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The Ethnographic Evidence for Long-Distance Contacts Between Oceania and East Africa

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The “Indonesia-Africa” hypothesis

The possibility of an Indonesian contribution to African culture has a long history among historians and ethnologists, and has attracted its fair share of scepticism. However, the undisputed Austronesian¹ origin of the Malagasy and the findings of recent ethnobotanical work suggest that it is time for a fresh assessment of the evidence put forward by earlier writers. To put the argument of this paper in perspective, I begin with a brief history of the debate.

Apart from a mid-nineteenth century attempt to relate Fulfulde to Malay, the first important statement of this hypothesis comes in a report by the German ethnologist, Leo Frobenius (1898). Frobenius states that African material culture, apart from the hunting-gathering phase, and previous to Islamic incursions, is “Indonesian”. His evidence for this statement is drawn from similarities between artifacts, with particular emphasis on musical instruments and carving styles. He has, as one commentator puts it, a tendency to use “therefore” in the sense of “and”—his arguments today seem tenuous in the extreme. Certainly none of the connections he makes cannot equally well be explained by convergent evolution. Nonetheless, these ideas stimulated a whole generation of scholars to search for such links.

Comparative ethnomusicology was closely associated with the German *Kulturkreislehre* school of ethnology and it is not surprising that some distinguished ethnomusicologists were among early students of transoceanic contacts. These included Erich von Hornbostel, Curt Sachs, Jaap Kunst and Father A.M. Jones. The ethnographers James Hornell (1928; 1934), Vinigi Grottanelli (1947) and J. H. Hutton (1946) also added evidence from other aspects of material culture. This material, although serious and scholarly, was published outside the realm of academic history and its implications have seldom been critically evaluated.

¹ Throughout this paper, Indonesia is used as a geographical term, and ‘Austronesian’ for the languages spoken by the inhabitants of Indonesia and the adjacent islands.

In the 1940s and 1950s new types of evidence from other disciplines, considered less esoteric, began to make an impact on the debate. It had become clear that the core-populations of Madagascar at least were transoceanic in origin. Studies by Dahl (1951) and Dyen (1964) showed that Malagasy could be assigned to the Maanyan group of the Austronesian language family. This suggested that the ancestors of at least some of the present-day inhabitants migrated from what is now Kalimantan at some unspecified period in the past.

At the same time taxonomic studies began to show that a number of food plants widely regarded as "African" must have been domesticated elsewhere and brought in. Among the most significant are water-yam (*Dioscorea alata*), taro or "old" cocoyam (*Colocasia esculenta*), and plantains (*Musa* AAB & ABB). All these are apparently South-East Asia domesticates, except for the plantain, which incorporates some Indian components in its genetic make-up.

This evidence appears to combine into a powerful migration hypothesis. However, there is one important lacuna: a complete absence of archaeological evidence. Despite intensive searching, the East African coast has yet to reveal even a single early site with indisputable evidence of "Austronesian" material culture. The aim of this paper is to examine the evidence for an Austronesian presence on the mainland with a view to providing pointers to archaeological work in this area.

The hypothesis and competing explanations

The hypothesis under discussion is relatively simple: that the same, or closely related, Austronesian groups who colonized Madagascar also reached the coast of East Africa, in a prehistoric era earlier than AD 500. They arrived at the coast by direct voyages across the ocean and formed a coastal community, trading and engaging in piracy. Austronesian culture has remained visible on Madagascar, because it was the direct settlement of an uninhabited island. The most recent analysis of the place of Malagasy in Austronesian (Simon 1988: 55) shows that it branched off from the Barito group between Dejah and Samihim. Maanyan is therefore not its closest relative in Kalimantan, as was formerly thought (Dahl 1951).

The Bantu element of the population may have consisted of traded slaves, assuming that it was at this period that the Cushites inhabited most of East Africa. Simon (1988: 122) argues that the original Bantu substrate in Malagasy was a language of the "Pangani" group, i.e. allied to languages like Pare and Shambala in the Usambara mountains. Austronesians on the coast proper would then simply have been absorbed into the resident populations and their traces can only be sought in cultural practices and items of material culture.

The paper assumes it can be shown that there are some common items between the Indonesian and East African coasts; however, that is not adequate to assume direct contact through sea-voyages. A key element in the argument is to evaluate alternative

explanations for the data. In the case of the Indonesia-Africa hypothesis, there are essentially two: independent invention and transmission via the "Sabaean lane". The Sabaean Lane is a term introduced by I. H. Burkill in a discussion of the transmission of food crops between India and East Africa. It is shorthand for a route passing between the Malabar coast, via South Arabia, to the Horn of Africa. This has historically been important for the transmission of both food-plants and material culture items. Connections between South India and Sumatra in turn make possible a common heritage of culture items between East Africa and Indonesia outside the pattern discussed here.

Some methodological considerations

Providing support for otherwise undocumented migrations of groups of human beings was probably one of the most important topics debated by anthropologists in the first two decades of the twentieth century. However, the rise of social anthropology and the excesses of some later adherents of diffusionism such as Elliot Smith caused it to fall into disrepute. Discussions of influences devolved to peripheral disciplines such as ethnomusicology. It is not my intention to resurrect this debate; however, it is important to recognize that scientific advances in the course of the century have put a very different complexion on some of the issues raised.

Developments in various disciplines have made it possible to grade different types of evidence as to their degree of certainty. In the case of transoceanic voyages there are essentially four types of relevant evidence:

1. Archaeology. Dating systems, such as thermoluminescence and radiocarbon, are relatively accurate, assuming careful excavation. However, since no sites relevant to this hypothesis have yet been uncovered, this is at present of limited importance.
2. Botanical evidence. Advances in systematics have made it possible to ascertain the relationships of domesticated plants with reasonable confidence. It is therefore possible to state, for example, that the banana was not domesticated in Africa, although its date and route of entry cannot be ascertained from botanical evidence.
3. Comparative linguistics. Comparisons between languages are sufficiently well advanced to say that the affiliations of most languages are adequately known. Thus no scholar seriously questions the Austronesian affiliations of Malagasy. However, the comparison of individual lexical items remains as problematic as in Voltaire's time.² The sound-changes that single loanwords undergo are exceptionally difficult to demonstrate and most linguists would be unwilling to accept such single-word comparisons without a substantial body of supporting evidence.

² Voltaire caricatured the comparative linguistics of his era with more than a little accuracy as "any consonant may substitute for any other and vowels don't matter".

4. Comparison of material culture items. Essentially, little progress has been made in establishing standards to account for similarities in iconographic or morphological items. This rests entirely on proximity and idiomatic nature of the items, and a demonstration that they have not been independently invented elsewhere in the world. The same criteria apply to musical systems. For example, the proposed surprising similarity of the Indonesian and African scale systems becomes less remarkable when the same scale has been reported in the Solomon Islands (Blench 1982).

In evaluating the connections discussed below, the quality of evidence is the single most important factor to be borne in mind.

Evidence from food plants

There are three food plants in Africa of Indonesian origin which appear to have been transmitted in prehistoric times. These are the plantain (*Musa paradisiaca*), taro, or the old cocoyam (*Colocasia esculentum*), and the water-yam (*Dioscorea alata*). All three plants are found across the continent as far as the Senegambia, which suggests ancient introduction.

The “tropical food kit”: Murdock’s hypothesis

The first author to collate this evidence was Murdock (1959). He pointed out the chronological problem of the continent-wide distribution and degree of establishment of these plants. To explain the present situation it was necessary to develop a hypothesis to account for the period and place of introduction and the subsequent route of diffusion across Africa. Murdock (1959: 214) supposed that the Sabaean lane would have provided the principal corridor of transmission. However, broadly speaking, these three crops are unknown along the Sabaean lane, with the possible exception of cocoyams,³ which are very rare. This inevitably suggests direct transoceanic contact.

Once established on the coasts of East Africa, the tropical food kit had to diffuse across the continent. Murdock (1959: 222ff, and map 13) postulated a “Yam Belt”, a corridor with its easternmost tip in Southern Somalia, passing north of the Equatorial forest, as far as the Kru and other coastal tuber-growers in the west of West Africa. Murdock’s candidates for the adoption and transmission of these cultigens were a people he calls “Megalithic Cushites”, then inhabiting the Highlands of Southern Ethiopia, and represented today by people such as the Konso. A daring hypothesis at the time, and significant in focusing attention on the role of cultigens in population dynamics, it has had to be discarded in the light of recent work (David 1976: 258). The main difficulty is the lack of evidence for the settlement of Highland Cushites anywhere near the coast, either then or now. Recent work on Sam speakers (Somali, Rendille and Boni) suggests

³The bananas in question, with genomes AAB, are of Austronesian origin whilst the cultivated bananas of India are AA or AAA (Simmonds 1966).

they were already present on the Somali coast before this period, and that their economy was either pastoral or hunting-gathering (Heine 1982).

Another difficulty is that Murdock's categorization of the "Indonesian" cultigens was not sufficiently precise. There are two species of yam in Africa that have been transmitted from South-East Asia. One is the Asian yam (*Dioscorea esculenta*), cultivated along the coast of East Africa. The other, the water-yam (*Dioscorea alata*), is found discontinuously throughout the continent, but particularly in West and Central Africa.⁴ Murdock similarly uses the term "bananas" to refer indiscriminately to two genetically distinct subspecies, the plantain (*Musa* AAB or ABB), and the sweet banana (*Musa* AA or AAA). In defense of Murdock, it must be said that the descriptive literature available to him was inadequate, and that later work by Simmonds (1962; 1966) and by Flinn and Hoyoux (1976) established the dichotomy, both botanically, and in terms of use and distribution.

It should be noted here that Murdock also proposed that the sweet potato and the sugarcane were prehistoric introductions from Indonesia. Sugarcane, like rice and mangoes, is widely distributed along the Sabaeen lane, and there is no reason to suppose any problematic history of introduction. Murdock's case for sweet potato is more intriguing; now that it is generally accepted that the sweet potato had reached Oceania from South America in prehistoric times, it could have spread still further westward. Murdock (1959: 224) argues that the degree of its embedding among the Chaga and the peoples of South-West Ethiopia are remarkable if it was brought by the Portuguese. In addition, he points out that it is not co-distributed with cassava, as might be expected. Unfortunately I know of no further evidence that could help establish the validity of his case.

Hornell (1934: 325ff) puts the case for the direct introduction of the coconut and its associated scraper. However, both the palm and its scraper have a circum-Indian Ocean distribution—while it is possible that the technology was spread by Indonesians it is unclear what proof could be available. The *Periplus* (Huntingford 1981: 31) mentions coconut as traded on the East African coast.⁵

Miller (1969) erects a fairly elaborate case for an extensive spice trade from Indonesia to the Horn of Africa and thence to the Red Sea and Rome. He lists the following spices as imported from South-East Asia: cassia, cinnamon, aloe-wood, benzoin, camphor, cloves, ginger, lakawood, mace, nutmeg and sandalwood. If it were indeed the case that all these spices were reaching Rome this would constitute an important argument for Indonesian contact. However, the argument turns almost entirely on the translation of certain terms in classical documents, since the botanical identification

⁴ The lack of congruent distributions between these two yams is a major argument against Coursey's hypothesis of Portuguese introduction.

⁵ This translation has recently been questioned and an emendation now proposed would read the more appropriate "marine shell".

of plant remains is not a highly developed skill in circum-Mediterranean archaeology. Crone (1987: Appendix 1) has shown that classical cinnamon is almost certainly a *Cassia* species growing on the borderlands of the Red Sea. Germer (1985) in her comprehensive study of the flora of ancient Egypt cites no certain evidence for the presence of these plants. As a result, Miller's case awaits the appearance of more concrete evidence.

The following section examines the evidence relating to the three plants of the tropical food kit in more detail.

Discussions of individual plants

Plantains

The complex evolution of the edible *Musaceae* has been reviewed by Simmonds (1962; 1966; 1976) and it is clear that two significant genomes have contributed to the edible species in use today. The *acuminata* series (AA or AAA) are primarily Malaysian in origin (Simmonds 1962: 134). The B genomes, leading to *Musa* AAB, ABB and the unique tetraploid AB BB arise from crossing with *Musa balbisiana* which is wild from India to Indonesia. Simmonds argues that both the AA, AAA series and the AAB, ABB series were probably transmitted direct to Africa, and points out that the "forty days" crossing would be well within the viability limits of a banana sucker.

The African material shows a major discontinuity in use and distribution between the two major "series" found today. In East Africa the *Musaceae* are largely AA or AAA, and the variety of clones suggests that these have undergone significant mutation on the continent. In Uganda nearly all the principal cooking and beer bananas are of this group. West Africa was so poorly known at the time that Simmonds (1966: 76ff) was unable to include it in his "annotated list of clones by countries". However, since that period, there has been a substantial expansion of research on all aspects of the cooking bananas (see, for example, Lawani *et al.* 1977).

In West Africa, virtually all cooking bananas are of the AAB group. The AA and AAA clones are known only as small, sweet bananas that can be eaten without further preparation. Although these were certainly present in West Africa in pre-Portuguese times their status points to an introduction recent compared with the large farinaceous plantain eaten as a staple that must be cooked before consumption. This variation may also be measured by the disproportionate numbers of cultivars of the two subspecies locally available. In the Niger Delta, the Kolokuma cultivate ten varieties of plantain and only five of banana (Timitimi 1970). An important investigation by Walker (1931) in Gabon lists the names of twenty-seven plantain cultivars for each of the eight principal languages, as well as numerous cultivars with more restricted distributions. The plantain is highly embedded in traditional life, and Walker gives pages of material on the varied uses of parts of the plant, as well as ritual restrictions governing its cultivation. Bananas, by contrast, in Gabon are regarded as recent (though pre-Portuguese) introductions, and only a few cultivars have been recorded.

An investigation of the *Musaceae* of Sierra Leone (Bakshi 1963) showed them all to be of the AAB group. Gill (1971) lists seventeen plantain cultivars for Ghana, while work by Lassoudière (1973) in Ivory Coast suggests that the plantain is the second most important staple after the Guinea yam, so a similar variety can be expected there. Ndubizu (1981) classified all Southern Nigerian plantains as genetically AAB and divided them into three principal groups and twelve sub-groups, and it is clear that within these sub-groups further varieties are recognized. A report by de Vos (1978?) discusses a collection of plantain cultivars that includes thirty from Eastern Nigeria, and forty from Western Cameroun.

However, the centre of greatest diversity may be Yangambe in South-West Zaire. De Langhe (1961) records the names of fifty-six cultivars recognized by the Olombo people, and classifies these according to standard taxonomic criteria. Further east, *Musa* AAB declines dramatically in importance. Although there are some restricted areas of the east coast where the hybrid triploids AAB and ABB are widespread (Simmonds 1966: 118) these seem to be recent introductions from India, as is the "Bluggoe" plantain (AAB) now a staple in some areas of Uganda.

The furthest extent of its ancient cultivation as a staple appears to be in Western Uganda (Mukasa 1970: 142), where the Gonja and Manjaya *Musaceae* are islands of AAB, surrounded by the more common AAA types. The other examples of the B genome in Uganda, *Musaceae* of the AB, ABB, and ABBB, are both rare and apparently recent, according to Mukasa. This reflects not an ecological discontinuity, but a concentration of emphasis on the banana (*Musa* AAA). Compared with West African usage, some of the earlier literature is confusing in terminology. For example, an article by Masefield (1944), entitled "Some recent observations on the plantain crop in Buganda" is largely a discussion of *Musa* AAA, the banana.

This disparate material is synthesized in the map accompanying a review article by Flinn and Hoyoux (1976), showing quite clearly the virtual absence of the plantain from the whole East African coastal strip, and Madagascar. Stuhlmann (1910) had previously observed the importance of the sweet banana in this area, and it is apparent that the distributions of the two dovetail across the continent.

True plantains seem to have been well established in West Africa by the time of the first European contacts with the coast. It has commonly been said that they diffused across the centre of the continent via the Zairean rain-forest, and indeed, Simmonds (1962: 137; 1976: 213) confidently shows a thick black arrow sweeping across the centre of the continent from East to West schematically representing the diffusion of plantains and bananas. However, in a personal communication to the author, Professor Simmonds (personal communication) has expressed some doubts about the correctness of this model in relation to the plantains (*Musa* AAB).

Although a considerable time-depth is indicated by this evidence, it is not easy to suggest a convincing explanation for this situation. Broadly speaking, the AAB and ABB

types ("plantains") must have been carried to Africa earlier than the AA, AAA cultivars. Plantains spread across the continent and developed an important secondary centre of dispersal in West-Central Africa. Subsequently, sweet bananas were introduced into East Africa, perhaps along the Sabaeen lane, and largely displaced the relatively sparse cultivation of plantains. It is perhaps worth noting that al-Mas'udi notes the commonplace role of the banana on the East African coast as early as ca. 915 AD (Freeman-Grenville 1975: 16). More controversial are the drawings that accompany Cosmas Indicopleustes' 525 AD account of his voyage in the Red Sea (Wainwright 1952). These are not precise enough to exclude ensete, although Massawa is today a long way from the ensete areas of the South-West Ethiopian highlands.

An additional piece of striking evidence for direct Indonesian contact with East Africa is the wild banana of Pemba island. Simmonds (1966: 57) affirms that the basic process for deriving new clones of the cultivated *Musaceae* must be somatic mutation. However, he observed that the presence of the wild *Musa acuminata* AA on Pemba island off the east African coast is difficult to account for except by supposing direct human transportation. This suggests that Austronesian navigators may occasionally have carried fertile wild relatives of the edible bananas with them in their boats (Simmonds 1962:22).

The Water-Yam, Dioscorea alata

Ethnobotanical material on the water-yam is rarer, presumably because of its reduced commercial significance in Africa. Less research is thereby generated, so that the lists of cultivars and distributional data available for the plantain do not exist. Water-yams are cultivated sporadically in East Africa and Ethiopia, on Madagascar and throughout West Africa. Their exact distribution is unknown because of the tendency of non-specialist observers to confuse them with other species of yam. Work by Chevalier (1936: 522ff) earlier in the century on the *Dioscoreaceae* led him to conclude that the water-yam was long-established in West Africa, although he offers no hypothesis about the route of its introduction. He observes that under certain circumstances it gives higher yields than *D. Cayenensis*, the indigenous West African cultivated yam, and notes that some of the peoples on the edges of the forest, such as the Ivoirian Baule, are experts in its cultivation. The botany and evolution of the water-yam have been reviewed by Martin (1976) though he contributes no new information on its history or distribution in Africa.

Burkill (1938) and Coursey (1967: 17) maintained that the water-yam was introduced by the Portuguese to West Africa, but their evidence for this, as Miège (1952: 148) pointed out, was based on the out-dated distributional and botanical data in Prain and Burkill (1939). This map marks the absence of the water-yam from many areas of central Africa, in particular parts of Gabon and Cameroun, where in fact it is a significant staple. As Coursey was unprepared to admit the possibility of a separate introduction on the west coast, the Portuguese were a convenient solution.

The assumption of a Portuguese introduction, however, does not lie well with the linguistic data, or the variety of cultivars found in the Bight of Bonny area. *D. alata* is almost always sterile, or else produces only male inflorescences (Chevalier 1936: 522; Martin 1976: 10). As Martin observes, "It is difficult to escape the conclusion that existing varieties are very old and perhaps have diverged from their progenitor varieties by somatic mutation." This long-term process militates against the improvement of the water-yam by modern crop-breeding techniques, but does suggest that the remarkable diversity of clones on the West African coast must imply considerable antiquity.

The water-yam has a long dormancy period (Martin 1976), a feature that makes it an ideal plant to transport on long ocean voyages, as it avoids the necessity of keeping the plant alive while en route. This must have been an important factor in its choice as a major staple in Oceania, although not decisive, as the transportation of the *Musa* species shows. Timitimi (1970) shows that the Kolokuma recognize eighteen cultivars of *D. alata* while Raponda-Walker and Sillans (1961: 150) list three major subgroups and numerous other varieties grown in Gabon. Comparing this with other tubers introduced by the Portuguese such as the sweet potato,⁶ which has developed only two or three cultivars since the seventeenth century, such a shallow time-depth seems unlikely. It is therefore likely that it was brought by navigators directly from Indonesia to the East African coast, along with the banana.

Taro, Colocasia esculenta

The botany and agriculture of *Colocasia* had been reviewed by Plucknett *et al.* (1970) and its evolution in Plucknett (1976). As wild *Colocasia* is found both in India and the Malay peninsula, taro may have been domesticated in either area. The investigation of the cocoyam is made more difficult by its confused taxonomic status. In older texts two types of *Colocasia* were distinguished, *C. esculenta* and *C. antiquorum*, and these seem to have corresponded to two types of cocoyam, one producing a large single tuber, the other producing a cluster of smaller corms. A study in India showed that a large number of varieties with different chromosome counts can co-exist in cultivation. Cultivated taro is normally sterile and clonal varieties are thought to arise through somatic mutation, although fertile seed has occasionally been reported.

An investigation by Yen and Wheeler (1968) of the chromosome numbers of *Colocasia* in the Indo-Malesian area shows that there are two distinct types. The first, $2n=28$, is found throughout South-East Asia and in Polynesia, while the second, $2n=42$, seems to have a more disjunct distribution, being cultivated in India, the Philippines and New Zealand.

Like the plantain and water-yam, taro seems to be well-established in West Africa. It is of an importance similar to the water-yam in the Bight of Bonny area. A paper by Knipscheer & Wilson (1980) maps the cultivation of cocoyams in South-East Nigeria,

⁶ Both fertile and easily bred.

and shows that in some areas their importance is that of a co-staple. Lyanga (1980) states that the cocoyam is the second most important staple in Southern Cameroun. To a certain extent accounts of the cocoyam are bedevilled by a failure to distinguish *Colocasia* from another edible aroid, *tannia*, or the “new” cocoyam (*Xanthosoma mafaffa*, previously *X. sagittifolia*) brought to the West African coast from the West Indies in 1843. However, an account quoted by Mauny (1953) shows that taro was well-established in Senegambia by 1500, too early for Portuguese navigators to have been instrumental in its diffusion. Raponda-Walker and Sillans (1961) show that the “old” cocoyam is of great importance in Gabon, with as many as fifteen varieties recognized in some areas.

Explaining the African distribution of Indo-Pacific cultigens

The ancient presence of Indonesian food-plants in West Africa suggests that they arrived on the east coast at an early date. Evidently the absence of documentation for the voyages of their transporters makes it necessary to examine other possible explanations. The most plausible alternative has these cultigens diffusing from the Nile valley. Dalziel (1937: 468) suggests this for the plantain, and Burkill (1938: 95) and Plucknett (1976: 11) for the cocoyam. The claim in Plucknett *et al.* (1970: 413) that taro was brought by “Megalithic peoples” to the eastern Mediterranean is unsupported speculation.

A recent study of food and cultigens in Egyptian civilization, that considers material up to the fifth century AD (Darby *et al.* 1977) makes it clear that none of these plants were recorded by this date. Water-yam was unknown although the *Musaceae* seem only to have spread there in the later Islamic period. The term *Colocasia*, however, was used in the Greco-Roman period to refer to a quite different plant, a usage that may have misled earlier scholars. The Arabic term *golgas* recorded in later sources was transferred to *Colocasia* and travelled unchanged across the desert to become the *kolokas* recorded among the Shuwa Arabs.

Chronologically, the responsibility is then shifted to the Arabs. This is even more unlikely on a number of grounds. Primarily, it makes the introduction too late historically, and, more important, there is an absence of motivation. Why should Arab traders carry across a dry desert cultigens that can only flourish in a humid zone far outside their normal orbit. An intensive investigation of West African food-plants referred to in Arabic sources (Lewicki 1974) reveals no mention of these crops while, in comparison with known introductions, such as the onion, the behaviour of vernacular terms is totally aberrant. The hypothesis of transmission from North Africa can be safely discarded.

Ethnomusicological evidence

Ethnomusicological evidence for a connection between Indonesia and Africa has been presented by Hornbostel (1920), Sachs (1928; 1936), Kunst (1936; 1960) and Jones (1964; 1971; 1972). Jones’ work constitutes the most extended investigation; he proposed that Austronesian seafarers rounded the Cape and landed on the West African coast. His evidence for this was based largely on the turnings and distribution of certain

types of xylophone, considered by him to have been introduced from Indonesia. Additional support is drawn from other musical instruments, mancala, sailing techniques, and brass-casting. I have criticized these arguments at length (Blench 1982) and I feel that much of his work must be questioned on methodological grounds.

Despite my criticisms, there is a case to be made for the transmission of some musical instruments across the Indian Ocean in prehistoric times. Sachs' (1936) definitive study of the musical instruments of Madagascar attempts to divide the instruments into historical strata according to their affinities. I have recently published an evaluation of his arguments in the light of more recent data and concluded that in most cases he was correct (Blench 1984). However, Madagascar, with its admittedly Austronesian population, will show many more connections with South-East Asia than does the African mainland.

Nevertheless, there are discernible traces of the presence of Austronesians in East Africa. By seeking evidence for direct contact between Austronesian speakers and the West African coast Jones largely sabotaged his own case. This section re-examines Jones' evidence, summarizes the discussions in Blench (1984), and adds some sound-producers so far not discussed in print.

The stick-zither

The stick-zither is a characteristic instrument of the Indonesian islands (Kaudern 1927: 146-56, 293-301) and its antiquity there is illustrated by its morphological diversity. Kaudern (1927: fig. 129) postulated an evolution of Malagasy instruments from those corresponding to the type found in Sumba (Soemba) south of the Celebes (now Sulawesi)

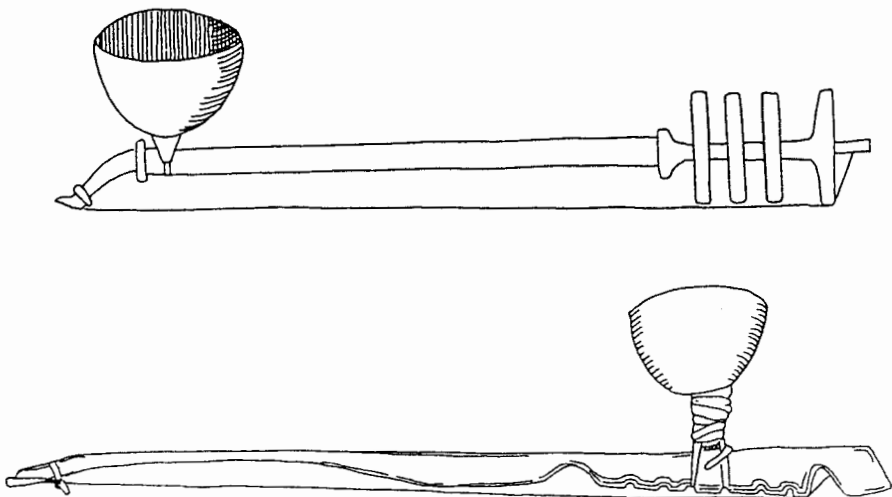


Figure 1 Above: stick-zither from Sumba (redrawn from Kaudern 1927: fig. 84)
Below: Malagasy stick-zither (redrawn from Kaudern 1927: fig. 129X)

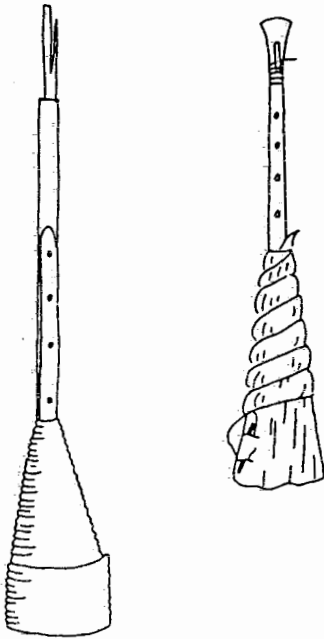


Figure 2 Left: Kamba leaf-funnel clarinet (redrawn from Lindblom 1920: fig. 114)
Right: leaf-funnel clarinet from S. Sulawesi (redrawn from Kaudern 1927: fig. 122B)

(Figures 1a, b). Hornell (1934) and Sachs (1936) argued that the *sese* zithers of Madagascar and the East African coast are derived directly from those of the Indonesian islands. A more extended discussion is given in McLeod (1977) and Blench (1984), both of whom argue that the Malagasy instrument appears to derive from the mainland. Although round-bar stick zithers are recorded in South India, the specific flat-bar string-bearer under discussion only occurs in East Africa and Indonesia.

The leaf-funnel clarinet

The second similarity is the leaf-funnel clarinet; a single heteroglot reed-pipe with four fingerholes is inserted in a funnel made from a coiled leaf which acts as a bell. The Kamba in Kenya use this instrument although they call it *nzumali*, a name clearly adapted from the Swahili *nzomari*, a doubler-reed shawm (Lindblom 1920: 406) (Figure 2a). In view of the extremely unusual morphology of this instrument, the name is likely to be a later accretion—just as many traditional African sound-producers now borrow their name from English “trumpet”. Although such instruments are not known either in the Middle East or India, they are used throughout the Indonesian islands. Kaudern (1927: 255, and fig. 122) illustrates a remarkably similar instrument that has been recorded among the Toraja of the South Celebes (Figure 2b). The only difference is that the reed is separate, and inserted into the pipe rather than being integral with it.

Other instruments

Grottanelli (1947: 173) discusses the distribution of transversely-blown conches. These are found across the world, but in most cases they are end-blown. Transverse conches are restricted to certain Oceanian islands and to East Africa. However, blown conches have a pan-Indian-Ocean distribution. Since the principle of side-blown horns is widely known on other aerophones on both sides of the ocean it is not unreasonable that the principle should be applied to conches. Although conches are a possible case of transmission, they can equally well be explained by independent development.

Two sound-producers connected with plantains suggest a South-East Asian origin. The first is a noise-maker made from a plantain leaf-stem. A series of incisions are made

on the surface of the stem, creating a number of "tongues" in a line parallel to the long axis of the stem. When stroked longitudinally by hand the tongues slap against the stem producing a series of sharp concussions. Reports of this instrument come from Liberia, Ivory Coast, Southern Nigeria, Congo-Brazzaville and Zaire. This sound-producer is only otherwise reported from the Malay peninsula (Laurence Picken, unpublished field notes).

Another aerophonic toy associated with the *Musaceae* is a coiled-leaf shawm, consisting of a double reed inserted into a cone made by coiling a banana leaf. These are distributed widely throughout Oceania (Fischer 1958) and at least among banana-growers on the west coast of Africa.

Less conclusive, but also worth noticing, are two other musical instrument types: sets of bamboo stamping tubes and hourglass drums with a single head and a handle at the waist. Although stamping tubes are recorded widely but discontinuously across the world, the types of bundled stamping tubes known from Oceania and Madagascar and adjacent parts of East Africa are otherwise rare (Blench 1984: 175). Although this may be a coincidence, it is certainly suggestive. Similarly, the type of hourglass drum, known from many parts of Oceania, is restricted to approximately the region of modern-day Tanzania. In view of the morphological diversity of drums in Africa, this may be only a coincidence.

The xylophone

The description, distribution and diffusion of the xylophone has been one of ethnomusicology's most controversial questions over the course of the century. I have devoted an entire paper to a critical examination of Jones' arguments about the Indonesia-Africa connection (Blench 1982) and the main conclusions of that paper will only be summarized briefly here. These were:

1. Jones' arguments from xylophone tunings are based on a misreading of the evidence.
2. His arguments from other types of sound-producer and material culture evidence are based on errors in the interpretation of published data.
3. He conflates two types of evidence: less controversial material relevant to the presence of Austronesians in Madagascar, and speculative arguments for direct Austronesian contact with West Africa.

There is a point, not strongly made in the article, but relevant to the novel argument I shall advance here concerning the evolution of African xylophones, concerning morphology. The African continent is replete with examples of extremely morphologically diverse types of xylophone. Struck planks, leg-xylophones, pit-xylophones, sledge-xylophones, trough-xylophones and suspension-xylophones are found over a broad area, and often many types can co-exist within a single culture. This allows us to postulate the gradual evolution of the xylophone within Africa, with all the stages of both simpler and more complex forms present. In Indonesia, however, simple instruments are very rare

indeed. Moreover, as a number of Indonesianist scholars have noted, the appearance of the xylophone in South-East Asia is relatively late. Xylophones are not illustrated on the reliefs at Angkor Wat, despite an abundance of other musical instruments there, and indeed only appear in Thai manuscript illustrations as late as 1730 (Morton 1976). Box-resonated xylophones appear on the reliefs at Borobodur (eighth-ninth centuries) but the first xylophone with individually resonated keys is only illustrated in a manuscript dated to 1597 (Kunst 1973).

This accumulation of evidence is combined with another remarkable fact—there are no xylophones in Madagascar, except a leg-xylophone associated with the coastal “Bantu” populations. The obvious conclusion is that there is at least an *a priori* case for assuming that the xylophone went in the opposite direction, namely from East Africa to Indonesia. From the fragmentary iconographic evidence, I would suggest that box-resonated xylophones were carried by slaves to the Indonesian islands relatively late (sixth century?). Schaeffner (1956: 22) states that both Arabic and Chinese texts relating to Sumatra mention African slave-musicians. Xylophones with individually resonated keys were only invented somewhat later independently (after the tenth century). This accounts for the complete absence of gourd-resonated xylophones in the Indonesian area.

I regard it as quite feasible that the Indonesian xylophones are an independent invention. However, the absence of proto-xylophones is suggestive. In addition, xylophones do not appear to have been independently invented elsewhere⁷—all those in Europe and the Americas can be traced back to African models. The transport of xylophones from East Africa to Indonesia should therefore be regarded as an *a priori* possibility.

Other aspects of material culture

Compared with plants, all types of material culture are more difficult to assess, because a hypothesis of convergent evolution is always waiting in the wings. The arguments put forward by Hornell (1934) were probably the most striking and have never, to my knowledge, been seriously questioned by any researcher with a comparable level of nautical expertise.

Maritime technology

Hornell (1934) has effectively reviewed the evidence for direct importation of Indonesian sailing technology into East Africa. Although Hornell argues for a Sabaeen lane “coasting” route, on the grounds, now known to be invalid, that outriggers would be unlikely to make such long voyages across the open sea, his discussion provides considerable evidence for direct contact. The three cases of similarity between Indonesia and Africa that he adduces are as follows:

1. The outrigger canoes, *ngalawa*, of the East African coast and those of Java.

Outriggers are recorded between the Lamu archipelago and the coast of

⁷ Although I am aware of the single archaeological case of the proposed Vietnamese lithophone (Condominas, n.d.).

Mozambique. As Hornell points out, plank floats are an East African innovation, which probably indicates long establishment on the coast. However, outriggers do not have a pan-Oceanic distribution, which argues for Indonesian introduction.

2. The Swahili *mtepe*, a sewn boat, said to be derived from an older type of Javanese boat “bereft of outriggers”.
3. The large canoes of Lake Victoria which parallel those in Java and Madura, studied in detail by Hornell (1928).

His discussion makes it clear that the process of the transmission of sewn boats may well be a coastal phenomenon. The author of the *Periplus* mentions sewn boats (Huntingford 1981: 29) as well as (presumably) dug-out canoes. Indeed the name “Rhapta” appears to derive from the Greek verb “to sew” apparently indicating this as a noteworthy aspect of the region. Sewn boats, however, have been recorded from ancient times along the coast of Arabia. Although the reduplication of *oculi* (*op. cit.*: 323ff) on the prow and stern is certainly a remarkable feature, it unfortunately does not provide evidence for direct contact.

It should be pointed out that Prins (1965) who studied the maritime technology of the East African coast in some detail also concluded that there were remarkable similarities with Indonesia. He suggests, rather eccentrically, that this must have been post-1550 contact between the two ends of the Indian Ocean, although there appears to be no historical support for this hypothesis. Although linguistic evidence should only be used with caution, it is remarkable that the Malay term for outrigger, *galagala*, parallels the Swahili term, *ngalawa*, fairly closely.

In many ways the parallels of canoe construction on Lake Victoria are the most striking. Hornell lists three features that are not duplicated elsewhere in the world:

1. the bifid stem, derived from prolongation of the keel plank;
2. the projection of the paddling thwarts through the side planks;
3. closure of the seams by sewn longitudinal battens.

If Hornell is correct and these features are sufficiently idiomatic to provide an *a priori* case for a transoceanic connection, then this has the convenient feature of providing the means of transportation for the assumed prehistoric voyagers.

Lake Victoria is quite far inland, and such a connection may seem somewhat historically improbable. However, in this case there is some remarkable confirmatory evidence. Ptolemy’s geography (Freeman-Grenville 1975: 3f) refers both to the Mountains of the Moon to and the “Lake of the Nile” fed by their snows. It would be difficult to interpret this as anything but a description of Lake Victoria. Remarkably, Ptolemy also states that there are “Ethiopians who make sewn boats” in the vicinity which corresponds to the sewn boats on the Lake that Hornell (1928) describes in some detail. The implications of this are quite startling; a regular trade route must have existed between the Lake and the coast, sufficiently well organized to allow the transmission of maritime technology.

Weapons

Grottanelli (1947: 158) discusses two types of weapon configuration which appear to have few “Sabaean lane” parallels, and which point to direct links between the Somali and Indonesian areas. The first is a particular type of sword-hilt which seems to be between Javanese and Somali types but to be atypical of the Persian area.

The other, more striking, is a spear made from a long, hollow cane with a leaf-shaped blade fixed to it by leather or wire strips. The curious morphological feature of these spears is that the blade is not central to the axis of the shaft but tied to one side. As Grottanelli points out (*op. cit.*: 166), the practical motive for this on the Indonesian side is to combine the functions of blow-pipe and spear, although non-blowpipe models are also found in Borneo (Kalimantan). Such spears are also described for a number of peoples in East Africa—Grottanelli illustrates an Oromo spear with a remarkably similar configuration, excepting the use of leather instead of wire to bind the blade to the shaft. This example is quite convincing, since this method of fixing the head is very rare across the world, and is easily explained as a survival of the combined function of the spear as a blowpipe.

Fishing

Hornell (1934: 329ff) suggests that the fishing-weirs of the East African coast should be compared to those of Malaysia. These consist of stakes driven into the muddy bottoms of estuaries forming “arms” that direct the fish towards an apical trap. Such traps are referred to in the *Periplus* (Huntingford 1981: 29) and the author explicitly singles out the contrast with net-fishing. However, they are also known in West Africa, and without a detailed morphological comparison it is difficult to establish whether this comparison is of any importance.

Disease: the distribution of elephantiasis

A further piece of contributory evidence comes from a medical source—elephantiasis. A seminal article by Laurence (1968) demonstrates that this disease had its origin in the islands of South-East Asia. He says “this infection is placed in the area of evolution of the Malay-Polynesian-Malagasy [Austronesian] language-group and it is conceivable that the disease was introduced to Africa by movements of people belonging to the same linguistic group”. A relevant feature of this disease is that in order to spread it must be associated with the movement of a number of infected individuals. Elephantiasis is very prevalent on the East African coast; no continuous zone of infection connects that occurrence to West Africa (*cf.* the map in Jones, 1972, where the zones of infection are marked).

Conclusion

The burden of this paper is that Austronesians were exploring westwards from their homelands in the Indonesian islands at a very early period, perhaps 2,200 years ago. They

reached both the East African coast and Madagascar, forming a slaving and trading culture the length of the coast. They were not representatives of the "high culture" regions of Indonesia and were probably at a scarcely more elaborate technological level than their mainland neighbours. They presumably mingled with the Cushitic inhabitants of the coast to form a mixed population which began slaving the first Bantu outliers that began to press towards the coast after the first century AD. It is likely that they were both the traders of spices mentioned by Pliny and the pirates featuring in the *Periplus*.

Such an early date is not surprising, in view of the remarkable journeys eastward that are readily accepted by Oceanists. The hypothesis could be sustained for any date as late as the fourth century. However, it seems likely that they, despite the mention of their large bodies, were the peoples of piratical habits on the coast (Huntingford 1981: 30). Indeed, if they had formed a mixed population with tall Cushitic pastoralists their size is unproblematic. Whatever the case, it seems likely that they persisted until the expansion of the Bantu actually reached the coast, when they were absorbed. By that time, their language may have already been switched for Cushitic which was in turn to disappear.

The problem for acceptance of this conclusion is the lack of archaeological evidence. However, the absence of sites is only an aspect of a much more general lacuna: the absence of sites attesting any community on the coast at this date, despite clear evidence from the *Periplus* that such a community existed. Moreover, Madagascar has yet to produce evidence of settlement early enough to explain the apparent Austronesian traces on the coast. It has been argued by Horton (personal communication, and this conference) that geomorphological changes are responsible for this situation. Further detailed surveys should surely produce the necessary evidence.

Suggestions for further research

This paper has concentrated on the African evidence, since that is the author's area of expertise. Since the postulated transoceanic voyages were from Austronesia to East Africa it is likely that more traces will be visible at the western end of the journey. However, it seems likely that exchanges also took place—African practices spreading to the Austronesian area. The xylophone has been cited as one example of this, but there must be others. This is a topic that could well be considered by South-East Asian specialists.

The archaeological lacunae discussed above should evidently be remedied. Of more immediate relevance are detailed studies of the morphology and distribution of material culture in the Indian Ocean area. Certainly controversial arguments, such as the presence of "Indonesian" features on the canoes of Lake Victoria, need to be examined rather than side-stepped.

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