

On the Egyptian Boomerang and its Affinities.

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Source: The Journal of the Anthropological Institute of Great Britain and Ireland, Vol. 12

(1883), pp. 454-463

Published by: Royal Anthropological Institute of Great Britain and Ireland

Stable URL: http://www.jstor.org/stable/2841682

Accessed: 15/06/2014 01:24

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hatchets with red paint as mahadéo. Curiously enough, the Egyptian hieroglyph for Nouter, God, is the figure of an axe. The popular belief of such hatchets being thunderbolts, he observed, was of very wide range. Though polished stone hatchets had already been brought from the West Coast by Mr. Winwood Reade and Mr. Bowen, he believed that they had not as yet been found in Southern Africa.

Professor BOYD DAWKINS, Lord TALBOT DE MALAHIDE, Dr. Ross, and the President took part in the discussion.

Commander Cameron described a number of objects of ethnological interest from the West Coast of Africa, which had been brought for exhibition by himself, Captain Burton, and Dr. Ross.

The PRESIDENT exhibited an ancient Egyptian Boomerang, from Thebes, which had been lately added to his collection, and read the following paper:—

On the EGYPTIAN BOOMERANG and its Affinities. By Lieut.-General PITT RIVERS, F.R.S.

## [WITH PLATE XIV.]

WHEN at Thebes, in March, 1881, I heard that an ancient Egypian boomerang had been sold to Dr. Pinkerton, who was at that time living on board a Dahbeeah in the river. I made several inquiries about it, but failed to elicit any further particulars, and not having the pleasure of Dr. Pinkerton's acquaintance, I subsequently forgot all about it. About a month ago I received a letter from Mr. Samson Gemmel, of Glasgow, informing me that a friend of his, without mentioning his name, had lately died, and had left me a boomerang. Thinking it was probably an Australian boomerang, of which I had already a sufficient number in my collection, I wrote thanking him for the present, and again the matter escaped my memory until within the last few days, when a parcel arrived which I opened, and to my surprise and satisfaction I found that it contained the rare and valuable specimen of an ancient Egyptian boomerang, now upon the table, and figured in No. 6, Plate XIV.

I at once recognised it by the wood, its form, and its peculiar ornamentation, which exactly resembled two others which I had seen and drawn, and which had been lately added to the British Museum. I therefore wrote to Mr. Gemmel for further particulars, and he in reply informed me that the friend referred to was Dr. Pinkerton, who, before his death, had

included amongst his last requests the desire that the weapon in question, which he had obtained at Thebes about the time I have mentioned, should be added to my collection.

At the same time that this weapon was procured at Thebes, the two others mentioned above were obtained, probably from the same tomb, and they have found their way, through Mr. Greville Chester, into the British Museum. One, represented in fig. 7, Plate XIV, is hooked at the end and slightly twisted; the other, fig. 8, Plate XIV, exactly resembles mine, but is less neatly finished. Both are ornamented exactly in the same manner as mine, by means of four parallel grooves which run down the centre of the blade on each side, and they are of the same size and depth in all three specimens. The one with the hooked blade is further marked with an inscription represented in the annexed woodcut, marked A, which has been identified

Α.



CARTOUCHE OF RAMESES THE GREAT.

as part of the cartouche of Rameses the Great, 1355 B.C.; and there can be little doubt, I think, that all three must have come from the great find of antiquities recently discovered at Thebes, and which contained, amongst others, the mummy of that monarch. Another flat-curved stick in the Boulak Museum, about 3 feet 6 inches in length, and probably a stick for throwing, but of a later period, is inscribed with the cartouche represented in the woodcut B, which Dr. Birch has interpreted for me as

В.



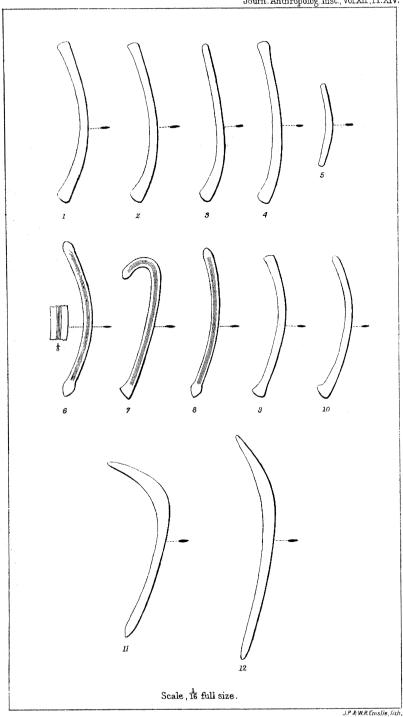
TA-A-A, SON OF THE SUN EVER-LIVING.

<sup>&</sup>lt;sup>1</sup> This great find had been discovered when I was at Luxor; I had heard of it, although its whereabouts had not been disclosed to me, but it had in fact been offered to me for a large sum, which I declined, thinking it ought to remain in Egypt.

"Son of the Sun (TA-A-A) Ever-living," and of the period of the 17th dynasty.

I have drawn on the accompanying plate other ancient Egyptian boomerangs that are to be seen in different museums. Fig. 9, Plate XIV, has been in the British Museum for some time. I conclude it is the one mentioned by Sir Gardner Wilkinson as having been found by Mr. Burton at Thebes. had a fac-simile made of it for experiment some years ago, and found that by throwing it against the wind I could make it return to my feet several times running: it has a flat enlargement at one end, and a similar but smaller enlargement at the other. Two others, figs. 3 and 10, Plate XIV, are nearly like it, but have no enlargement at one end. No. 3 is in the Boulak Museum at Cairo, where I took a drawing of it and of the others in the same museum, by permission of M. Maspero, who informs me that both this and figs. 1, 2, and 4, were obtained from Drahabool-Neggah, at Thebes, and are of the period of the 11th and 12th dynasties—say 3064 B.C. Fig. 10 is in the Louvre at Paris; figs. 1, 2, and 4 resemble this, except that they have enlargements of equal size at both ends. Fig. 5 is a small one of bone, in the Boulak Museum. Fig. 7 is the one to which I have referred as being marked with the name of Rameses the Great, 1355 B.C. It has a flat enlargement at one end, and the opposite end is hooked and slightly twisted. I had a fac-simile made of it for experiment, and a similar twist given to the curved end; but it was found that it had no effect in screwing it up in the air, as indeed might be anticipated from its weight and thickness, and the shortness of the curved arm. I have not been able to detect any intentional twist in the others, and it seems probable that the twist in this one may have resulted from warping during the time that it was embedded in the tomb. Figs. 6 and 8 have an oval enlargement at the handle end, intended no doubt to compensate in weight for the greater width of the boomerang at the opposite end. The first is in my possession, and is the one given me by Dr. Pinkerton, and the other is in the British Museum. All these boomerangs have more or less flat sections, as shown in the plate, and the section is symmetrical on both sides—not flat on one side and convex on the other, as is the case with some of the Australian weapons. They differ in appearance from the boomerangs of the Egyptian sculptures figured by Sir Gardner Wilkinson in having a single curve, whereas those represented in the hands of fowlers in the sculptures have generally a double curve somewhat in the form of a drawn-out S, very much elongated and straightened. This must represent a different variety of the weapon. Some of the Australian boomerangs are S-shaped. All the Egyptian

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ANCIENT EGYPTIAN & AFRICAN BOOMERANGS.

boomerangs represented in the plate, it will be seen, except figs. 6 and 8, which have the oval handle, are more curved at one end than the other.

Having now described all the ancient Egyptian boomerangs that I have been able to take drawings of in different museums, and having shown clearly by the sections attached to each that they are true flat boomerangs, and not merely round curved sticks, as has been erroneously assumed by some writers who have been guided only by the representation of them in the sculptures, I have only further to say a few words as to the significance of this form in its bearing on the possibility of connection with other countries in which the boomerang is used.

I find that my views on this subject have been misrepresented, owing mainly, I presume, to the fact that some more or less casual remarks of mine in my address to the Anthropological Department of the British Association in 1872 have been widely circulated, whilst two previous papers in which I discussed the subject in detail, in the years 1867 and 1868, having been published by the Royal United Service Institution, the Journal of which Society is not so generally accessible to anthropologists. have received no attention. It has been assumed that I supposed the Egyptian and Dravidian boomerangs to be identical with that particular variety of the weapon which in Australia is made to return to the thrower after being hurled at the object it is intended to strike, whereas the very reverse is what I stated in the papers to which I refer. I have there shown, by giving a description of all the different varieties of the boomerang used by the natives of Australia, that the Egyptian boomerang, the trombush of the blacks of Abyssinia, and that of the blacks of Hindustan, correspond only to one class of the Australian boomerang, viz., that used by them for war, and considered the most useful weapon they employ, and that this form differs from the returning boomerang, which I describe as "having a slight lateral twist by means of which it is caused to rise in the air, screwing itself up precisely in the same manner as a boy's flying top, which rises and spins upon the ceiling."2 This last kind of boomerang, I have contended, is merely a variety of the war boomerang, and is peculiar to the continent of Australia, and not found elsewhere, and that

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<sup>&</sup>lt;sup>1</sup> "Journal of the Royal United Service Institution," vols. xi-xiii, 1877-9.

<sup>&</sup>lt;sup>2</sup> The form of the returning boomerang, its curve, its twist, and its peculiar section, flat on one side and convex on the other, has long been known in this country, and fac-similes of it have been used as toys for many years. More than forty years ago, when a boy, I practised with one of them copied from an Australian specimen, and acquired some skill in throwing it so as to return to me repeatedly, and also to pess behind me in its return flight.

it is a development of the plain war boomerang, which latter is used by several of the black races bordering on the Indian Ocean as well as by the Australians. Whether the returning boomerang of Australia is a weapon of precision or not is immaterial, and not worth discussing in reference to this question of distribution, because it is not this, but the plain non-returning war boomerang, which is found on the three continents of Africa, India, and Australia.

It is not doubted that the black races of the world are more closely allied to each other than to the rest of mankind. Their geographical distribution, no less than their physical peculiarities, favours the opinion that, notwithstanding the wide seas which now separate them, and notwithstanding minor differences of hair and form, they must originally have spread from a common centre, and if so must have carried with them the most primitive kinds of weapons of wood and stone that are to be found amongst savages in a low condition of culture. Of this class of weapons the boomerang is one, but it is reasonable to suppose that they must have taken it with them in its more simple and early form, and not in the more complex form into which it developed on the continent of Australia after the separation had taken place.

If it is said that the plain, non-returning boomerang, being a comparatively simple contrivance, and one derived from the use of natural forms of sticks, might have been independently invented in different places, the reply is, why, if such is the case, was it not invented on the continent of America, where nothing of the kind is found all the way from Baffin's Bay to Tierra del Fuego? Why is it not found in Greenland, or Northern or Eastern Asia, or the Pacific Islands, in Europe or South Africa, or any part of the world which is not contiguous to the Indian Ocean? India it is used only by the black aborigines of the country; in Africa it is used by the blacks in Abyssinia and the Upper I have here given illustrations of two of these wooden boomerangs, called trombush on the Upper Nile, which I copied from specimens in the Ethnographical Museum at Copenhagen (figs. 11 and 12, Plate XIV). It will be seen that they resemble some of the Australian boomerangs in form and section. or cognate weapons are described by Sir Samuel Baker and

From this region, allied weapons in iron, called Hunga Munga, and various other names, all derived from the wooden trombush, spread over Central Africa continuously to the west coast; but I

<sup>&</sup>lt;sup>1</sup> Care must be taken to avoid confusion of terms, by mistaking the throwingstick of the Eskimo, Mexicans, and South American Indians, for the boomerang; this is a totally different principle of weapon, although both are sometimes called throwing-sticks.

believe I am right in saying that the wooden weapon is only found in the Eastern division of the continent, showing that its origin was from that source.

At the time when my two papers already referred to were written, Professor Huxley was of opinion that the ancient Egyptians were racially connected with the Australians, and if such is the case, it would of course strengthen my argument for a common origin for the boomerang, assuming it to have been originally an Egyptian weapon; but it is not material to my hypothesis, because there is great probability that the Egyptian boomerang may have been derived in Egypt from the blacks with whom the Egyptians were always in such close connection; and in confirmation of this it will be noticed that all the specimens figured in the plate were obtained from Thebes, that part of the Egyptian dominion which was contiguous to the country of the blacks

In my former papers I have referred to Mr. Fergusson's learned treatise on the Cateia. I hardly think, however, that the evidence adduced by him is sufficient to establish the use of the boomerang in Europe. If it were so, it was probably derived from Africa, and developed from the African form; but the tradition of a returning weapon in Europe is mythical, and certainly referred to numerous objects besides weapons which could by no means have been derived from boomerangs; the speculation on this subject is more interesting than instructive.

The argument that the plain boomerang is too simple a contrivance to warrant its being supposed to have been carried from a common centre during the migrations of the black races of mankind into distant continents, must be met, firstly, by the fact of its geographical distribution, to which I have already referred, and secondly, by the consideration that a weapon which appears simple to us was not necessarily simple to people in the most primitive condition of society.

There is not the same necessity now that there was when my two papers on primitive warfare were written, to contend for the gradual development of ideas. Evolution has since then found acceptance in the world in relation to arts and culture no less than the physical development of race. The plain boomerang, such as it is, is found amongst the Dravidians of India, the Egyptians, and the blacks of Africa. Simple as it appears to be as a mechanical contrivance, it was not thought out in a day, and it is easy to trace the process by which it was arrived at.

The Australians, whether they are a pure or a mixed race, are without doubt the most primitive people in existence in regard to their arts. All their various weapons are obtained by

) K 2

a selection of natural forms, and they possess none of those complex forms which imply descent from a higher civilisation. Amongst the existing weapons of the Australians, viewed as survivals, the whole history of the boomerang may be traced. Its development may be divided into four stages.

Firstly, the origin of the weapon may be ascribed to the tendency of all savages to throw their weapons at their enemies. The North American Indian throws his tomahawk, the Indians of the Gran Chaco their "Macana," the Kaffir his knobkerry, the Fiji Islander his club, the Australian his "dowak," as well as his waddy. Such weapons when thrown necessarily rotate in their flight, but not being specially adapted for rotation the movement is constantly impeded by the resistance of the air, and both the range and accuracy of the missile are necessarily impaired through this cause. I include, therefore, in the first stage of the history of the boomerang all weapons which are thrown by the hand, and which are not specially adapted for rotation.

In the second stage it would be discovered that a round curved stick would rotate more freely than a straight one. The impetus following the direction of the rotation would overcome the resistance afforded by the air to the movement of rotation. The weapon in its forward movement would be rapidly presented to the opposing air on its different sides, and the result would be

an increase both of range and accuracy.

The third stage would be reached when it was found that by splitting the weapon in half throughout its length, and thereby opposing to the atmosphere a thinner edge, both the rotation and the range would be still further increased. The weapon now sails through the air like the fore and aft sail of a vessel hauled up to the wind, whilst the axis of rotation continuing parallel to itself, upon the well-known principle of rotating projectiles, would act as a rudder, tending to preserve the course of the weapon constantly in the direction originally given to it. This I consider to be the most important stage in the development of the boomerang. In this stage it is still used by the Australians for purposes of war, after they have further acquired a knowledge of the returning or screw boomerang. It was in this stage that I suppose it was carried by the black races into those distant regions in which it is now used. I have ascertained, by experimenting with fac-similes of the Egyptian boomerang, that the first idea of a return flight may have occurred to the people who used the boomerang in this stage. movement of transition, or forward movement, is brought to a stop by the resistance of the atmosphere whilst the weapon is still rising, the movement of rotation still continuing and causing the axis of rotation to continue parallel to itself, the

weapon in falling will slip back on an inclined plane towards the feet of the thrower, in the same manner that a kite when the string is suddenly broken will fall backwards in the direction of its tail. But it would not be possible to construct all flat boomerangs that are in this stage of perfection upon a truly uniform plane. Bends and twists must naturally occur, from the imperfections of the wood and the rudeness of the implements employed to construct them, and it would soon be found that certain twists had the effect of causing the weapon to screw itself up in the air like a child's flying-top. These accidental twists would be studied and imitated, and thus the weapon would develop into its fourth stage of improvement.

We have now, in the fourth stage, an additional force to consider in the flight of the weapon—1stly, the movement of transition, or forward movement; 2ndly, the movement of rotation; 3rdly, the force of gravity tending downwards; 4thly, the screw movement tending upwards, or at any rate in a direction that is perpendicular to the plane of rotation. When these two last movements operated in the same vertical line they would simply neutralise each other, but when from a slight divergence of the axis of rotation from the perpendicular they began to operate at an angle with each other, the resultant would cause the weapon to fly off in another direction, and this, combined with the sailing properties of the weapon, to which I have already alluded, would produce some of the peculiar movements of which the screw boomerang is capable. Diagrams of the flight of the weapon have been given by Captain Wilks, in his "Narrative of the United States Exploring Expedition." By constant practice and experience, which alone has been the instructor of the savage during all these improvements, rather than by any knowledge of the principles of its flight, he would soon learn to control and utilise these movements so as to make the weapon return towards him after it had done its work in the air.

But this last stage of improvement, so far as we at present know, was effected in Australia only, and not in those countries into which in its simpler form it had been previously distributed by the migration of tribes. Now it has been argued that because the Egyptian, African, and Dravidian boomerangs have not this property of being made to return to the thrower, they were therefore independent inventions. To this argument I cannot assent. If it is admitted as a valid argument in the case of the boomerang, it must be applied also to other missiles under similar conditions of occurrence in other parts of the world. When the English and the Russians first met each other during the Crimean War, the former were armed with the rifle-musket, the latter with a smooth-bore musket which was equivalent to

the English Brown Bess. The result—as I am in a position to know from having been intimately connected with the experiments which led to the introduction of the rifle-musket in this country, and having likewise been a witness to its first application in the field—greatly contributed to the success of the English over the Russians at their first meeting. But applying the argument under consideration to this case, it should be held that because the rifle-musket was not Brown Bess, the one having a rotating projectile and the other not having that property, therefore firearms were independently invented in England and in Russia. But we know better than to make any such statement. We know that firearms in Europe had a common origin, and that the rifle-musket was merely a development upon Brown Bess, which the English happened at that time to have adopted whilst the Russians had not.

These, then, constitute the main points which I have advocated in assuming that the boomerang, being a weapon of very primitive construction, and its present distribution being coincident with the distribution of some of the black races of man,—viewing the conservatism of savage people, and the enormous time requisite for the acceptance of new ideas in a primitive condition of society, it may with great probability be regarded as one of those weapons which primeval men carried with them into distant parts from the home of their ancestors, wherever it was—possibly from some continent in the Indian Ocean now submerged.

It is, of course, a theory which, like most anthropological problems relating to the unknown past, is open to doubt and criticism. But I think I am justified in asking that my critics, whoever they may be, should at least read what I have written on the subject. I allude more particularly to the observations of Mr. Brough Smyth, in his work on the "Aborigines of Victoria." As an Australian colonist he is of course entitled to be looked upon as an authority in speaking of the weapons of the aborigines of that country, but as he has evidently not seen the boomerang of the other countries referred to, he is not equally entitled to pronounce judgment on the general question. Referring to my brief remarks on the boomerang in my address to the Anthropological Department of the British Association, he has put himself to the pains of picking my observations to pieces in But it was not possible to condense into a few short lines, making a brief allusion to previous writings, anything calculated to stand the test of criticism of that kind. justice to the subject he should have referred to my previous papers on the subject, some of the arguments in which it is the object of the present communication to reproduce in an abridged Had he done so he would have found that I had there

considered most of the points to which allusion is made in his work. He assumes that I had only seen the simpler forms of the Australian boomerang; but in my previous papers I refer, I believe, to all the various kinds of the weapon which he describes, and give illustrations of some of them. He supposes that I had never seen the weapon used by natives, but in the papers in question I make mention of the practice of the Australians who were exhibiting the use of their weapons in England at that time, and whose performances I had studied with attention. Supposing, as so many others have done, that the Egyptian boomerang was a round bent stick, he says that no doubt a slight tendency to return might be obtained from such a weapon; but I doubt extremely whether, with a simple round bent stick, even the first idea of a return flight could have suggested itself, and certainly I have never said so. I think, however, the figures in the plate will suffice to show that the Egyptian boomerang is not merely a bent stick, but a real flat boomerang. It is in what I call the third stage of development, and therefore its affinity to the returning boomerang of the Australians is greater than has been supposed.

## Description of Plate XIV.

Figs. 1–4, Egyptian boomerangs of wood in the Boulak Museum at Cairo. Fig. 5, bone ditto in the Boulak Museum. Fig. 6, wooden boomerang from Thebes (Pitt Rivers collection). Fig. 7, wooden boomerang from Thebes in the British Museum, having on it the cartouche of Rameses the Great, represented in the woodcut A of the text. Fig. 8, wooden boomerang, in the British Museum, from Thebes, with ornamentation similar to figs. 6 and 7. Fig. 9, wooden boomerang, in the British Museum, from Thebes. Fig. 10, wooden boomerang, having an enlargement only at one end, in the Louvre at Paris. Figs. 11 and 12, African boomerangs, called trombush, in the Ethnographical Museum at Copenhagen.

¹ It is worthy of observation that although these natives, when exhibiting in this country, produced the most marvellous flights with the boomerang, using it as a toy, they never to my knowledge attempted to employ it as a weapon of precision. I should like to know how many animals a native in his own country will kill in a day with this weapon, by striking them in the return flight, and under what circumstances and for what purposes the return flight is employed. This question of precision, however, is entirely beside the question of origin.

This question of precision, however, is entirely beside the question of origin.

2 "It is quite possible, as Colonel Lane Fox states, to get some sort of return flight if a crooked stick be thrown into the air, but the wonguin of the Australians is something more than a crooked stick," "the flat leaf-like weapon of the Australians differs essentially from the Egyptian crooked stick."—("The Aborigines of Victoria," vol. i, pp. 322, 323.)