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TERMINOLOGY FOR GROUND STONE CUTTING-IMPLEMENTS IN POLYNESIA.

BY PETER H. BUCK, KENNETH P. EMORY, H. D. SKINNER AND JOHN F. G. STOKES.

THE ground stone cutting-tools of Polynesia exhibit a variety of form unparalleled in any other recorded culture-area; a variety which reaches its greatest development in New Zealand, followed in turn by the Society Islands and the Marquesas. In describing these implements the need for precise definitions of forms and of processes of manufacture is apparent. In 1912 Best ¹ discussed the problem fully and devised a series of terms that, different as it may appear, forms the basis of the nomenclature here proposed. More recently the subject has been treated in published works by Linton ², Skinner ³, Emory ⁴, and Buck ⁵; and in manuscript notes by Stokes ⁶, Raymond Firth, and others. The terminology adopted by these writers, though suitable for the material from the particular areas discussed by them, varies to a degree that makes comparison uncertain, and the systems used seem to have made inadequate provision for precise technical definition of the remarkable assemblage of ground stone cutting-tools from Polynesia as a whole.

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Recognising the desirability of a series of terms which would remove ambiguity from discussions of cutting-tools, the Director of the Bernice P. Bishop Museum advised the drafting of definitions suitable for common use in Museum field-records and publications. The result is the present paper, prepared after personal conference and correspondence. The authorship is therefore composite.

ADZE.

An adze is a cutting-implement of stone, shell, or other resistant material, with the cutting-edge running transversely to the long axis of the haft. The motive power is supplied by a swinging blow. It should be described as if in the following position: the long axis vertical, the face to which the haft is applied, posterior, and the cutting-edge inferior. The term adze is restricted to the implement without the haft and lashings (Fig. 1). When attached to a haft it is referred to as a hafted adze (Fig. 2).

MAJOR DIVISION.—The adze is regionally divided into two parts, the butt and the blade. The butt is the upper portion, which is engaged by the lashings when hafted. The blade is the lower remaining portion. In adzes without tang the exact line of division between butt and blade is indistinguishable unless the adze is hafted. "Butt" as here defined has been used by Buck, Skinner and Stokes. It is the equivalent of "butt end" as used by Best, and of "tang" employed by Linton in describing Marquesan adzes which have the butts reduced.

TANG.—A butt in which one or more surfaces are reduced below the adjacent contours of the blade.

LUG.—A circular knob left on the tang at or near the poll. (In rare adzes from Rapa a lug stands low on the tang.)

SHOULDER.—The lower front boundary of the tang. With this definition "shoulder" has been used by Emory and by Stokes. It is equivalent to "butt shoulder" as used by Best and Buck to distinguish it from a "shoulder" formed by the meeting of the bevel and the back.

POLL.—The upper extremity of the butt. The poll may range from a point to a well-defined surface bounded by the front, back, and sides of the butt.

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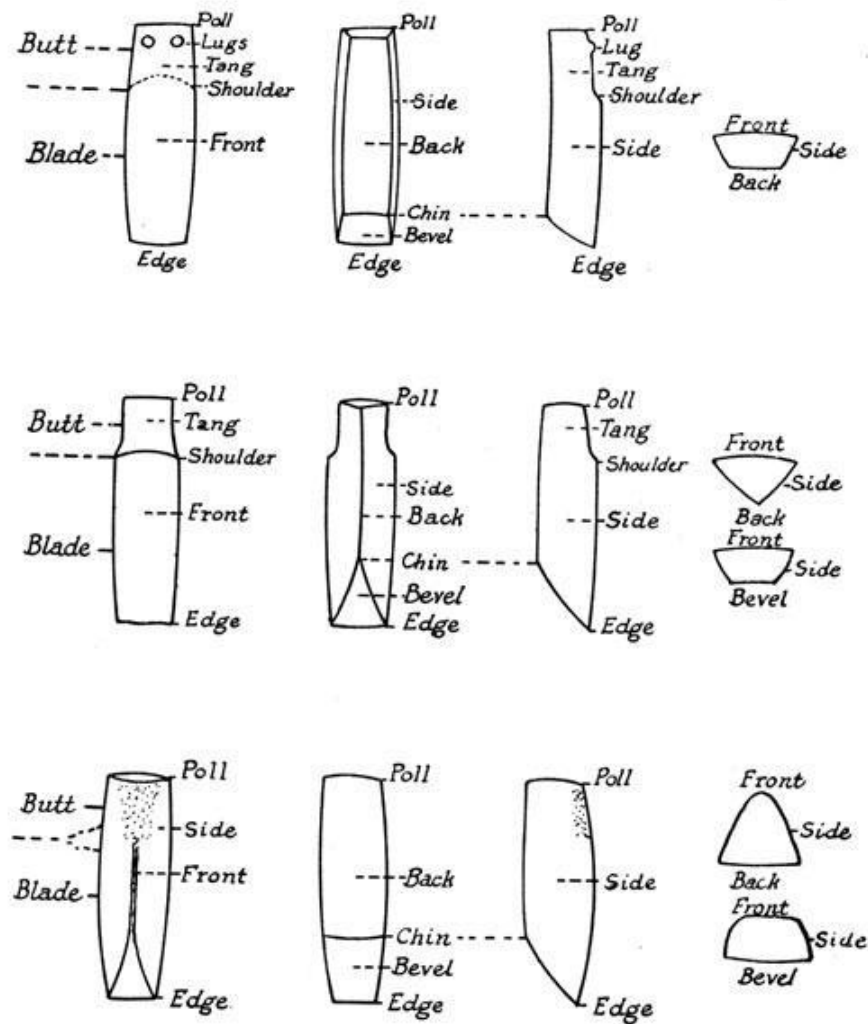


FIG. 1.

Terms used in describing Polynesian adzes.

FIG. 1.

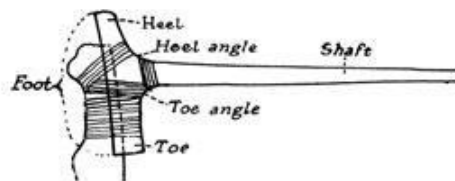


FIG. 2.

Terms used in describing Polynesian adze-hafts.

FIG. 2.

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EDGE.—The thin, sharp edge of the blade which does the cutting. The commonly-used term, “cutting edge,” is abandoned in favour of the dictionary usage. Other edges will need to be specified as occasion arises.

FRONT.—The longitudinal portion of the adze, distal from the operator and proximal to the material being dressed. “Front” as thus defined has been used by Emory and stands close to the usage adopted by Skinner. It corresponds to the part described as “face” by Best, “outer surface” by Linton, “anterior surface” by Buck, and “top” or “superior surface” by Stokes. In adzes with triangular cross-section (one of the three surfaces forming the back) the front may be reduced to an edge or margin formed by the meeting of the two sides. It becomes expanded at the lower end into a triangular surface to take part in forming the edge. These features were named by Buck “anterior longitudinal edge” and “anterior surface” respectively.

BACK.—The longitudinal portion proximal to the operator; in a restricted sense, this excludes the bevel. “Back” as thus defined has been used by Best, Skinner, and Emory. It corresponds to “inner surface” of Linton, “posterior surface” of Buck, and “bottom” or “inferior surface” of Stokes. In adzes with triangular cross-section with one of the

three surfaces forming the front, the back is reduced to the margin or edge formed by the meeting of the sides. This feature has been termed by Buck, "posterior longitudinal edge."

SIDES.—The lateral surfaces of the adze. The right side is that on the observer's left. In this sense "sides" has been used by Best, Emory, Linton, Skinner, and Stokes. For the same features Buck has used the terms "lateral surfaces" in adzes with quadrangular cross-section, and "postero-lateral surfaces" and "antero-lateral surfaces" in adzes with triangular cross-section. Stokes has used "lateral surface" as an alternative to "side."

BEVEL.—That portion of the back which is ground to form the edge. Other bevels should be specifically described. (With this meaning, "bevel" has been used by Emory, Skinner, and Stokes. Buck has used the term "bevel surface," and Best, "blade bevel.")

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CHIN.—The margin formed by the meeting of the bevel and the back, when clearly defined. When the bevel and the back form an unbroken contour in adzes with quadrangular cross-section, the chin cannot be definitely distinguished. In adzes with triangular cross-section which have the back represented by an edge, the chin is the apex of the triangular bevel (referred to by Buck as "bevel apex"). In some adzes the chin is distinctly marked by a ridge or prominence. The term "chin" has been used by Stokes. Best uses "shoulder" to distinguish this feature from "butt shoulder." "Bevel shoulder" has been used by Skinner, also by Buck, who defined it as "the line where the bevel surface and the posterior surface meet."

LASHING.—The textile material by which the adze is attached to the haft.

SOCKET. ⁷—An intermediate wooden piece by which the adze may be attached to the haft. It may be fixed or rotating.

HAFTED ADZE.

To facilitate their use many Polynesian adzes, probably all of them, were provided with a haft or handle of wood, fastened to the stone tool by lashings (Fig. 2).

The haft should be described as if in the following position: shaft on observer's right, and horizontal; foot to left.

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SHAFT.—That part of the haft which is grasped by the hand or hands when in use.

FOOT.—The part of the haft to which the adze or axe is attached.

HEEL.—The upper or rearward part of the foot.

TOE.—The lower or forward part of the foot.

HEEL-ANGLE.—The angle between the shaft and the heel.

TOE-ANGLE.—The angle between the shaft and the toe.

AXE.

An axe is a hafted cutting-implement with the edge running parallel or nearly parallel to the long axis of the haft. The power is supplied by a swinging blow.

CHISEL.

A chisel is a cutting-implement which is hafted with its long axis continuous with the long axis of the haft. The motive power is supplied sometimes by pressure and sometimes by mallet blows. It is not at present possible to draw a definite line between small adzes and large chisels. It seems probable that some implements were used both as adzes and chisels according to the convenience of the owner.

GOUGE.

A gouge is a special form of chisel in which the edge is curved to such a degree that the bevel is hollow or grooved. In cross-section, most gouges are circular.

WEDGE.

A wedge is an implement of wood, stone, or other hard material, thick at one end and tapering to a thin edge at the other, used in splitting or separating material such as wood. In ordinary usage, the term wedge is applied also to small pieces of wood used to tighten lashings.

PROCESSES OF MANUFACTURE.

The Maori and perhaps other Polynesians sometimes used fire to break up large masses of rock, but in general stone tools were employed at all stages of implement making.

HAMMERING OR QUARTERING.—The process of breaking rock into pieces from which implements may be made.

SAWING.—The process of moving an implement to and fro in a scarf. The actual cutting may be done either by the implement itself or by sand fed sparingly into the scarf.

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CHIPPING.—The process of removal, by blows, of flakes large or small. The practice of American ethnologists is to reserve the term “flaking” for the removal of pieces of stone by pressure, a process believed not to have been used in Polynesia.

PECKING.—The process of striking blows on a surface with a pointed implement, each blow leaving a small pit. That this process of implement-making was used in Polynesia is disputed.

BRUISING.—The process of reducing a surface by repeated blows from a hammer with a surface slightly curved convexly.

GRINDING.—The process of removing roughness by rubbing with sandstone or similar material.

POLISHING.—The process of procuring a smooth bright surface by any method and by the use of any materials. It seems not to have been common in Polynesia.

¹ Best, Elsdon; *Stone Implements of the Maori, Dominion Museum, Bulletin 4, 1912.*

² Linton, Ralph; *The Material Culture of the Marquesas Islands, B. P. Bishop Museum Memoirs, vol. 8, no. 5, 1923.*

³ Skinner, H. D.; *The Morioris of Chatham Islands, B. P. Bishop Museum Memoirs, vol. 9, no. 1, 1923.* Skinner H. D. and Baucke W. C.; *The Morioris, B. P. Bishop Museum Memoirs, vol. 9, no. 5, 1928.*

⁴ Emory, K. P.; *The Island of Lanai, B. P. Bishop Museum, Bulletin 12, 1924.* *Stone Implements of Pitcairn Island, Journal Polynesian Society, vol. 37, p. 125, 1928.*

⁵ Te Rangi Hiroa (P. H. Buck); *Material Culture of Cook Islands, Board of Maori Ethnological Research, Memoirs, vol. 1, 1927.*

⁶ Stokes, J. F. G.; *Stone Implements of Tubuai (a chapter in Ethnology of Tubuai, by R. T. Aitken) B. P. Bishop Museum, Bulletin in press.*

⁷ In reply to a query regarding this term, Mr. H. D. Skinner writes as follows: “This term is adopted from the terminology of British and American archaeologists, as exemplified by British Museum *Guide to the Collections of the Stone Age*, 2nd edition, fig. 148; and McCurdie, *Human Origins*, fig. 283. The primary function of the European socket would appear, however, to be prevention of splitting of the helve, additional security in attachment being quite secondary. In Polynesia the primary function appears to have been the attainment of greater security of attachment, though in the Ellice Islands, rotation of the adze or axe was the principal function. There is considerable variation in the form of the socket in different parts of Polynesia and it is probable that research will indicate corresponding differences in function. Should this be so, some alteration or addition to this part of the terminology will probably be necessary. The Tahitian form, represented by two examples in the British Museum, approximates to the European form, while that of the Hawaiian Islands and New Zealand was widely different. The Ellice Islands form is different again. In these circumstances it is probably best not to illustrate any form as typical.”—
EDITORS.