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SOME HISTOTRICAL BUSHMAN ARROWS

BY C

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With 3 Text Figures.

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In 1935 Miss D. F. Bleek presented much of her ethnological material, built up by Dr. W. H. I. Bleek and Miss L. C. Lloyd, to the University of Cape Town Ethnological Collection, where it has been on exhibition for the past eight years. Miss Bleek has recently gone to considerable trouble to copy out certain Bushman texts (collected by Miss Lloyd) on Bushman arrows, and these notes are incorporated in the present paper. The material presented includes several of the original arrow foreshafts that were discussed by the Bushman Jantje with Miss Lloyd in 1878.

The foreshafts have considerable historical importance, as they originally illustrated Jantje's description of their manufacture. It is to be remembered that these foreshafts were made by a member of the Cape Bushman tribes at the home of Miss Lloyd and Dr. Bleek at Mowbray, Cape Town, where the former Cape of Good Hope Government permitted Bushmen prisoners serving sentence for stock-theft and other crimes to reside, so that their language and customs might be studied, and their health better maintained than was found possible in the prisons of that time.

The materials used by the makers were wood and glass, which would substitute efficiently for the bone and quartz crystal or other firme-grained homogeneous stone that would normally be available to the aboringinal Bushmen. It is obvious from an examination of the wood that a metal knife was employed for trimming the foreshafts. In addition, a metal arrowpoint made by a method outside the normal range of Bushman technology has been used in one instance. Apart from these deviations, I am off opinion that these arrow foreshafts represent the native originals weell. Their similarity in point of technique to the usumi Bushman material was sufficiently close to have permit ted Jantje to give an accurate, appropriate and detailed account of their manufacture to Miss Lloyd. So minute is the detail off this description that I was at first of the opinion that he had described the process verbally while making the arrows. This is just possible, but his interest in the "wittelklip" amd his scatthing remarks on the badly-made



foreshaft of the iron-tipped example, rather suggest that he himself did not make them.

Before any description can be given, a few introductory remarks on the Bushman arrow are necessary to make certain terms and points clear.

GENERAL INTRODUCTION

There would seem to have been several general types of arrow in use among the Bushmen in the last century. Some of these have survived and are still in use to-day. Four seem to have been of purely Bushman origin, and five are partly the products of contact with more advanced peoples, from whom elements (or even the entire arrow) have been borrowed. These latter have the higher survival value. We may deal with the types shortly one by one before going into greater detail on types (i), (ii), (iii) and (iv), which are dealt with in Miss Lloyd's description. There are nine types, differentiated by the point, foreshaft, shaft, etc. Feathering is described later. The best independent source of information is a paper by I. Schapera (1) augmenting L. S. B. Leakey's paper on African bows and arrows (2). I have not made use of the latter paper in the present publication.

- (i) Glass tips mounted on wooden foreshafts. This type forms the bulk of the present series. Distribution is uncertain, but the type is close enough to that of the Cape Bushmen to have been recognised and accurately described by Jantje. The wood and glass represent the normal tribal bone and stone. (Examples A and B.)
- (ii) Wooden-tipped bird-arrows, forming part of the present series, are quite possibly an adaptation of Bantu forms, but are more likely to be a true Bushman type. Distribution fairly considerable in the Kalahari and Kaokoveld, from where additional series are represented in the University of Cape Town collection. (Examples E. and F.)
- (iii) The better-known bone-tipped arrow with reversible foreshaft. This seems to have been the arrow universally used by the Bushmen of Southern Africa in prehistoric times, and is directly analogous to African prehistoric material from the rest of the continent. It is certainly found in North African Intercapsio-neolithic sites. It is the basic form to which all Bantu and other borrowed forms are adapted to a greater or lesser degree, though the essential function of reversibility may be lost in the process.
- (iv) A bone-tipped arrow without linkshaft, with a quill barb or spur bound into place about an inch or two down the bone tip, and poisoned. It is not reversible. Distribution apparently confined to the Cape Bushman, and so becoming rare.
- (v) Iron-tipped arrow foreshafts made from trade arrow-heads, or later from sheet iron. Distribution fairly general

to-day, though trade arrow heads are not met with outside the Cape Bushmen area. (Examples C and D.)

(vi) Iron-tipped arrows of wood, points made from sheet iron without foreshafts, or from Banttu metal. These are virtually Bantu in form. Distribution in the Kalahari area.

(vii) Iron-tipped arrows with foreshafts. Points of fencing

wire. Wide distribution im Kalahari and Kaokoveld.

(viii) Imitations of (viii) in bone. Kaokoveld. Possibly made for trade, but many also be made for use.

from fencing wire. These are direct imitations of Ambo and other Bantu forms. The main difference lies in the fact that the south-western Bantu use wrap-socketed arrowheads, whereas the Bushman series only achieves the tanged form. The forms of the blade are palpably imitations of the Bantu series.

FEATHERING

This classification takes no account of feathering. There are three types of feathering. The original Bushman arrow seems to have had either a single transpential whole feather, glued with wax, then bound into position at each end; or else no feather is used at all. The former is known among the Cape Bushmen and in the southern Kallahari; the latter is apparently usual everywhere with certain types of arrow. Where there is contact with the south-western Bantu, a third form is very prevalent; the use of four radial split feathers, not fixed with wax, but bound into place at each end. The type predominates to-day in the Kalahari and Kaokoveld, and the single tangential feather seems to be rarer to-day than formerly. Metal-tipped forms usually have the four radial feathers, and type (iii) is often unfeathered.

ANALYSIIS

In these various types there are certain Bushman elements that are fairly constant, and certain Bantu elements that recur frequently in certain areas. These will be defined here to avoid repetition, and the approach to the Bushman elements will be made through the basic Bushman arrow (type iii), elements of which occur constantly in other types. This arrow consists of two main portions: the reed shaft and the composite bone foreshaft. The foreshaft is made up of three parts: the bone point proper, the bone linkshaft, and the reed collar that holds them together. (Fig. 1.)

(a) The point is an ellongatted cone of bone, similar to a knitting needle, and averaging 10.5 cms. in length. The base, which is cut off square, is about 5 cms. in diameter. The

point is sharp, and thre whoole is poisoned.

(b) The linkshaft averages 11 cms. in lengths and -7 cms. in diameter at the centre. It is an almost perfect torpedo shape, though the maximum thickness is generally slightly

towards the hinder end. It is pointed at each end, and I have not seen a round-ended example such as Schapera depicts in the work cited.

(c) The reed collar is about 2.5 cms. long and 6 cms. in diameter. It holds the hindler end of the bone point to the forward end of the linkshaft, and is lashed with a sinew binding at each end to strengther it and to keep it in place.

These three compose the foreshaft or harpoon-head. The foreshaft is designed to fit into the reed shaft in either of two positions. At the ready position the linkshaft is inserted into the mouth of the reed shaft so that the point protrudes. In the safe position the point itself is slipped down the hollow reed, so that the butt of the link shaft protrudes. This protects the user from the virulent poison, and also protects the crust of poison from being rubbed off. The whole unit generally measures about 21.5 cms. in length.

external diameter, and perhaps 40 cms. in length, though length is partly governed by the position of nodes in the reed. The reed is cut in such a way that a node supplies the butt, and a nock is cut into it, about 2 mms. wide and 6 mms. deep. At the forward end the reed is cut off square immediately behind a node, so that an open tube is left, about 15 cms. in length, sufficient to form a sheath for the foreshaft. The butt of the reed is lashed with sinew, and the mouth is similarly strengthened to prevent its splitting when the foreshaft is wedged into position.

In all types of arrow in which the shaft is of reed the preparation is similar, though there may be variety in the feathering. Similarly, whenever a linkshaft is spoken of it is of the type referred to under (b) above. When we speak of a foreshaft with a flat metal point, this may consist of a metal point attached directly to an adapted linkshaft, split to take the metal (type v), or a wire point attached to a linkshaft with a reed collar (type vii). The wooden-shafted arrows (type vi) are imitations of Bantu forms, and only the lashing, insertion of the point, etc., remain to indicate their Bushman origin.

(e) The tangential whole feather is, according to Jantje,

typically Bushman.

(f) The unfeathered shaft is still typical of the Kalahari Bushmen.

(g) The quill barb or spur is rare to-day, and may well have been confined to the Cape Bushmen. Schapera illustrates an example (loc. cit., (1) Fig. 3).

In contrast to these Bushman elements, we may regard the following as Bantu elements, borrowed either from Ambo,

Herero or Tswana sources.

(h) Use of thin metal rod, flattened at one end. The rod supplies its own tang. Fencing wire is commonly used.

(i) Use off a woodlen shaft.

(j) Use of four radiial split feathers, attached either to a reed shaft or to a specially thinmed wooden shaft of Ambo type.

Only one element seems too have had a European origin.
This is—

(k) The flat sheet—metal arrowpoint, of a type to be described later. This is frequently impitated in galvanised sheet-iron, etc., to-day.

The wrap-socketed arrowp oint of the Ambo (made by flattening the tang of the point to a sheet, and then wrapping this about the forward end of the wooden shaft) has not, to my knowledge, been achieved by the Bushmen.

THE MATERIAL

The material here described for the first time consists of a number of arrow foreshafts made by members of the Cape Bushman tribes at Dr. W. H. I. Bleek's home at Mowbray, Cape Town, and some material presented from elsewhere by Miss Bleek. This includes:

- A. Seven glass-tipped arrows foreshafts of wood. (Figure II.)
- B. A similar example tipped with quartz crystal or with clear glass. (The "witteklip" example referred to by Jantje.)
 - C. Three metall-tipped foreslinafts of wood. (Figure II.)
 - D. One loose mettal arrowpoint.
 - E. Three wood en arrow fore hafts (Miss Bleek).
- F. Four wooden arrow foresthafts, probably from the Kenhardt district of the Cape. (Figure III.).
 - G. Two Bushman poison-sticks. (Figure I.)

Examples A, B and C all comsist of plain cigar- or torpedoshaped wooden for shafts of the type described above (under c), on the forward end of which glass or metal has been directly mounted. Examples E and F consist of similar wooden foreshafts, of which the forward ends have been variously shaped to make suitable arrowpoints.

A and B. These may be taken as identical, apart from the possibility that B is of quartiz crystal. The overall length varies from 25.2 cms. to 22.0 cms., and the thickness of the torpedo-shaped woodlen foreshaft varies from 1.01 cms. to .96 cms. In each case the foreshaft is designed to fit directly into the mouth of a reed shaft.

In each example the glass tips, mounted at the forward end of the foreshaft, consist of a pair of flaked slivers of bottle glass. These roughly resemble single crescents, though they also show some affinity to small "bead-borrers." They may be taken as

belonging with certainty to a microlithic blade industry of Wilton or final Smithfield type.

Through the kindness of Mr. R. F. Keet, L.D.S., X-ray photographs have been taken of several specimens. These show that the tip of a wooden foreshaft comes to within 6 cms. of the extreme tip of the wax bedding in each instance. This end is covered with wax, pressed out to a rough ivy-leaf shape, and the glass slivers are set into the shoulders of the leaf to a depth not exceeding ·15 cms. They are therefore somewhat precarious, and in use would certainly have faller away from the wax, and have lodged themselves in the skin of the animal. One specimen fell apart, and shows that the pair of microlithic flakes was held in position by the wax alone. The trimmed edge lies embedded in the wax, the fine trimming giving a greater surface on which the wax can grip. The clean razor-like edges of the glass form the cutting edges of the arrow. The point is formed of the extreme needle-like apices of the slivers of glass. The hinder end of each is embedded in the body of the wax, and does not protrude to form a barb. None of the specimens bears poison.

The fragments of glass have been flaked, not merely shattered, and each shows a bulb of percussion at the hinder end, and one or two cleavages on the opposite face. This is unlike the true microlithic technique, in which the bulb of percussion is generally discarded. The edge lying embedded in the wax is worked with tiny facets. The dimensions of the two flakes of the example that has fallen apart are as follows:

	Length	Width	Thickness
1	 1.31 cms.	·38 cms.	·17 cms.
2	 1.3 cms.	·5 cms.	·19 cms.

In a simple test the wax employed reacted in every way (melting point, setting time, stickiness, hardness, etc.) as ordinary sealing wax. It is a dark rich brown, apparently of plant origin. The wax still retains some slight impression of finger prints. The length of the wax on the foreshaft is 2.44 cms., and is in every way comparable with the other examples. Dr. J. J. Hewitt, of the Albany Museum, Grahamstown, suggests that this wax was probably made from *Pterioselastris variabilis*, a plant from which the Bushmen are known to have obtained wax.

C and D. Iron-tipped foreshafts. The loose iron arrow-point (D) is made of a fragment of sheet-metal about $\frac{1}{32}$ in. thick, obviously of European manufacture. The sheet seems to have been stamped out by means of a series of small dies. One apparently formed the sides of the arrow, and a second made the nick on each side of the tang. The use of two or three dies of this sort would account for the variability of the angle of the point, etc. The arrowhead has been finished off in a sandbath to remove any burring of the edges. It has not

been sharpened. This seems to have been the form in which the arrowhead was received from the trader, presumably in Bushmanland.

The crafftsmanship does not suggest an expert hand (as Jantje implies), and, as in the cause of all iron arrowheads, the technique of attachment is taken over from the original Bushman methods. The foreshaft is off wood, trimmed with a metal knife, and the end is nicked to take the tang of the arrowpoint. This is held in place with wax, and the end of the foreshaft is bound with string, the wax being brought over slightly to seal the binding into place. The foreshafts are of the usual torpedo shape, and measure about 24 cms. over all.

E and F. Wooden-tipped arrows. These are of the type described among the Bantu as "bird arrows," but here again they are adapted to the typical Bushman foreshaft. They are very short, measuring 10-1 to 7-1 cms. over all in length. The diameter of the foreshafts ranges from -9 to 1-13 cms. The foreshaft has been thinned to a shank which will fit into a reed up to the shoulder. The shank varies from -65 to 8 cms. in diameter. The bark has been left on the central portion, showing that the wood used consisted of twigs.

The other specimens, collected by Miss Bleek from the /Xam tribe, are very similar. They measure from 8.4 to 6.7 cms. in length. One has nicks cut into the side to resemble crude barbing; the offher is even more crude.

G. Poison sticks. These consist of two heavy thatching straws. Over-all length, 38 and 43 cms. respectively, each with a blob of poison at one end. These measure about 1.2 cms. in diameter, blackish, and containing some vegetable matter. On test it reacts to heat very differently from the wax. These specimens come from the Southern Bushmen.

In view of the number of papers previously published here and overseas on the Bushman arrow, I refrain from further description of types, but it would be of very considerable heip to ethnology if a clear survey of types, with some study of distribution of elements, were to be made.

ILEIN JANTUE'S NOTES ON ARROWMAKING

Concerning the glass-tipped arrows in the University of Cape Town ethnological collection, Miss Bleek writes: "The maker of these was probably ham #kass'ō (alias Klein Jantje, whose picture is in the 'Specimens'). He was a /Xam Bushman from Vanwyks view in the Carnarvon district, and was under Miss L. C. Lloyd's care from 1878-79. Whether the arrows with glass tips were actually made by Klein Jantje or not, they must have been made by some /Xam Bushman, as all the men my father and aunt had up to this date came from the Calvinia, Carnarvon or Kemhardt districts, and were of the /Xam tribe."

"It looks to me as if Miss Lloyd showed the man various arrows she had, and that he explained and commented on them."

This last seems obvious from the text, which several times implies simple action ("we do this," etc.), which may be inferred from the text but is not always described. Parts read as though iron-tipped arrows were made in front of Miss Lloyd, though the first two extracts (Jan., 1873) suggest that this is not so.

Miss Bleek then gives direct extracts from Miss Lloyd's unpublished notes. These I have re-written, closely following the original. Repetitions and the lack of pronouns seem to be partly due to the difficulty that Klein Jantje had in speaking Bushman at dictation speed. Pure repetition has been left out, and whatever is of value in the narrative has been left in, whether I have completely understood the meaning or not. In addition, I have made a few substitutions in terms, e.g., for "knife" I have used "blade"; for "furrowed stone" I use "grooved stone." I have left arrowshaft in the text, though it is quite certain from the context that it is generally used to connote what we should call the foreshaft, generally of bone or wood, in contrast to the shaft of reed.

Here and there I have made slight changes in the grammatical form employed to render the Bushman language, thus: "We grasping it bend it straight" becomes simply "We grasp and bend it straight." Apart from these alterations, the following is a complete rendering of the text as given by Miss L. C. Lloyd, and taken down from the mouth of Jantje. The items given appear in heading form under item 198 in Miss Lloyd's report (3).

VIII. 1.—6086-87. (20 Jan., 1878.)

- (1) To the iron-headed arrowpoints Klein Jantje says: "This is a blade, a little blade. With these blades we shoot springbok. People have not made these nicely, for they are ugly."
- (2) To the arrowhead which is apparently made with a white stone, Klein Jantje says: "This is witteklip. We use it. We fix it into the end of a reed. It is not real witteklip, but is a stone that is like a diamond."
- (3) "We do not put poison on the iron arrowheads with which we shoot springbok. //kauru is the piece of wood on which the arrowpoint is fixed." (This is the foreshaft, which is inserted into the reed.)

VIII. 10.-6923 rev. and 6924 rev. (May, 1878. A note.)

//gerre ta !nwa=a feathered arrow. !khau=arrows that have no feather.

(4) "People poison (sharp pieces of bone for their arrow-tips) with !gwe, which is red, while !ga'uoken poison is black.

Then the people feather their arrows, but they make an unfeathered arrow of the lowe arrow. Therefore people let fly singly at the spring bolk, but when they feel they have no feathers, they let fly into the middle (? of the herd) and they do not see them go."

PRIEPARING THE REEDS

"Specimens," p. 361_ VIII 26.—8293-8302 and 8315-34. (Mar., 1879.)

- bind them with cord, and lay them in a net (for carrying). We take the reeds to the hut and divide them there. The straightened reeds are bound. This is done to the bulk of the reeds, which are putt into a porcupine hole and shut in with bushes covered with earth, to keep beasts of prey from scratching them up at night. The rest off the reeds are bound and put away at home. These are the reeds that need to be straightened. We were wont to do this when the reeds were like that: we remove the reeds' excrescences by scraping, then we take the !kui stone from the fire. People make a !kui stone (grooved stone) from a split digging-stone.
- (6) "We straighten the reed thus: we take the reed and lay it inside (the groove) and so straighten it. We take it out do this (looking along it) to it. If we see it is still crooked, we grasp it and straighten it with our hands. We do this: we hold it in our hands and lay it in the grooved stone. We put the stone back into the fire and take it out again. We then hold the reed and straighten the part that was bent.
- (other) end of the reed. We split it. First we cut its upper end, and then straightem it. When we have finished straightening it we also cut its mouth, and we take out a feather.

FATTHERING THE ARROW

- (8) p. 363. "We cut the top of the feather. We take up the reed and lay down the feather to try it out. We warm the reed at the fire, and take up the /kwai (or /kwaë). In this way we rub on the /kwai. We warm the /kuai (which is now on the reed) once again. We warm the /kuai, take up the feather, hold it and press it (into position), laying the feather along the reed. And we take a blade (an iron knife or arrowhead), heat it in the fire and press down the feather very nicely.
- (9) "We rotate the arrow to put on the sinew binding. We first put on the sinew at the upper end of the arrow, and afterwards put on another sinew at the root of the feather. We hold and rotatte the arrow. We put on another sinew at the arrow to let the sinew dry.

THE ARROW POINT

- (10) "We take the (fore-)shaft and shape it (by scraping with a blade), removing the peel. We warm it over the coals, and make it straight. We smoke it in a fire which flames, so that it may become black. We take up the arrowhead and warm the tip of the shaft at the fire, divide it, and put in the arrowhead. We take out the arrowhead once again and put it in the hot embers. We jerk it out with a stick and set down the arrowhead. We take up the /kuai and warm it, then put in the arrowhead. We warm the /kwai once again when the arrowhead is in the shaft. We do this: we press down the /kuai, and we take sinew and wind it on. We put the arrowhaft to dry. We stick the shaft into the earth to let the sinew dry so we can sharpen the arrowhead.
- (11) "We take up another reed, straighten it, and lay it down. We take up the reed we first made straight, we take up the arrowhead and put the shaft into the reed, and sharpen the arrowhead. We sharpen it so that it bites, and we polish it on a flat whetstone of soft stone, for we intend that it become white. We lay it down.

A SECOND ARROW

- (12) "We take up another reed, cut it, mark it, bind its mouth and lay it down. We take up a feather and beat the inside of the quill of the feather. We lay down the feather, take up the reed and the /kuai, and warm the reed. We rub the /kuai on the reed, and press the feather down on to the reed. We press down the sides of the feather with a blade (knife or arrowhead) that has been warmed. If there is no arrowhead there, we pull out the shaft and heat the end in the fire. We press down the sides of the arrow with it and bind the arrow.
- (13) "We put the reed to dry while we take out the grooved stone. We set the grooved stone to cool, and leave off working so that the sinew may dry on the reed. We take up the arrowhead with the shaft on it and put it into the reed.
- (14) "We lay it down and leave off working, for we feel we have finished making them, so we sit thinking of the work we shall do. So we exclaim: 'I will first be quiet. I will afterwards poison (these arrows) in the morning when it is cold, for it is warm. For the poison's heat will cover my face. Therefore I am first sitting quiet. I will poison to-morrow morning when I do not perspire. For I perspire; I do not a little perspire.' Therefore we remain quiet.

THE PREPARATION OF POISON

(15) "Therefore we shred it early on a flat stone (the sort on which the iron arrows were sharpened), and we spit our saliva into it and crush it with a driedoorn stick, making it

- soft. We take a cobora's fang and (2 extract) it, taking off its poison-fang membrane, the skinn that covers its poison-fang saliva. We call the dried saliva or venom its poison-fang.
- (16) "We put the poison-fang poison into the /ku poison (the juice of the / /kmo plant is called #ku), and we crush it. We take a puff-addler s poison-fang and slice it. (In this case the skin sac is not removed, but is sliced with the contents.)
- (17) "We take out the poison-fang of a different cobra, and put them together. We do this to a snake that is powerful. because we saw it at a place which is strong. This is the one from which we put in only one poison-fang. We leave its other poison-fang alone.
- (18) "We put in its gall when we have cut it up. We put the rest of the gall into the #ku poison, and the poison becomes green and we can poison with it.
- (19) "We put poison on this part, on the sinew. We do this in this way with the poison, pressing it down on to the sinew with a stick. We poison by bringing the poison down the shaft (to the lower limit off the poison, about 2½ inches down the shaft), and we work the poison very nicely, and let it dry. We put the end of the arrowshaft into a bush, on the back of a bush, lest a child espy it and take it.
- (20) "We take the whetstone and put it away in the earth under the sticks of the side of the hut, lest a child espy it and take it and break it. We leave off working; we sit down."

ARROW SPURS OR BARBLETS

VIII 31.—8767 rev.

- (21) "//kuken = spur or barblet put by Bushmen on arrowstems to catch in the flesh of the animal shot. A wing-feather root is used from an ostrich wing-feather. We were wont to lay poison under the root of barblet on the arrowshaft.
- VIII 31.—8770-8773. (A. ugust, 1.879.)
- (22) "Springbolk arrows have no spurs; they are clean and handsome with no spurs. Gemsbok and ostrich arrows have spurs.
- (23) "A long wing-feather is cut off at the root and divided. We work with its little piece, which is small, and bind sinew over it, grasping it and laying it over the shaft. We bite off the end, the stem of the sinew which has not been on the bone. We bind on the sinew nicely, and lay down the arrowshaft for the sinew to dry before we poison the arrow.
- (24) "We poison down, down, down, downwards over the stem of the spur where the sine w lies. The tip of the spur is bare. The spur is intended to cantch the !kau. It is under the spur, and the tip of the spur is in the flesh. Then the poison

that is on the spur dissolves off into the flesh. Because the spur catches the flesh the poison dissolves off into the flesh.

(25) "!kau (sillin Xara) is a whitish membraneous-looking substance found near the veins of the inner side of the upper arm, and also found in the thighs."

Notes

- (2) White stone (witteklip) refers to the glass or quartz crystal arrowhead described above.
- (3) When iron arrowheads are used there is no linkshaft, the sliver of iron being inserted directly into the split end of the foreshaft, or //kauru. The bone foreshaft is more complex; it consists of a linkshaft and a bone point, held together by a reed collar. This seems to be the type of arrow referred to in (4) as being poisoned with !gwe. For further data on !gwe see VIII 7, 6603 rev. This is not given here.
- (4) The different methods of attacking a springbok herd with featherd and unfeathered arrows are instructive. Further notes on this may be found in VIII—14. 7241-49, and VIII—23. 8067-72. These are not given here.
- (5) The !kui or grooved stone for straightening arrows does not appear to be a separately manufactured implement. Though stones with a very much narrower groove than a broken bored-stone would yield do occur, they are obviously used for rounding ostrich eggshell beads and have been made for the purpose.
- (6) The application of heat is, of course, essential to soften the reed while it is bent straight, hence the frequent return of the !kui to the fire.
- (7) The end of the reed is cut off square. The word "straighten" here seems to mean to cut off square, or to trim the cut square. "We split it" seems to refer to the cutting of the nock of the arrow, a notch cut at a node to take the string of the bow. The mouth of the reed means the open end of reed cut below a node, and at the opposite end from the nock.
- (8) /kuai seems to have much the same properties as sealing wax, and obviously had to be heated constantly to allow of its being worked for a few moments. The feather is being laid on as a tangential feathering. Three spellings are given for /kuai. Miss Lloyd calls it "the substance with which the pieces of glass are made into arrowheads."
- (9) Sinew is, of course, applied wet and shrinks on on drying.
 (10) This treatment of the fore shaft suggests that it is of wood. This is only used with a metal tip. Hardening and darkening of wood over the coals are typical primitive practices. In this account the dry fragment of metal is first fitted into the split wood, removed, heated and finely stuck into place with

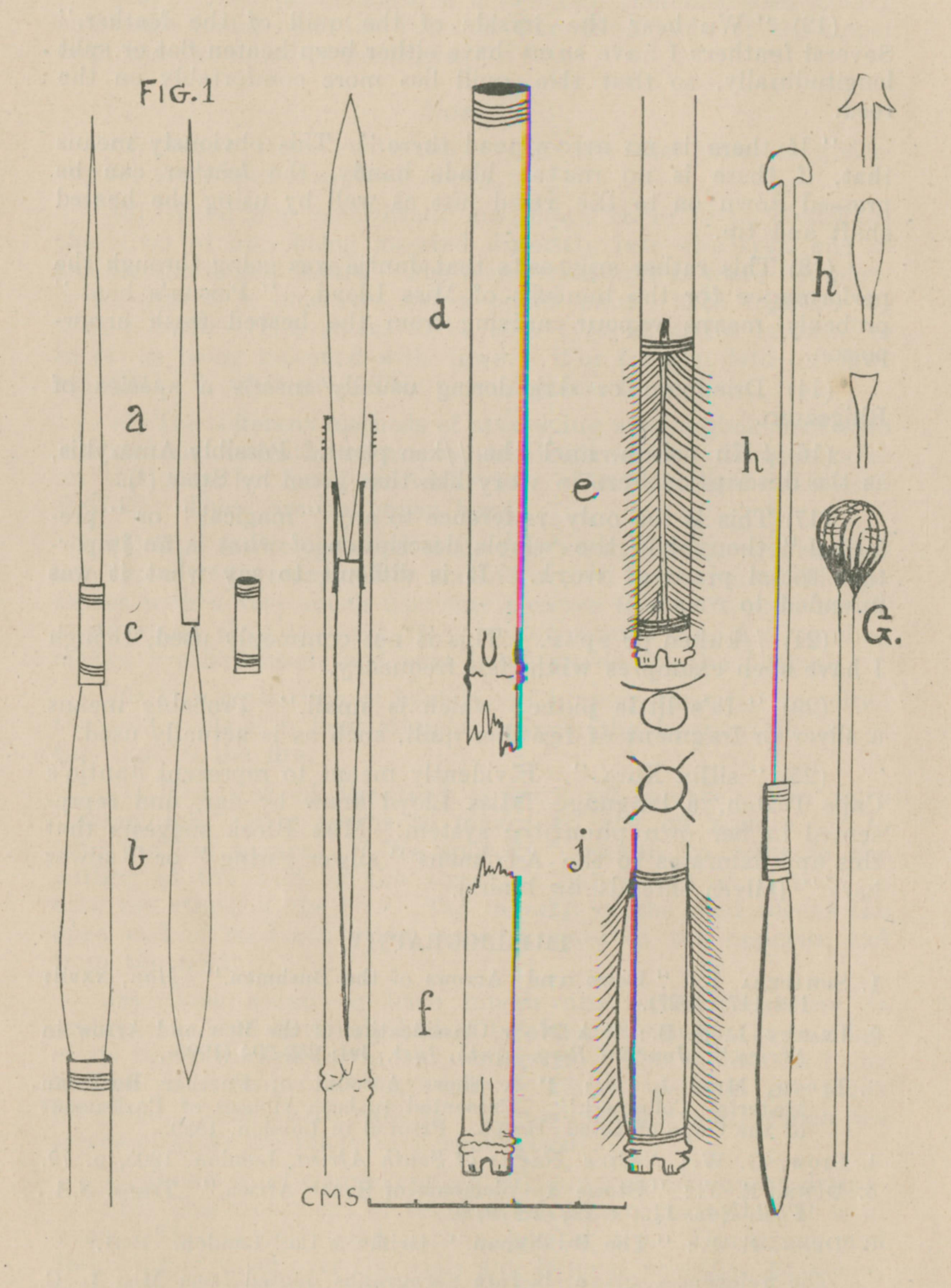
- /kuai. Once the whole is firmly set it can be sharpened. All this could only apply to a metal tip, as does the phrase "we intend that it become white" (11).
- (12) "We beat the inside of the quill of the feather." Several feathers I have seen have either been beaten flat or split longitudinally, so that the quill lies more comfortably on the reed.
- that, if there is no neetal blade handy, the feather can be pressed down on to the reed just as well by using the heated shaft and tip.
- (13) This rather suggests that Jantje was going through the performance for the benefit of Miss Lloyd. "Poison's heat" probably means wapour arising from the heated fresh arrowpoison.
- (14) Driedoorm or driedoring usually means a species of Rhigozum.
- (16) # Ku poison, and the //kao plant. Possibly Amaryllis, as the description here is very like that given by Stow (4).
- (17) This is the only reference to any "magical" or "prelogical" thought in the whole description of what is an important social piece of work. It is difficult to say what it was intended to mean.
- (21) //kuken or spur. This is not commonly used, though I have seen examples with fair frequency.
- (23) "It"s little piece, which is small." Probably means a sliver or fragment of feather quill, such as is actually used.
- (25) "sillin Xara." Evidently meant to represent Jantje's Cape Dutch, a language Miss Lloyd knew by ear, and represented in her own phonetic system. Miss Bleek suggests that this approximates to the Afrikaans "silwer garing" or "silwer hare" (silver threads or hairs).

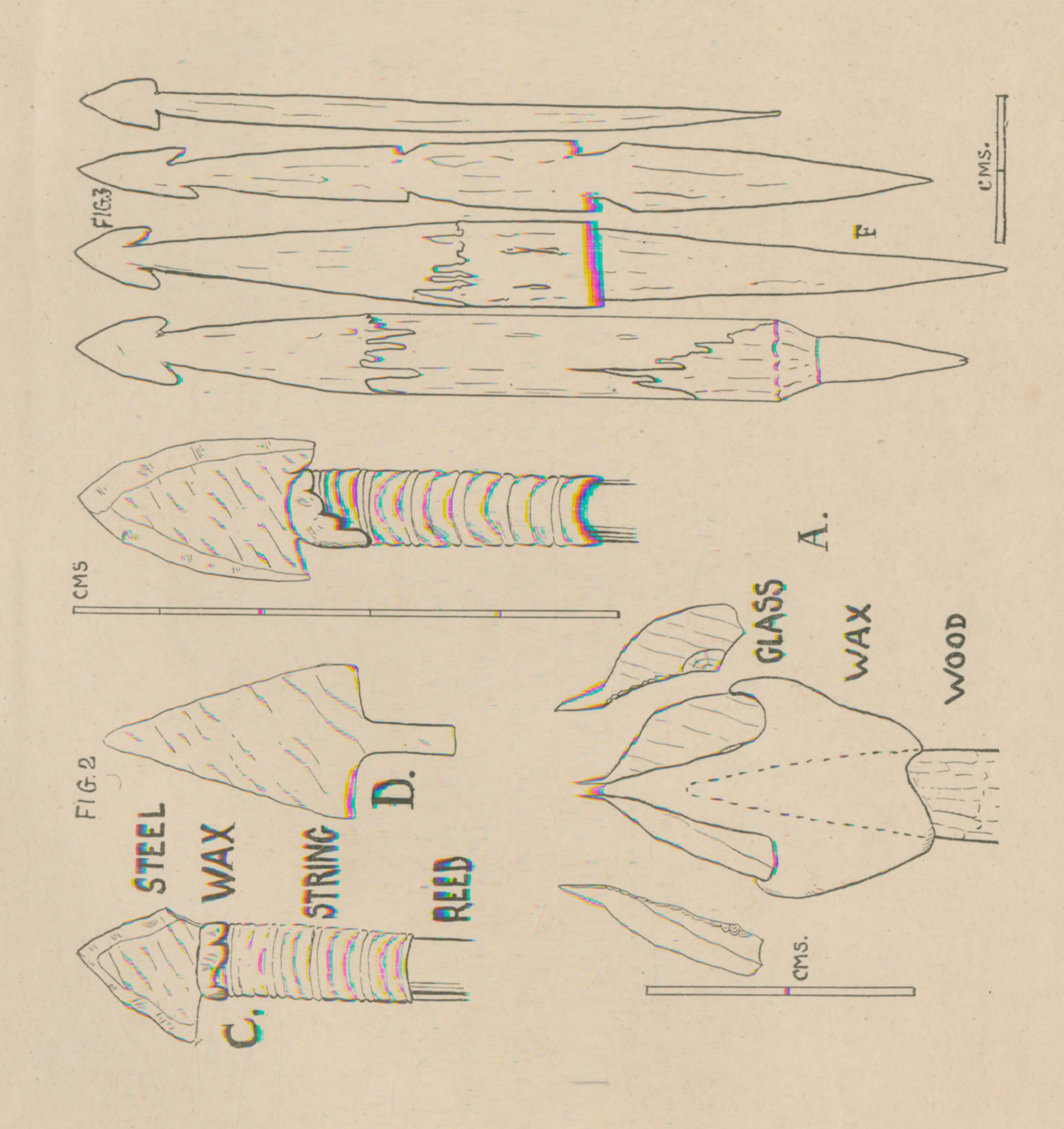
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The references given before paragraphs quoted from Miss L. C. Lloyd refer to the original manuscripts of Dr. W. H. I. Bleek and Miss Lloyd, now in the keeping of Miss D. F. Bleek.





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