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THE MAORIS AND THEIR ARTS

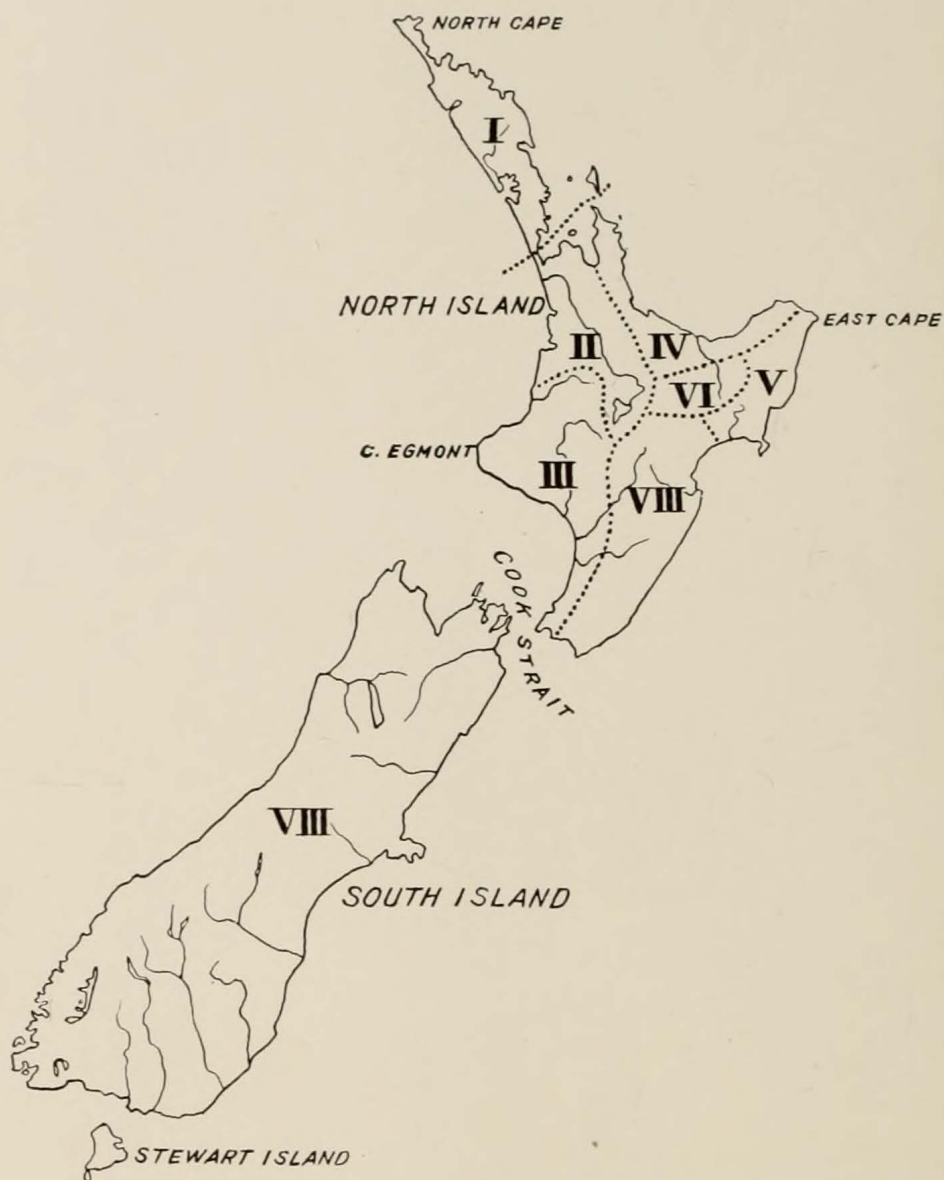


BY MARGARET MEAD

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1. MAP OF NEW ZEALAND.

The areas marked on the accompanying map correspond roughly to the more important groups of Maori tribes.

- I. The northern peninsula. Most important tribe,—Ngapuhi.
- II. Basin of Waikato River and adjoining coasts. Most important tribe,—Waikato.
- III. West Coast area. Most important tribes,—Taranaki and Whanganui.
- IV. Bay of Plenty area. Most important tribe,—Arawa.
- V. Waiapu area. Principal tribe,—Ngati-Porou.
- VI. Urewera country. Tuhoe tribe.
- VII. East Coast area. Ngati-Kahungunu.
- VIII. South Island. Kau-Tahu tribe.

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THE MAORIS AND THEIR ARTS

INTRODUCTION

Maori is the name given to the native people whom the Europeans found living in New Zealand at the time of discovery. In language and custom, they are grouped with the other Polynesian peoples who inhabit the Pacific Islands between Hawaii and New Zealand. They are believed to have migrated to New Zealand from Southeastern Polynesia in the twelfth and thirteenth centuries.

Coming to the more rigorous climate of New Zealand from the tropical, unexacting island environment, the Maori had many new problems to solve. He had not brought with him the pigs and fowls which formed an important element of diet in his earlier home. The breadfruit tree, the cocoanut palm, the sugar cane, could not be grown in New Zealand, depriving him not only of an important part of his food supply, but also forcing him to find substitute materials for all the uses to which his ancestors had put palm leaves and sugar cane leaves; for basketry, for thatch, for house blinds, for mats. Where the Polynesians used cocoanut oil he had to learn to use shark oil and berries from the *titeki* tree (*Alectryon excelsum*).

Although in remote times the ancestors of the Maori probably knew of the loom, its use had been abandoned in favor of the simpler process of beating out the bark of the paper mulberry tree to make *tapa*, bark cloth. In the South Sea island cases, and especially in the Hawaiian case, are pieces of *tapa*, examples of the high degree of perfection to which the Polynesians had brought the art. But the paper mulberry tree never flourished in New Zealand, nor was the thin, paper-like *tapa* adapted to the more rigorous winters, so the Maori had to learn to dress flax and weave it into clothing. Although a plant related to that producing the *kava* root grew in New Zealand, the Maori did not make *kava*; the disuse of the ceremonial drink of Polynesia changed the aspect of many of their ceremonies, where eating a sacred food replaced the ceremonial *kava* drinking.

Although they succeeded in domesticating the *kumara* (the sweet potato), the taro, and the yam, the *kumara* was only grown as far south as Temuka in South Canterbury, and taro and the yam no farther than Cook Straits. The more southern population (which in New Zealand means the inhabitants of the colder part of New Zealand) had to eke out a meager livelihood from hunting and fishing and never became very numerous, the population of North Island being almost twenty times as dense as that of South Island.

The inhabitants of different parts of New Zealand developed many local characteristics, owing to such considerations as the presence of workable stone for implements and weapons, a food supply which could support a denser population, etc. The most marked difference lies between North and South Island. Most of the early travelers were struck by the characteristics of the North Island Maori and the beautiful and elaborate carving which has so much in common with the art of the Western Pacific, particularly with the Massim and Sepik River areas in New Guinea, and with the Solomons. North Island carving is distinguished by the use of curvilinear designs, particularly in the form of elaborate spirals; while South Island carving is simple and prevailingly rectilinear. Most of the material in the Museum is from the North Island Maori and differs strikingly from the material culture of the other Polynesian groups represented in the hall.

The Maori were divided into family groups, several of which united together formed a *hapu* or local group; while a number of *hapu* constituted an *iwi* or tribe. They lived in fortified villages, surrounded by a stockade or several stockades of tree trunks bound together with sturdy vines. One tribe might be scattered about in many villages. Each village had its own chief, who with his near relatives, both male and female, constituted the local aristocracy. The highest honor was reserved for the *Ariki*, the sacred high chief of the tribe, the eldest son of the eldest son of the highest family, who traced his descent back to the gods and was held in extreme respect and awe. Next to the chiefs ranked those who possessed great special ability as priests, diviners, carpenters, tattooers, or warriors, and beneath them came the landless gentlemen, who nevertheless were too haughty to carry loads upon their backs when the work could be delegated to a woman or a slave. The slaves were prisoners of war, who, carried away into a strange land, were without prestige because their deified ancestors were believed to have entirely disowned them.

The religious life of the Maori was intimately bound up with the idea of taboo, the idea that certain persons, places, acts, were sacred and dangerous. The imposition of taboos for the protection of the food supply or the building of a canoe, and the lifting of these taboos was the work of the priest. The priests were not organized, they were priests of occasions, a birth, a marriage, a harvest, and served the separate deities who presided over the forest, the sea, the traveler, according to the demands of the particular event. A priest's training involved a long apprenticeship during which he was taught esoteric lore and all the

prescribed ceremonial procedure and long chants which he needed in his priestly office. In addition to the invocation of the high gods, the Maori magician and indeed the ordinary Maori as well lived his whole life in constant reference to the ghosts, particularly the ghosts of his ancestors. These ancestral ghosts were believed to have great power of assisting the living, and to exercise a jealous watchfulness lest their descendants break any of the tribal taboos.

Even before he obtained European tools the Maori produced works of art which rank very high in the woodwork of the primitive peoples of the world. The high esteem in which the artist was held and the fact that work dignified rather than demeaned a chief probably had a great influence in producing such beautiful craftsmanship. With the introduction of steel tools, it was no longer necessary to take great pains; the poorest workman could carve more quickly with the new tools than a virtuoso with the old ones. A great deal of inferior work was produced: a sample of such work is the storehouse in the center of the hall. In this house glaring color and mechanical, stereotyped decoration have taken the place of the rich color and highly stylized, but lovingly executed work of the older artists.

WORK IN GREENSTONE

Maori art owes much of its individuality to the existence in New Zealand of *nephrite*, a form of jade usually referred to as greenstone. It was found only on the South Island and the northern Maori had to obtain it by raids or through barter. Even the smallest pieces were greatly valued and the fragments of a large greenstone object which had been broken were reworked into ear pendants and shoulder ornaments.

The greenstone—of which the Maori distinguished many varieties according to color and relative translucency—was found in western river beds either as pebbles, which could easily be carried away or as boulders, like the large one on which the Maori figure stands, which had to be broken up into workable pieces by the use of heavy stone mauls. The broken pieces were sawed to the required dimensions either by blades of trap rock or by thin sheets of sandstone. The process of polishing was carried out by movement back and forth on a hollowed sandstone slab, into which water was allowed to drip steadily from a suspended calabash. For making holes a pumpdrill was used, very similar to the drill exhibited in the Samoan case, but lacking the rigid arm. Chert, flint, or quartzite drill points were used; and the hole was drilled first from one side, then from the other. The tubular drill point was unknown, but it is believed

that a wooden point was sometimes used, requiring the aid of sand and water. Most of the processes are illustrated in the greenstone exhibit.

Although most artifacts made of greenstone were also manufactured in other materials, there are two classes of objects characteristically



2. HEI-TIKI. Grotesque human figure carved from greenstone.

made in greenstone—weapons of two types, and various ornaments, the most famous of which was the *hei-tiki* (Fig. 2). The weapons are described in a later section. As adze blades of greenstone were frequently perforated and worn around the neck as ornaments, when not in use, students of Maori art feel that the peculiar grotesque form of the *hei-tiki* is the result of the artists' attempt to impose the shape of the adze blade upon the human figure. Similarly the ear-drops may be traced to the custom of wearing small greenstone chisels and gouges as ornaments, while the crescent-shaped ornament has an ancestor in the bone needle, worn suspended from the shoulder. Two important forms of greenstone ornament, the *peka peka*, or bat-shaped form, and the spiral-shaped *manaia* are not represented in the Maori collection. The evolution of these various greenstone objects from tools to ornaments is probably in great part attributable to the use of a precious stone as material for implements.

Greenstone plays a major role in Maori myth and legend. A characteristic tale explains the curious translucent quality of the form of nephrite known to mineralogists as *bowenite*. Tamatea, a famous mythical navigator, was deserted by his wives, their canoe capsized, and they were turned into blocks of greenstone. Tamatea wept so copiously over one of these blocks that his tears penetrated the stone, and gave it the quality which the Maori name *tangiwai*, or "tear drops."

Greenstone ornaments and especially *hei-tiki* were kept in memory of dead friends and ancestors and ceremonially wept over by mourners. Greenstone weapons were cherished through many generations and were believed to have been endowed with stupendous power derived from the famous chiefs who had used them, and the battles in which they had played a part. They were used in the ratification of treaties and as a ransom price for a life of a captive or the head of a dead chief.

As they made their most valued weapons of greenstone, so also the Maori found it their best figure of speech for the blessings of peace, which they called their "greenstone door."

WOODWORK

Although the Maori showed his skill as a wood carver in the decoration of every object which he used, digging-sticks and pigeon snares, small wooden boxes for storing feathers, adzes, clubs for war and display, his finest work is found in the decoration of war canoes and the great carved communal houses which were the pride of a northern Maori village.

The great trees which were to be used for the body of a canoe, or the ridge pole of a house, and from which the decorated house slabs and side strakes of a canoe were to be hewn, were sometimes selected years before they were to be used, and space cleared about them as a sign that they were already dedicated to a particular purpose. Months before the work was to start crops were planted near the trees, which might be miles from the village. When the crops were ready for the harvest, the chiefs, the carpenters, their families and the slaves who were to do the bulk of the rough work, all moved into temporary houses near the selected trees. A ceremony in which the tree was symbolically struck with a leaf shaped like an adze, and a sacred fire kindled from the first chips cut from the tree, removed the sacredness of the tree and reconciled Tané, the god of the forests, to the loss of one of his children. Cutting the great *kauri* pines was slow work—a scarf was first cut and then part of the wood below it was charred with a carefully tended fire, after which the charred timber was hacked out with stone adzes. Burning and adzing were repeated until the tree fell. In regions where good stone for tools was not available fire was used more extensively. Though the wooden wedge was known to the Maori, he had no timber which would split like the white cedar of the Northwest Coast. Instead he had to hew a log down to the required thinness. Hauling the great logs for many miles over rough trails and through steep gulches was accomplished by means of stout

ropes and a series of wooden skids. Hauling chants with stanzas of long words for slow hauling and short words for quick, kept the hauling crew working in unison and with spirit.

In the village, building either a house or a canoe was also a sacred process. No woman might approach the scene; dogs were tied up for fear their intrusion would profane the work; and no food could be cooked

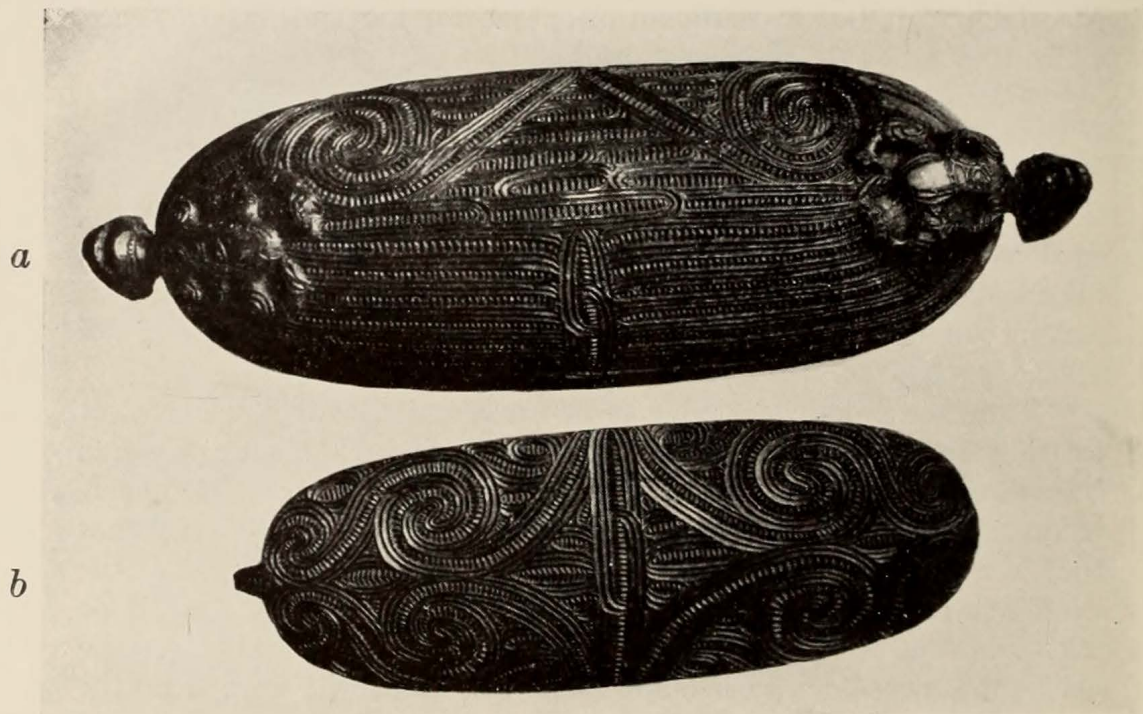


Fig. 3. WOODEN BOX USED FOR STORING FEATHERS. a, Lower surface of box, visible when it is suspended from the roof; b, Lid.

on a fire burning the chips from a sacred carving. The carving of a house or canoe might take years to complete, as it was necessary to work very slowly for fear that the wood would crack. The finishing touch was given to house or canoe by a coat of red paint. The parts to be painted were carefully cleaned, sized with the juice of sowthistle and a native shrub, and then painted red with a mixture of oil and burnt ochrous earth, or black with a mixture of oil and soot. The paint brush was of flax fiber, except for the very delicate work, when a stiff bird feather was used.

HOUSES

The functional division of houses was within the village group rather than within the household, even the individual cook-houses were sometimes united in groups. The great carved houses were sometimes classified as council chambers, sacred houses for the instruction of the young men, guest houses, and houses where the whole tribe slept in time of war. Storehouses were highly decorated and very taboo. Special houses were erected for the initiation of the chief's son into the priesthood and for the birth of a child of rank. But a large number of specialized houses within the household establishment does not seem to have occurred, although chiefs had separate houses for their respective wives. Storehouses were tribal, the possession of the chief, or sometimes individual in the case of the rough, half-sunken house.

Maori houses present a strong contrast between the elaborate houses of assembly, which were beautifully constructed and highly decorated, and the dwelling houses, in which the people—even the chiefs for whom the great houses were built—lived. The essentials of the framework, however, were the same for all these houses, except that in the poorer ones the broad barge boards were sometimes missing. The window, placed beside the door, seems to have been present in even the smallest houses. The groundplan was oblong, the ends gabled, the sides low under the projecting eaves. The low doorway and window aperture opened out onto a veranda. The smallest huts were six to ten feet long and five to eight feet high. The ridge pole was attached to or inserted in two end posts, forked to receive it. Small sticks were fastened to the frame with flax withes; over these was laid a covering of rushes and an outer thatching of spear grass. The better houses were lined with bark and some of them were sunk a foot or two below the surface-level of the ground. The roof, which sloped in an angle of between thirty and forty-five degrees, projected at each end to form a veranda; light poles were placed over the thatch to keep it in place. These small houses contained fireplaces also. Indeed, there were no distinctions between these houses and the great carved houses, except in size, choice of materials, and decorations. Still ruder huts, only thatched on the windward sides, were used by travelers. Canoe houses were long and sometimes presented a vaulted appearance. The ceremonial storehouses were raised on posts and their small doors were contracted at the top.

But the main effort and ingenuity of the Maori was expended on the *whare whakaira*, or carved house (Fig. 4), which was often built as a memorial of some great event, such as the birth of an heir to the principal

chief. These houses varied in height from twelve to twenty feet. The main weight of the ridge poles was borne by two heavy posts, the rear one slightly higher than the front. A central pillar, lighter than the end posts, supported the middle of the ridge pole. These end posts might be either slabs or whole trunks of trees. The ridge pole was about ten feet longer than the house. It was fastened securely to the supporting posts and to the rafters by lashings and wooden pins.

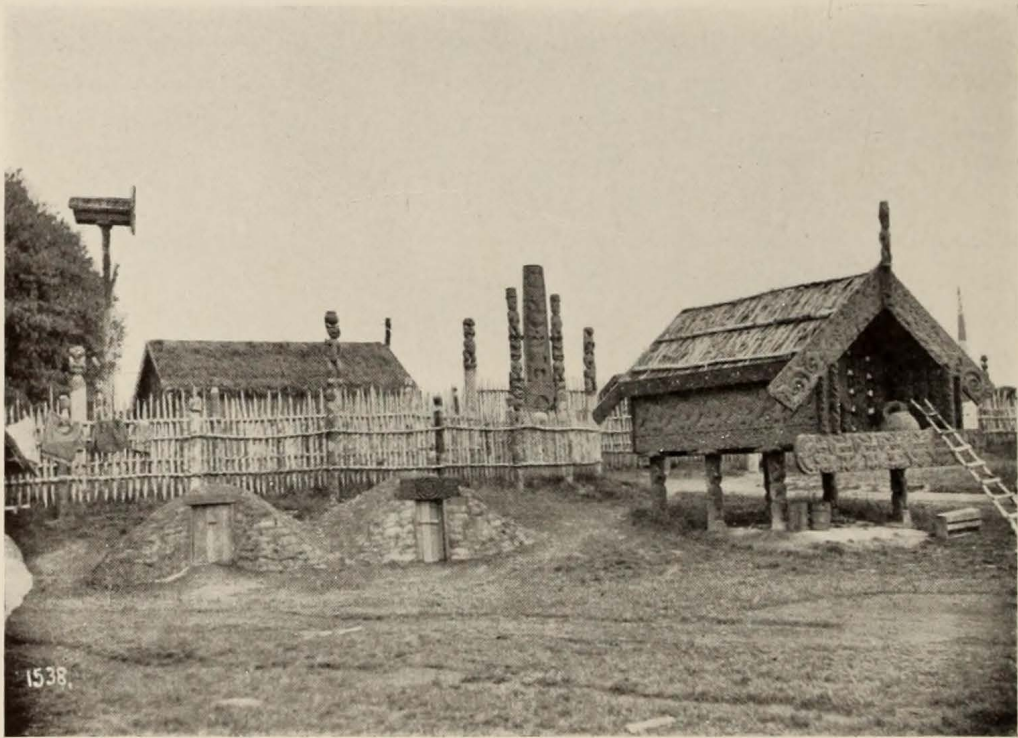


Fig. 4. A FORTIFIED VILLAGE, showing highly carved storehouse and carvings on the tops of the palisade posts.

The groundplan of the house was squared by measuring the diagonals. The side posts, which were of such height as to give the roof a pitch of about thirty degrees, were graduated to correspond to the slope of the ridge pole. They were heavy planks, one to three feet wide, and three to nine inches thick, with rabbetted edges and a semicircular depression in the top to receive the rafters. They leaned slightly inward and were buttressed behind by stout pieces of rough timber which were lashed to eyes in the upper ends of the slabs.

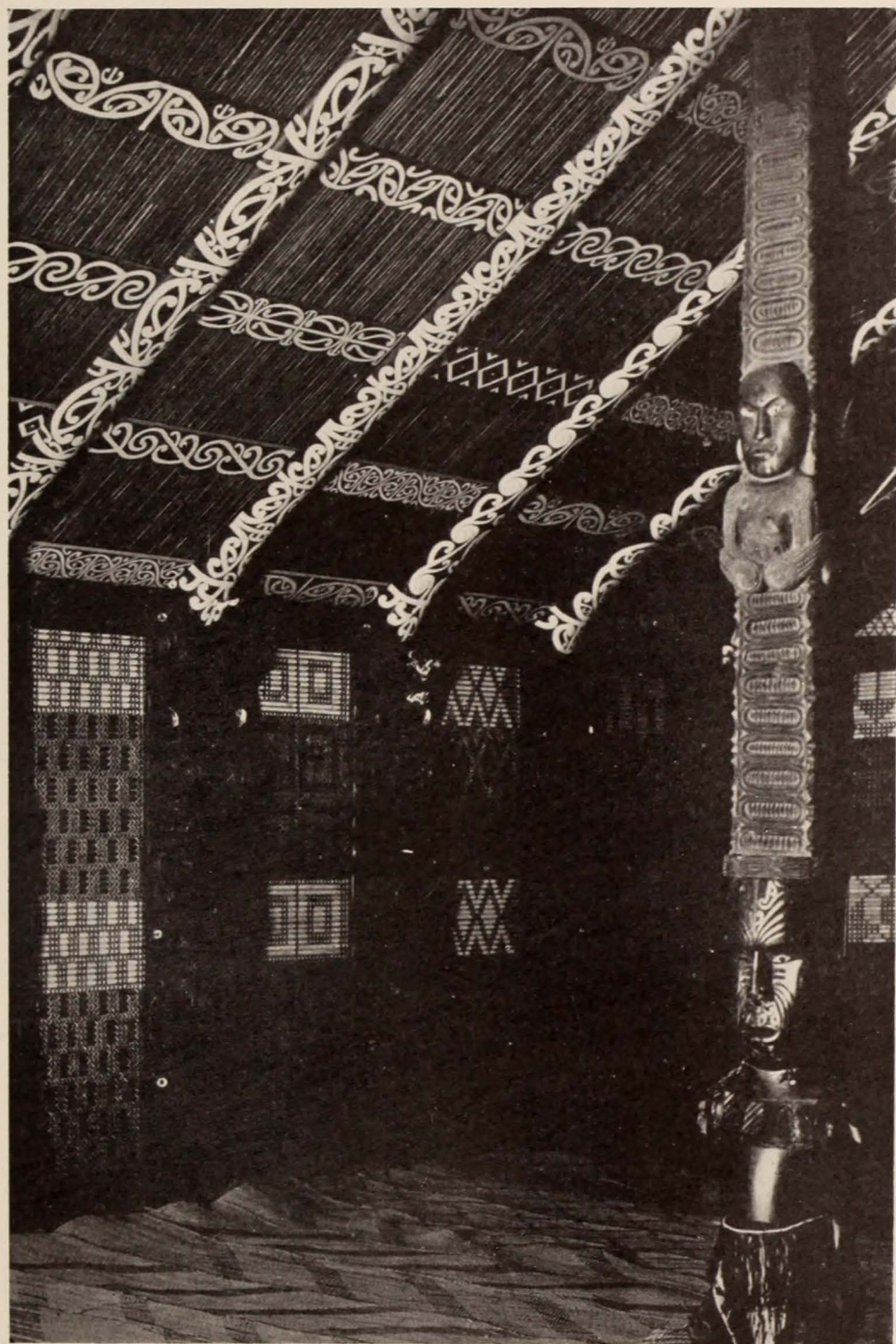


Fig. 5. INTERIOR OF A RECONSTRUCTED HOUSE

A slender stringer ran the length of the house and was lashed to notches or holes in each slab. A wall plate, a board set on its edge, extended from one corner post to the other. Each end slab was lashed to this plate. A skirting board was formed by placing slabs in the intervals between the side slabs. The rafters were cut into a tongue to fit the depression in the top of the side slabs and were lashed to them securely. Horizontal battens were lashed to the rafters and a trellis work of reeds covered these. The front of the roof was finished by heavy boards, which rested on similar vertical facing boards, placed at the front edge of each side wall. The ends of these barge boards projected beyond the house walls and were carved in a conventional filigree pattern.

The door was seldom more than two feet wide and four feet high. It consisted of a slab of wood about two inches thick, which slid along a grooved threshold into a recess built into the wall. The threshold was a piece of timber, about twice the width of the door and about a foot thick. Side jambs rested on this threshold and projected beyond it in each direction to form a molding. The window, about two feet square, was similarly constructed. It was usually so high that a man, sitting, could barely see out.

The wall spaces between the side slabs were filled with flax mats, or with reed battens; the horizontal laths, one-half inch to an inch wide, were lashed to the vertical reeds with colored grasses (Fig. 5). Bunches of bullrush leaves were sometimes inserted for warmth. Further layers of coarse grass completed the thatch. Horizontal poles, vines, or thick ropes, kept the thatch in place and sometimes several of these were placed one above the other in different layers. The ridge pole was bonnetted by a row of fern fronds, or by a thick bundle of long grass, bound over the rear end of the ridge pole and securely lashed to the ridge pole and rafters.

As Maori houses were not built on stone foundations the floor was simply beaten earth, strewn with rushes and ferns. The bed spaces on either side of the door were filled with ferns, and marked off by planks pegged to the floor. The fireplace was a hollow square enclosed either by a row of stones or by wood.

Each family group of houses was surrounded by a fence made with posts planted in the ground, to which horizontal rails were securely lashed. The whole village was surrounded by a large fence of this character, with periodic large posts carved to represent a defiant warrior. The smaller posts were notched at the top so as to resemble a human head. Inside this fence there was sometimes a lighter fence and within these excavated earthworks.



Fig. 6



Fig. 7

Fig. 6 CARVED HOUSE BOARD

7. WOODEN FIGURE USED TO DECORATE A CARVED HOUSE

When the house was finished, it had to be formally consecrated. In this ceremony the priest tied a sacred shrub to the back center post and held a bundle of sacred shrubs in his hand. The charms followed a definite order; the first to propitiate Tané; the second, at which the priest ascended the roof, was to remove the taboo from the carver's sacred instruments and from the wood carved into images of the gods. Here the priest struck the various carvings of the house with the shrub which he held in his hand. The third incantation was an appeal to the gods to make the house warm. The whole ceremony was known as "binding the *maro* (girdle) of the house." The priest then entered the house by a window and opened the door. The threshold was first crossed by three women of rank, so that food might be brought into the house with safety, and the ridge pole prevented from sagging.

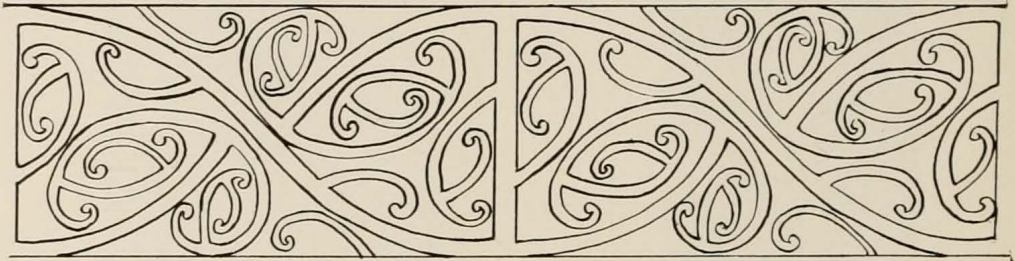


Fig. 8. DESIGNS PAINTED ON THE RAFTERS OF A HIGHLY DECORATED HOUSE.
(After Hamilton.)

Human sacrifices were offered at the building of a great house or the fence of an important *pa* (fortified village). In the latter case, a slave was buried under one of the posts. In the former, a member of the tribe was killed, sometimes the favorite child of the chief, the heart was cut out and eaten, and the body buried beneath one of the posts. Occasionally, a distinguished captive was sacrificed thus.

The decoration of the Maori house can be subdivided into carving, rafter painting, and reed work. Sometimes the carving was painted, especially in the case of the heavily carved slabs over the door and window, and on storehouses. When carving did occur in ordinary dwellings it was on the barge boards, the vertical facing boards, and sometimes on the broad piece of timber which faced the front of the veranda. A carved face was placed over the junction of the barge boards and occasionally a human figure placed above this. Storehouses were carved on the whole outside surface. Each separate panel of wood was treated as a decorative unit.

The outside was carved as described above, more elaborately in the case of the large houses. The slabs (Fig. 6) were carved on the inside in high relief into conventionalized human figures. A small human figure was carved in the round at the foot of the center pole. The panels (Fig. 7) between the side slabs were decorated with reed work in elaborate step and checker patterns. These were occasionally modified in an attempt to approximate to the designs of the slab carvings. The rafters were painted in red and white curvilinear designs (Fig. 8). Inlaid haliotis shell decorated the carvings.

The style was characterized, as in the case of canoe carving also, by extensive use of the double scroll, combined with conventionalizations of the human figure. There was a tendency toward intricate incidental decoration and towards treating the part of the object decorated as the unit. House carvings were occasionally decorated with feathers. Ornamental shrubs were sometimes planted around the houses.

CANOES

The only type of Maori canoe of which we have a full description is the single war canoe without an outrigger. Tasman, whose principal stay was at South Island, reports only double canoes, and in 1770 Cook speaks of some canoes being joined together and of the use of outriggers. But in 1840 Pollack, a most careful observer, could say that outriggers were unknown in New Zealand. The early double canoes were said to have been either connected by cross bars which left from two to two and a half feet between the hulls, or to have been only thirty inches apart. These early outrigger canoes, according to the descriptions in the mythology, were built of several boards lashed together, rather than the single strake characteristic of the historical type of Maori canoe, and carried platforms on which awnings were erected. The Maori also possessed a raft-like craft, constructed of bullrushes, similar to that found in the Chatham Islands.

The typical Maori canoe of historical times was built on the dugout plan. The keel was usually hewn from a single tree, occasionally the stern or prow section of the hull was dovetailed on, and an immense strake fifteen or twenty inches wide produced the desired height. These side strakes were lashed to the keel with cords of flax, (the lashing being visible on both sides), and caulked with bullrush down. The seams were covered with battens which were also very long and jointed only once or twice. The stern and bow pieces were hewn out of single blocks of wood and attached separately. Carved braces were lashed across the canoe and

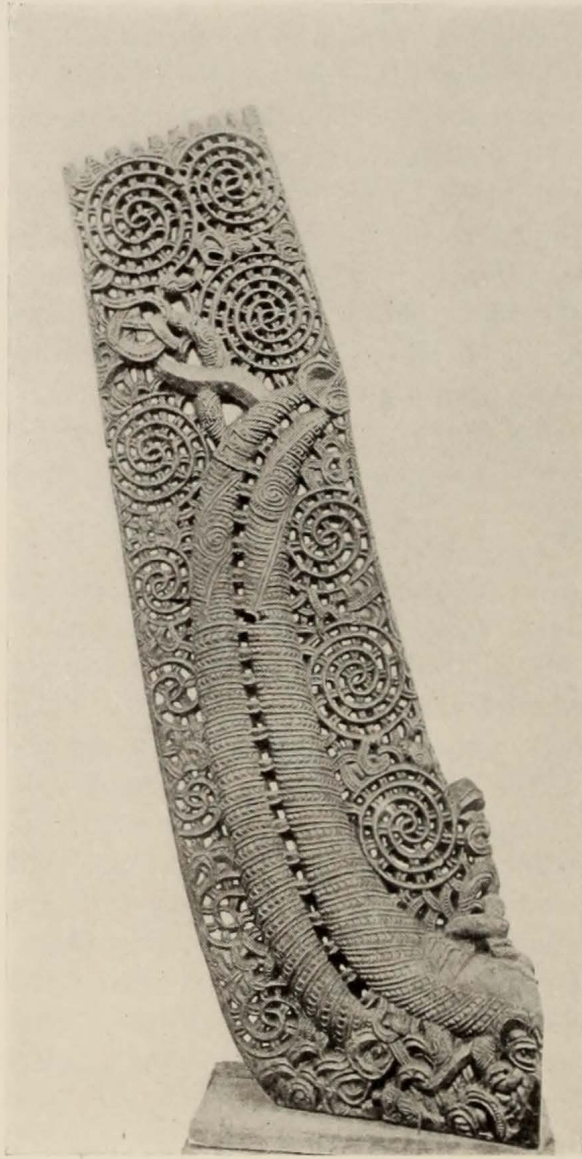


Fig. 9. CARVED STERN PIECE OF A WAR CANOE.
(Reproduced through the courtesy of the Dominion Museum.)

a grating was fastened along the bottom of the canoe on which the rowers knelt. The sails were triangular, the largest canoes carrying two. The paddles were from four to five feet long and usually leaf-shaped, tapering to a point, and many variant forms occurred.

The decoration of Maori canoes falls into two classes, permanent and temporary. The permanent decorations were both carved and painted. The most elaborate vessels were richly carved, while the small fishing canoes were often merely painted. The bow and stern pieces were carved from single blocks of wood and the positions of the human figures they embodied were carefully stylized. The stern piece was from six to fifteen feet high and about fifteen inches across and rose almost perpendicularly; the bow piece was from six to ten feet long and about two feet across. At the base of the stern piece was a small carved figure, looking into the canoe, and above this at the termination of the two strengthening ribs was carved a still smaller figure. The whole stern piece was carved in a delicate filigree pattern of double spirals (Fig. 9). The figure-head consisted of a human figure, facing forward, and a mid-rib running back from the figure, carved in the same elaborate filigree as the stern piece. Behind the transverse slab terminating the filigree there was often a small human figure facing the canoe. On the flat part of the bow piece, beneath the filigree, lay the prostrate figure of Maui, a mythical hero. This figure-head was occasionally constructed of two pieces; the vertical mid-board was then grooved into the block. The thwarts and strakes were carved also. The second class canoes had a figure-head with protruding tongue which was less elevated than in the case of the war canoes. The forward and after sections of the body of the canoe were elaborately decorated with painted spirals and patterns resembling those of the thigh tattooing in red, black, and white. The second class canoe was painted red, and the third class, which boasted neither top sides nor carved stern and bow piece, was often painted. The battens which covered the seams were painted black and decorated with white feathers. The model in the American Museum has pearl shells inlaid in the carved work.

The temporary ornaments consisted of feathers fastened to ropes, which streamed from the top of the stern to the surface of the water. The prow was ornamented by two long curving wands, resembling antennæ, tufted with albatross feathers.

The Museum has one very fine figure-head (Fig. 10) which shows the beautiful effect which the carver obtained when working within a strictly delimited convention. The Maori used two types of figure-

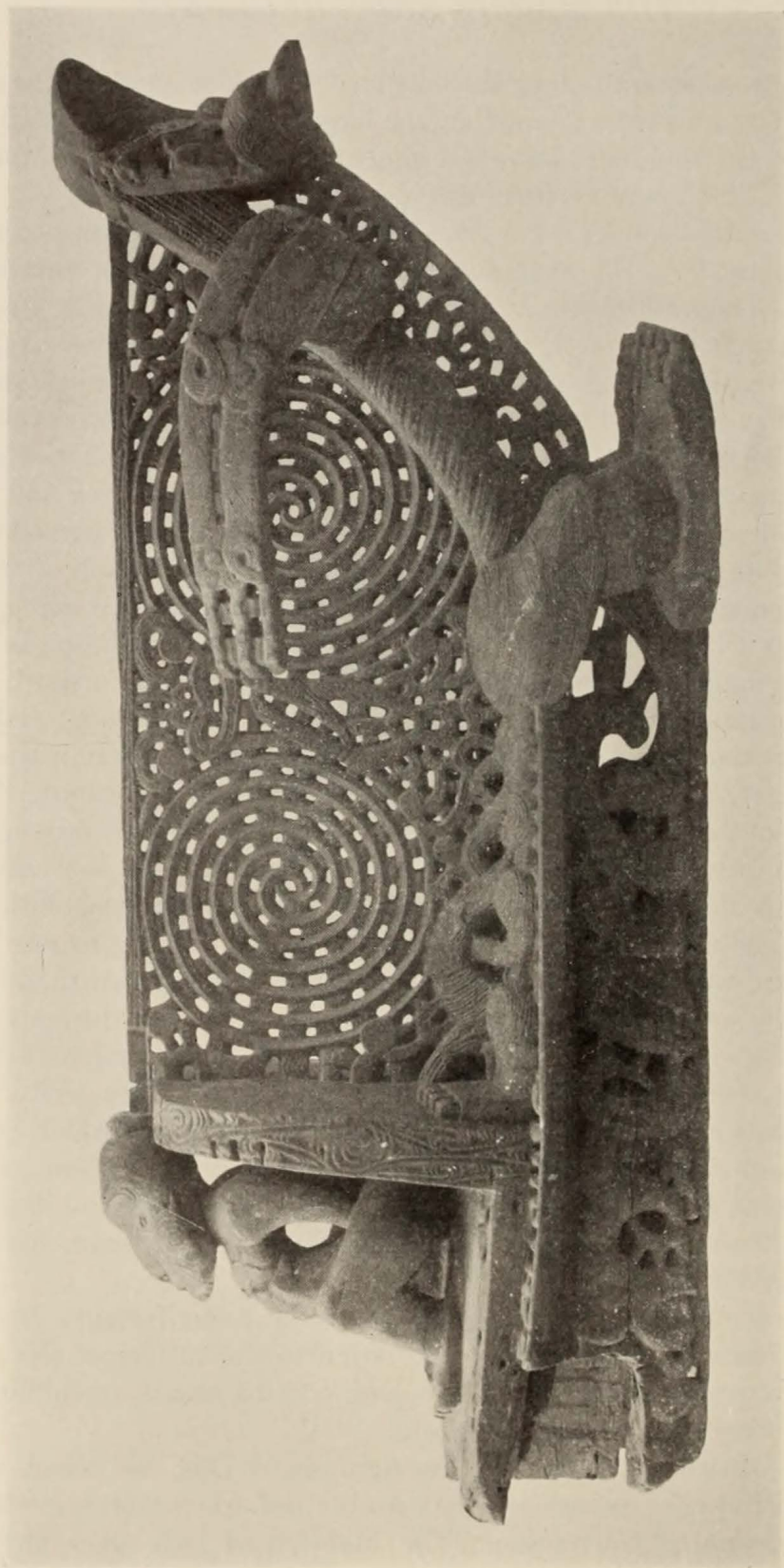


Fig. 10. CARVED CANOE PROW

head; the Museum specimen is of the more usual type, with the two large scrolls as the basic motifs of the filigree, and the grotesque figure with protruding tongue and arms extending backward. The stern piece on exhibition shows the characteristic strengthening of the filigree by the two curved ribs surrounded by filigree work of small scrolls. This is an unfinished piece: a completed stern has fine detail carving on the surfaces here left undecorated.

A division of Maori canoes by function or by type of decoration produces identical classifications. The war canoes were most fully and elaborately carved; those used for traveling and fishing were plainer,

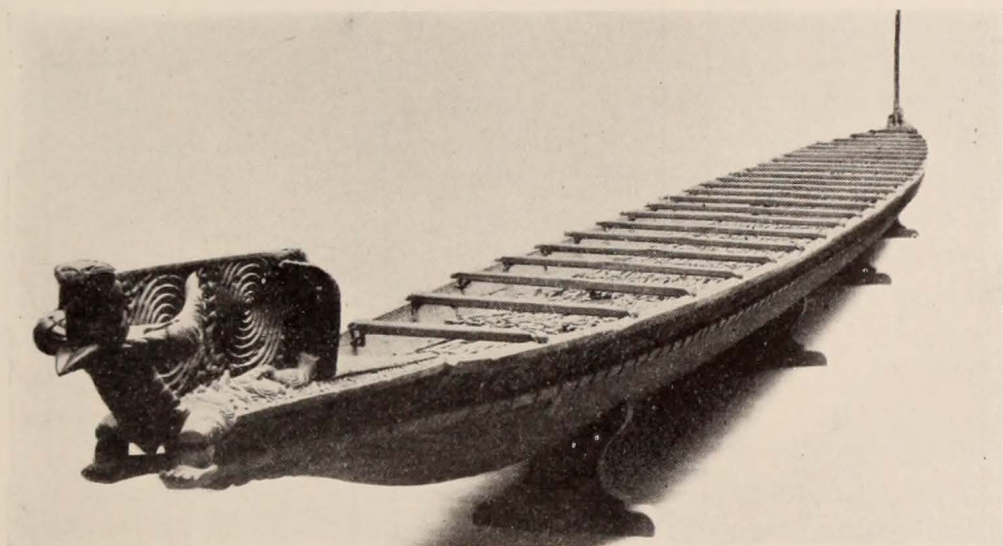


Fig. 11. WAR CANOE named *Te Toki a Tapiri*, Tapiri's Ax. (Reproduced through the courtesy of the Auckland Institute and Museum.)

with a figure-head of a human face with protruding tongue. There were rougher canoes, usually uncarved but sometimes painted. The largest canoes were built for war, but the other two types were not distinguished as to size.

The hull of the canoe was hollowed out inland in the forest. The wood was slowly burned away until the hollow approached the desired size, when the use of fire was abandoned, and the workers proceeded more cautiously with adzes alone under the careful supervision of an expert. When the roughing-out process was complete a great feast was spread and the woman of highest rank in the tribal division mounted the canoe and ceremonially ate the food.

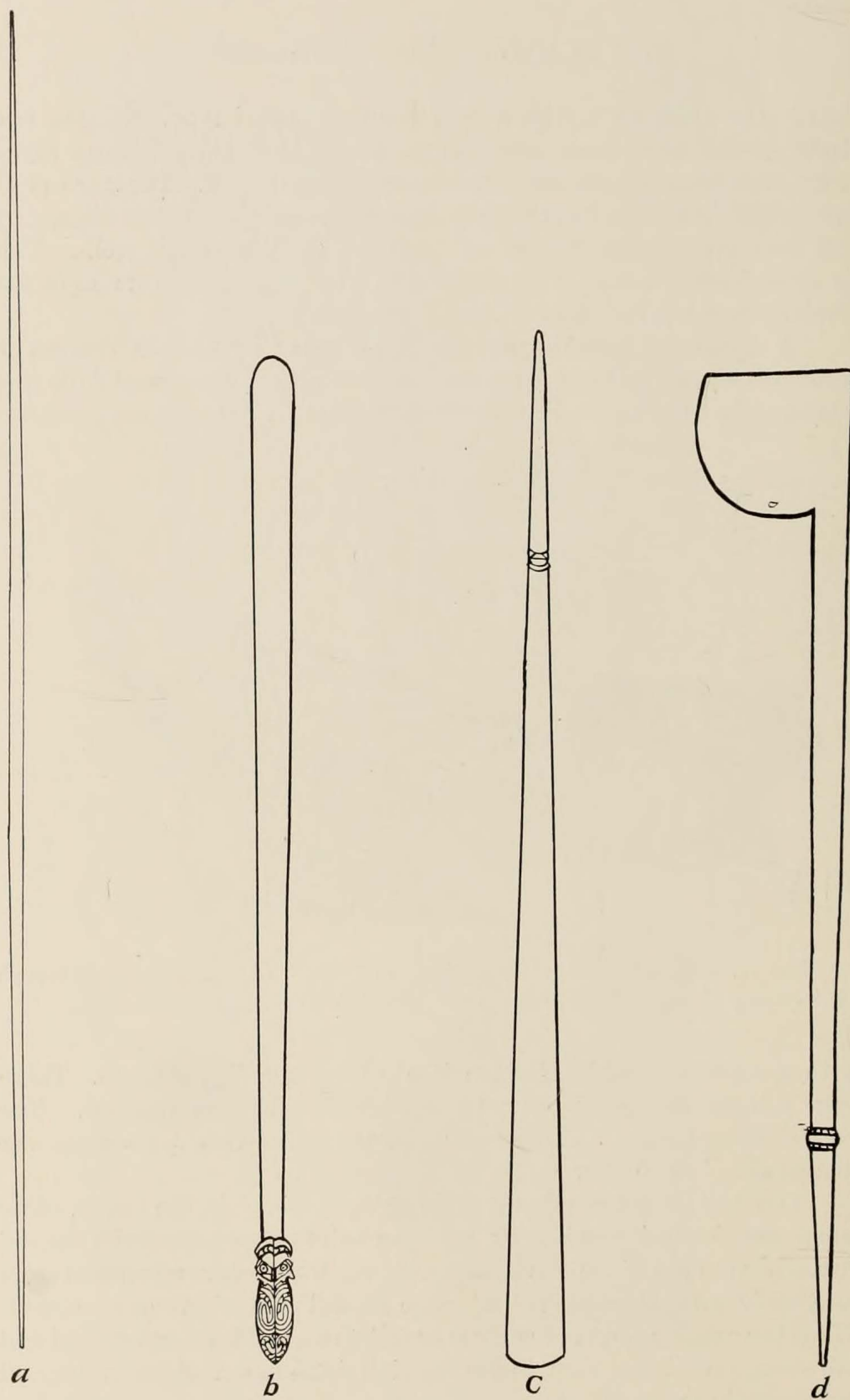


Fig. 12. WOODEN WEAPONS. a, *Tao*. b, *Hani*. c, *Pouwhenua*. d, *Tewhatewha*.

After the hull had been safely hauled to the village, it was sheltered in a shed built for the purpose. The men who worked in it wore special garments woven for them by some old woman of rank. These garments were left in the workshop for fear chips of the sacred wood might be accidentally carried away and contaminated.

Before launching, a priest performed a ceremony to divine the fortune of the canoe. A special shrub was consecrated for this purpose and then pulled up; if the roots were unbroken, the canoe would be lucky. The figure-head of the canoe was struck with this shrub to remove the taboo, so that all the people might use the canoe without danger to themselves; a woman of rank again mounted the canoe and in future a woman might use it with safety. Sometimes a human sacrifice was made, a relative of the chief volunteering for the purpose. If no human sacrifice were made, the heart of a sparrow hawk was offered to the gods in its place. Then a priest chanted a special ritual over the new vessel, placing it under the care of the gods. Sometimes the people chanted a welcome to the new canoe. One such welcome ran, "Come hither O Tané, let us go forth on the waters of *Pikopiko-i-whiti*, that you may be observed of all persons. 'Twas I who went and brought you hither from the great forest of Tané."

WEAPONS

The principal weapon for actual warfare was the *tao* or spear (Fig. 12a) made of a single piece of hard polished wood. The common form was four to six feet in length; less usual types, measuring twelve to fourteen and sometimes as much as forty feet, were used by several men as ramming rods. These longer spears (*huata*) had a rounded knob and a decoration of dog hair on the end. Other spear forms were barbed on one or both sides with the species of the sting ray, or had two or more points. Some tribes used a short dagger of whale bone.

The famous two-handed clubs are of three main types. The *hani* (Fig. 12b) is characterized by the carving at the butt end representing a human tongue ornamented with scrolls. The *hani* was decorated with a circle of cream-colored dog's hair, above a band of scarlet parrot feathers woven into a ground work of flax fiber.

The blade of the *pouwhenua* (Fig. 12c) is wider than that of the *hani* and the tongue motif is missing, but the handle is similarly decorated below the grasping point with a band of carving representing, often in a much degenerated form, two human faces. It was never decorated with feathers or hair.

The blow dealt by either *hani* or *pouwhenua* was delivered with either edge of the blade. In close hand-to-hand fighting, when an opponent had gotten within the guard, the pointed end of *hani*, *pouwhenua*, or *tewha tewha* (Fig. 12d) was used like the bayonet. But the

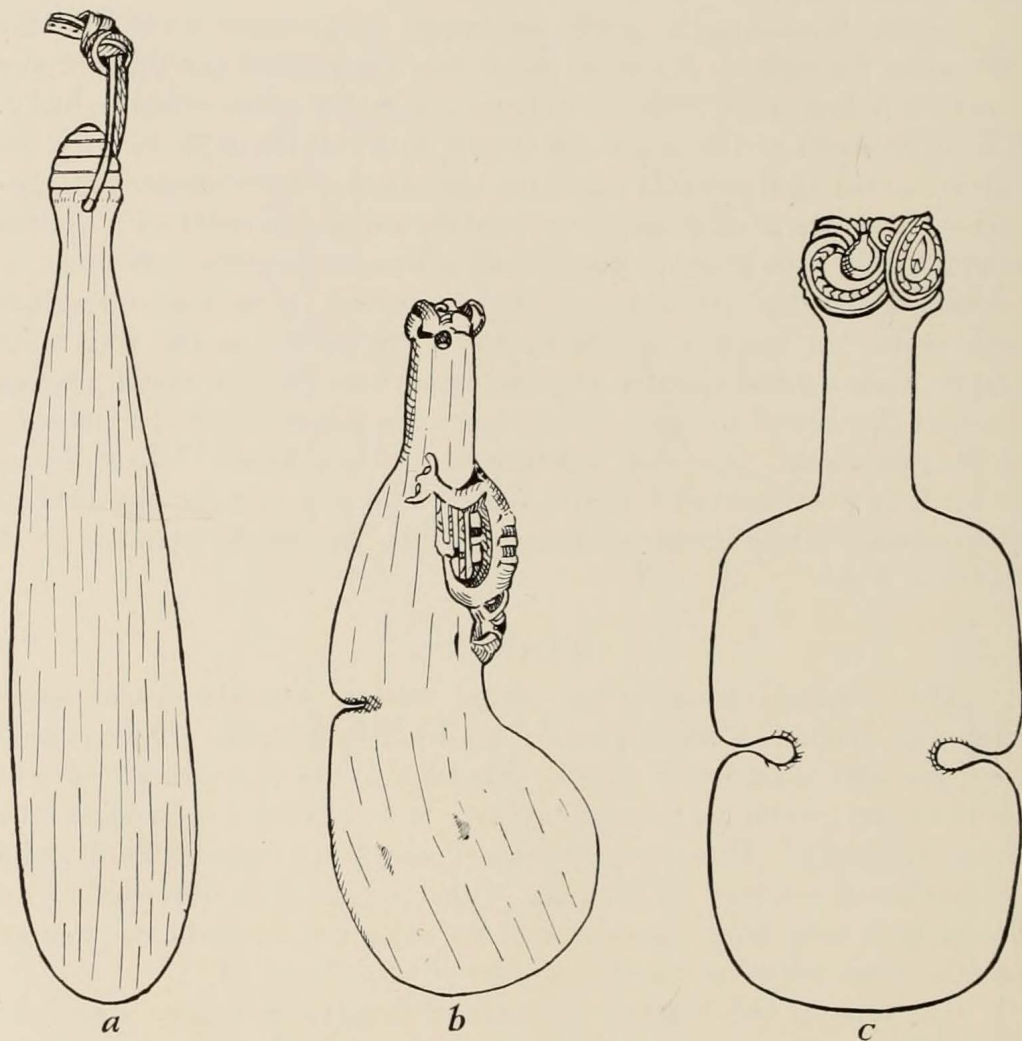


Fig. 13. THRUSTING WEAPONS. a, *Mere*. b, *Waka-ika*. c, *Kotiate*.

blow of the *tewha tewha*, the ax-shaped club, was delivered with only one edge, the sharpened straight edge parallel with the handle, the ax-shaped expansion merely added weight to the blow. Where the head joins the blade a bunch of feathers was tied through a small hole with a binding of flax. The *hani* and the *pouwhenua* are both forms of one type of weapon, the divergence probably being a local phenomenon; but the *tewha tewha*

is allied to other forms found in the Pacific—to the bent paddle-shaped clubs, one of which is exhibited in the Solomon Islands case and the flaring center-ribbed club of Niué.

Patu is the name given to a group of thrusting weapons made of greenstone, whale bone, and wood, all of which are characterized by a narrow neck expanding into a flat blade with a cutting edge at the distal end of the weapon. The weapon was secured to the wrist with a thong of flax or leather; the blow was delivered at close quarters, with the uplift stroke toward the opponent's temple.

There are two chief types of variation in the *patu*, from the simple symmetrical blade of the *mere* (Fig. 13a) to the indented form called

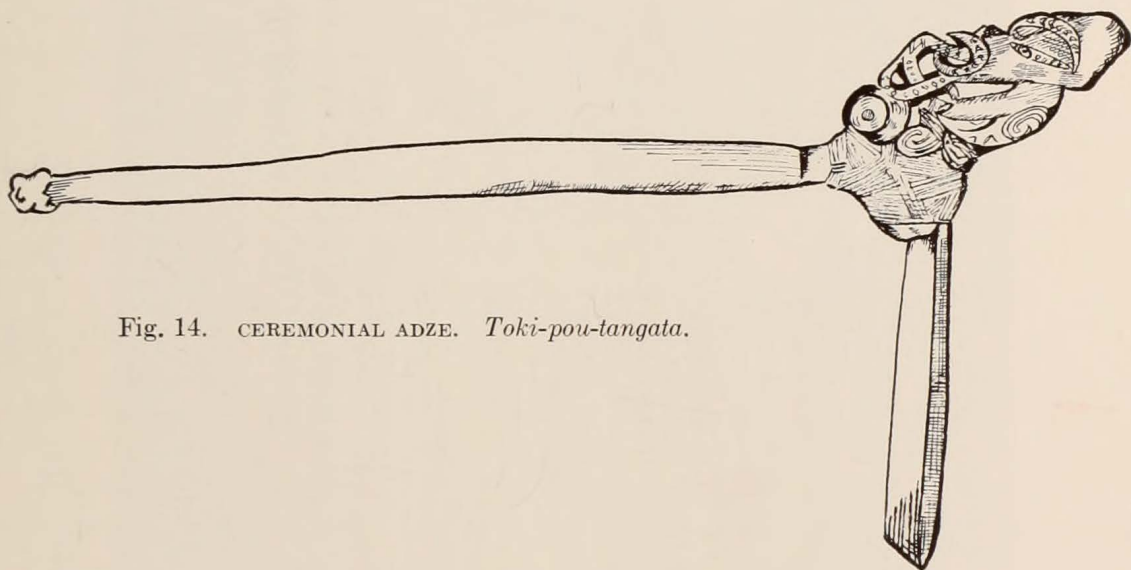


Fig. 14. CEREMONIAL ADZE. *Toki-pou-tangata*.

kotiate (Fig. 13c), of which there is an example in wood in the case of weapons, and the *waka-ika* (Fig. 13b) in which one cutting edge has vanished and a carving of a grotesque human figure has taken its place. The other variation is in the handle, developing from a simple perforation for the thong to an elaborate representation of the human head.

It has been claimed that all of these forms are local New Zealand developments of the adze blade, which occurs as a weapon in the extremely beautiful form of Fig. 14. The original location of the cutting edge was retained and the hand grip developed from the grip used in lashing the adze blade to a handle.

The ceremonial adze (Fig. 14), called a *toki-pou-tangata*, was characterized by the greenstone blade and the carved handle which carries a

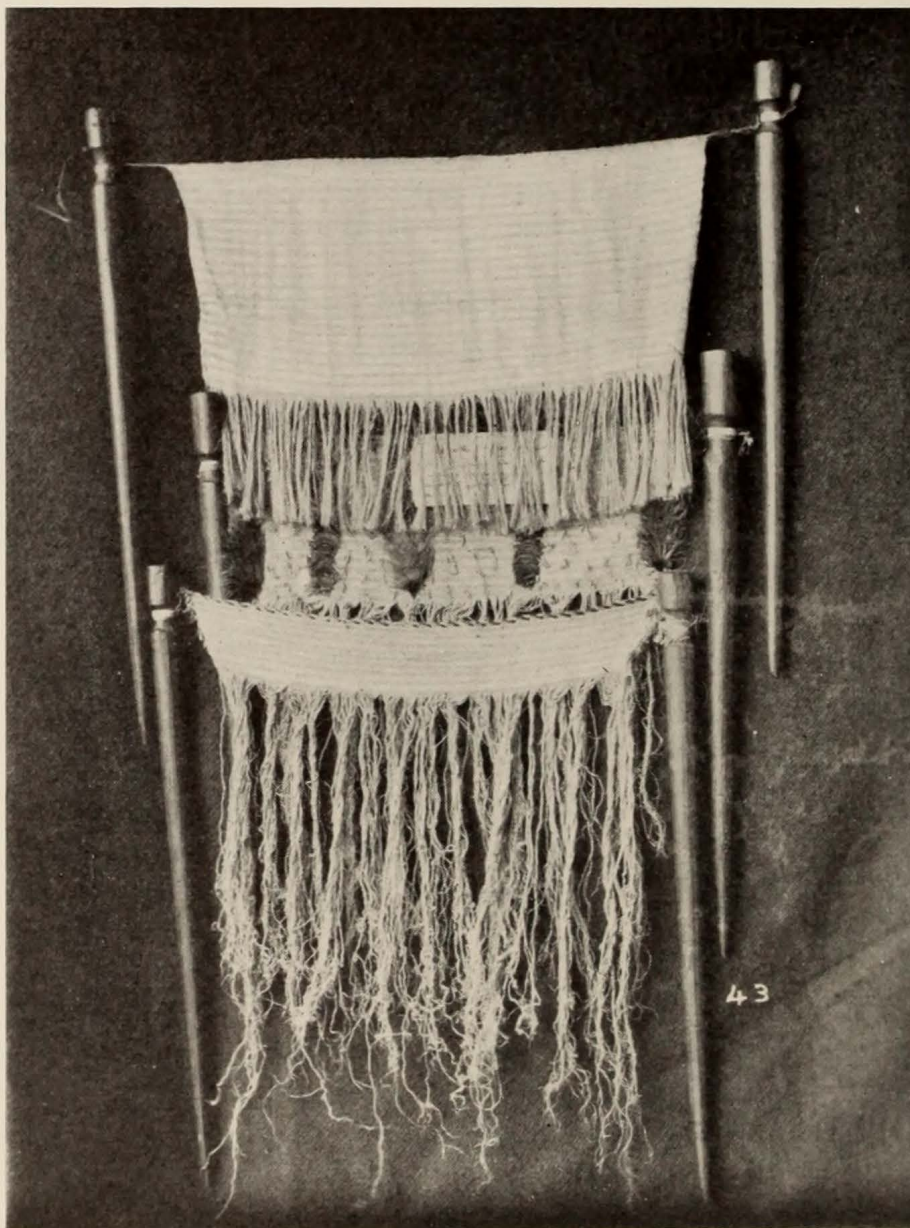


Fig. 15. LOOM SHOWING STAKES AND METHOD OF SUSPENSION OF WEB.
(Reproduced through the courtesy of the Dominion Museum.)

highly conventionalized decoration, the bird-headed man swallowing a snake.

TEXTILES

The Maori art of weaving is believed to be a local development having its origins not in the Maori's memory of a loom used before the Polynesians migrated into the Pacific, but rather in the processes of plaiting pandanus, hibiscus bark, and other basketry materials into mats and baskets. The inhabitants of other of the Pacific islands brought this plaiting to a high degree of perfection: notable examples are the "fine mats" of Samoa, worn as clothing on ceremonial occasions, and the famous bed mats of the Hawaiians. But these were all plaited without even the most primitive form of loom. The Hawaiians also brought the art of netting to a high point of development, as may be seen in the foundation of the feather cloak exhibited in the center of the hall. The two twined weft, a true basketry technique, appears in garments from the Hervey Islands and the Tuamotus, and the Samoans use the support afforded by fastening the weft strand with which they begin their grass skirts to two firm supports—the waist of the worker and a house post.

But it remained for the Maori to form a very simple loom (Fig. 15) by planting two upright stakes in the ground and stretching a supporting weft line between them, and to apply the basketry technique of twining to the manufacture of cloth. They also, after abandoning the attempt to grow the paper mulberry and to utilize the bark of the New Zealand lace-bark tree, had to develop a technique for handling the New Zealand flax (*Phormium tenax*), from which all the garments were made, except the raincoats in which *kiekie* (*Freycinetia banksii*) and *toi* (*Cordyline indivisa*) were used.

In preparing the flax the outer surface of the blade was cut across with a shell and either scraped off painstakingly or peeled off with a quick jerk. If the inner surface was scraped very lightly it remained the rich golden color of the woven bag in the collection. For purposes of weaving clothing it was scraped more carefully. After being washed and scraped again and hanked, it needed only a further rubbing between the hands to separate the fibers, to be ready for use as warp material. At this stage it has the peculiar silken sheen so conspicuous in the material of the body of the undecorated cloaks. For the soft inner surface of cloaks, on which ornamental tags and feathers lessened the necessity for a beautiful texture, the flax was washed again and beaten on a flat stone with a stone pounder.

The flax cord was prepared by rolling it on the bare thigh with their right palm, with two movements—one away, the second towards the body. When a two-ply cord was needed, two equal portions were rolled together, but kept separate in the motion away from the body, and twisted together in the return stroke.

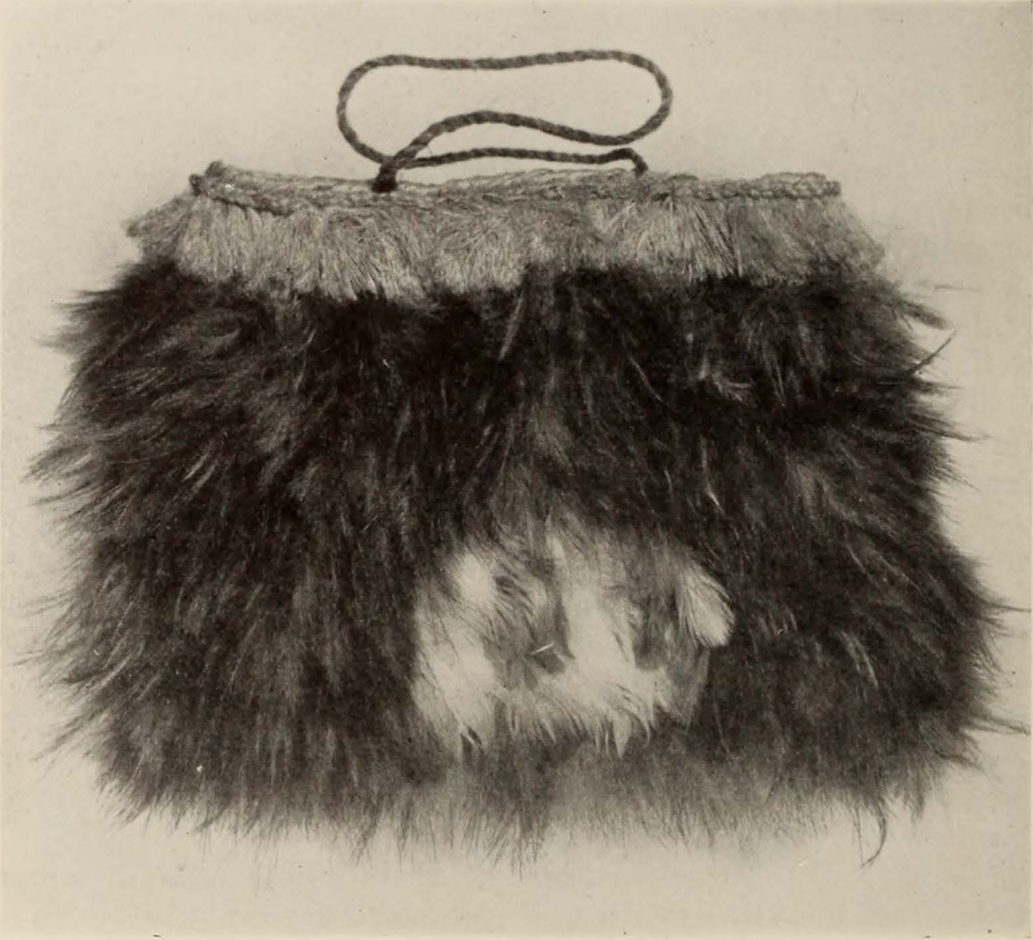


Fig. 16. BAG decorated with feathers.

The Maori used no spindle and no suspension beam at the top of their looms such as were used in the looms of American Indians. The place of this beam was taken by the first weft line, called the "ridge pole weft," in which warps of appropriate length had been twined. Only after this line was made did the worker stretch it between the two weaving poles, eighteen inch posts, carved or knobbed at the top, and pointed at the bottom. In the weaving of important garments it was customary to

release the right hand stick and roll the work up at sunset, and it was etiquette to release the stick and make a feint of rolling up the work when a visitor approached.

Each weft line was doubled around the first left hand warp and worked horizontally across and knotted at the right hand side, or turned and knotted a few threads in. Each warp had to be handled separately; there was no shedding device of any sort. The distance of the weft lines from each other varies from 1.6 cm. in the kilt to .59 in the *taniko* borders and there is also variation from wide spacing in the upper part of the garment to closer spacing in the lower part. When feathers or tags were attached it was necessary to make the garment upside down, so that the

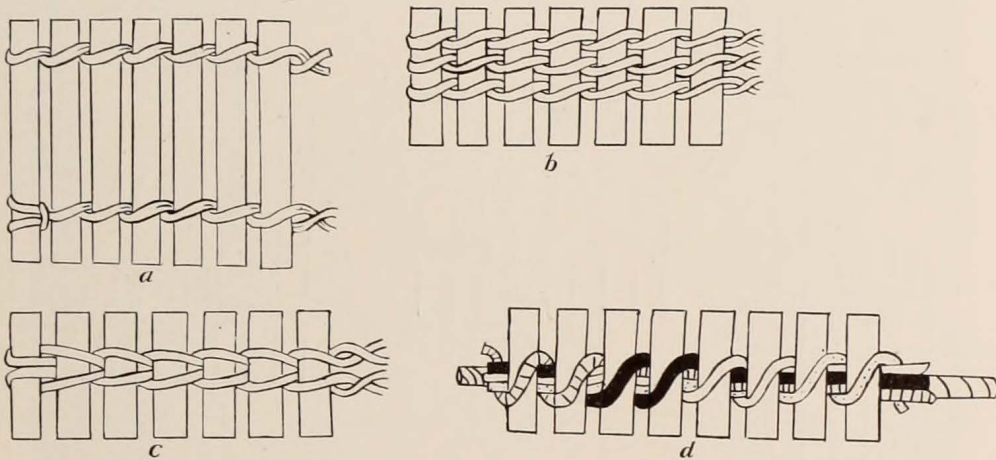


Fig. 17. WEAVING TECHNIQUES. a, Spaced single pair twining. b, Close single pair twining. c, Two pair interlocking weft. d, Wrapped twining used in the *taniko* borders. (After Dr. Buck's analysis.)

suspended tags would not be in the worker's way during the weaving process. Where there were no tags, garments could be made right side up, allowances being made for the attachment of borders, for as the Maori always worked horizontally, it was sometimes necessary to change the position of the garment during its manufacture.

The weft techniques used were four in number: spaced single pair twining (a, Fig. 17); close single pair twining (b, Fig. 17); two pair interlocking weft (c, Fig. 17); and wrapped twining used in the *taniko* borders (d, Fig. 17); a was used in kilts, rain capes, and rain cloaks; b, in war cloaks to give a close protective fabric, in dogskin cloaks, and single lines were sometimes used as a variation in spaced single pair twist; c is a much improved technique originating in the weft rows used in com-

mencing a garment and employed in all finer work; and *d* was used to give the intricate *taniko* border patterns. In *d* the weft cord was composed of several differently colored strands which might be concealed behind the warps or used as the design demanded. A stiffening cord was also used which was carried straight across and not utilized in the design.

In order to fit his garment to the contour of the body, the Maori developed a technique of weaving in either elliptical or wedge-shaped inserts to give the extra width necessary at shoulder and hip.

The simplest form of attachment of tag material is the rain cape (Fig. 18a) with a veritable thatching used to turn the rain. This was effected by using short warp lengths and leaving one end free or by

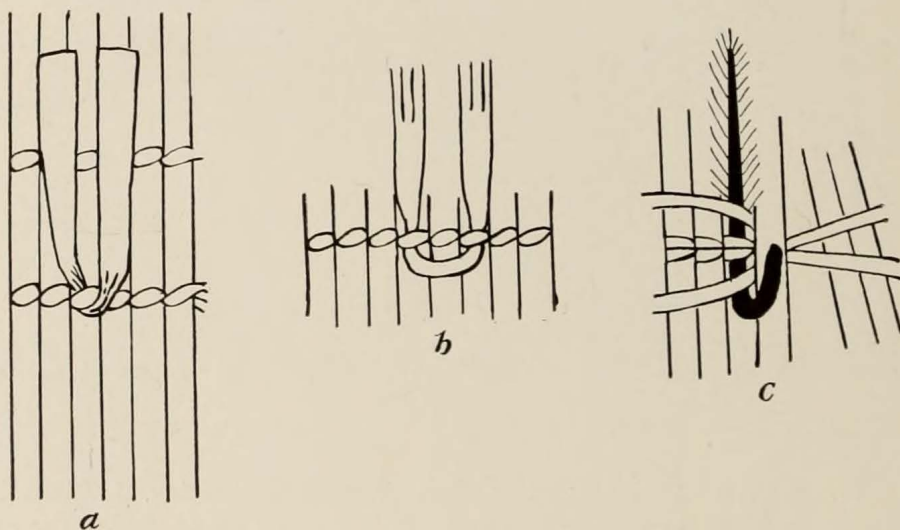


Fig. 18. ATTACHMENT OF TAG MATERIAL. a, Simplest form used in rain capes. b, Elaborate technique used in finer cloaks. c, Attachment of feathers.

adding extra pieces of material and including them under the weft rows. From this utilitarian garment developed the custom of adding ornamental tags of thick cord, or rolled strips of flax. When tags were used in the finer garments, a new technique, that of placing the middle of the tag piece under the weft row, was used (b, Fig. 18). When used as ornaments, tags were spaced farther apart and became purely decorative, taking various forms: loops, spirals, circles, ovals, and twists. When feathers were used, the same technique was employed in fastening them (c), the feather being fastened vertically with the tip upward and the bent quill end caught twice in the weft. Tassels for a very much valued type of cloak were made of dogs' hair and strips of dog skin were also used for ornament.



Fig. 19. CLOAK showing taniko border.

The types of Maori clothing can be divided into: the *maro* or small triangle-shaped apron, the simpler ones made of flax fiber or sedge, the more elaborate ornamented with various types of tags; the *piupiu*, kilts or short skirts falling from waist to knees, made of strips of flax scraped at intervals, so that when they were dyed, only the fibrous parts turned black: capes *mai*, *pokeka*, or *pora*; short mantles which only covered one shoulder and reached to the waist, and made of *kiekie* or *toi* as well as flax—occasionally rolled strips like those in the kilts were used; and cloaks (Fig. 19), upon which the whole range of Maori technique of weaving and ornamenting was expended.

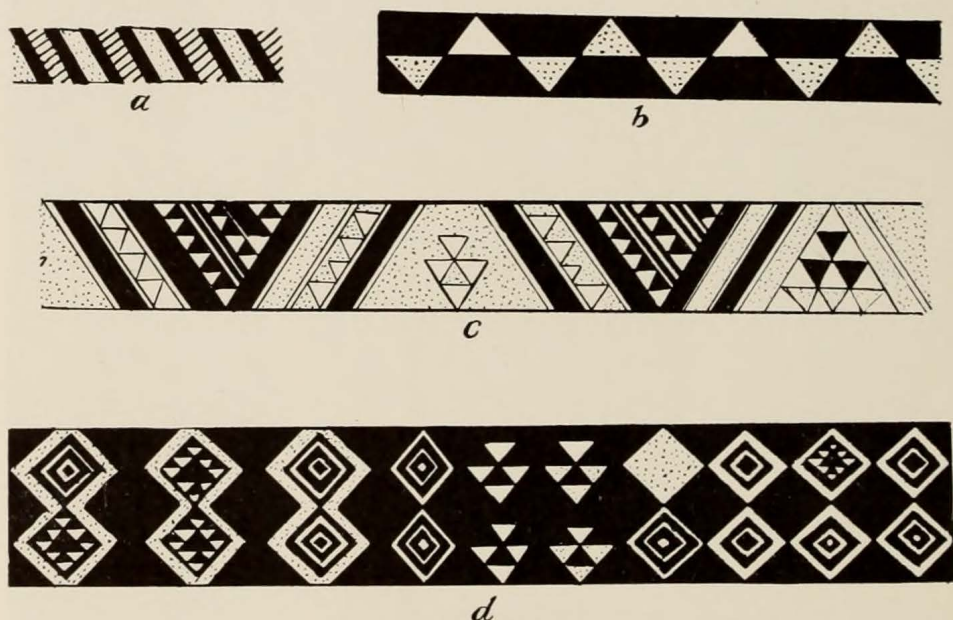


Fig. 20. TANIKO DESIGNS

The student of art will be mainly interested in the *taniko* (Fig. 20) patterns, borders woven in several colors with the elaborate combination of triangles and lozenges. The Maori also wove coarse floor and bed mats of undressed flax and made many types of bags of which there are several good examples in the collection.

While the bulk of the weaving was done by the women, parts of the fine cloaks and especially the *taniko* borders were done by the men. It was to a girl, however, that a ceremonial initiation into the art of weaving was given. A priest, who was a master of both ritual and technique and the young girl, went alone together into the *whare pora*, weaving house. Over a bunch of flax which she held in her hand the priest recited

an incantation to make her holy enough to handle the sacred thread and before fastening it across the weaving frame she had to bite the sacred right-hand stick. She then began to weave, copying some old and beautiful garment spread on the ground before her, while the priest chanted an invocation to make her learn quickly and well. Until her initiation was finished, she was not allowed to eat, to approach cooked food, or communicate with anyone. Her first web was never finished but left as a "pattern piece"; before she could finally leave the weaving house the priest prepared a ceremonial meal which novice and teacher ate together, thus removing her sacredness and freeing her to weave in safety all the rest of her life.

TATTOOING

Like most of the Polynesian peoples, the Maori practised tattooing and brought the art to a higher degree of perfection than any other Polynesians, except possibly the Marquesans. The Museum is fortunate in having the magnificent Robley collection of preserved Maori heads, the finest collection of such heads in the world.

The Maori preserved the heads of their chiefs and also of beloved wives or favorite children, and the heads of their enemies. Of their enemies, only the head of a chief, and beautifully tattooed heads of other warriors were preserved. An untattooed man was left where he fell. During a war these captured heads were exhibited and paraded as encouragement to the warriors, and as a goad to further ferocity. An important element of a peace treaty was the exchange of the heads which had been carefully embalmed during the war. Should a chief destroy the head of an enemy chief it was a sign that peace would never be concluded. Thus the preservation of heads played a double role; it kept alive the memory of the dead, and at the same time preserved the work of the artists in tattoo, of whose skill, expended on perishable human flesh, we have such scanty records in the other islands. In later times, pieces of handsomely decorated thigh skin, such as the piece exhibited, were stripped off and used to cover cartouche boxes.

To preserve the heads, the Maori took out the brain and all the fleshy matter inside the skull, stuffing the cavities with flax. The head was wrapped in leaves and steamed and then exposed to the smoke of a wood fire impregnating the skin with pyroligneous acid which acted as a preservative. All flesh was removed and flax or bark used as packing to restore the face to its original contours. The nose cavity was stuffed with fern root and the lips sewn together, or left so as to show the teeth.



Fig. 21. TATTOOED HUMAN HEADS from the Robley Collection in the American Museum of Natural History. Carved drinking tube.

The skin at the bottom of the skull was drawn together, leaving an opening about the size of the hand.

There were two types of tattooing in New Zealand, the elaborate curvilinear patterns of the northern Maori and the simple straight line tattooing of the southern Maori. Two kinds of instruments were used in the northern group, one a small, toothed, bone adze similar to that used throughout the Polynesian area, the other a sharp single-pointed instrument, used in making the singular deep furrows characteristic of the northern group. The blade of the instrument was made of bone and attached to a wooden handle which contained a forefinger rest and was sometimes decorated. The single-pointed *moko* was like a chisel with

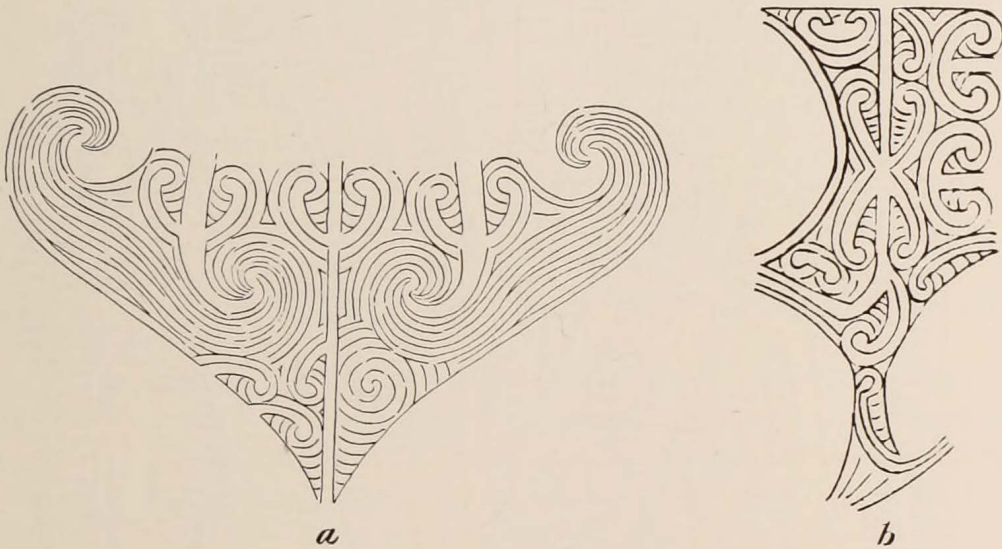


Fig. 22. TATTOOING DESIGNS. a, A forehead design. b, A cheek design.

a whale-bone blade. One end of this instrument was shaped like a flat knife to wipe off the blood. Pigment was made by burning several kinds of wood, or sometimes the vegetable caterpillar, in a small kiln. The soot was collected on a frame of flat sticks and was mixed with dog fat. It was either used in this form or else fed to a dog and the kneaded faeces used. The pigment from the burnt *kauri* gum was sometimes collected on a basket smeared with fat, and kept thus for generations. The pattern was usually sketched on with a mixture of charcoal and water, or with a sharp point. The instrument was either dipped in the pigment or the operator held a little of the pigment between the thumb and forefinger and drew the chisel through it. The blood was wiped away with a piece of flax, a wooden spatula, or the end of the instrument.

Men were tattooed on the face, the upper part of the trunk, and the thigh to the knee. Women were tattooed on the lips, between breast and navel, on the thigh, and on the hands and arms; but more usually they had only a compact design on the lips and chin.

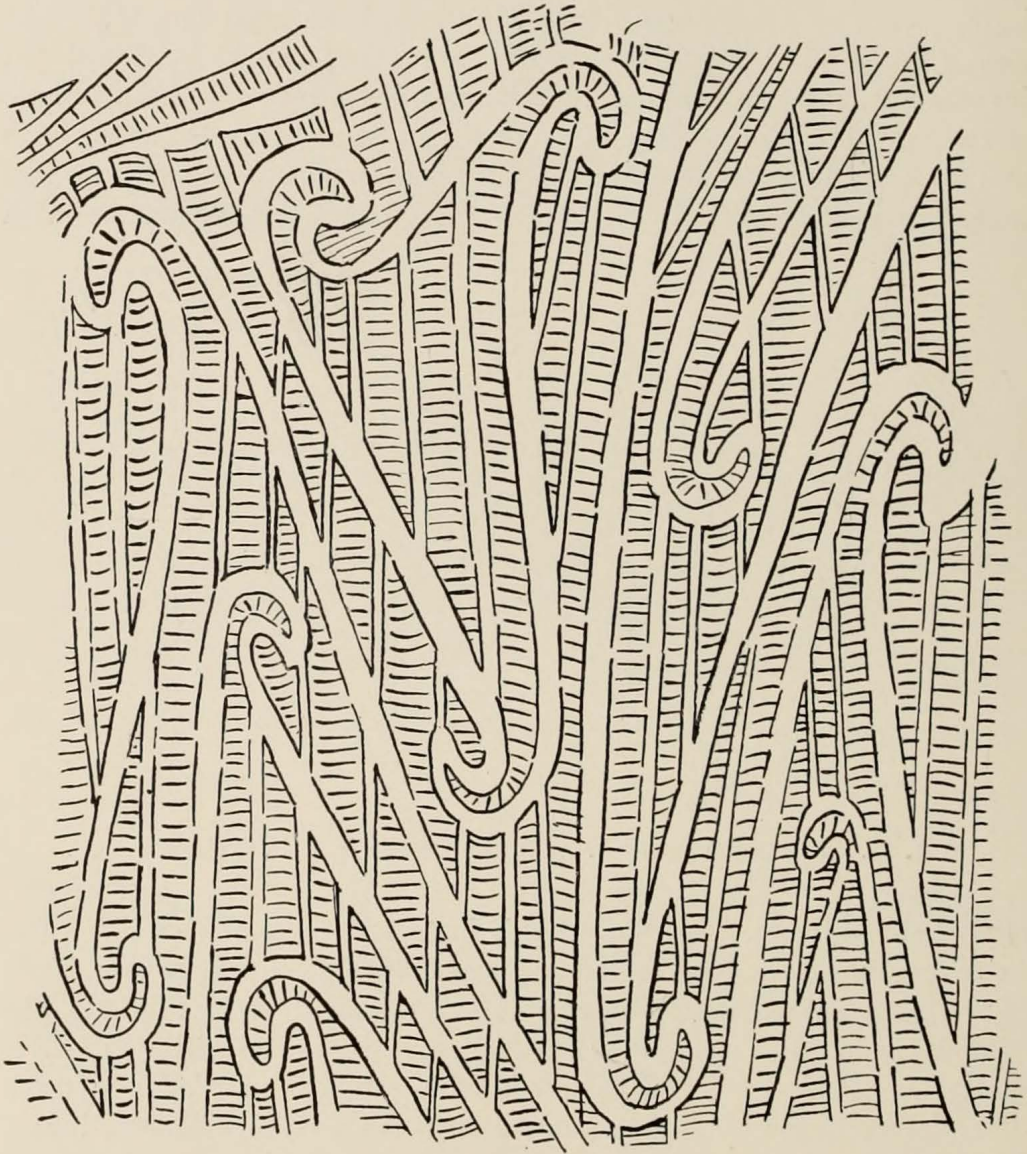


Fig. 23. TATTOOING DESIGN ON THIGH

The professional tattooers were well-paid itinerant individuals. Slaves who knew the art were immediately freed.

The religious aspect was particularly emphasized by the stringent taboos. During the process the whole village was taboo, and the patients

were not allowed to feed themselves with their own hands. To meet the requirements of this taboo, feeding funnels were made and were often elaborately carved like the one exhibited in the case of Maori heads, shown in Fig. 21. At the conclusion of the operation, three ovens were lighted, one for the artificers, one for the gods, one for the newly tattooed and the rest of the people. The priest, by a ceremony of cooking food which was then ceremonially eaten, freed the people from the taboo. A human victim, to obtain which a war party was dispatched, was sacrificed when a chief's daughter had her lips tattooed. Contrary to the usual Polynesian practice, tattooing was done, not at puberty, but after full growth was attained. Women were always tattooed on the lips before marriage. Definite tattoo marks were not used as badges of mourning, but the ceremonial cuts women made on their bodies were filled in with pigment. Heads of dead relatives were sometimes tattooed.

Tattooing was more definitely associated with war than with rank. Slaves taken in childhood were not tattooed and there were particular patterns which a slave could not wear. But many chiefs were not tattooed at all and priests had only a small blotch over one eye. New tattoo marks were sometimes assumed by all the warriors of the tribe before going to war.

The designs used by the southern tribes appear to have been simple series of parallel lines, arranged in groups of three or four, alternately vertical and horizontal. The only curvilinear element was an S-like figure in the middle of the forehead. The designs used by the northern tribes were all curvilinear and elaborately stylized in respect to the sex of the wearer and the part of the body to be decorated. Great emphasis was placed on the conformance of the design to the shape of the chin, the cheek (Fig. 22), etc. The thigh pattern (Fig. 23) and the scroll used on each buttock were invariable; but the smaller units used on the face permitted great individuality of arrangement, although all of these were based on a few curvilinear motifs. It is possible to analyze the designs into seven motifs; lines of dots or strokes, mat or plait work, ladder, chevron, circinate scroll, anchor, and trilateral scroll.

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