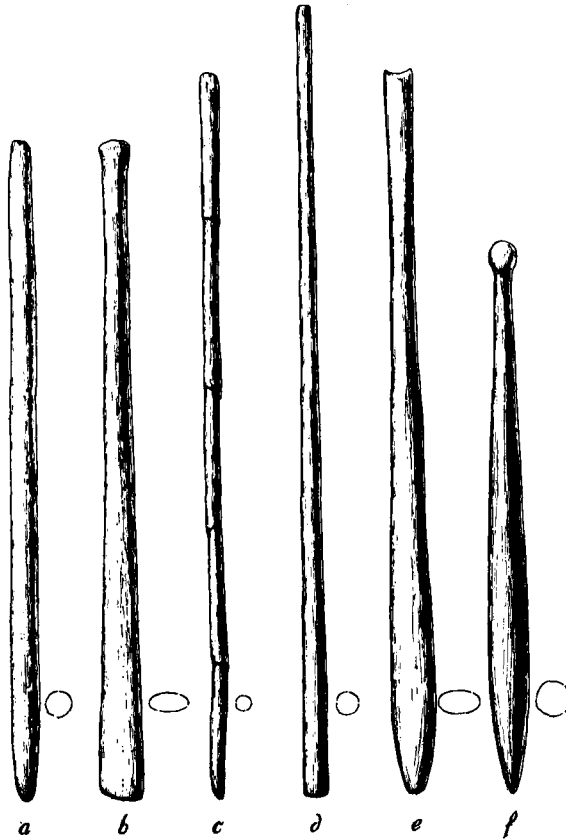


FIG. 5. Clubs. a, b, Wardaman tribe, North Australia (UP); c, Digging-stick, Broome (UP); d, e, Kakadu tribe, North Australia (SAM); f, New South Wales (SAM). (Scale: f, 3 feet 6 inches.)

Digging-sticks. Digging-sticks, four to four and a half feet in length, are probably used as clubs in all regions where known when other weapons are not available. It cannot be said how widespread their use may be, for these implements are not abundantly represented in the collections.¹⁵ In

¹⁴ See 43, p. 150, for Boulia, Cloncurry, Flinders, Leichhardt-Selwyn and Mitakoodi; 44, Vol. 13, p. 209, for middle Palmer R., Princess Charlotte Bay and Rockhampton. See 28, p. 21, for the Wonkonguru of South Australia.

¹⁵ Digging-sticks are known from all the states but may be lacking in local areas.

many regions they are neatly finished products; in others they seem to be no more than crude pointed sticks. They are definitely lacking in Tasmania.¹⁶

In the Port Essington-Darwin region and the nearby coast to the south a pole-like club, having the same diameter throughout or tapering slightly and with squared off extremities, is present (fig. 5d).¹⁷ It is also in this general region that we find clubs with wide, flaring spatulate-shaped heads which taper gradually to either a rounded or a peculiar concave butt (fig. 5e). They seem to vary considerably in width, thickness, and in cross-section of the head part.¹⁸ A not dissimilar weapon with a rounded butt also is present in the Kimberley region.¹⁹ Some apparently should be classified as sword-clubs. Many in North Australia have handle grips carved in the solid (fig. 5b), but these are distinctly different from the handles of the throwing-clubs of southeastern Australia.

A type of club with a slight bulge in the middle of its shaft is found in New South Wales and the nearby portions of Queensland and north-eastern South Australia (fig. 5f).²⁰ It is often equipped with a handle cut in the solid and similar to those on the throwing-clubs of the same region. Many specimens are decorated with incised geometrical designs.

We have already considered the marpungy, the larger examples of which are clubs, the smaller ones throwing-clubs. Roth reports a similar functional difference for most of the weapons of northeastern Queensland; those having a light weight being missiles, the heavy ones striking-clubs.²¹

Boomerang-clubs. An interesting weapon is the so-called boomerang-club which embodies the shape of a simple boomerang, bi-convex in cross-section, and the size of a club (fig. 7j). Specimens have been collected from a number of localities in the eastern parts of the continent, principally South Australia, southern Central Australia (apparently traded from the east or south),²² western New South Wales, and Queensland.²³ In Victoria

¹⁶ See 39, p. 73. Apparently the ordinary throwing-stick was used for digging roots.

¹⁷ Larrikiyas, Wogaits, Sherait, Berringin (I, p. 36); generalized for the adjacent inland tribes (49, p. 366 *et seq.*). SAM—Darwin, Port Essington.

¹⁸ See I, p. 36; 49, p. 366, Pl. 16; 38, Vol. 1, p. 308.

¹⁹ WAM—Broome, Dampierland, Derby. See 3, pp. 169–70.

²⁰ SAM—Menindie, Darling R., Paroo R., Mt. Brown, Cobham Lake.

²¹ 44, Vol. 13, p. 207.

²² See 51, pp. 596–99. It is believed that these weapons, varying up to four feet in length found among the Arunta and Ilparra, have come from Queensland. They are said to be more common among the southern Arunta. Some with different designs are said to be manufactured by the Urabunna and occasionally by the southern Arunta and Loritja. Boomerang clubs show great variability in length. In northern Queensland most of the specimens appear to be not

a somewhat heavier and thicker weapon was used.²⁴ The distribution, however, may be much greater than that indicated, for a typical specimen has been collected from Yundamindra, Western Australia.²⁵ The quirriangan-wun of the Murray River tribes is similar functionally but differs somewhat in shape.²⁶

Sword-clubs. These weapons are similar to boomerang-clubs in their bi-convex cross-section but differ in that they are straight or nearly so and in the east often have a carved knob handle (fig. 71). The specimens available indicate a distribution extending from Eucla to Victoria and the central coast of Queensland.²⁷ Most examples are not over four feet in length. Weapons with the same general characteristics but with numerous minor points of difference are also found at Melville Island.²⁸ These are intricately carved and painted and possess carved handles or bifurcated butts. With only very general similarities and with numerous minor differences between the sword-clubs of North Australia and those of the east and southeast, a historical relationship does not readily suggest itself. However, there is an unusual type of sword-club, found in both eastern Queensland and in North Australia (fig. 7k).²⁹ It would seem that there must be some historical relationship between these two appearances.

BOOMERANGS

Boomerangs, as a class, are widely distributed in Australia but are not continental. It is important to note that they are lacking in Tasmania and

less than three and a half feet nor more than four feet long. In South Australia many examples are five feet in length. The longest weapons are found in the Coopers Creek-Diamantina district where specimens eight feet in length have been collected (SAM).

²³ SAM—Coopers Creek, Diamantina, Gawler Range, Beltana, Coward Springs, Lake Eyre, Yardea, Birdsville, Fowlers Bay, Mt. Burrell; *28*, p. 71, Wonkonguru; *3*, p. 170, Dieri, and slightly shorter and broader for the Arunta and Aluridja; *44*, Vol. 13, p. 209, Yaamba to Broad Sound; *43*, p. 146, Boulia, Warena, Herbert Downs, Marion Downs and southward on the Diamantina.

²⁴ Kul-luk (*48*, Vol. 1, p. 308). This weapon is suggestive of the marpungy.

²⁵ UP. Found in a cave in 1891.

²⁶ The average length is given as thirty-six inches (*48*, Vol. 1, p. 316).

²⁷ SAM—Point McLeay, 240 miles north of Port Augusta, west coast of South Australia, Robe, Lacepede Bay, Victoria, Cairns, Konibba, Coopers Creek, Algebuckina; *8*, p. 7, Adelaide; *55*, p. 90, Mt. Remarkable; *3*, p. 170, Eucla; *44*, Vol. 13, p. 209, Rockhampton, Yaamba to Broad Sound; *36*, p. 334, Herbert Vale; *48*, Vol. 1, p. 301-303, Gippsland, Murray R., Victoria in general, Mackay; *28*, p. 72, Wonkonguru.

²⁸ *49*, Pl. 18. They do not seem to be used on Bathurst Island, at least no mention is made of them by Basedow (*2*).

²⁹ SAM—Melville Island, Cardwell to Johnston R. NMV—Cairns to Cardwell, and "North Australia." *44*, Vol. 13, p. 210, Cardwell, Lower Tully and Bloomfield Rivers.

in all the northern peninsulas of Australia, the Kimberley coastal country,³⁰ Groote Island, and North Australia approximately north of a line drawn from the Katherine River to the Roper River,³¹ and in the Cape York

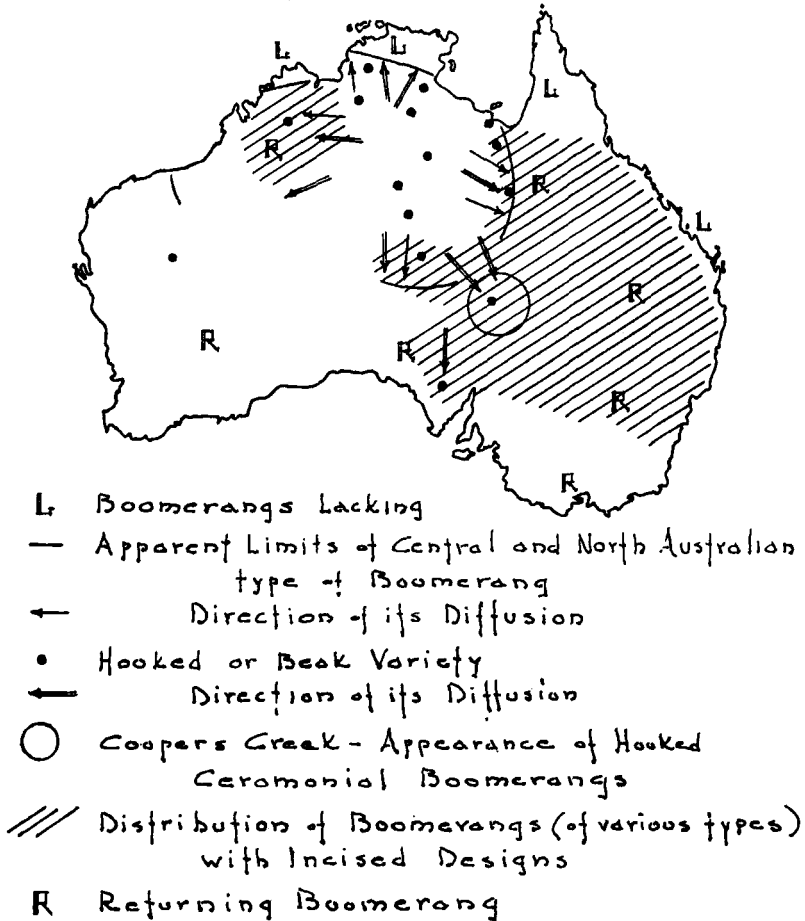


FIG. 6. Distribution of boomerangs in Australia.

³⁰ Reported lacking for the northern Kimberley coastal tribes by Brockman (6, p. 17), Port George IV by Love (35, p. 30), and for the inland tribes of the west Kimberley coast by Froggatt (23, p. 651). The last, however, mentions two types for the western coastal tribes and Stokes (54, Vol. 1, p. 91) found the boomerang at Beagle Bay. Boomerangs are now reaching Port George IV.

³¹ Fieldnotes, 1930. Basedow (1, p. 37) found them lacking among the western coastal tribes, to some of whom they are now being traded (53, Vol. 4, Pl. 5). Foelsche (22, p. 12)

peninsula, north of the Mitchell and Palmer Rivers (see map, fig. 6).³² There are also a few minor districts where they seem to be unknown.³³

Generally speaking, boomerangs as a class can be regarded as a special form of throwing-stick. They differ from the latter only in their somewhat greater curvature and their bi-convex or semi-oval cross-section. They are used like throwing-sticks for both throwing and striking in hunting and in fighting. These remarks apply in a general way to all varieties of boomerangs except that specialized type which has attracted so much attention, the returning boomerang. The latter, which numerically represents an extremely small proportion of the boomerangs of the continent, is usually regarded by the natives as a toy which, with a few exceptions, seems to be used for neither hunting nor fighting.

Any present attempt to classify boomerangs into types and varieties meets with so many difficulties that the effort is futile. When all the extremely variable features are taken into consideration it is obvious that any inclusive classification would be so unwieldy that it would not serve the purposes for which it was intended.³⁴ A rough grouping on the basis of general similarities, however, may be of some value. Accordingly, insofar as we have information, the distributions of some of the more prominent forms are given below.³⁵

The most common type of pointed boomerang in Western Australia is a light, thin blade, symmetrical or asymmetrical in shape, having one flat

reported them lacking along the northern coast. Tindale (57, p. 99) for the Gulf coast, gives the Allawa on the Roper River as the most northern tribe to make them. See also 21, p. 355; 62, p. 224, for northern Arnhem Land.

³² See 44, Vol. 13, p. 201.

³³ They have been denied for the Everard, Fraser and Blythe Ranges in South Australia, but present on Hampton Plains (see 61, p. 728; 27, p. 271; 47, p. 86). King did not see them at King George Sound in 1821 (31, Vol. 2, p. 137), but this does not necessarily mean that they were unknown there at that time. Helms reported them made inland and traded to the coast (27, p. 289). Roth (44, Vol. 13, p. 202) got no information at Keppel Island, a place where many mainland traits are lacking. Sarg (45, pp. 7-8) and Eylmann (21, p. 363) delimit a large region along the southern coast as lacking boomerangs. Their information may be correct for some small districts, but the museum collections show an abundance of specimens for this region as a whole.

³⁴ For discussion see 13.

³⁵ It must be understood that this list is not an inclusive one, and that many other forms, represented as a rule by very few specimens, have been purposely excluded. It must also be realized that in the majority of cases the distributions are based upon specimens or other data which show only that a particular type is present in an area, but is not necessarily manufactured there. It must not be assumed that the distribution of use of any type is coextensive with the distribution of its manufacture. There are very few cases in which we have information concerning trade and diffusion routes.

and one convex surface, or two slightly convex surfaces (fig. 7a).³⁶ It is found in the Kimberley district, where it is often decorated with incised designs and painted bands. The distribution of undecorated specimens ex-

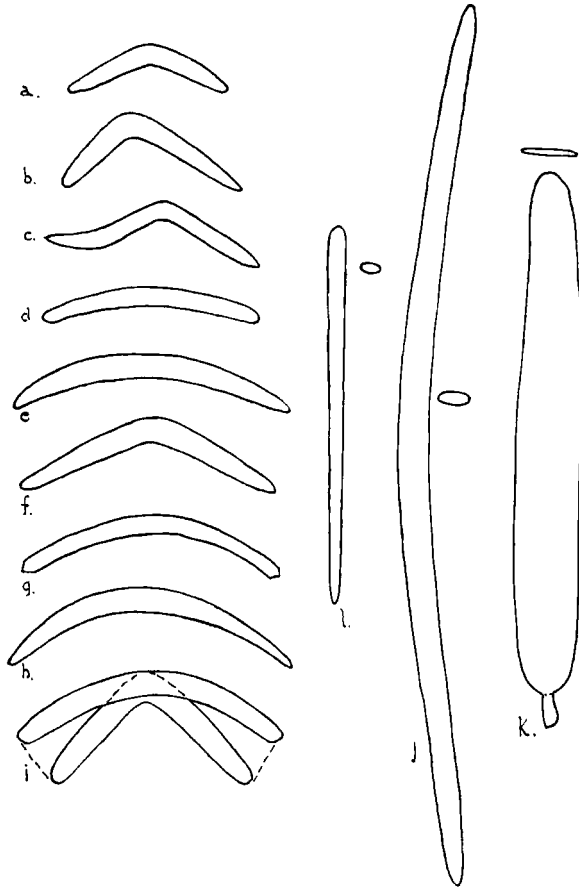


FIG. 7. Boomerangs: a, b, Kimberley region; c, d, southern Western Australia; e, f, i, Victoria; g, h, Queensland. Boomerang-clubs: j, Coopers Creek. Sword: k, Cardwell. Sword-club: l, South Australia.

³⁶ Acknowledgement must be made to Mr L. Glauert (Curator, WAM) for his help and suggestions in grouping the specimens from Western Australia. WAM—Kimberley, Wiluna, Beagle Bay, Kookynie, Laverton, Ashburton. SAM—Broome, King Leopold Range. UP—Mulla Bulla, Halls Creek, Maninga Marley, Turkey Creek, Leopold Range, Sunday Island, La Grange Bay. 26, p. 9, Murchison. 10, Pl. 2, Roebourne. All fairly symmetrical. Areas in which one arm is definitely longer than the other include (WAM) Kimberley, Wyndham, Pender Bay, Derby, Isdell Range, Broome, and Point Cloates.

tends southwestward apparently to the Ashburton, Laverton, and Kookynie districts.

A specialized variety similar in many respects, but with certain features accentuated, is shown in Figure 7b. One arm is considerably longer than the other and the greatest width is at the angle, from which it gradually decreases toward each extremity. This variety seems to be concentrated in the Kimberley-Roebourne region, although specimens have been collected farther south.³⁷

Another pointed boomerang of Western Australia is a light, thin, short, narrow undecorated weapon, distributed in the southern part of the state from Geraldton southward to the ocean and eastward to Eucla.³⁸ The arms of this weapon tend to be approximately equal in length but differ in that one has a slight concavity in its outer edge, whereas the other has a convex outer edge (fig. 7c).

The most common type in Western Australia is a thin, plain blade with round ends, symmetrically shaped or with one arm slightly longer than the other (fig. 7d).³⁹ One surface is convex, the other flat. The general distribution extends from the Roebourne area to the southern ocean and to the South Australian border. It seems to be lacking in the Kimberley district and perhaps in the eastern desert regions.

In South Australia somewhat different boomerangs are encountered. One general and fairly symmetrical type is long and narrow but heavy as a result of its thickness. The ends are round in a medium degree. Many of these specimens are decorated with incised semicircular designs, divided often into two quarters. In other cases, there are series of zigzags in various arrangements. This type seems to be concentrated in the south.⁴⁰ Not dissimilar boomerangs, thirty to thirty-six inches in length, with very fine longitudinal flutings, are found in the Coopers Creek-western New South Wales-western Queensland region.⁴¹

³⁷ WAM—Kimberley, Lombadina, Gascoyne, Kookynie, Murchison. SAM—Cygnet Bay, Derby.

³⁸ WAM—York, Perth, Kookynie, Kanowna, Geraldton, Lake Grace, Laverton, Bunbury, Esperance, Murchison, Northampton. SAM—Eucla. UP—Moore R. (with modern burned decoration), Mordagalup tribe, Manjimup, Nannup.

³⁹ WAM—Roebourne, Northampton, Ashburton, Geraldton, Greenough, York, Pingelly, Bunbury. UP—Manjimup, Meekatharra, Mt. Vernon, Nannup, Margaret R., Nannine, Mt. Sir Samuel, Paynes Find, Bridgeton, Albany, Tuckanarra, Eastern Goldfields. SAM—East Laverton, Eucla; 26, p. 9, Murchison, Gascoyne.

⁴⁰ SAM—Eucla, Eyre Pen., Gawler Range, west coast of South Australia, Penong, William Creek.

⁴¹ SAM—Mt. Burrell, 200 miles north of Coopers Creek, Diamantina R., Dieri tribe.

A shorter, broader type, with round ends, and symmetrical or asymmetrical shape also appears in the southern part of the state.⁴² It has, as usual, one convex surface, whereas the other varies from flat to slightly convex. Slightly longer boomerangs with a medium width and an oval cross-section are also found in the same general region.⁴³ A cruder and smaller, but otherwise similar type appears in New South Wales.

In Victoria and southern New South Wales there seems to have been only two important types of boomerang, the wonguin or returning boomerang, and the bargeet or war boomerang, both of which are found in variant forms (fig. 7e, f, i). The two are difficult to distinguish, for the latter often exhibits a slight twist, although it cannot be made to return.⁴⁴ For the remainder of New South Wales we have very little information and only a few specimens upon which to base an opinion. In the western regions there appears to have been similarity with forms in South Australia, and in the north Queensland types appear.

The most common form of boomerang in a large part of Queensland seems to have been similar to that shown in Figure 7g, found with minor variations in form and decorations from northern New South Wales to northwest central Queensland and eastward to Herbert Vale. It seems to be lacking in the upper Georgina area, the extreme northern regions, and in many coastal areas in the east.⁴⁵ These boomerangs are fairly long (thirty inches), and show either one flat and one greatly convex surface, or two convex surfaces. The apices may be round, pointed, or emarginate in form with central mucronate extensions. Further north, at Normanton and along the Gulf coast, the boomerangs become heavier and clumsier and a more or less acute angle gives way to a curve only slightly perceptible.⁴⁶

The Central and North Australian boomerang. One of the most distinctive types of boomerang is that found in Central and North Australia. It is a slightly curved weapon with one arm longer than the other, rounded ends, a convex upper surface and a flat under surface (fig. 8a, b). It is usually fluted longitudinally except in certain peripheral districts. This weapon is often spoken of as a fighting boomerang, but it is used for both hunting and fighting both by throwing and striking and is non-returning.

⁴² SAM—Gawler Range, Penalumba, Yorke Pen., Great Bight, Fowlers Bay, west coast of South Australia.

⁴³ SAM—west coast of South Australia, Yardea, Lake Callabonna, Streaky Bay.

⁴⁴ See 48, Vol. 1, p. 313.

⁴⁵ Northwest central Queensland (43, pp. 143-45); 16, 17, 19, 20; 36, p. 43; northern New South Wales, central and eastern Queensland.

⁴⁶ 44, Vol. 13, p. 203.

This boomerang prevails from the Daly River-Katherine River-Roper River area of North Australia, the northern limit of boomerangs, to the Coopers Creek-Warrina district of northern South Australia, and from the upper Georgina area of western Queensland to at least the western Kimberley region (see map, fig. 6).⁴⁷ Throughout this extensive distribution the characteristics are quite similar. It should be noted, however, that on the northern, northeastern, southwestern, and also possibly on the northwestern boundaries of this type, the specimens often lack the flutings or are more crudely made.⁴⁸

In the greater part of the distribution delimited, this type of boomerang is the only one present. This is particularly true in the central portion of the area. In western Queensland, northern South Australia, and Western Australia other boomerangs are also in use. There is quite definite evidence to show that these marginal areas have been invaded by diffusion from the more central regions.⁴⁹ It is presumable, therefore, that this type of boomerang was developed somewhere in the southern North Australia-northern Central Australia region and the question arises as to whether its diffusion to its present extent was at the expense of other boomerangs previously present within these boundaries. There seems to be no answer to this question at present.

Beaked boomerangs. A peculiar variety of the "fighting" boomerang is that with a beak or hook (fig. 8c). Boomerangs with this feature are found in an extensive area from western Queensland to the Kimberley region and

⁴⁷ Specimens from most of this area are common in most museum collections. Kimberley is represented in WAM.

⁴⁸ Fieldnotes; at the Daly River they are traded from the south. 53, Vol. 4, Pl. 5; crude specimens come from the Normanton-Burketown district (AM). The Loritja boomerangs are cruder than the Arunta: the grooves are roughly cut and there has been little attempt to smooth the flatter side. The best examples come from northeast of the Arunta (51, p. 596). In UP there is a very crude specimen said to come from the Ngurla tribe in the Roebourne area.

⁴⁹ In western Queensland, these boomerangs are traded from the upper Georgina to the Leichhardt-Selwyn areas (43, p. 145); a historical derivation from the north has been implied for the appearances among the Arunta and Loritja tribes of southern Central Australia (51, p. 596). Mention has been made of the cruder examples in the Katherine River and Daly River country, the northern periphery. I have been informed by Mr Norman B. Tindale that specimens are occasionally traded northward by the Allawa tribe in the Roper River district, the most northern tribe in that area to use them as regular weapons. See also 57, p. 99. A similar derivation from North Australia is also indicated for the appearances in the Kimberley region where many traits of North Australian character are to be found (information, Mr L. Glauert, WAM), and for the Normanton-Burketown district of adjacent northern Queensland where these specimens are often decorated at one end with bands of paint, red or white or both, as is found upon many North Australian weapons.

from the Gulf of Carpentaria to coastal South Australia (see map, fig. 6). A large part of this distribution, however, is the result of trade, for the area of manufacture appears to be much more restricted.⁵⁰ Although information is not complete, it would appear that beaked boomerangs are a development of southern North Australia or northern Central Australia, still the primary area of their manufacture. Investigation in that area might make it possible to restrict the area of origin to a relatively small region within the area of manufacture of the typical "fighting" boomerang.

The only other appearance of a boomerang with a hooked extremity is found in the Coopers Creek district of South Australia, where a number of very unusual forms are used in ceremonies (fig. 8d, e). These objects are

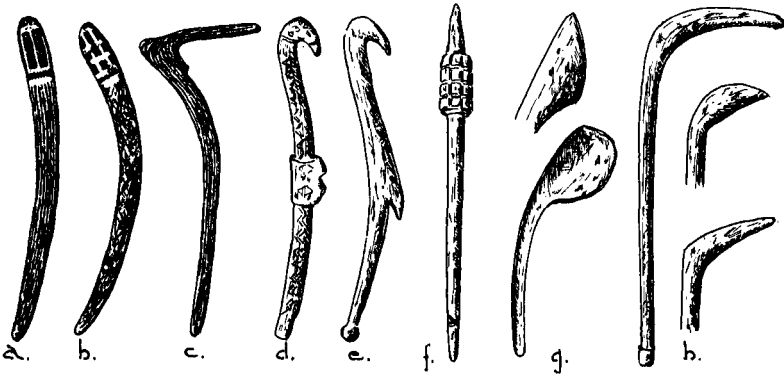


FIG. 8. a, b, Central Australian-North Australian type boomerang (a, fluted; b, hewn). c, Beaked boomerang. d, e, Odd, hooked boomerang, Coopers Creek. f, Pineapple-head throwing-club. g, Lil-lil. h, Marpungy.

very different from the typical beaked boomerangs but may be historically related insofar as the hook is concerned. Ordinary beaked boomerangs have been traded to this region and may have influenced some local pattern. On the other hand, such a trade may have been so recent that it cannot be held responsible for the local appearance. There are so many points of

⁵⁰ The manufacture of these weapons has been reported by Roth (43, pp. 145-46) for eastern North Australia and the adjacent upper Georgina district of Queensland whence they are traded eastward. North Australia also seems to be the center of diffusion for the appearances in northern Western Australia, according to information collected with Kimberley specimens in WAM. The most northern tribes among whom beaked boomerangs have been reported, such as the Wardaman in the Katherine River region, do not make them but barter them from the south. A similar exchange arrangement has also been reported for the southern part of the continent, where the Arunta and neighboring tribes do not manufacture them but secure them from the Warramunga who are known to produce them (51, p. 602).

difference between the typical beaked boomerang and those at Coopers Creek that this may be a case of convergent development.

The beaked boomerang is reminiscent of the marpungy in some of its extreme forms. The centers of distribution of the two, however, appear to be so far apart that for the time being there seems to be no reason for suspecting a possible historical relationship.

Incised boomerangs. As a general rule, boomerangs are not decorated with incised designs throughout most of the area west of Central Australia and in many eastern localities. In North Australia and northern Central Australia and in the adjacent Normanton-Burketown region of Queensland the use of painted bands, lines or dots, or sometimes other designs is typical. Horizontal painted bands are common in the Kimberley district.

The use of incised designs on boomerangs seems to be found in two non-contiguous areas: most of eastern Australia from the Gulf of Carpentaria to New South Wales and eastern South Australia on the one hand, and the Kimberley district of Western Australia on the other (fig. 6). These two regions are separated by the area of the un-incised but fluted fighting boomerangs in the central regions which, as we have seen, has been expanding, apparently in all directions. If this expansion has been at the expense of other boomerangs, it seems possible that the two areas of incised boomerangs may have been formerly greater and, therefore, previously nearer to each other. Such a possibility introduces the question as to whether there is any historical relationship between the custom of incising boomerangs in eastern Australia and that in the Kimberley region, a problem which cannot be considered at this time.

Returning boomerangs. The boomerang for which the natives of Australia are celebrated is the returning type, which, when properly thrown in the air, describes a loop or series of gyrations and returns to fall within a few feet of the thrower. In some cases, the returning boomerang is thrown to strike the ground, whence it leaps into the air and commences its flight.⁵¹ It is important to note, however, that if it strikes anything during its flight, its course will be broken and it will fall to the ground.⁵² It is stated that the paths of no two returning boomerangs exactly agree and that no boomerang follows the same course in each flight. As we have already re-

⁵¹ In 30, the authors speak of boomerangs thrown to strike the ground in New South Wales and Queensland. In one instance, the ground was struck in ricochet fashion three times before the flight commenced, whence the boomerang returned. For Western Australia Moore (37, p. 47) reports that boomerangs were thrown first against the ground in some cases.

⁵² Such a condition is well known but few writers have taken the trouble to mention it. See 29, p. 248.

marked, the returning boomerang in most instances is regarded as a plaything and is seldom used in hunting or for fighting. The physical properties of these objects have been described in detail by a number of writers and the dynamics of their peculiar flights carefully studied and recorded by Walker.⁵³ As the result of warping it is often impossible to distinguish returners from ordinary boomerangs in museum collections.

Returning boomerangs are widely distributed but are not found in all regions in which the ordinary forms appear (see map, fig. 6). There seems to be no indication that the returning kind is ever present by itself. The major regions in which returners are or were used include at least parts of Victoria, New South Wales, Queensland, South Australia, and Western Australia.⁵⁴ The main negative area, aside from those in which no boomerangs at all are present, is the Central Australia-North Australia region. We thus find that returning boomerangs, like incised boomerangs, occupy an area which almost surrounds an area in which they are not used, but where the so-called "fighting" boomerang is present. Since the latter is definitely known to be diffusing outward into areas where the former is now found, the question arises as to whether returning boomerangs formerly occupied a wider distribution in a part of the region in which we now notice only the so-called fighting type. This question cannot be answered at present.

Origin of boomerangs. There seems to be no good reason for believing that boomerangs are not indigenous to Australia. As we have already seen they are lacking in the three northern peninsulas of the continent into two of which, the northern Kimberley district and northern North Australia, we find them diffusing at the present time.⁵⁵ For the third area, the

⁵³ See 58, p. 23 *et seq.*; 48, Vol. 1, pp. 311-29; 15, *Boomerangs*. A returner must have a curvature resembling the arc of a hyperbola, a bi-convex cross-section with one surface more curved than the other, and a longitudinal twist of from 2° to 3°.

⁵⁴ For Victoria (48, Vol. 1, p. 311 *et seq.*); New South Wales (56, p. 218); Queensland—36, pp. 50-51, Herbert R.; 44, Vol. 13, p. 201 *et seq.*, lower Tully R., Meriam Vale, Brisbane. South Australia—4, p. 81, Ooldea; 29, p. 248, Coopers Creek. Western Australia—48, Vol. 1, p. 311 *et seq.*; 37, p. 47; SAM—(Round ends) Eucla, Gascoyne, Cygnet Bay, Roebuck Bay, Lyons R., Geraldton; (Pointed ends) Broome, Roebuck Bay. 50, pp. 20-21, Victoria, New South Wales. Lacking in Central Australia, 50, p. 19; 27, p. 268, Warrina; 28, p. 82, Wonkon-guru; 44, Vol. 13, p. 202, Keppel Is.

⁵⁵ Love (35, p. 30) reported in 1917 that boomerangs were formerly unknown, and were being introduced by King Sound natives to the Wororra tribe at Port George IV. In North Australia boomerangs are now being traded northward into the Daly River country (see 53, Vol. 4, Pl. 5; 14). In eastern North Australia they are not used north of the Roper River although a few specimens are traded to the north. Tindale for Groote Island (57, p. 99) reported that they were known "only from exaggerated rumors of their wonderful killing power." He adds that "On showing boomerangs to Talakurupu men (East Bay) they became frightened, and upon striking a throwing attitude, they fled in terror."

Cape York Peninsula, our information is not so specific, but the crude boomerangs found there suggest that they are of recent introduction from the south and such a conclusion is supported by linguistic data.⁵⁶ If our interpretation of the evidence furnished by distribution and the known directions of diffusion is correct, it would seem to follow that both ordinary and returning boomerangs are not only indigenous to the continent but that they have not diffused from Australia to any other region, for they are lacking in the only areas where foreign influences are known to have come, the only regions, therefore, which could have reciprocated culture borrowing.⁵⁷ In a culture where throwing-sticks undoubtedly have been in use for a great period of time we do not have to look far for a possible as well as a most reasonable basis from which boomerangs could have been derived.⁵⁸ A discussion of the question of relationship between Australian boomerangs and the so-called boomerangs of other parts of the world has been given elsewhere (13).

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IAE	Internationales Archiv für Ethnographie.
JRAI	Journal of the Royal Anthropological Institute.
LS-P[NSW]	Proceedings of the Linnean Society of New South Wales.
PS-J	Journal of the Polynesian Society.
RGSA-P[SA]	Proceedings of the Royal Geographical Society of Australasia (South Australian Branch).
RGSA-P[V]	<i>Ibid.</i> (Victorian Branch).
RSSA	Transactions of the Royal Society of South Australia.
SAM-R	Records of the South Australian Museum.

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⁵⁶ For discussion see 13; 44, Vol. 13, pp. 201-203; 48, Vol. 1, p. 329.

⁵⁷ The Australians are too poorly equipped with watercraft to have carried cultural influences to other peoples (see 12).

⁵⁸ Various other weapons have been suggested but there is no evidence to support the claims made: leaf-shaped sword (32, p. 440); sword-club (48, Vol. 1, p. 316); sword (58, p. 340). The throwing-stick is favored by Spencer (50, p. 18).

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