THE *GOURA*, A STRINGED-WIND MUSICAL INSTRUMENT OF THE BUSHMEN AND HOTTENTOTS.

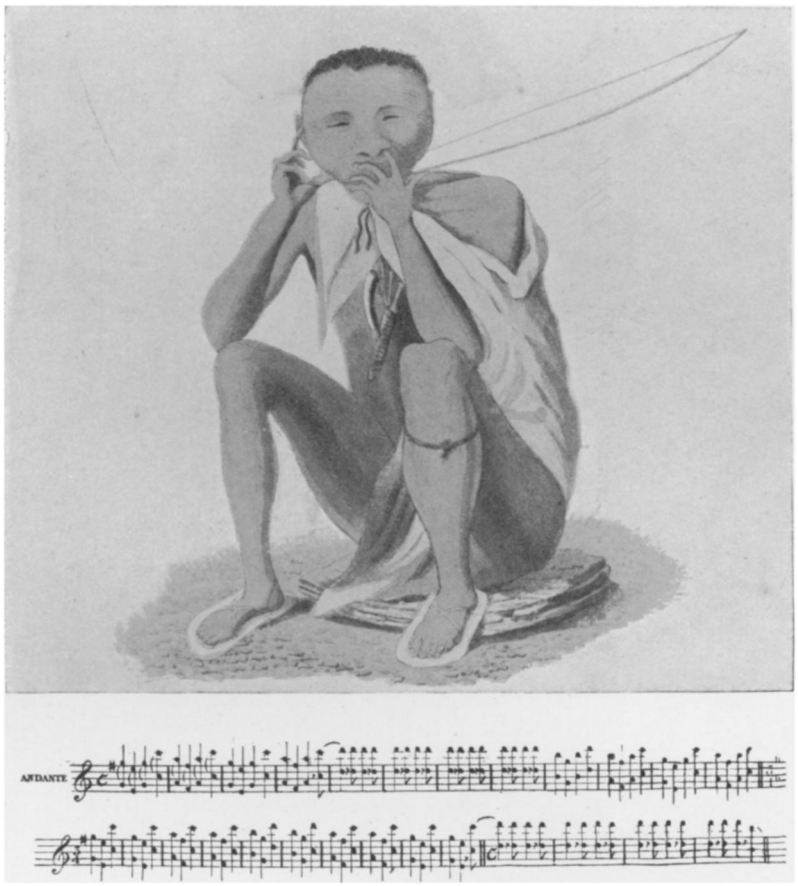
By Henry Balfour, M.A., F.Z.S.

[Presented April 29th, 1902. With Plates XII-XIV.]

One of the most interesting and, at the same time, most puzzling of the numerous musical instruments of rude and primitive form which still survive at the present day, is the *goura* of the Bushman and Hottentot peoples of South Africa. Rude though it is, it deserves a careful study, for, by reason of the peculiar manner in which its sound is produced, and the limited area of its distribution, it stands almost alone amongst musical instruments. If an accurate study is to be made of the *goura* in its native home there is no time to be lost, since it is rapidly disappearing and becoming obsolete. This is due in part to the extinction, as in the case of the Bushmen, of the people to whom it peculiarly belongs, and in part to its being ousted by the introduction and adoption of other instruments, which have succeeded largely in alienating the affections of the natives from the instruments indigenous to the races. A notably successful invader has been the ordinary European jews-harp which, it would appear, has been widely accepted as an excellent substitute for the *goura*. The conveniently small size, cheapness, and greater musical potentialities of the jews-harp are qualities before which the *goura*, with its many limitations, is rapidly succumbing.

Much confusion has been created by writers upon African musical instruments, who, taking merely superficial resemblances into account, have identified this instrument too freely with the more primitive forms of the very widely distributed group of Musical Bows, a group with which I have dealt at length elsewhere.[1] This confusion can only tend to obscure the true nature and affinities of the instrument, and I hope that, by drawing attention in this paper to what I believe are misconceptions regarding this instrument, I may be able to render more clear its real position. In general appearance the *goura* is undeniably closely similar to the simpler forms of "musical bows," but even though we may be justified in regarding it as more or less related to the latter, its special feature is so peculiarly its own that it seems wiser for the present to assume that the relationship is a distant one, and to treat it apart from that family of instruments, from which it presents so marked a divergence. Its origin and affinities are very obscure and

[1] H. Balfour, *The Natural History of the Musical Bow, a Chapter in the Developmental History of Stringed Instruments of Music.* Clarendon Press, Oxford, 1899.



10. BUSHMAN PLAYING UPON THE GOURA.

9. THE HOTTENTOT GOM-GOM.

the stages in its evolution are not, so far as I am aware, to be found in Africa, full though that continent is of primitive survivals, whereby, as in the case of the musical bows and their derivatives, phylogenies may be reconstructed. The *goura*, in fact, in its present form exists as an isolated type, isolated as the races themselves to which it peculiarly belongs. The varieties under which it occurs are very few in number. It is peculiar to South Africa, where it is especially associated with the Bushman and Hottentot peoples, though it has also been adopted more or less by the Basuto and Kaffirs.

I shall refer later in my paper to certain groups of instruments in other parts of the world, which present somewhat striking analogies in regard to the method by which their notes are produced. But, first of all, I will describe the instrument, and quote the descriptions given by various travellers whose information is first hand. I have thought it well to bring together all such descriptions as I have come across, as a possible aid to any future investigator.

NATIVE NAMES.—The native name of the instrument is variously given as *goura, gowra, goorra, gurah, gcurra, gcorra, gora, goráh, gorrah, t'Gorrah, t'goerra, korá* and the names *gom gom* and *joum joum* have also been associated with it, while *t'ha* (the *t* representing a click) is given in one instance. These names appear in the descriptions quoted below.

FORM.—The essential characteristics of the *goura* will be seen from a typical example of the Bushman instrument in the Pitt Rivers Museum at Oxford (Pl. XII, 1, and Fig. 1*a*). This was presented to the Ashmolean Museum by Captain H. F. de Lisle in the year 1827, and consists of a thin, tapering bow of light wood, 3 feet 10 inches long; the string is fine and at one end is fixed to the thin end of the bow, and at the other end through a small hole in a little blade, made from a quill of feather (Fig 1*a*), split and flattened out, and having this size and shape. The quill is furnished with a long tail, by means of which it is lashed to the bow with sinews, at a point about 4½ inches from the thicker or butt end. The specimen figured by the Rev. J. G. Wood[1] is very similar to the above described, though the quill blade is wider and more fusiform in outline (Pl. XII, 2). The Basuto examples which I have seen differ in having a very stout and almost straight bow, which is either of bamboo or wood, and in the quill being fixed in a split wooden peg, which fits into a hole in the butt end of the bow (Pl. XII, 3*a*, and 3*b*). Basuto examples exist in the British Museum and Kircherian Museum in Rome.

FIG. 1*a*.—QUILL BLADE OF THE *goura* NOW IN THE PITT RIVERS MUSEUM AT OXFORD.

DESCRIPTIONS GIVEN BY VARIOUS OBSERVERS.

KOLBE.—The earliest account of the *goura* to which I have reference, is the well-known description by Peter Kolbe, who was travelling in 1704, and I quote

[1] *Nat. Hist. Man*, i, p. 294.

the passage from the English translation of the original high German text[1] (Plate XIII, 9). "One of the Hottentot Instruments of musick is common to several *Negro* nations, and is call'd both by Negroes and Hottentots, *gom gom*. But whether the Negroes owe it to the Hottentots, or the Hottentots to the Negroes, I cannot say. The *Gom Gom* is a bow, of Iron- or Olive wood, strung with twisted Sheep-Gut or Sinews. On the String, quite up at one End of the Bow they fix, when they play, the barrel of a Quill slit, by putting the String into the Slit, so that it runs quite through the Barrel. This Quill, so fixed on the String, they apply, when they play on this Instrument, to their Mouths, much in the same manner as is done to play on the *Jews-Harp*; and the various Notes of the *Gom Gom* are owing, as are the Notes of the *Jews Harp*, to the various modulations of the Breath. This is the lesser *Gom Gom*. The Grand *Gom Gom* is made by putting on the string, before they fix it to the bow, a Cocoa Nut Shell, about a third Part saw'd off, so that it hangs like a cup the mouth upwards, the string running through Two holes nigh the Brims. When they play on the Grand *Gom Gom*, with one hand they hold the bow, the Quill on the String applied to their Mouths; and with the other they move the shell nearer or farther from the Quill, according as they would vary the Sound, which rises or falls according to the Motions of the Shell. The Shell before it is put on, is clear'd of all Scurf and loose Hairs, and made very neat and smooth.

"When three or four of those *Gom Goms* are play'd upon in concert by skilful Hands, I must confess I think the Harmony extremely agreable, especially when it runs in the low Notes, for there is a Softness in the Musick that certainly has Charms for a very delicate Ear. Hearing once the Musick of the *Gom Gom* in the Dead of the Night, I was so struck with the Delicacy of it, that it won my whole Attention, and I could not help thinking that the Instruments were play'd by some ingenious *Europeans*, who had studied themselves up to the highest Perfection upon 'em. Having a Mind to be satisfied, I stepped to the Place from whence the Musick came, and was surpris'd to find that the Musicians were only Two Hottentots who indeed performed to Admiration. The Reader may think of my Taste for Musick as he pleases, but I cannot help declaring it as my opinion, that the *Gom Gom*, as insignificant a Piece of Work as it is, was it to be studied by a judicious European Musician, would be found to have as fine Musick in it as any instrument we have, and be as much admired."

In this account, written nearly two centuries ago, the writer's enthusiastic appreciation of the musical qualities of the instrument are noteworthy, and, judging by other accounts, he must certainly have been fortunate in meeting performers of exceptional merit. His description of the "great *gom gom*" is, I believe, unique, no other writer having noticed the ingenious contrivance for lengthening and shortening the vibrating portion of the string by means of a sliding cocoanut shell. Were it not for the detailed nature of his description and

[1] P. Kolbe, *Cape of Good Hope*. Translated by G. Medley. Lond., 1731, p. 271 and plate.

figure of the instrument (Pl. XIII, 9), one might have been led to suppose that Kolbe had, as so many writers have done, confused the ordinary musical bow, with gourd or cocoanut resonator, with the *goura*, or *gom gom* as he calls it. As it is, this form which he describes is not outside the range of possibility. The *goura* is rapidly disappearing, and the "great *gom gom*" may have been one of the first forms to become extinct. It would be well to seek traces of it amongst the Hottentots, and, if any remain, to secure examples without delay.

SPARRMAN.—Nearly three-quarters of a century later Andrew Sparrmann saw the *goura* in use among the Hottentots in Riet Valley, Zwellendam, north-east of Cape Agulhas, and described it as follows:—[1]

"One of their instruments is a bow, like a springe bow, a foot in length, with a fine string of thread, to the end of which there is fixed in the same line a cloven quill half an inch long. The instrument is played on in the following manner: the musician, applying his mouth to the quill, draws in his breath very hard, so as to put it into a quivering motion, which produces a grating sound. This instrument is called a *t'Goerra*, a name which seems to be applicable enough to it, as tolerably well corresponding with the sound of the instrument." The extreme shortness of the bow is worthy of remark in this description.

THUNBERG.—The Swedish botanist, C. P. Thunberg, travelling in Caffraria in 1773, saw in use among the Hottentots "a kind of an instrument called Korà," and says, "It resembles at first sight a fiddle-stick, and was made of a wooden stick, over which was extended a string. At the end of this was fastened the tip of a quill, and upon this they played with their lips, blowing as if it were a wind instrument, so as to make it produce a jarring sound."[2]

DE VAILLANT.—A little later is the account given by De Vaillant of the *goura* among the Gonaquai Hottentots. He says:[3] "The goura has the form of the Hottentot bow, and is about the same size. They tie a cord, made of the entrails of some animal, to one of the extremities, the other end of it is fastened by a knot in the quill of a feather, which is slit and flattened. This feather, when spread, forms an isoscele triangle, which may be about two inches long. It is at the base of this triangle that the hole is made that retains the cord, and the point of the quill being folded back, is fastened by a small thong to the other end of the bow. This cord may be more or less tightened according to the will of the musician; but when several gouras are played together, they contrive never to have them in unison with each other. This would never be thought a wind instrument from its appearance, though it certainly is one. . . . While playing on it, it is held much in the manner of the hunting horn, the end of the bow where the feather is placed being applied to the mouth; and both in aspirating and

[1] Sparrmann, *Voyage to the Cape of Good Hope*, 1772-6. Lond., 1785, i, pp. 228-9.

[2] Thunberg, *Account of the Cape of Good Hope*, 1795. Pinkerton's *Voyages and Travels*, 1815, vol. xvi, p. 102.

[3] Vaillant, *Travels from the Cape of Good Hope into the Interior of Africa*, 1781, translation. Lond., 1790, ii, p. 125 and plate opposite p. 2.

drawing his breath, the player produces a sound which is tolerably melodious; but even the savages, who succeed the best with it, never play any regular tune. The best feathers for this purpose are taken from the wings of the bustard; when I happened to kill one of these, I always took care to supply our orchestra with a number of them. The goura is called by a different name when played on by a woman. It then acquires the title of a joum-joum. Seated on the ground she places it perpendicularly before her, in the manner of a harp; the bottom of it is held by passing one of her feet between the bow and the cord, observing not to touch the latter; with her left hand she grasps the middle of the bow, and while she blows upon the feather, strikes the string with a little wand, of about five or six inches long, which she has in her other hand and which produces some variety in the modulation; but the ear must be at no great distance from the instrument to mark distinctly the gradation of its sounds. This manner of holding the goura produces a very good effect, and gives a grace to the Hottentot who plays upon it."

Vaillant's figure of the instrument, which I reproduce (Pl. XII, 4), corresponds with his description and shows the triangular shape of the quill. His account of the difference in the manner of playing upon the instrument adopted by the two sexes is curious, as also the fact of the instrument being called *goura* when played upon by a man, and *joum-joum* (a name reminding one of Kolbe's *gom gom*) when in the hands of a woman. The usual method of sounding the ordinary "musical bow," by means of a small stick by which the string is struck, appears to be added by the women to the blowing method characteristic of the instrument. The effect of these two methods acting simultaneously is difficult to imagine.

BARROW.—John Barrow (1796) describes[1] the Hottentot *goura* seen by him at Graaf Reynet as consisting of a "piece of sinew or intestine twisted into a small cord, and fastened to a hollow stick about three feet in length, at one end to a small peg, which, by turning, brings the string to the proper degree of tension, and at the other to a piece of quill fixed into the stick. The tones of this instrument are produced by applying the mouth to the quill, and are varied according as the vibratory motion is given to the quill and string by inspiration or expiration. It sounds like the faint murmurs of distant music that 'comes o'er the ear' without any distinction of notes. And this instrument is called the *gowra*." This is the first mention of the addition of a tuning-peg to the instrument. It seems likely that this idea of adding the peg was suggested by some other instrument not of Hottentot origin.

LICHTENSTEIN.—An interesting description of the *goura*, with details as to the notes which can be produced upon it, is given by H. Lichtenstein[2] (1803–6), who, in referring to some Hottentots, writes: "The bridegroom was perfect master of

[1] Barrow, *Travels in South Africa*, 1796, second edition, Lond., 1806, i, p. 98. This account is reproduced verbatim in George Barrington's *Voyage to New South Wales*, Lond., 1810, i, p. 189; though Barrow's name is not mentioned.

[2] Lichtenstein, *Travels in Southern Africa*, 1803–1806, translated, Lond., 1815, by Anne Plumptre, ii, pp. 232, 233.

playing on the *t'Gorrah*, one of the proper musical instruments of the Hottentots one which is not now very often to be met with, and which is seldom well played upon but by old shepherds and herdsmen. It consists of a staff of hard wood somewhat curved, over which is stretched a long catgut string: at the lower end a quill is fastened to it, with a horsehair, and by this only again brought into contact with the staff, so that it is in some sort insulated, and can sound of itself. The person who plays takes the quill in his mouth, and, by blowing stronger or weaker, occasions a vibration of the catgut. The whole has very much the appearance of the bow of a violin; and is, according to the above description, partly a stringed, partly a wind instrument. It is commonly played lying down, and the Hottentots seem scarcely able to play but amid the tranquility of night. They wrap themselves up comfortably in their skin, lay one ear to the ground, and hold the *t'Gorrah* commodiously before the mouth. . . . Heard at a distance there is nothing unpleasant in it, but something plaintive and soothing. Although no more than six tones can be produced from it, which do not besides belong to our gamut, but form intervals quite foreign to it, yet the kind of vocal sound of these tones, the uncommon nature of the rhythm, and even the oddness, I may say wildness, of the harmony, gives to this music a charm peculiar to itself. . . . Between the principal tones and the octave lie only three intervals: the first is at least somewhat deeper than our great third: the second lies in the middle, between the little and great fifth; and the third between the great sixth and little seventh; so that a person might imagine he heard the modulation first in the smallest seventh accord. Yet every one lies higher in proportion to the principal tones; the ear feels less the desire of breaking off in the pure triple sound; it is even more satisfied without it. Practised players continue to draw out the second, sometimes even the third, interval, in the higher octave. Still these high tones are somewhat broken, and seldom pure octaves of the corresponding deep tones. Melodies, properly speaking, are never to be heard; it is only a change of the same tones, long protracted, the principal tone being struck before every one."

Apart from his interesting details regarding the musical capacity of the *goura*, Lichtenstein's account is significant in its indication of the fact that even so early as the beginning of last century, this instrument was beginning to die out among the Hottentots, and that it was only the *older* men who performed with any real skill. This deterioration in the skill in playing upon the *goura*, may perhaps account for the steady falling off in the enthusiasm inspired in successive travellers by its music. The verdicts of actual observers range from the earliest, and by far the most enthusiastic appreciation by Kolbe, through a chronological series of accounts in which the eulogies suffer successive depreciation, until in some of the later accounts the "music" of "this terrible instrument" is likened to the braying of an ass, or "the sound drawn from a clarionet by a novice!"

Burchell.—The illustration (Pl. XIII, 10) of a Bushman playing upon the *goura*, by William Burchell (1810–1812), is practically the only good drawing of a

performer made by an actual observer on the spot, and his description also is a good one. His account[1] runs as follows:

"The *Goráh*, as to its appearance and form, may be more aptly compared to the bow of a violin, than to any other thing; but in its principle and use, it is quite different; being in fact that of a stringed and wind instrument combined, and thus it agrees with the Æolian harp. But with respect to the principle on which its different tones are produced, it may be classed with the trumpet or French horn; while in the nature and quality of the sound which it gives, at least in the hands of one who is master of it, this strange instrument approaches to the violin. It consists merely of a slender stick or bow, on which a string of catgut is strained. But to the lower end of this string, a flat piece of about 1½ inches long, of the quill of an ostrich, is attached, so as to constitute a part of the length of the string. This quill being applied to the lips, is made to vibrate by strong inspirations and expirations of the breath; each of which ending with an increased degree of strength had always the same effect of forcing out the upper octave; exactly in the same way as produced in the flute, an instrument, therefore, which may be made to imitate the *goráh* sufficiently near to give some idea of it. The old musician seating himself down on a flat piece of rock, and resting his elbows on his knees, putting one forefinger into his ear, and the other into his wide nostril, either as it so happened, or for the purpose, it might be, of keeping the head steady, commenced his solo, and continued it with great earnestness, over and over again. The exertion which it required to bring out the tones loudly was very evident; and, in his anxious haste to draw breath at every note, our Orpheus gave us, into the bargain, intermingled with his music, certain grunting sounds which would have highly pleased the pigs; and if any had been in the country, would indubitably have drawn them all round him, if only out of curiosity to know what was the matter. In the meantime I was not less employed than he, being obliged to exercise two faculties at the same time, one to listen to and learn the notes he was playing, so as to enable me to write them down correctly, the other to draw his figure and portrait. The accompanying plate presents a likeness of him and is a copy of the drawing made on the spot. Beneath are added the notes expressed in the manner in which they were played, or at least as they sounded to my ear; although I find a difficulty in conceiving how an instrument, giving its tones on the principle above described, can produce either the tonum majus or the heptachordon. The crotchets of that part which is in triple time, were exactly of the same length as those in the common time preceding and following, consequently the time reckoned by bars, was there accelerated. The whole piece played once through occupied just seventy seconds, and was repeated without variations. There is sufficient in these few notes, to show that he possessed an ear capable of distinguishing musical intervals, and they are besides remarkable under all circumstances as a specimen of natural modulation."

[1] Burchell, *Travels in the Interior of South Africa*, 1810–1812. Lond. 1822, i, p. 458 and coloured plate. The locality was Klaarwater, c. 29° S. 24° E., in the Koranna region.

Burchell's description may probably be regarded as one of the most accurate of the accounts. He evidently was at some pains to observe both the instrument and the performance in detail. He makes it clear that the player could accurately repeat his series of bars, and although this music may not appeal to us as melody, at any rate to the native the idea of a definite tune was there, consisting of a short theme which could be repeated over and over again *ad libitum*. There was no taking the notes as they came, and it is evident that the performer exercised a real control over his difficult instrument.

Moodie.—Lieutenant J. W. D. Moodie (1819–1829), describing the *goura* amongst the Hottentots, says,[1] "This curious instrument is formed by stretching a piece of the twisted entrails of a sheep along a thin stick about 3 feet in length, in the manner of a bow and string. At one end, the string is tied simply to the extremity of the stick; but at the other, it is fixed to a piece of flattened quill about an inch in length, cut in an oval shape to suit the opening of the lips. The other end of this piece of quill is then secured by a short bit of string to the opposite end of the stick, so that it is strained in a line with the string with the flat side outwards. The instrument is played upon by introducing the quill between the lips, and blowing in a particular way, holding the stick in a horizontal position. The peculiarity of the *gorah* is that it naturally runs into the notes of the common bugle, which it also resembles in sound."

Moffat.—The missionary, Robert Moffat, saw the *goura* in use among the Bushmen. He writes,[2] "The *gorah* is an instrument something like the bow of a violin, rather more curved, along which is stretched a cat-gut, to which is attached a small piece of quill. The player takes the quill in his mouth, and by strong inspirations and respirations of breath, produces a few soft notes in the vibrations of the cat-gut."

The above two accounts do not differ materially, in the details which they give, from some of the descriptions which precede them.

Bartle Frere.—A letter from the Right Hon. Sir Bartle Frere, Bart., to his friend, the late Sir Henry Acland, of Oxford, dated March 31, 1878, refers to a *goura* forwarded by him for the Oxford Museum. The instrument itself has, I regret to say, not been forthcoming, and is presumably lost, but the letter has been handed over to me by Mr. H. D. Acland, and I quote from it:

"The *t'hâ* (a bow with a small piece of quill attached to one end of the string) is played by Bushman men and youths only. The player applies his lips to the piece of quill, and draws his breath inwards through it. The *t'hâ* figures in the native literature of the Bushmen. For instance, a young man playing it, is changed into a tree by the glance of a maiden, etc. The quill is from a Korhaan's feather. This piece of wood happens to be œstrum (?) wood. The string is not touched . . . The vibrations on the string make a faint sound—the other sounds are made in the throat."

[1] Moodie, *Ten Years in South Africa*, 1819–1829. Lond., 1835, i, p. 225.
[2] Moffat, *Missionary Labours and Scenes in South Africa*, 1842, p. 58.

The name given here is peculiar, consisting of the syllable *hā* with a "click" in front of it. The writer, unfortunately, does not mention the district in which he found this instrument. His mention of the performance being restricted to males presumably applies to certain districts only, as women players are mentioned in some of the foregoing accounts. That the *goura* figures in Bushman legends is interesting, as pointing perhaps towards the antiquity of the instrument, though of this nothing certain can be said.

The accounts which I have quoted so far have dealt with the *goura* amongst the Bushman and Hottentot peoples, the Koi Koin stock, exclusively, though it must be admitted that the term "Hottentot" may possibly have been loosely used in one or two cases, and there may be instances where the term as used should not necessarily be taken to imply Hottentot in the strictly ethnological sense. The name *may* have been correctly used in all cases, but there is no absolute guarantee. At any rate it is clear that the *goura* is a very characteristic instrument amongst the Koi Koin peoples, and there appears to be every likelihood of its presence in South Africa being due to its introduction by these people, whose national instrument it was, and it seems most probable that, where we find it in use among tribes of Bantu stock, the latter borrowed the instrument from either Bushmen or Hottentots.

That the Bantu tribes also favour the instrument to some extent is clear from the following references to travellers' accounts, and probably Kolbe in referring to *Negroes* as well as Hottentots, in the account of the "*gom gom*" which I have quoted, was including tribes of Bantu origin. I have already referred to Basuto specimens (Pl. XII, 3, 3*a*, and 3*b*).

CAMPBELL.—John Campbell (1812–1814) mentions[1] that, among the "Caffre" musical instruments, "one is a bow with a piece of quill fixed near one end of the string, on which they blow, which makes an agreeable sound." This would appear to refer to the Caffrarian population between the Great Fish River, east of Algoa Bay, and the River Bassee to the north, between, say, 34°—30° S.

The Caffrarian instrument described by the Rev. F. Fleming,[2] under the name "*gorrah*" is, from his description, clearly not an instrument of the *goura* class, but one belonging rather to the primitive zither class.

CASALIS.—The *lesiba* of the Basuto, which is similar in all its essentials to the *goura*, is described thus by the Rev. E. Casalis.[3] "A cord, resembling the string of a violin, is stretched along a short bamboo, which is slightly curved. This cord has at one end a piece of quill, slit in two lengthways, and flattened. The performer places the end to which the quill is fastened between his half closed fingers and the palm of his hand, then placing his lips upon his fingers thus arranged, he draws in the air pretty strongly, which causes the quill and the cord

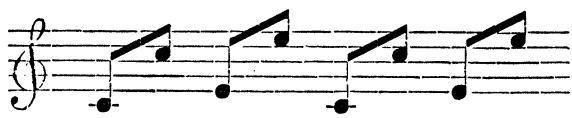
[1] Campbell, *Travels in South Africa*, 1812–1814, published 1815, p. 519.
[2] Fleming, *Southern Africa*, Lond., 1856, p. 225.
[3] Casalis, *The Basutos*. Lond., 1861, p. 148.

to vibrate; a shrill nasal sound is produced, not unlike those drawn from a clarionet by a novice."

In this account it would appear that the hand is used in some way as a guide with which to direct the current of air.

WIDDICOMBE.—The Rev. J. Widdicombe[1] also describes the Basuto *lesiba* in very similar terms, and adds, "The instrument is usually played by a boy, who draws with his lips a series of sharp, shrill, nasal sounds from the vibrating string and quill, which would be nothing less than an utter terror to anyone possessed of 'nerves.'"

MONTEIRO.—After describing some "musical bows" among the "Kaffirs" of the Delagoa Bay district, R. Monteiro[2] writes: "The third instrument is a piece of thick cane three-quarters of an inch in diameter and three feet long, having a fine string made of the twisted hairs from an ox-tail stretched along its entire length, but not touching the cane. At one end of the string a flat piece of quill an inch long is tied, and the lips being placed on this and the breath sucked in and out seemingly by a great effort, a loud and appalling noise is produced, best represented as follows:—



and more resembling the hee-haw of a donkey than anything else."

FRITSCH.—Gustave Fritsch[3] mentions the instrument (whose name he variously spells *gcurra, gcorra, goorra,* while he also mentions the name *lesiba*) as used by the Bechuanas, and adds that it has been accepted by almost all tribes in South Africa, though it is especially characteristic of the Koi Koin. He does not speak well of the instrument, which he refers to as "this terrible instrument," which is played upon "in a way to shake one's nerves" (this in reference to the Bushmen). In mentioning its use among the Hottentots he states that the vibrations of the string are modulated, either by the fingers or by a little stick.

That the Bantu races adopted the *goura* from the Koi Koin is, as I have said, more than probable. The Basuto, when first they arrived in what is now known in Basutoland, found the Bushmen already occupying the territory, and although they carried out a policy of extermination in the case of the men, the women and young girls were captured and retained as wives of the invaders,[4] and it is easy to see how some of the Bushman customs came to be adopted amongst the Basuto and the half-breed offspring. The same thing has happened with other sections of the Bantu stock, and the *goura* has been adopted from either Bushmen or Hottentots in a natural way.

I have thought it advisable to quote at length the various authentic accounts,

[1] Widdicombe, *Fourteen Years in Basutoland*, 1891, p. 58.
[2] Monteiro, *Delagoa Bay*, 1891, p. 252.
[3] Fritsch, *Die Eingeborenen Süd Afrikas*, Breslau. 1872, pp. 190, 327, 427, 439.
[4] Widdicombe, *op. cit.*, p. 14.

as they mostly differ more or less in matters of detail, or in the manner of describing the instrument, and a better conception of it can be obtained by reading the whole of the accounts, and deriving from them a kind of composite mental picture; and, moreover, it may be convenient to other students to have the literature of the subject collected together. There are, no doubt, several accounts which I have not as yet succeeded in seeing, but I trust that my list is not *very* incomplete.

THE GOURA AND THE MUSICAL BOW.

One of my main objects in writing this paper has been to draw attention to the essential difference between the *goura* and the more primitive forms of the "musical bow," and I am the more anxious to emphasize the importance of carefully discriminating between the *goura*, in which the string is thrown into vibration through the medium of a piece of quill, which is caused to oscillate by being blown upon, and the *musical bows*, in which the vibration is caused by tapping or plucking the string itself, by reason of the fact that even the most recent writers upon African musical instruments persist in confusing the two types of instruments. Dr. Frobenius, for instance, in his recent interesting work[1] on African Culture, speaks of the "*gubo-gora*" as though the two types formed one class. He tells us that the *gora* is much in use in the Kamerun district, in the form of the Bakwiri *mundinde*: but the latter instrument is merely a variety of the simple resonator-less musical bow, as his own description amply shows, and he makes this doubly obvious by likening the *mundinde* to the bow-instrument of the Bubi of Fernando Po, and to the *bentwa* of Ashanti, both of which are "musical bows" pure and simple. Dr. Frobenius has, I venture to think, fallen into a very common error, having been misled by the fact of these resonator-less bows being usually held to the mouth when they are played upon, as is, of course, the *goura*; but he overlooks the very different reasons for this in the two cases. In the case of the *mundinde*, *bentwa*, and, in fact, nearly all simple "musical bows" which have no resonating body attached to them, both in and out of Africa, the mouth is merely acting as a resonator, one end, or the middle of the bow, being usually held by the performer against his teeth, with the object and the result of greatly increasing the volume of sound for his own benefit, as any one can easily see by experiment (Pl. XIV, 11, 12, 13, 14). I have myself watched a Natal Kaffir playing in this manner upon a simple bow instrument, and in this, as I believe in all other instances, the vibration was caused by plucking the strings with the fingers (in many cases it is effected by tapping with a stick), and it is not the breath which throws the strings into vibration. The performer, holding the instrument to his mouth, undoubtedly breathes upon the string, he cannot very well help doing so; but this is not in order to make the string sound, and I doubt whether blowing upon a small portion of the string of a musical bow would have sufficient effect in causing vibration, for we must remember that even when the quill of the *goura* is

[1] Frobenius, *Der Ursprung der Kultur*. Berlin, 1898, i, pp. 120–123.

added to the string, the operation, thus very materially assisted, is very hard work, and far from easy, as may be seen from the descriptions. I think that it may fairly be laid down that in the "musical bows" the mouth is used to *increase* the sound and not to *produce* it.[1] With the *goura*, on the other hand, the opposite is the case, the vibration of the string being distinctly *caused* by the force of the breath acting upon the quill and causing this to oscillate rapidly and violently. The distinction is very marked.

Another very recent writer, Dr. Ankermann, has, in a paper of great interest and importance,[2] also somewhat confused the two distinct types. Although in one place (p. 7) he points out that the construction of the *goura* is "not only different, but the principle is also quite different to that of the ordinary musical bow," he in another page (p. 77) states that "the bow of the Bimbia corresponds, at least in the manner of its use, to the gorra, in which the string taken between the teeth is blown upon, and at the same time is beaten with a little stick. This is also the case with the 'to,' the so-called musical bow of the lower Niger . . ." Now the Bimbia bow, described by Allen and Thomson, and the "*to*," discovered by Mockler Ferryman, are both instruments similar to the *mundinde* and *bentwa* and the Bubi bow (Pl. XIV, 11) referred to above, and I have already given my reason for separating these sharply from the *goura* class. The same writer (on p. 114) after describing, as I think quite correctly, the manner of playing upon the musical bow, and the part which the mouth plays in acting as a resonator of a variable capacity, goes on to make a statement which exactly contradicts what he had just said. The passage runs thus: "The sound is produced in the musical bow by the touching of the string with a little stick or plectrum. As the tone is very soft, a gourd, or the hollow of the player's mouth, serves to strengthen it, and the tone is modified by the opening or the closing of the aperture of the mouth or gourd." This appears to me to be quite correct, but he continues: "The inhaling or the exhaling of the breath causes a current of air, which brings the sound from the string, and the bow now becomes a jews-harp: the string is breathed upon and the tone is modified with a little stick or with the fingers." We are, in fact, in a single passage, asked to believe, on the one hand, that the vibration is caused by the stick striking the string, while the notes are varied by the mouth, and, on the other hand, that the vibration is caused by the breath, and the notes varied with the stick. It is indeed difficult to harmonize two such conflicting statements.

In order to illustrate how widely distributed is this method of playing upon

[1] It is conceivable that the force of the breath may act to some extent in producing variations in the notes emitted by a string already vibrating, but of this I do not feel certain, some of the descriptions would lead one to suppose that this was the case. The cavity of the mouth can be varied and variations in the notes may be caused in this manner, just as is done in the case of the jews-harps.

[2] Ankermann, "Die Afrikanischen Musikinstrumente," *Ethnol. Notizblatt, Kgl. Mus. f. Völkerkunde.* Berlin, 1901, vol. iii, part I, pp. 7, 77, 114.

the simpler forms of "musical bow"—by placing the bow against the teeth in order to give increased resonance—I have given two examples (Pl. XIV, 13 and 14) which are not African. One of these (Pl. XIV, 13) is from a photograph of a boy of New Britain in the South Pacific, playing in this manner upon the *pangolo*, which is a simple bow-like instrument which differs from the African examples above mentioned only in having two strings instead of one. The method of playing is identical. The other example (Pl. XIV, 14) is from Western Patagonia and was observed by Dr. H. ten Kate. The young man, of mixed Tehuelche and Araucanian blood, is performing upon the *koh'-lo*, holding the end of the bow to his teeth and tapping the string with a stick. In neither of these cases is the string caused to vibrate with the breath.

Occasionally, the string of a "musical bow" is taken between the lips of the performer, as is well shown in a figure by Sir H. H. Johnston[1] of a pigmy of the Semliki Forest, Central Africa. But, even in such cases, the mouth can only act as a resonant cavity, whose capacity is probably varied in order to produce a variety of notes, just as is done in playing upon the jews-harp. The string is set vibrating by plucking it with the fingers, and, judging by a specimen of one of these very bows which is in the British Museum (given by Sir H. H. Johnston) I think it most improbable that the *breath* alone *could* impart vibration to the string, sufficient at least to cause sound. The string is very stout.

We have further evidence, of a more indirect nature, to show that, when applied to the "musical bows," the mouth serves the purpose of a resonator—in the fact that, in the case of those improved forms of "musical bow" to which a resonant body (usually a gourd or cocoanut shell) has been added, so as to form part of the instrument, the bow is *not* held to the mouth (Pl. XIV, 15). There is no longer any need to do so, since the gourd now takes the place of the mouth, and discharges its resonatorial functions. For details as regards the evolution, varieties and geographical distribution of the "musical bows," I must refer my readers to my monograph on the subject[2]; my object here is merely to emphasize the distinction which it is essential should be drawn between the "musical bows" on the one hand and the *goura* and its kindred on the other.

THE GOURA AND THE JEWS-HARP.

Some confusion has been also created by writers who have persisted in describing both "musical bows" and *goura* as "a kind of jews-harp," or using some expression which tends to confuse these totally distinct groups of instruments together, and it may be well for me to insert here a word upon this subject. To give a few examples of these confusing statements: Dr. Ankermann in a passage dealing with the "musical bow," which I have already ventured to criticize in another connection, remarks, "und nun wird der Bogen zur Maultrommel."[3]

[1] *Pall Mall Magazine*, February, 1902, p. 173.
[2] Balfour, *The Natural History of the Musical Bow*, Clarendon Press, 1899.
[3] Ankermann, *op. cit.*, p. 114.

Mr. Theodore Bent[1] describes a "musical bow" seen by him at Zimbabwe, as "a sort of jews-harp." Dr. Richard Wallaschek,[2] whose book on "Primitive Music" is unfortunately replete with such confusing statements, has followed Capt. C. R. Day in placing the "*to*" of the Niger territories, which is a simple "musical bow," amongst the jews-harps, and apparently endeavours to bring the "*pangolo*" of New Britain within the same category. This writer also,[3] in referring to the "*gurah*" (*goura*), says that its principle is very similar to the jews-harp (*maultrommel*). Again Dr. Gustav Fritsch[4] speaks of the *goura* as a "kind of jews-harp," and informs us that "the instrument is played in a manner similar to our jews-harp."

Now it seems to me that, if we are hoping to establish a general classification of musical instruments based upon their real affinities, statements such as the above can only tend to obscure rather than throw light upon the subject. The group of instruments known to us under the name of *jews-harp*, to the Germans as *maultrommel*, to the French as *guimbarde*, to the Italians as *spassa pensiere*, and the kindred instruments widely dispersed over Eastern Asia and the Pacific—forms a very distinct and homogeneous class, and I see no reason whatever for believing that there is any morphological connection between the instruments of this group and the "musical bows" or the *goura*. In the jews-harp, the sound is produced by throwing into vibration a tongue of wood, bamboo, or metal, either by plucking the up-turned end of the tongue (if of metal), or by jerks upon a piece of string attached to one end of the instrument (chiefly when it is made of wood or bamboo). A single note is thus produced, and, in order to gain a variety of notes, the instrument is held to the performer's mouth which also performs the function of a resonator. To quote Sir George Grove,[5] "A column of air may vibrate by reciprocation with a body whose vibrations are isochronous with its own, or when the number of its vibrations are any multiple of those of the original sounding body. On this law depends the explanation of the production of sounds by the jews-harp. The vibration of the tongue itself corresponds with a very low sound; but the cavity of the mouth is capable of various alterations; and when the number of vibrations of the contained volume of air is any multiple of the original vibrations of the tongue, a sound is produced corresponding to the modification of the oral cavity."

Now, one may readily admit that the hollow of the mouth is probably used, in playing upon *some* of the simpler forms of musical bow, for a similar purpose, viz., to cause variations upon the fundamental note of the string. But this identical use of the mouth-cavity in playing upon such totally distinct instruments as the jews-harp and the "musical bow," does not in any way justify us in associating them into a single group, or even of assuming the existence of any actual

[1] Bent, *The Ruined Cities of Mashonaland*, p. 82.
[2] Wallaschek, *Primitive Music*, 1893, p. 120.
[3] Wallaschek, in *Mitt. Anthrop. Gesellschaft in Wien*, xxviii, January, 1898.
[4] Fritsch, *Eingeborenen Sud Afrikas*, pp 327 and 439.
[5] Grove, *Dict. of Music*, ed. 1900, art. "Jew's-harp."

relationship between them, unless we can support the view by evidence based upon morphological affinities; and, hitherto, no such affinities have, I believe, been traced. Cases of *analogy* have frequently tempted the unwary into seeing in them *homologies* which do not exist.

If this similarity in the method of playing upon them has frequently caused the "musical bows" and jews-harps to be regarded as related to one another, upon what grounds have affinities been traced between the jews-harps and the *goura?* Assuredly upon no just grounds. Not only is the form of the *goura* as distinct from that of the jews-harp as is that of the "musical bow," but the method by which the sound is both produced and varied is quite different; and it appears that the only justification for speaking of the *goura* as "a kind of jews-harp," is the fact of both instruments being held to the mouth in playing. That the reasons for so doing are quite distinct in the two cases is apt to be too lightly overlooked.

For the sake of a scientific classification of musical instruments, I trust that the jews-harps may be kept quite distinct from both the "musical bows" and the *goura*, at any rate until good evidence is forthcoming to prove the existence of a phylogenetic connection which may justly cause them to be associated.

THE GOURA AND THE KITE BOWS.

If we seek to trace the phylogeny of the *goura*, in the hopes of discovering a chain of sequences leading up from some even simpler structure to the form under which it is found in South Africa, we are liable to experience some disappointment. Simple though the *goura* is, it is most unlikely that it was first invented in its present form, and we may feel sure that it developed out of some pre-existing form of instrument, as experience revealed the latter's potentialities, and its capability of being improved. I know of no instruments which appear to illustrate satisfactorily this developmental series. But, in spite of this deficiency, there exist certain types of instruments which present analogies more or less striking and significant and to which we may reasonably turn, in the hopes that these may at least suggest the manner in which the *goura* may have been evolved, even though we may be unable to prove them to be morphologically connected with the latter instrument.

Let me recall the essential features of the *goura*. (*a*) It is a strung bow; (*b*) It has a flat piece of quill interposed between one end of the bow-string and the bow, so as to produce, as it were, a *flattening* and *widening* of the bow-string at that point; (*c*) The sound is produced by *blowing* upon the quill, this causing the latter to oscillate rapidly, and communicate its vibrations to the string. When blown upon, the rotatory oscillation of the quill causes it alternately to present an edge and a flat surface to the current of air; alternately, therefore, allowing the latter to pass freely and checking it. The quill, therefore, acts to all intents as a *valve*, much as the simple reed of the clarinet and the double reed of the oboe. In what other instruments is the sound produced in a like manner?

A very simple "noise" instrument will occur to the minds of many. Any

boy knows that, by holding a blade of grass between his thumbs, so that one end is held between the joints at their base, and the other end between the upper joints, he can, by blowing between his thumbs across the edge of the grass-blade, produce a sound which, if not musical, is at least loud and annoying. The note is produced by the violent oscillation of the edge of the grass-blade, which is rapidly deflected from side to side under the impact of the blast of air. The grass-blade acts, in fact, just as does the quill of the *goura*, though not even Peter Kolbe would praise its music.

The similarity to the method of sounding the *goura* is increased by the description of the *goura* (*lesiba*) given by the Rev. E. Casalis (quoted above), since it would appear from this that the fingers are sometimes used to direct the current of air upon the quill. But while it offers a striking analogy, this rude grass-blade instrument can hardly be assigned a place in the phylogeny of the *goura*. We must turn to Eastern Asia in order to find instruments which at all nearly resemble the *goura*, and which may *possibly* prove to be actually related to it, to wit, bows with flat strings which are sounded by wind.

In those regions of the Far East where kite-flying is a favourite pastime of both young and old, and where kites are sometimes even used as a go-between twixt man and the unseen powers, it is frequently the custom to furnish the kites with tightly strained strings, in order that the latter may vibrate in a high wind and give forth musical notes. J. H. Gray writes:[1] "In the centre of Chinese kites, four or five metallic strings are fixed on the principle of the Æolian harp. When they are flying, 'slow-lisping notes as of the Æolian lyre,' are distinctly heard. . . ." He also quotes a legend dealing with the origin of this custom, the invention of which is attributed to a general of the time of Low-pong, the founder of the Hon dynasty. In a description of kite-flying at Hae-kwan in China we read,[2] "One of the chief improvements in this manufacture, which the Chinese arrogate to themselves, is the introduction of numerous cords strained across apertures in the paper. The resistance of the air acting upon these little bars, as the wind on the strings of an Æolian harp, produces a continued humming noise; and when many kites are flown in company, the combined tones are both loud and agreeable."

The Stiens of Cambodia, too, attach to their kites "a musical instrument somewhat resembling a bow, and this, when agitated by the wind, produces sweet and melodious sounds to which they are fond of listening."[3] In Japan it is also customary to attach a "hummer," *unari*, to large kites. This is fastened to the top of the kite, and consists of a bow of bamboo with a cord of raw hide. Boys are extremely proud of the noise made by these kites. At Nagasaki, kites having such a "hummer" attached are called *bara-mon*.[4]

[1] Gray, *China*. Lond., 1878, p. 270.
[2] Thos. Alom and G. N. Wright, *China*, iv, p. 7 and plate.
[3] Mouhot, *Travels in Indo-China*, p. 254.
[4] S. Culin, *Corean Games*, Philad., 1895, p. 16.

One of these Japanese kite bows, *unari*, was sent to me for the Pitt Rivers Museum by Professor B. H. Chamberlain. It consists of a slender and light bamboo bow, 4 feet $1\frac{3}{4}$ inches long, measured across the curve. The string is of flat, woven tape, $\frac{3}{16}$-inch wide, and terminates at either end in a little wooden cross-bar, which acts as a toggle whereby the string is fastened to the ends of the bow. Professor Chamberlain tells me that these bows are called *unari* (*i.e.*, "the thing which sounds U"). They are affixed to the back of the kites, horizontally across, near the top, with the object of making a whirring or buzzing sound when the kites are flown in a high wind. One can produce the sound readily by holding the *unari* in the hand and waving it rapidly through the air, so that the edge of the flat string is presented to the air-resistance. Professor Chamberlain further mentions the occasional use of strips of whalebone (*baleen*) for making the flat string.

I received from Mrs. J. Crosby Brown, the well known collector of musical instruments, a small bow which is evidently made for this same purpose, and which is probably from either China or Japan (Pl. XII, 5). It is of bamboo, $24\frac{3}{4}$ inches long, curving rather suddenly towards the ends. The extremities are furnished with T-shaped cross pieces of bamboo, $1\frac{1}{8}$ inches long, and through these the string, which is a very thin band of bamboo, $\frac{3}{8}$ to $\frac{7}{16}$ inch wide, is fixed. The ends are partly wrapped round with paper.

The custom of attaching a humming bow to kites extends as far to the east as Java, where "the kites, *lajangan*, are sometimes fitted with fiddle-bow-shaped humming instruments which sound in the breeze."[1]

It is to be noted in the above descriptions that many of these wind-sounded bows are furnished with *flat* strings.

In Northern India we find a further approximation towards the *goura*, in the use of flattened quills of feathers for creating this Æolian music. A rectangular kite in the Pitt Rivers Museum is fitted with two little bamboo bars at the top, independent of the necessary structure of the kite, and each (Pl. XII, 6) is furnished with a flattened quill, apparently from the feather of a peacock's tail. When these quills are tightened up, each little bar becomes a miniature bow with a flat, ribbon-like string of quill, which would buzz well in a breeze. In other examples these little quill-strung bows form part of the actual framework of the kites themselves.

Here, then, we have instances, extending over a wide area, of bows with *flat* strings, used for producing musical notes which are caused by the wind throwing the strings into vibration. The higher the wind, the more rapid are the vibrations, and consequently the higher the notes produced. In India, and possibly elsewhere, the strings are sometimes of quill, the latter having been slit longitudinally and flattened out into a ribbon-like form.

This is a *goura* to all intents and purposes; the main difference consisting in the quill of the *goura* not extending the whole length of the bow, but only a

[1] L. Th. Mayer, *Een Blik in het Javaansche Volksleven*, Leiden, 1897, ii, p. 317 and figure.

short distance, the remaining portion of the bow-string being of thin twisted string of fibre or sinew. The string of the *goura* is, in fact, flattened *locally* only. Assuming the possibility of this form having been derived from an original form in which the quill extended from end to end of the bow, we may easily account for the reduction in size of the quill. In the first place, the difficulty, perhaps impossibility, of obtaining in South Africa quills of a sufficient length for the purpose, is obvious, and it was no doubt a simple solution to the difficulty to eke out the length by adding a cord of sinew or other material. Again, it must be remembered that, as the *goura* is blown upon by the mouth, the blast being, therefore, applied only *locally*, there is no advantage in having a quill of more than, say, 2 inches in length. In fact, experiment proves that a long quill is less efficient than a short one for producing sound, when the breath is used instead of the wind; the former cannot, as does the latter, impinge equally through the length of the string. It seems to me that the *goura* with its short piece of quill is the form which would naturally be arrived at in altering the flat-stringed humming-bow from a wind-blown to a mouth-blown instrument. If this was the actual manner in which the *goura* developed, its relationship to the "musical bows" is to be traced, not directly through forms hitherto recorded from Africa, but through a family of wind-blown or "Æolian" bows which is still represented by the kite-bows in Asiatic regions, but which, so far as I can ascertain, has no representatives in Africa.

If I am justified in thus tentatively associating into a single family the Oriental wind-blown bows with flat strings and the South African *goura*, the matter may have some further significance in connection with suggestions which I have offered in my monograph upon the "musical bow," as to the possible, if not probable, existence of a true family relationship between the ordinary "musical bows" of the East and those of Africa. At any rate, the fact of the *essential* features of the eastern wind-blown bows and the *goura* being the same, seems to offer far better reasons for associating these into one morphological group than can be urged in favour of placing the *goura* in a heterogeneous group with the ordinary "musical bows" of Africa. The latter grouping may appear at first sight to be the more natural, but it involves our ignoring differences of a fundamental nature. The method by which the sound is produced in the *goura* and *lesiba* places these instruments in a category by themselves, so far as known *African* instruments are concerned; hence the necessity for looking elsewhere for instruments which may at least suggest a phylogeny for this most peculiar type of wind-stringed instrument.

The Goura and the "Bull-Roarer."

Before closing this paper, it may be of interest if I draw attention briefly to the curious analogy which exists between the *goura* and the "whizzing-sticks," commonly known as "bull-roarers," which are so widely distributed over the

world. The "whizzing-stick" consists of a flat slat of wood of varying shape, suspended by a cord which is attached to one extremity. The sound is produced, as is well-known, by the performer holding the other end of the cord, and rapidly whirling the wooden blade in a circle through the air. The resistance offered by the latter causes the blade to rotate rapidly, so that it presents alternately its edge and its flat surface to the air, thus creating a sound-vibration, the pitch of which varies with the speed of rotation. The quicker the rotation the higher the note emitted. Except for the minor fact of the instrument being driven against the wind, instead of the wind being directed against the instrument, the "bull-roarer" resembles the *goura* in the mode in which the sound is produced; and there is even a striking structural similarity between the two instruments. Both are *wind* instruments consisting of a cord having attached at one end a flat, blade-like object through the medium of which the sound is produced as described. In the *goura*, the flat quill, being also attached to the bow, is unable to rotate completely and simply oscillates to and fro, and the cord is kept tense by the spring of the bow. In the "bull-roarer," the flat piece of wood, being free at one end, can rotate completely, and the string is kept taut by the weight of the wood *plus* the centrifugal force engendered by the whirling. The net result is essentially the same. In many "bull-roarers" the string is attached to one end of a stick, which is held in the hand, so that they resemble a whip with a flat wooden blade at the end of the lash, and, in the case of these, the resemblance to the *goura* is most striking, as all the parts of the latter are present—bow, bow-string, and vibrating blade, the relative proportion of the parts and the non-attachment of the blade to the bow being the essential differences (Pl. XII, 7 and 8).

This close resemblance between the *goura* and the "bull-roarer" is no doubt fortuitous, and is probably not due to any genetic affinity, but such analogies are worth recording, especially since, in any classification of musical instruments according to the methods of sound-production, these two types would necessarily be brought into close proximity, and would, in fact, have to be placed in the same group. It is, moreover, not impossible that the one instrument may have influenced the other in its development, even though they may have originated independently, for we must remember that the home of the *goura* is also one of the chief habitats of the bull-roarer, which is well-known amongst the Bushmen of South Africa (Pl. XII, 8).

CONCLUSION.

From what has been said it will, I hope, be seen that while the *goura* may rightly claim to be studied in connection with the "musical bows," yet, by reason of the peculiarity of the manner in which its notes are produced, involving a distinctive structural feature, its investigation must be approached upon different lines; and it should be placed in a separate category, associated, possibly by right of kinship, with the Asiatic wind-blown bows, through which a relationship with

the ordinary "musical bows" may be traced. The possible relationship to the "bull-roarers" is too problematical to be seriously considered without further evidence, though the analogy is one which merits attention in considering the various methods whereby sound is produced in the different classes of musical instruments.

Descriptions of the Illustrations.

Plates XII to XIV.

Fig. 1. *Goura*, Bushman, S. Africa. Presented to the Ashmolean Museum by Capt. H. F. de Lisle, in 1827. Now in the Pitt Rivers Museum at Oxford. Length, 3 feet 10 inches.

1*a*. Portion of the same showing the form of the quill, and its attachment to the "bow" and to the string.

Fig. 2. *Goura*, Bushman. Portion only, showing the quill and its attachment. Copied from figure in the *Natural History of Man*, by the Rev. J. G. Wood, i, p. 294.

Fig. 3. *Lesiba*, Basuto, S. Africa. From a specimen in the British Museum.

3*a*. Butt of the same looking down upon the quill and showing its attachment by means of a split peg.

3*b*. Side view of the quill and attachment peg.

Fig. 4. *Goura*, Gonaquai Hottentot. From figure in Vaillant's *Travels from the Cape of Good Hope into the Interior of Africa*, 1790, ii, pl. p. 2.

Fig. 5. Small bamboo bow with flat, ribbon-like string of bamboo, (?) Chinese or Japanese. Probably for attaching to kites. Specimen sent by Mrs. J. Crosby Brown to the Pitt Rivers Museum, Oxford.

Fig. 6. Miniature bow with flat string made from the quill of a peacock's feather. India. These are attached to kites so as to buzz in the wind. Pitt-Rivers Museum.

Fig. 7. Whizzer or "bull-roarer," attached to a stick. Type found in the Torres Straits and elsewhere.

Fig. 8. Whizzer or "bull-roarer," Bushman, S. Africa. After the figure in Ratzel's *Völkerkunde*, English translation, ii, p. 275.

Fig. 9. Enlarged reproduction of the illustrations of the Hottentot "gom gom," in Peter Kolbe's *Cape of Good Hope*, translated 1731, p. 271.

Fig. 10. Bushman performing upon the *goura*. Copied from Burchell's *Travels in the Interior of South Africa*, 1822, i, p. 458, plate.

Fig. 11. Bubi of Fernando Po playing upon the "musical bow." After O. Baumann, *Eine Africanische Tropen-Insel*, 1888, p. 99.

Fig. 12. Swazi woman playing upon the *imiqangala*, a "musical bow." From a photograph sent from the Trappist Monastery at Mariannhill, Natal.

Fig. 13. Boy of New Britain, S. Pacific, playing upon the *pangolo*, a "musical bow." From a photograph sent me by Mrs. J. Crosby Brown.

Fig. 14. Patagonian playing upon the *Koh-lo*, a "musical bow." From the *American Anthropologist*, 1898, xi, p. 93. Described by Dr. H. ten Kate.

Fig. 15. Basuto girl playing upon the *thomo*, a musical bow with gourd resonator. From F. Christol, *Au Sud de l'Afrique*, 1897, p. 83.

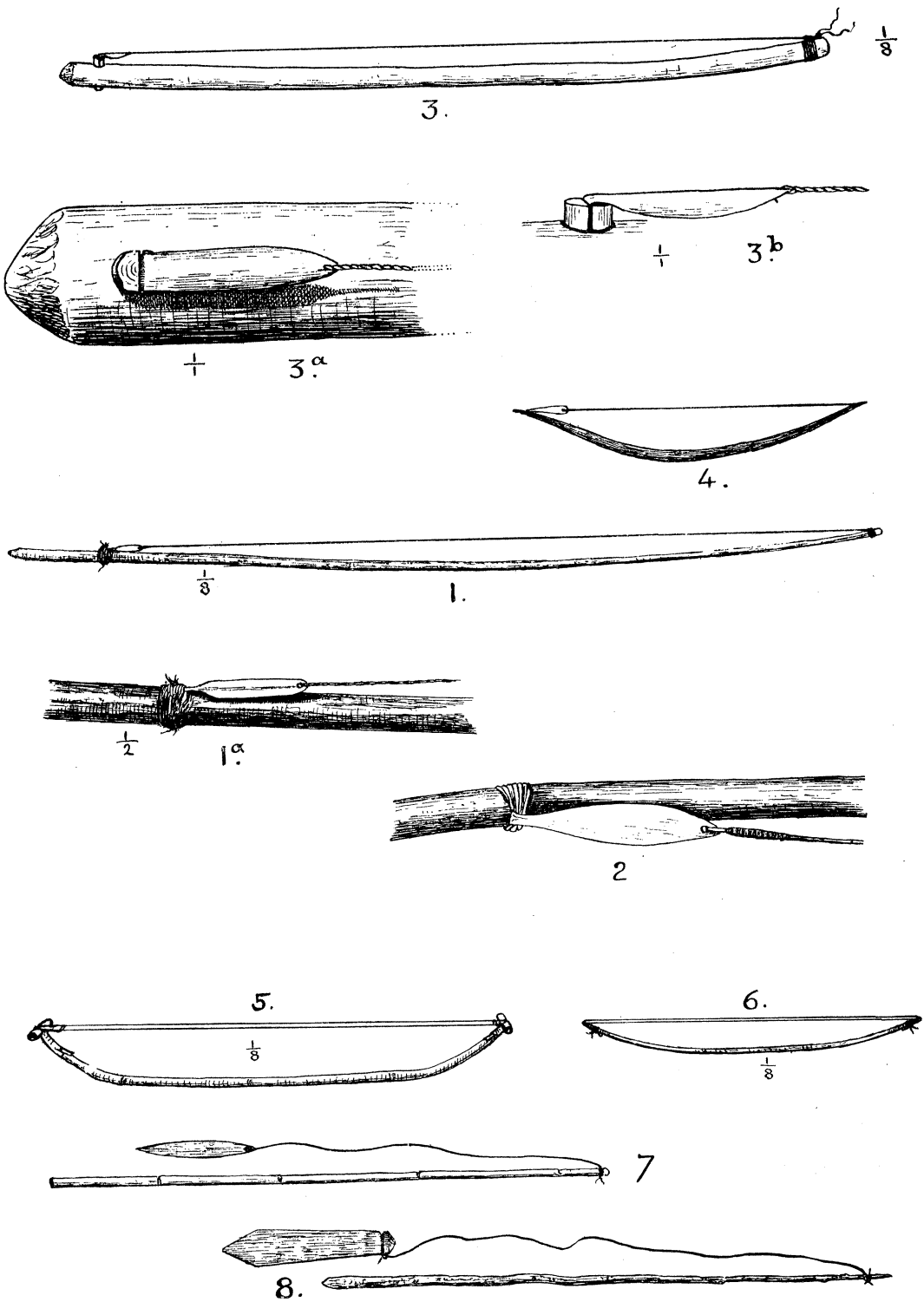
Discussion.

The Rev. H. N. Hutchinson pointed out that the musical bow with a gourd at the end was the prototype of the harp. The gourd being in time discarded its place was taken by a sounding board. In the British Museum Ethnological Collection there is a case illustrating the evolution of the harp in this manner.

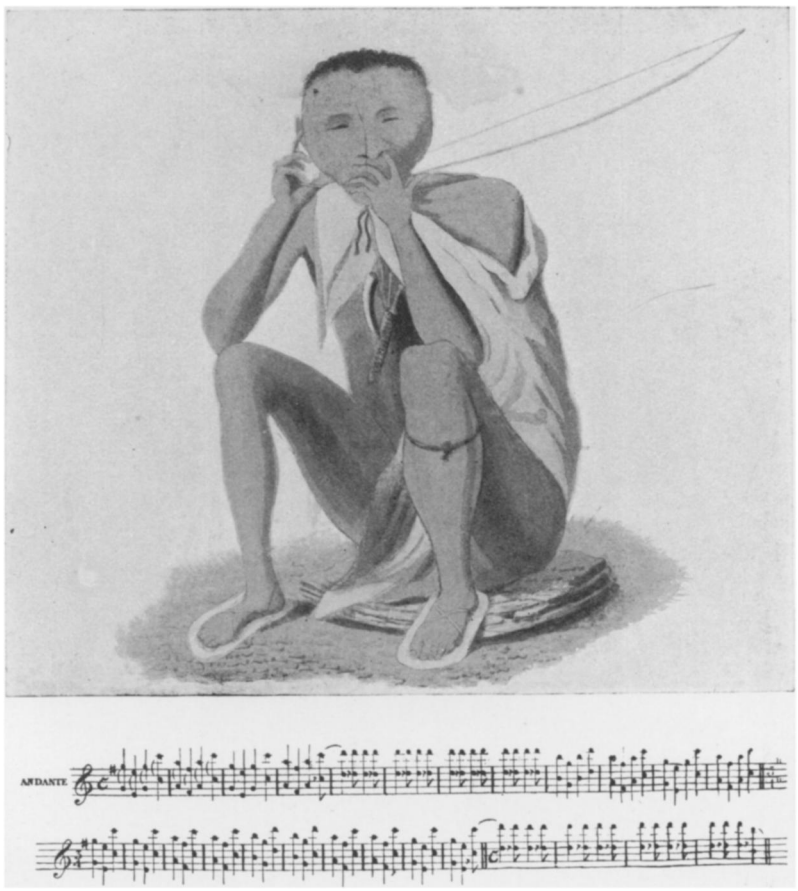
Mr. Read, after referring to the difficulties encountered in dealing with an

isolated type of instrument, such as the *goura* seemed to be, without any cognate types existing anywhere on the whole African Continent, expressed his opinion that regard should be had to the known southerly drifting of many classes of objects now found in South Africa, and that if the explanation of the origin of the *goura* was to be found in Africa, it should be looked for in the north. He thought, moreover, that it would be safer to class the *goura* with the bull-roarer rather than with the musical bow, from which in principle it was really widely separated, in spite of their superficial resemblance.

Mr. BALFOUR, in replying to Mr. Read, said that in his search for types of instruments possibly related to the *goura*, and capable of throwing light upon its origin, he had searched the records of African musical instruments from all parts of that continent, and from no part had he been as yet able to find instruments presenting affinities other than the remotest. Hence he had been obliged, in his quest, to go farther afield, and search elsewhere for instruments which might help to elucidate the obscure origin of the isolated South Africa *goura*. With the wind-blown, flat-stringed bows of Eastern Asia there might be a true morphological connection, and at any rate they do suggest a possible evolution for the *goura*. Association of this instrument with the "bull-roarers" must, he thought, be based rather upon the similarity in the method of producing sound and the *analogy* presented by the essential structure of the two classes of instruments, than upon any probable phylogenetic affinity. In connection with Mr. Hutchinson's remarks, he readily endorsed what Mr. Hutchinson said as to the evolution of the harp from the bow. He had for several years been engaged in working out the series of transitions which appear to have led from the primitive up to the final forms, and for many years a series in the Pitt Rivers Museum at Oxford had illustrated in a general way these probable transitions.



THE GOURA, A STRINGED-WIND INSTRUMENT OF THE BUSHMEN AND HOTTENTOTS.



10. BUBI OF FERNANDO PO PLAYING UPON THE "MUSICAL BOW."

9. BUSHMEN PERFORMING UPON THE GOURA.

FIG. 11.—Bubi, of Fernando Po, playing upon the "musical bow." After O. Baumann, *Eine Africanische Tropen-Insel*, 1888, p. 99.

FIG. 12.—Swazi woman playing upon the *imigangala*, a "musical bow." From a photograph sent from the Trappist Monastery at Mariannhill, Natal.

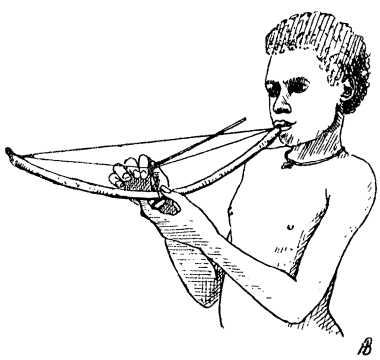


FIG. 13.—Boy of New Britain, South Pacific, playing upon the *pangolo*, a "musical bow." From a photograph by Mrs. J. Crosby Brown.

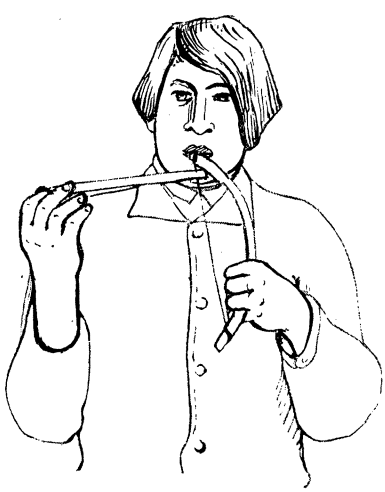


FIG. 14.—Patagonian playing upon the *koh'-lo*, a "musical bow." From *the American Anthropologist*, 1898, xi, p. 93. Described by Dr. H. ten Kate.

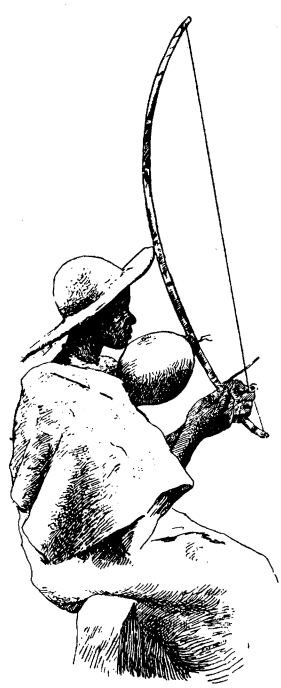


FIG. 15.—Basuto girl playing upon the *thomo*, a musical bow with gourd resonator. From F. Christol, *Au Sud de l'Afrique*, 1897, p. 83.

THE GOURA, A STRINGED-WIND INSTRUMENT OF THE BUSHMEN AND HOTTENTOTS.